

MIRAGEN THERAPEUTICS, INC.

**CHARTER OF THE COMPENSATION COMMITTEE
OF THE BOARD OF DIRECTORS**

**APPROVED BY THE BOARD OF DIRECTORS
ON FEBRUARY 13, 2017**

PURPOSE AND POLICY

The purpose of the Compensation Committee (the “*Committee*”) of the Board of Directors (the “*Board*”) of Miragen Therapeutics, Inc., a Delaware corporation (the “*Company*”), shall be to act on behalf of the Board in fulfilling the Board’s responsibilities to: (i) oversee the Company’s compensation policies, plans and programs; (ii) review and determine the compensation to be paid to the Company’s executive officers and directors; (iii) review and discuss with management the Company’s disclosures contained under the caption “Compensation Discussion and Analysis” (“*CD&A*”) for use in any of the Company’s annual reports on Form 10-K, registration statements, proxy statements or information statements; and (iv) prepare and review the Committee report on executive compensation included in the Company’s annual proxy statement in accordance with applicable rules and regulations of the Securities and Exchange Commission (the “*SEC*”) in effect from time to time. The term “*compensation*” shall include salary, long-term incentives, bonuses, perquisites, equity incentives, severance arrangements, retirement benefits and other related benefits and benefit plans. The operation of the Committee shall be subject to the Bylaws of the Company as in effect from time to time and Section 141 of the Delaware General Corporation Law.

The policy of the Committee, in discharging these obligations, shall be to maintain an overall compensation structure designed to attract, retain and motivate management and other employees by providing appropriate levels of risk and reward in proportion to individual contribution and performance and to establish appropriate incentives for management to further the Company’s long-term strategic plan.

COMPOSITION

The Committee shall consist of at least two members of the Board of Directors. Each member of the Committee shall satisfy (i) the independence requirements of The NASDAQ Stock Market LLC (“*Nasdaq*”) applicable to compensation committee members, as in effect from time to time, when and as required by Nasdaq, subject to any exceptions permitted by Nasdaq; and (ii) any other qualifications determined by the Board or the Nominating and Corporate Governance Committee from time to time. Each member may also be required to satisfy, as determined by the Board from time to time, (i) the “non-employee director” standard within the meaning of Rule 16b-3 promulgated under the Securities Exchange Act of 1934, as amended from time to time (the “*Exchange Act*”); and (ii) the “outside director” standard within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended from time to time (the “*Code*”). The members of the Committee shall be appointed by the Board on the recommendation of the Nominating and Corporate Governance Committee and may be removed by the Board in its discretion. Vacancies occurring on the Committee shall be filled by the Board. The Committee’s chairperson shall be appointed by the Board on the recommendation of the Nominating and Corporate Governance Committee.

MEETINGS AND MINUTES

The Committee shall hold such regular or special meetings as its members deem necessary or appropriate, but in no event less than annually. The presence in person or by telephone of a majority of the Committee's members shall constitute a quorum for any meeting of the Committee. All actions of the Committee will require (i) the vote of a majority of the members present at a meeting of the Committee at which a quorum is present or (ii) a unanimous written consent of the members of the Committee then serving. Minutes of each meeting of the Committee shall be prepared and distributed to each director of the Company and the Secretary of the Company promptly after each meeting. The chairperson of the Committee shall report to the Board from time to time or whenever requested to do so by the Board.

AUTHORITY

The approval of this Charter of the Compensation Committee by the Board shall be construed as a delegation of authority to the Committee with respect to the responsibilities set forth herein. Each member of the Committee shall have full access to all books, records, facilities and personnel of the Company as deemed necessary or appropriate by any member of the Committee to discharge his or her responsibilities hereunder, including human resources personnel preparing the CD&A. The Committee shall have authority, in its sole discretion, to retain, or obtain advice from, a compensation consultant, internal or outside legal counsel, accounting or other advisers or consultants it deems necessary or appropriate in carrying out its duties. The Committee shall have authority to determine appropriate compensation for any such adviser retained by the Committee, which reasonable compensation shall be funded by the Company. Other reasonable expenditures for external resources that the Committee deems necessary or appropriate in the performance of its duties are, unless prohibited by Nasdaq Listing Rules or applicable law, permitted.

The Committee may form and delegate authority to subcommittees as appropriate, including but not limited to, if deductibility of "performance-based" compensation under Section 162(m) of the Code is desired, (i) a subcommittee composed of at least two members of the Committee who are "outside directors" under Section 162(m) (any such subcommittee, a "**Section 162(m) Committee**") and (ii) a subcommittee composed of one or more members of the Board to grant stock awards under the Company's equity incentive plans to persons who are not (a) "Covered Employees" under Section 162(m) of the Code, (b) individuals with respect to whom the Company wishes to comply with Section 162(m) of the Code or (c) then subject to Section 16 of the Exchange Act. Without limiting the generality of the foregoing, the Committee may form and delegate authority to a committee composed solely of employees of the Company to serve as an administrative and/or investment committee, with fiduciary responsibilities under the Employee Retirement Income Security Act of 1974 ("**ERISA**"), with respect to one or more Company plans that are subject to ERISA.

In addition, notwithstanding the foregoing paragraph or any other provision in this charter, if deductibility of "performance-based" compensation under Section 162(m) of the Code is desired, only the Committee or a Section 162(m) Subcommittee shall approve compensation intended to qualify for the "performance-based compensation" exception of Section 162(m) ("**Section 162(m) Compensation**"). Approval of Section 162(m) Compensation shall include but not be limited to, the grant of stock options and the establishment, evaluation and certification of achievement of performance goals related to cash or equity compensation. Nothing in this charter requires the Committee to grant compensation that qualifies for the "performance-based compensation" exemption of Section 162(m). To the extent that any provision of this charter implicates Section 162(m) Compensation and deductibility of "performance-based" compensation under Section 162(m) of the Code is desired, references in such provision to the Committee shall include the Section 162(m) Committee, if any.

RESPONSIBILITIES

The Committee's procedures should remain flexible to address changing circumstances most effectively. Accordingly, the Committee may supplement and, except as otherwise required by applicable law or the requirements of Nasdaq, deviate from these activities as appropriate under the circumstances:

1. **Overall Compensation Strategy.** The Committee shall review, modify (as needed) and approve (or, if it deems appropriate, make recommendations to the full Board) the overall compensation strategy and policies for the Company, including:

(a) reviewing and approving corporate goals and objectives, which shall support and reinforce the Company's long-term strategic goals, relevant to the compensation of the Company's executive officers and other senior management, as appropriate;

(b) evaluating and approving (or, if it deems appropriate, recommending to the Board for approval) the compensation plans and programs advisable for the Company, as well as evaluating and recommending to the Board for approval the modification or termination of existing plans and programs;

(c) establishing policies with respect to equity compensation arrangements;

(d) reviewing regional and industry-wide compensation practices and trends to assess the adequacy and competitiveness of the Company's executive compensation programs among comparable companies in the Company's industry; *provided, however*, that the Committee shall exercise independent judgment in determining the appropriate levels and types of compensation to be paid;

(e) reviewing and approving the terms of any employment agreements, severance arrangements, change-of-control protections and any other compensatory arrangements (including, without limitation, perquisites and any other form of compensation) for the Company's executive officers and other senior management, as appropriate;

(f) reviewing and approving any compensation arrangement for any executive officer involving any subsidiary, special purpose or similar entity, taking into account the potential for conflicts of interest in such arrangements and whether the arrangement has the potential to benefit the Company;

(g) reviewing the Company's practices and policies of employee compensation as they relate to risk management and risk-taking incentives, to determine whether such compensation policies and practices are reasonably likely to have a material adverse effect on the Company;

(h) reviewing and considering the results of any advisory vote on executive compensation;

(i) considering and, if appropriate, establishing stock ownership guidelines for the Company's Chief Executive Officer and the Company's other executive officers; and

(j) evaluating the efficacy of the Company's compensation policy and strategy in achieving expected benefits to the Company and otherwise furthering the Committee's policy.

2. Compensation of Chief Executive Officer.

The Committee shall review and approve (or, if it deems appropriate, recommend to the Board for determination and approval) the individual and corporate goals and objectives of the Company's Chief Executive Officer that are periodically established. The Committee shall evaluate the Chief Executive Officer's performance in light of relevant corporate goals and objectives, including the policy of the Committee and the Chief Executive Officer's performance in:

(a) fostering a corporate culture that promotes the highest level of integrity and ethical standards;

(b) developing and executing the Company's long-term strategic plan and conducting the business of the Company in a manner appropriate to enhance long-term stockholder value;

(c) achieving any other corporate performance goals and objectives deemed relevant to the Chief Executive Officer as set by the Committee; and

(d) achieving the Chief Executive Officer's individual performance goals and objectives as set by the Committee.

Based on its evaluation, the Committee shall determine and approve (or, if it deems appropriate, recommend to the Board for determination and approval, other than Section 162(m) Compensation, which shall be determined and approved by the Committee) the compensation and other terms of employment of the Company's Chief Executive Officer. The Chief Executive Officer may not be present during the voting or deliberations regarding his or her compensation.

