

BLUEPRINT MEDICINES CORPORATION

Compensation Committee Charter

The Compensation Committee of the Board of Directors (the “Compensation Committee”) of Blueprint Medicines Corporation (the “Company”) shall have the responsibilities, authorities and duties described in this Charter.

I. General Statement of Purpose

The Compensation Committee, on behalf of the Board of Directors (the “Board”), discharges the Board’s responsibilities relating to (i) compensation of the Company’s directors and executives; (ii) oversees the Company’s overall equity and incentive-based compensation structure, policies and programs for employees and other service providers; (iii) reviews the Company’s processes and procedures for the consideration and determination of director and executive compensation; (iv) 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.

The primary objective of the Compensation Committee is to develop and implement compensation policies and plans that ensure the attraction and retention of key management personnel, the motivation of management to achieve the Company’s corporate goals and strategies, and the alignment of the interests of management with the long-term interests of the Company’s stockholders.

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 at least three independent directors. All members of the Committee shall be qualified to serve on the Compensation Committee under applicable listing standards of the Nasdaq Stock Market LLC (“Nasdaq”), applicable rules of the U.S. Securities and Exchange Commission (“SEC”), including the requirements for “non-employee directors” as defined in Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and any additional requirements that the Board deems appropriate. In addition, the members of the Compensation Committee shall satisfy the requirements for “outside directors” to the extent the Board deems necessary or appropriate to administer performance-based compensation for purposes of Section 162(m) of the Internal Revenue Code.

The members of the Compensation Committee shall be appointed annually by the Board and may be replaced or removed by the Board 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 occurring, for whatever reason, may be filled by the Board. The Board shall designate one member of the Compensation Committee to serve as the Chairperson.

III. Meetings

The Compensation Committee shall meet as often as it determines is appropriate to carry out its responsibilities, which meetings may be in person or by telephone or video conference 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.

In lieu of a meeting, the Compensation Committee may act by unanimous written consent in accordance with the Company's bylaws. The Compensation Committee shall maintain minutes of its meetings.

The Chairperson of the Compensation Committee, in consultation with the other members and management, may set meeting agendas consistent with this Charter.

IV. Compensation Committee Activities

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

A. Processes and Procedures for Considering and Determining Director and Executive Compensation

- Annually review and reassess (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 compensation, and review and discuss with management any description of such processes and procedures to be included in the Company's proxy statement.
- Annually select a peer group of companies against which to assess the Company's executive compensation program to ensure that it is competitive and supportive of the Company's strategy and objectives.

B. Compensation Committee Report

- Review and discuss with management the Compensation Discussion and Analysis, if required, to be included in the Company's proxy statement or annual report on Form 10-K ("CD&A").
- Based on the Compensation Committee's review and discussions with management of the CD&A, if required, 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.
- 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, any securities exchange on which the Company's securities are traded, and any other rules and regulations applicable to the Company.

C. Say-on-Pay and Compensation Related Disclosures

- The Compensation Committee shall oversee the Company's compliance with Securities and Exchange Commission' rules and regulations regarding stockholder approval of certain executive compensation matters, including advisory votes on executive compensation and the frequency of such votes. The Compensation Committee shall provide recommendations to the Board on compensation-related

proposals to be considered at the Company's annual meeting of stockholders, including equity compensation plans.

D. Annual Performance Evaluation of the Compensation Committee

- Annually conduct or participate in an evaluation of the Compensation Committee's performance in coordination with the Nominating and Corporate Governance Committee and present the results of that evaluation to the Board. In addition, the Committee shall review and reassess this Charter on an annual basis and submit any recommended changes to the full Board for approval.

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 make such recommendations to the Board as the Compensation Committee deems advisable with regard to policies and procedures for the grant of equity-based awards by the Company.
- The Compensation Committee shall have the full power and authority of the Board regarding the adoption, amendment and termination of any Company cash or equity incentive plan, share appreciation rights plan, other share bonus plan, share purchase plan or similar program, including the authority to approve any performance goals and objectives applicable to such incentive plans. The Compensation Committee shall have full power and authority to administer these plans, establish guidelines, interpret plan documents, select participants, approve grants and awards, and exercise such other power and authority as may be permitted or required under such plans, including delegating the power and authority as described herein to one or more executive officers of the Company, except to the extent inconsistent with any laws and rules applicable to the Company, the terms of this Charter and the terms of each applicable equity compensation plan or program; provided, however, that the Compensation Committee may not delegate authority to select participants or grant equity incentive grants or awards to individuals then subject to Section 16 of the Exchange Act.

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

- Review and approve the corporate goals and objectives that may be relevant to the compensation of the Company's Chief Executive Officer ("CEO") and the Company's other "executive officers" (as defined in Section 16 of the Exchange Act and Rule 16a-1 promulgated thereunder).
- Evaluate the performance of the CEO and the Company's other executive officers, in each case, in light of the goals and objectives that were set for such officer, and review and approve the compensation of the CEO and the Company's other executive officers, including, without limitation, such officer's salary, bonus, incentive-based compensation, equity-based compensation, severance arrangements, change-in-control or similar benefits and any other forms of inducement or executive officer compensation (including compensation or awards to induce employment). In

connection with determining any incentive-based or equity-based components of the compensation of the CEO and the Company's other executive officers, in each case, the Compensation Committee should consider the Company's performance and relative stockholder return, the value of similar incentive-based or equity-based awards to CEOs and other executive officers at comparable companies and the incentive-based and equity-based awards given to the CEO and the Company's other executive officers in past years.

- The CEO and the Company's other executive officers (as applicable) may not be present during voting or deliberations concerning his or her respective compensation, but the Compensation Committee may, in its discretion, invite the CEO to be present during voting or deliberations concerning another executive officer's compensation. The Compensation Committee may convene in an executive session, as needed, subject to its discretion, to discuss and deliberate on the CEO's and executive officers' compensation.
- Additionally, the Compensation Committee may oversee the evaluation of the performance of certain members of senior management of the Company, as needed, subject to its discretion.

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

- Annually 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, provided that the Board shall retain co-equal power in respect of all such delegated matters.

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

- Retain or obtain the advice of compensation consultants, legal counsel and/or other advisers; provided that:
 - The Compensation Committee is authorized to, and must, have direct responsibility for the appointment, compensation and oversight of the work of any compensation consultant, legal counsel or other adviser retained by the Compensation Committee and the Company must provide for appropriate funding, as determined by the Compensation Committee, for payment of reasonable compensation to any such compensation consultant, legal counsel or other adviser; and
 - Before retaining or obtaining the advice of any compensation consultant, legal counsel or other adviser¹, the Compensation Committee shall (1) be

¹ Other than (1) in-house legal counsel or (2) any compensation consultant, legal counsel or other adviser 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 any 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

directly responsible for the appointment, compensation and oversight of the adviser's work; and (2) take into consideration the applicable factors affecting independence that are specified by Company policy or SEC and Nasdaq rules with respect to such advisor.

- 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. Compensation Proposals

- Oversee the Company's compliance with SEC rules and regulations regarding stockholder approval of executive compensation matters, including advisory votes on executive compensation and the frequency of such votes, and, as a result of any such votes, review and consider whether to recommend adjustments to the Company's executive compensation policies and practices.
- Review and make such recommendations to the Board as the Compensation Committee deems advisable with regard to compensation-related proposals to be considered at the Company's annual meeting of stockholders.
- Oversee engagement with stockholders and proxy advisory firms on executive compensation matters.

D. Compensation Risk Oversight; Stock Ownership Guidelines

- Review and assess the management of risks related to compensation of the Company's executive officers and the Company's overall compensation program, including the Company's equity-based compensation plans and incentive compensation arrangements, including sales incentives
- Approve and oversee the application of the Company's policy for clawback, or recoupment, of incentive compensation.
- Establish the terms of, amend and oversee compliance with the Company's stock ownership guidelines for the members of the Board, CEO and other executive officers.

E. Human Capital Management

- Periodically assist the Board in its oversight of the development, implementation and effectiveness of the Company's policies and strategies relating to its human capital management function, including, but not limited to, those policies and strategies regarding recruiting, retention, career development and progression, diversity, equity and inclusion and employment practices.

particular company or that is customized based on parameters that are not developed by the compensation consultant, legal counsel or other adviser and about which the compensation consultant, legal counsel or other adviser does not provide advice.

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. However, the Compensation Committee shall not delegate to a subcommittee any power or authority required by any law, regulation or listing standard to be exercised by the Compensation Committee as a whole. Actions taken by any subcommittee shall be presented to the full Committee at the next Committee meeting.
- 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, advisors 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 advisors to the Compensation Committee.
- The Compensation Committee may perform such other functions as may be requested by the Board from time to time.

ADOPTED: September 13, 2016;

AMENDED: February 14, 2023

EFFECTIVE: February 14, 2023