As filed with the United States Securities and Exchange Commission on November 16, 2026

Registration No. 333-

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

FORM S-8
REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933

LARIMAR THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**20-3857670**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
Three Bala Plaza East, Suite 506 Bala Cynwyd, Pennsylvania	**19004**
(Address of Principal Executive Offices)	**(Zip Code)**

Non-Qualified Stock Option Inducement Awards
Restricted Stock Unit Inducement Awards
(Full title of the plans)

Carole S. Ben-Maimon, M.D.
Chief Executive Officer
Larimar Therapeutics, Inc.
Three Bala Plaza East, Suite 506
Bala Cynwyd, Pennsylvania 19004
(Name and address of agent for service)

(844) 511-9056
(Telephone number, including area code, of agent for service)

Copies to:

Rachael M. Bushey, Esq.
Jennifer L. Porter, Esq.
Goodwin Procter LLP
3025 John F Kennedy Blvd
Philadelphia, PA 19104
(445) 207-7806

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

EXPLANATORY NOTE

This Registration Statement on Form S-8 registers shares of common stock, par value $0.001 per share (the "Common Stock"), of Larimar Therapeutics, Inc. (the "Registrant") issuable pursuant to the inducement awards described below. To induce one newly-hired employee to accept employment with the Registrant, the Registrant granted to such employee the following equity awards (collectively, the "Inducement Awards") on September 29, 2026:

- stock options to purchase 800,000 shares of Common Stock; and
- restricted stock units with respect to 50,000 shares of Common Stock.

The Inducement Awards were approved by the Registrant's Compensation Committee of the Board of Directors in compliance with and in reliance on Nasdaq Listing Rule 5635(c)(4). The Inducement Awards were granted outside of the Registrant's 2020 Equity Incentive Plan and its predecessor plans.

PART I
INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Part I of Form S-8 is omitted from this filing in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory note to Part I of the Form S-8 instructions. The documents containing the information specified in Part I will be delivered to the person to whom the Inducement Awards have been granted as required by Rule 428(b)(1) under the Securities Act.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents of the Registrant filed with the Commission are incorporated by reference in this Registration Statement as of their respective dates:

(a) the Registrant's Annual Report on Form 10-K for the year ended December 31, 2025, filed with the Commission on March 19, 2026 (the "2025 10-K");

(b) the Registrant's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2026, June 30, 2026 and September 30, 2026, filed with the Commission on May 14, 2026, August 4, 2026 and November 16, 2026, respectively;

(c) the Registrant's Definitive Proxy Statement on Schedule 14A filed with the Commission on April 20, 2026, to the extent incorporated by reference into the 2025 10-K;

(d) the Registrant's Current Reports on Form 8-K (in each case other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports related to such items) filed with the Commission on January 12, 2026, January 22, 2026, February 24, 2026, February 27, 2026, March 9, 2026, May 14, 2026, May 19, 2026, June 29, 2026, August 4, 2026, September 29, 2026 and November 9, 2026; and

(e) the description of the Registrant's Common Stock contained in the Registration Statement on Form 8-A filed with the Commission on June 18, 2014 (File No. 001-36510), together with any amendment thereto filed with the Commission for the purpose of updating such description.

All documents subsequently filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than information furnished under Item 2.02 or 7.01 of Form 8-K and exhibits furnished on such form that relate to such items unless such form expressly provides to the contrary) prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in any subsequently filed document that also is deemed to be incorporated by reference herein modifies or supersedes such statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant is governed by the Delaware General Corporation Law ("DGCL"). Section 145 of the DGCL provides that a corporation may indemnify any person, including an officer or director, who was or is, or is threatened to be made, a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was or is an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such officer, director, employee or agent acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, the corporation's best interest and, for criminal actions or proceedings, had no reasonable cause to believe that such person's conduct was unlawful. A Delaware corporation may indemnify any person, including an officer or director, who was or is, or is threatened to be made, a party to any threatened, pending or contemplated action or suit by or in the right of such corporation, under the same conditions, except that such indemnification is limited to expenses (including attorneys' fees) actually and reasonably incurred by such person, and except that no indemnification is permitted without judicial approval if such person is adjudged to be liable to such corporation. Where an officer or director of a corporation is successful, on the merits or otherwise, in the defense of any action, suit or proceeding referred to above, or any claim, issue or matter therein, the corporation must indemnify that person against the expenses (including attorneys' fees) which such officer or director actually and reasonably incurred in connection therewith.

The Registrant's Ninth Amended and Restated Certificate of Incorporation, as amended ("Charter"), provides for the indemnification of directors and certain officers to the fullest extent permissible under Delaware law. Accordingly, the Registrant's directors and certain officers will not be personally liable for monetary damages for breach of their fiduciary duty as directors or officers, except for liability of:

- a director or officer for any breach of the director's or officer's duty of loyalty to the Registrant or its stockholders;
- a director or officer for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- a director for unlawful payments of dividends or unlawful stock repurchases or redemptions, as provided in Section 174 of the DGCL;
- a director or officer for any transaction from which the director or officer derived an improper personal benefit; or
- an officer in any action by or in the right of the Registrant.

The Registrant's Amended and Restated Bylaws ("Bylaws") provide for the indemnification of officers and directors acting on the Registrant's behalf if such persons act in good faith and in a manner reasonably believed to be in or not opposed to the Registrant's best interest, and, with respect to any criminal proceeding, such indemnified party had no reasonable cause to believe his or her conduct was unlawful.

The Registrant has entered into indemnification agreements with each of the Registrant's directors. These agreements provide that the Registrant will indemnify each of its directors to the fullest extent permitted by law. The Registrant intends to enter into indemnification agreements with any new directors in the future.

The Registrant also maintains a general liability insurance policy which covers certain liabilities of directors and officers of the Registrant arising out of claims based on acts or omissions in their capacities as directors or officers.

The Registrant believes that the limitation of liability provision in the Charter and the indemnification agreements facilitate its ability to continue to attract and retain qualified individuals to serve as directors. The limitation of liability and indemnification provisions in the Charter and Bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors, even though an action, if successful, might benefit the Registrant and its stockholders. A stockholder's investment may be harmed to the extent the Registrant pays the costs of settlement and damage awards against directors pursuant to these indemnification provisions.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following documents are filed as exhibits to this Registration Statement:

Exhibit Number	Description of Exhibit
3.1	Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc. (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 24, 2014).
3.2	Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Zafgen, Inc. related to the Reverse Stock Split, dated May 28, 2020 (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 2, 2020).
3.3	Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Zafgen, Inc. related to the Name Change, dated May 28, 2020 (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 2, 2020).
3.4	Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc., dated May 31, 2024 (incorporated herein by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-36510) filed on August 8, 2024).
3.5*	Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Larimar Therapeutics, Inc., dated May 19, 2026.
3.6	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on December 17, 2025).
3.7	Certificate of Amendment to Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on January 22, 2026).
3.8	Amended and Restated Bylaws of Larimar Therapeutics, Inc. (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-36510) filed on June 24, 2014).

5.1*	Opinion of Goodwin Procter LLP.
23.1*	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm for Larimar Therapeutics, Inc.
23.2*	Consent of Goodwin Procter LLP (contained in Exhibit 5.1).
24.1*	Power of Attorney (included on the signature page of this Registration Statement).
99.1#	Form of Non-Qualified Stock Option Grant Notice and Award Agreement Non-Plan Inducement Award (incorporated herein by reference to Exhibit 10.4 to the Company's Annual Report on Form 10-K (File No. 001-36510) filed on March 14, 2023).
99.2#	Form of Restricted Stock Unit Award Agreement Non-Plan Inducement Award (incorporated herein by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-36510) filed on November 16, 2026).
107*	Filing Fee Table.

* Filed herewith
\# Denotes management contract or compensatory plan or arrangement

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Bala Cynwyd, Commonwealth of Pennsylvania, on November 16, 2026.

LARIMAR THERAPEUTICS, INC.

By: /s/ Carole S. Ben-Maimon, M.D.
Carole S. Ben-Maimon, M.D.
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each of Carole S. Ben-Maimon, M.D. and Michael Celano as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments thereto), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy, and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ Carole S. Ben-Maimon, M.D. Carole S. Ben-Maimon, M.D.	Chief Executive Officer and Director (Principal Executive Officer)	November 16, 2026
/s/ Michael Celano Michael Celano	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	November 16, 2026
/s/ Joseph Truitt Joseph Truitt	Chairman, Board of Directors	November 16, 2026
/s/ Thomas E. Hamilton Thomas E. Hamilton	Director	November 16, 2026
/s/ Jonathan Leff Jonathan Leff	Director	November 16, 2026
/s/ Jeffrey W. Sherman, M.D., FACP Jeffrey W. Sherman, M.D., FACP	Director	November 16, 2026
/s/ Frank Thomas Frank Thomas	Director	November 16, 2026

CERTIFICATE OF AMENDMENT OF
NINTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
LARIMAR THERAPEUTICS, INC.

Larimar Therapeutics, Inc., a Delaware corporation (the "Corporation"), hereby certifies as follows:

1. The Board of Directors of the Corporation duly adopted resolutions declaring advisable the amendment of the Ninth Amended and Restated Certificate of Incorporation, as amended, of the Corporation (the "Certificate of Incorporation") set forth in paragraph 3 of this Certificate of Amendment.