3. Compensation of Other Executive Officers and Senior Management. The Committee shall review and approve (or, if it deems appropriate, recommend to the Board for determination and approval) the individual and corporate goals and objectives of the Company's other officers (as that term is defined in Section 16 of the Exchange Act and Rule 16a-1 thereunder) or other senior management, as appropriate, that are periodically established. The Committee shall determine and approve (or, if it deems appropriate, recommend to the Board for determination and approval) the compensation (other than Section 162(m) Compensation, which shall be determined and approved by the Committee) and other terms of employment of these officers or senior management, as appropriate, taking into consideration the officer's or senior manager's success in achieving his or her individual performance goals and objectives and the corporate goals and objectives deemed relevant to the executive officer or senior manager as established by the Committee, as well as in fostering a corporate culture that promotes the highest level of integrity and ethical standards. The Chief Executive Officer may be present during these deliberations, but may not vote.

4. Compensation of Directors. The Committee shall review and approve (or, if it deems appropriate, recommend to the Board for determination and approval) the type and amount of compensation to be paid or awarded to non-employee Board members, including consulting, retainer, meeting, committee and committee chair fees, as well as any equity awards.

5. Selection of Compensation Consultants, Legal Counsel and Other Advisers. The Committee shall have the authority, in its sole discretion, to retain (or obtain the advice of) any, compensation consultant, legal counsel or other advisers (referred to collectively as "advisers") to assist it in the performance of its duties, only after taking into consideration the factors specified in Nasdaq

Listing Rule 5605(d)(3)(D)¹ or any successor provision. However, nothing in this provision requires that any advisers be independent. The Committee need not conduct this independence assessment with respect to (a) in-house legal counsel; or (b) any adviser whose role is limited to (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 particular company or that is customized based on parameters that are not developed by the adviser and about which the adviser does not provide advice. The Committee shall have direct responsibility for the appointment, compensation and oversight of the work of any advisers engaged for the purpose of advising the Committee, and such advisers shall report directly, and be accountable, to the Committee. The Committee shall have sole authority to approve the reasonable fees and the other terms and conditions of such engagement, including authority to terminate the engagement. The Company must provide for appropriate funding, as determined by the Committee, for payment of reasonable compensation to any such adviser retained by the Committee. Nothing in this provision requires the Committee to implement or act consistently with the advice or recommendations of any adviser or affects the ability or obligation of the Committee to exercise its own judgment in fulfillment of its duties.

6. Administration of Benefit Plans. The Committee shall adopt, amend and terminate (or, if it deems appropriate, recommend to the Board for adoption, amendment or termination) the Company's stock option plans, stock appreciation rights plans, pension and profit sharing plans, incentive plans, stock bonus plans, stock purchase plans, bonus plans, deferred compensation plans and similar programs. The 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.

7. Insurance Coverage. The Committee shall review and establish appropriate insurance coverage for the Company's directors and officers.

8. Compensation Discussion and Analysis. If required, the Committee shall review and discuss with management the CD&A and recommend to the Board whether the CD&A should be approved for inclusion in the Company's annual reports on Form 10-K, registration statements, proxy statements or information statements.

¹ The Nasdaq Listed Company Guide provides:

“The compensation committee may select, or receive advice from, a compensation consultant, legal counsel or other adviser to the compensation committee, other than in-house legal counsel, only after taking into consideration the following factors:

- (i) the provision of other services to the Company by the person that employs the compensation consultant, legal counsel or other adviser;
- (ii) the amount of fees received from the Company by the person that employs the compensation consultant, legal counsel or other adviser, as a percentage of the total revenue of the person that employs the compensation consultant, legal counsel or other adviser;
- (iii) the policies and procedures of the person that employs the compensation consultant, legal counsel or other adviser that are designed to prevent conflicts of interest;
- (iv) any business or personal relationship of the compensation consultant, legal counsel or other adviser with a member of the compensation committee;
- (v) any stock of the Company owned by the compensation consultant, legal counsel or other adviser; and
- (vi) any business or personal relationship of the compensation consultant, legal counsel, other adviser or the person employing the adviser with an Executive Officer of the Company.”

9. Compensation Proposals. Provide recommendations to the Board on compensation-related proposals to be considered at the Company's annual meeting, including the frequency of advisory votes on executive compensation.

10. Committee Report. The Committee shall prepare and review the Committee report on executive compensation to be included in the Company's annual proxy statement in accordance with applicable SEC rules and regulations.

11. Conflict-of-Interest Disclosure. The Committee shall review and discuss with management, if appropriate, any conflicts of interest raised by the work of any compensation consultant that had any role in determining or recommending the amount or form of executive or director compensation (except as set forth in clause (a) and (b) of Section 5 above) or was retained by the Committee or management and how such conflict is being addressed for disclosure in the Company's annual proxy statement in accordance with applicable SEC rules and regulations.

12. Committee Self-Assessment and Charter Review. The Committee shall review, discuss and assess its own performance at least annually. The Committee shall also review and assess the adequacy of this charter at least annually and shall recommend any proposed changes to the Board for its consideration.