

RHYTHM PHARMACEUTICALS, INC.

COMPENSATION COMMITTEE CHARTER

Introduction

This charter governs the operations of the Compensation Committee (the “Committee”) of the Board of Directors (the “Board”) of Rhythm Pharmaceuticals, Inc. (the “Company”). The Committee shall review the adequacy of this charter at least annually and recommend any proposed changes to the Board for its approval, although the Board shall have sole authority to amend this charter. The Company shall make this charter available on its website at *www.rhythmtx.com*.

Membership of Committee

The Committee shall be composed of such number of directors appointed by the Board, which shall be at least two (2), each of whom shall (a) satisfy the applicable independence requirements of The NASDAQ Stock Market (“NASDAQ”) and the rules and regulations of the Securities and Exchange Commission (“SEC”), at such time as the Company is subject to these requirements, subject to the phase-in rules that may be applicable, (b) be a “non-employee director” within the meaning of Rule 16b-3 under the Securities Exchange Act of 1934 (the “Exchange Act”), and (c) be an “outside director” within the meaning of Section 162(m) of the Internal Revenue Code.

In accordance with NASDAQ Listing Rules, in determining whether a director is eligible to serve on the Committee, the Board must consider all factors specifically relevant to determining whether a director has a relationship to the Company which is material to that director's ability to be independent from management in connection with the duties of a Committee member, including, but not limited to:

- the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by the Company to such director; and
- whether the director is affiliated with the Company, a subsidiary of the Company, or an affiliate of a subsidiary of the Company.

The Committee shall be appointed by the Board, upon recommendation of the Governance and Nominating Committee of the Board, if one exists. The chairperson of the Committee shall be appointed by the Board. Committee members and the chairperson shall serve until their successors are duly appointed and qualified or until their earlier removal by the Board at any time.

The Committee may form and delegate any of its responsibility to subcommittees as it deems necessary or appropriate in its sole discretion.

Meetings and Consultants

The Committee shall meet as often as it shall determine, but not less frequently than annually. The Committee shall have the authority to select, retain and terminate (or obtain the advice of) any compensation consultants, outside legal counsel and other advisors (“Consultants”) as it deems necessary or appropriate, in its sole discretion. The Committee may invite Consultants, as well as any officer, director or employee of the Company, to attend meetings of the Committee or to meet with any members of the Committee. The Committee shall be directly responsible for the appointment, compensation and oversight of the work of any Consultant retained by the Committee, and shall have sole authority to approve the Consultant's fees and the other terms and conditions of the Consultant's retention. The

Company must provide for appropriate funding, as determined by the Committee, for the payment of reasonable compensation to any Consultant retained by the Committee.

The Committee may select a Consultant to the Committee or other adviser that provides advice to the Committee, other than in-house legal counsel, only after taking into consideration all factors relevant to such Consultant's independence from management, including the following six factors specified in NASDAQ Listing Rule 5605(d)(3):

- the provision of other services to the Company by the person that employs the Consultant;
- the amount of fees received from the Company by the person that employs the Consultant, as a percentage of the total revenue of the person that employs the Consultant;
- the policies and procedures of the person that employs the Consultant that are designed to prevent conflicts of interest;
- any business or personal relationship of the Consultant with a member of the Committee;
- any stock of the Company owned by the Consultant; and
- any business or personal relationship of the Consultant or the person employing the Consultant with an executive officer of the Company.

Notwithstanding anything express or implied in the foregoing provisions of this charter, the Committee is not required to engage Consultants and may exercise its own judgment in fulfilling its duties. In addition, if the Committee engages Consultants, the Committee is not obligated or required to implement or act consistently with the advice or recommendations of any Consultant, but may exercise its own judgment on the matter or matters on which any Consultant has rendered advice or made a recommendation to the Committee.

Purposes of the Committee

The Committee shall discharge the overall responsibility of the Board relating to executive and director compensation, produce an annual compensation report for inclusion in the Company's proxy statement and perform any other tasks that the Board may prescribe from time to time or as required by applicable laws, rules or regulations. All powers of the Committee are subject to the Company's certificate of incorporation and by-laws, each as may be amended from time to time and in effect, and applicable law.

Authority and Responsibilities

The Committee shall have the following authority and responsibilities:

- