

As filed with the Securities and Exchange Commission on March 3, 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*

Prime Medicine, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

84-3097762

(I.R.S. Employer
Identification Number)

60 First Street
Cambridge, MA 02141
(617) 465-0013

(Address of Principal Executive Offices)

Prime Medicine, Inc. 2022 Stock Option and Incentive Plan
(Full Title of the Plan)

Allan Reine, M.D.
Chief Executive Officer
Prime Medicine, Inc.
60 First Street
Cambridge, MA 02141
(617) 465-0013

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Kingsley L. Taft, Esq.
Adam V. Johnson, Esq.
Goodwin Procter LLP
100 Northern Avenue
Boston, Massachusetts 02210
(617) 570-1000

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.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

This Registration Statement on Form S-8 (this “Registration Statement”) is being filed for the purpose of registering an additional 9,025,700 shares of common stock, par value \$0.00001 per share (“Common Stock”) of Prime Medicine, Inc. (the “Registrant”) available for issuance under the Registrant’s 2022 Stock Option and Incentive Plan, as amended (the “2022 Plan”).

These additional shares of Common Stock are of the same class as other securities relating to the 2022 Plan for which the Registrant’s Registration Statements on Form S-8 ([File No. 333-267953](#), [File No. 333-270400](#), [File No. 333-277567](#), and [File No. 333-285396](#)), filed with the Securities and Exchange Commission (the “SEC”) on October 19, 2022, March 9, 2023, March 1, 2024, and February 28, 2025, respectively, are effective (collectively, the “Earlier Registration Statements”).

Pursuant to General Instruction E to Form S-8 regarding registration of additional securities, the contents of the Earlier Registration Statements, except for “Item 8. Exhibits”, are incorporated herein by reference, except to the extent supplemented, amended or superseded by the information set forth herein. Only those items of Form S-8 containing new information not contained in the Earlier Registration Statements are presented herein.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

The exhibits to this Registration Statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

EXHIBIT INDEX

Exhibit number	Description of exhibit
4.1	<u>Third Amended and Restated Certificate of Incorporation of Prime Medicine, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on October 24, 2022)</u>
4.2	<u>Certificate of Amendment to Third Amended and Restated Certificate of Incorporation of Prime Medicine, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on June 12, 2024)</u>
4.3	<u>Second Amended and Restated Bylaws of Prime Medicine, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on May 21, 2024)</u>
4.4	<u>Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1/A (File No. 333-267579), filed with the SEC on October 17, 2022)</u>
5.1*	<u>Opinion of Goodwin Procter LLP</u>
23.1*	<u>Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm</u>
23.2*	<u>Consent of Goodwin Procter LLP (included in Exhibit 5.1)</u>
24.1*	Power of Attorney (included on signature page)
99.1	<u>2022 Stock Option and Incentive Plan and forms of award agreements thereunder (incorporated by reference to Exhibit 10.2 to the registrant's Registration Statement on Form S-1, as amended (File No. 333-267579) filed on October 17, 2022)</u>
107*	<u>Filing Fee Table</u>

* Filed herewith.

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 the city of Cambridge, Commonwealth of Massachusetts, on the 3rd day of March 2026.

PRIME MEDICINE, INC.

By: /s/ Allan Reine
Allan Reine
Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Allan Reine and Carman Alenson as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, 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 dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Allan Reine</u> Allan Reine	Chief Executive Officer and Director (Principal Executive Officer and Principal Financial Officer)	March 3, 2026
<u>/s/ Carman Alenson</u> Carman Alenson	Chief Accounting Officer (Principal Accounting Officer)	March 3, 2026
<u>/s/ Thomas Cahill</u> Thomas Cahill	Director	March 3, 2026
<u>/s/ Wendy Chung</u> Wendy Chung	Director	March 3, 2026
<u>/s/ Kaye Foster</u> Kaye Foster	Director	March 3, 2026
<u>/s/ Michael Kelly</u> Michael Kelly	Director	March 3, 2026
<u>/s/ Jeff Marrazzo</u> Jeff Marrazzo	Director	March 3, 2026
<u>/s/ Robert Nelsen</u> Robert Nelsen	Director	March 3, 2026
<u>/s/ David Schenkein</u> David Schenkein	Director	March 3, 2026

Prime Medicine, Inc.
60 First Street
Cambridge, MA 02141

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 9,025,700 shares (the "Shares") of common stock, \$0.00001 par value per share ("Common Stock"), of Prime Medicine, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2022 Stock Option and Incentive Plan (the "Plan").

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 the 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 Plans, 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

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Prime Medicine, Inc. of our report dated March 3, 2026 relating to the financial statements, which appears in Prime Medicine, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2025.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
March 3, 2026