2. The amendment to the Certificate of Incorporation set forth in paragraph 3 of this Certificate of Amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

3. The Certificate of Incorporation is hereby amended by replacing the first paragraph of Article IV in its entirety to read as follows:

"The total number of shares of capital stock which the Corporation shall have authority to issue is 220,000,000, of which (i) 215,000,000 shares shall be a class designated as common stock, par value $0.001 per share (the "Common Stock"), and (ii) 5,000,000 shares shall be a class designated as undesignated preferred stock, par value $0.001 per share (the "Undesignated Preferred Stock")."

[*Remainder of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on this 19th day of May, 2026.

Larimar Therapeutics, Inc.

By: /s/ Carole S. Ben-Maimon, M.D.
Name: Carole S. Ben-Maimon, M.D.
Title: President and Chief Executive Officer

Exhibit 5.1

Goodwin Procter LLP
3025 John F Kennedy Blvd
Philadelphia, PA 19104

goodwinlaw.com
+1 445 207 7800

November 16, 2026

Larimar Therapeutics, Inc.
Three Bala Plaza East, Suite 506
Bala Cynwyd, PA 19004

Re: Securities Being Registered under Registration Statement on Form S-8

We have acted as your counsel in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 850,000 shares (the "Shares") of Common Stock, $0.001 par value per share ("Common Stock"), of Larimar Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to a non-qualified stock option grant agreement or restricted stock unit grant agreement providing for employee inducement grants between the Company and an employee, which were entered into in connection with the commencement of such employee's employment with the Company pursuant to Nasdaq Listing Rule 5635(c)(4) (the "Inducement Award Agreements").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

For purposes of the opinion set forth below, we have assumed that, at the time Shares are issued, the total number of then unissued Shares, when added to the number of shares of Common Stock issued, subscribed for, or otherwise committed to be issued, does not exceed the number of shares of Common Stock authorized by the Company's certificate of incorporation.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, when delivered against payment therefor in accordance with the terms of the Inducement Award Agreements, will be validly issued, fully paid and nonassessable.

This opinion letter and the opinion it contains shall be interpreted in accordance with the Core Opinion Principles as published in 74 *Business Lawyer* 815 (Summer 2019).

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/S/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Larimar Therapeutics, Inc. of our report dated March 19, 2026 relating to the financial statements, which appears in Larimar Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2025.

/s/ PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
November 16, 2026

Calculation of Filing Fee Tables

S-8

Larimar Therapeutics, Inc.

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
1	Equity	Common Stock, par value $0.001 per share	457(a)	800,000	$ 3.14	$ 2,512,000.00	0.000087	$ 218.54
2	Equity	Common Stock, par value $0.001 per share	457(a)	50,000	$ 2.53	$ 126,500.00	0.000087	$ 11.01
				Total Offering Amounts:		$ 2,638,500.00		$ 229.55
				Total Fee Offsets:				$ 0.00
				Net Fee Due:				$ 229.55

Offering Note

[1] (1a) Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement on Form S-8 shall also cover an indeterminate number of additional shares of common stock, par value $0.001 per share ("Common Stock"), of Larimar Therapeutics, Inc. (the "Registrant") issuable by reason of any future stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration by the Registrant, which results in an increase in the number of outstanding shares of Common Stock. (1b) Represents shares of Common Stock that are issuable upon the exercise of a stock option award granted on September 29, 2026 to a newly-hired employee of the Registrant as an inducement material to such employee's acceptance of employment with the Registrant. (1c) Estimated pursuant to Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee. The proposed maximum offering price per share and proposed maximum aggregate offering price are calculated on the basis of the exercise price of the inducement stock option award.

---

[2] (2a) Pursuant to Rule 416 of the Securities Act, this Registration Statement on Form S-8 shall also cover an indeterminate number of additional shares of Common Stock issuable by reason of any future stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration by the Registrant, which results in an increase in the number of outstanding shares of Common Stock. (2b) Represents shares of Common Stock that are issuable upon the settlement of a restricted stock unit award granted on September 29, 2026 to a newly-hired employee of the Registrant as an inducement material to such employee's acceptance of employment with the Registrant. (2c) Estimated pursuant to Rule 457(c) and Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee. The proposed maximum offering price per share and proposed maximum offering price are based upon the average of the high and low prices of the Common Stock as reported on The Nasdaq Global Market on November 9, 2026.

Table 2: Fee Offset Claims and Sources ☑Not Applicable

	Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rule 457(p)											

Fee Offset Claims											
Fee Offset Sources											