

PRIME MEDICINE, INC.

Compensation Committee Charter

I. General Statement of Purpose

The Compensation Committee of the Board of Directors (the “Compensation Committee”) of Prime Medicine, Inc. (the “Company”) on behalf of the Board of Directors (the “Board”), discharges the Board’s responsibilities relating to compensation of the Company’s directors and executive officers, oversees the Company’s overall compensation structure, policies and programs, reviews the Company’s processes and procedures for the consideration and determination of director and executive officer compensation, and is responsible for producing a report for inclusion in the Company’s proxy statement relating to its annual meeting of stockholders or annual report on Form 10-K, in accordance with applicable rules and regulations. A primary objective of the Compensation Committee is to develop and implement compensation policies and plans that are appropriate for the Company in light of all relevant circumstances and which provide incentives that further the Company’s long-term strategic plan and are consistent with the culture of the Company and the overall goal of enhancing stockholder value. The Compensation Committee is also responsible for initially formulating and reviewing Company’s objectives, in consultation with management and the Board, as appropriate. In order to fulfill these responsibilities, the Compensation Committee shall, within the scope of their duties, have unrestricted access to Company personnel and documents, and may consider information provided by the Company’s management, as appropriate.

II. Compensation Committee Composition

The number of individuals serving on the Compensation Committee shall be fixed by the Board from time to time but shall consist of no fewer than two members, each of whom shall satisfy the independence standards established pursuant to Rule 5605(a)(2) of the Nasdaq Stock Market Rules, subject to any applicable exceptions in the Nasdaq Stock Market Rules. In determining the members of the Compensation Committee, the Board will consider whether the members qualify as “non-employee directors” as defined in Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

The Board shall appoint the members of the Compensation Committee annually and may replace or remove them at any time, with or without cause. Resignation or removal of a Director from the Board, for whatever reason, shall automatically constitute resignation or removal, as applicable, from the Compensation Committee. Vacancies, for whatever reason, may be filled only by the Board. The Board shall designate one member of the Compensation Committee to serve as chair of the Compensation Committee (the “Chair”).

III. Meetings

The Compensation Committee shall meet as often as it determines appropriate in person or by conference telephone, videoconference, or other communications equipment by means of which all persons participating in the meeting can hear each other. A majority of the members of the Compensation Committee shall constitute a quorum for purposes of holding a meeting and the Compensation Committee may act by a vote of a majority of members present at such meeting. A

Secretary, designated by the Compensation Committee members, shall keep minutes of all meetings. In lieu of a meeting, the Compensation Committee may act by unanimous written consent in accordance with the Company's By-laws. The Chair of the Compensation Committee, in consultation with the other members and management, may set meeting agendas consistent with this Compensation Committee Charter (the "Charter").

IV. Compensation Committee Activities

The Compensation Committee's purpose and responsibilities shall be to:

A. Review of Charter

- Review and reassess the adequacy of this Charter annually and submit any proposed changes to the Board for approval.

B. Annual Performance Evaluation of the Compensation Committee

- Perform an annual performance evaluation of the Compensation Committee and report to the Board on the results of such evaluation.

C. Processes and Procedures for Considering and Determining Director and Executive Officer Compensation

- Review and reassess periodically (and where appropriate, make such recommendations to the Board as the Compensation Committee deems advisable with regard to) the Company's processes and procedures for the consideration and determination of director and executive officer compensation, and review and discuss with management any description of such processes and procedures to be included in the Company's proxy statement or annual report on Form 10-K.

D. Compensation Committee Report

- Review and discuss with management the Compensation Discussion and Analysis to be included in the Company's proxy statement or annual report on Form 10-K ("CD&A"), when and if applicable.
- Based on the Compensation Committee's review and discussions with management of the CD&A, make a recommendation to the Board that the CD&A be included in the Company's proxy statement or annual report on Form 10-K, when and if applicable.
- Prepare the Compensation Committee Report to be included in the Company's proxy statement or annual report on Form 10-K in accordance with the applicable rules and regulations of the Securities and Exchange Commission (the "SEC"), the Nasdaq Stock Market rules, and any other rules and regulations applicable to the Company.

E. Incentive-Compensation and Equity-Based Plans

- Review and approve grants and awards under incentive-based compensation plans and equity-based plans, in each case consistent with the terms of such plans.
- Review and recommend to the Board policies and procedures for the grant of equity-based awards.
- Act as the administrator under the Company's equity-based plans.
- Oversee administration of all incentive compensation and equity-based plans for employees and approve all forms of award agreement and/or sub-plans adopted thereunder.

F. Matters Related to Compensation of the Company's Chief Executive Officer

- Review and approve the corporate goals and objectives to be considered in determining the compensation of the Company's Chief Executive Officer ("CEO").
- Evaluate the CEO's performance in light of the goals and objectives that were set for the CEO and determine and approve the CEO's compensation based on such evaluation.
- In connection with determining the long-term incentive component of the CEO's compensation, the Compensation Committee should consider the Company's performance and relative stockholder return, the value of similar incentive awards to CEOs at comparable companies, and the awards given to the Company's CEO in past years.
- Review periodically the aggregate amount of compensation being paid or potentially payable to the CEO.
- For the CEO, periodically review and recommend to the Board, (a) any employment agreements, severance arrangements and change in control agreements or provisions, in each case, when and if appropriate, and (b) any special or supplemental benefits.
- The CEO may not be present during voting or deliberations concerning his or her compensation.

G. Matters Related to Compensation of the Officers Other Than the Chief Executive Officer

- Determine the compensation of all officers of the Company other than the CEO; for purposes hereof the term "officer" has the meaning defined in Section 16 of the Exchange Act and Rule 16a-1 promulgated thereunder.
- Review periodically the aggregate amount of compensation being paid or

potentially payable to the Company's officers, other than the CEO.

H. Compensation Recovery Policy

- The Compensation Committee has the authority to adopt and administer a compensation recovery policy including, without limitation, a policy designed to comply with any rules or regulations adopted by the SEC and Nasdaq pursuant to Section 10D of the Exchange Act.

V. Additional Compensation Committee Authority

The Compensation Committee is authorized, on behalf of the Board, to do any of the following, as the Compensation Committee deems necessary or appropriate in its discretion:

A. Matters Related to Compensation of the Company's Directors and Members of Senior Management

- Review and make such recommendations to the Board as the Compensation Committee deems advisable with regard to the compensation of the directors of the Company, including with respect to any equity-based plans.
- Provide oversight of management's decisions regarding the compensation of all members of senior management of the Company (other than the CEO and other officers described above), including with respect to any incentive-compensation plans and equity-based plans.
- Review periodically the aggregate amount of compensation being paid or potentially payable to members of the Company's senior management.

B. Matters Related to Compensation Consulting Firms or Other Outside Advisers

- Retain or obtain the advice of compensation consultants, legal counsel and/or other advisers.
- Have sole responsibility for the appointment, compensation and oversight of the work of any compensation consultant, legal counsel or other adviser (each, a "Consultant") it retains (payment, as determined by the Compensation Committee, of reasonable compensation to any such Consultant to be funded by the Company); and
- Before selecting a Consultant consider all factors relevant to the Consultant's independence from management of the Company, including the following:
 - The provision of other services to the Company by the Consultant's employer;
 - The amount of fees received from the Company by the Consultant's employer, as a percentage of the total revenue of the Consultant's

employer;

- The policies and procedures of the Consultant's employer that are designed to prevent conflicts of interest;
- Any business or personal relationship of the Consultant with a member of the Compensation Committee;
- Any stock of the Company owned by the Consultant; and
- Any business or personal relationship of Consultant or the Consultant's employer with an executive officer of the Company.

The foregoing shall not apply to inside legal counsel or to a Consultant whose role is limited to the following activities for which no disclosure would be required under Item 407(e)(3)(iii) of Regulation S-K: (i) consulting on a broad-based plan that does not discriminate in scope, terms, or operation, in favor of executive officers or directors of the Company, and that is available generally to all salaried employees or (ii) providing information that either is not customized for a particular company or that is customized based on parameters that are not developed by the Consultant and about which the Consultant does not provide advice.

- Prohibit the Company from engaging a compensation consultant engaged by the Compensation Committee, or an affiliate of any such compensation consultant, to provide any other services to the Company without the approval of the Compensation Committee.

C. Delegation of Authority Related to Compensation and Equity Grants

- Delegate authority, if the Compensation Committee so chooses, to the CEO to grant equity-based awards under any incentive-compensation plans and equity-based plans to employees, including newly hired and current employees, and consultants serving at or below the level of Senior Vice President, subject to any equity grant guidelines or limits, or vesting policy approved by the Board.
- Delegate authority, if the Compensation Committee so chooses, to the CEO to make other cash compensation awards for employees serving at the level below the Company's Senior Vice President, subject to approved guidelines and established limits.

VI. General

- The Compensation Committee may establish and delegate authority to one or more subcommittees consisting of one or more of its members, when the Compensation Committee deems it appropriate to do so in order to carry out its responsibilities.
- The Compensation Committee shall make regular reports to the Board concerning areas of the Compensation Committee's responsibility.

- In carrying out its responsibilities, the Compensation Committee shall be entitled to rely upon advice and information that it receives in its discussions and communications with management and such experts, advisers and professionals with whom the Compensation Committee may consult.
- The Compensation Committee shall have the authority to request that any officer or employee of the Company, the Company's outside legal counsel, the Company's independent auditor or any other professional retained by the Company to render advice to the Company attend a meeting of the Compensation Committee or meet with any members of or advisers to the Compensation Committee.
- The Compensation Committee may perform such other functions as may be requested by the Board from time to time.

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Last amended on February 26, 2026.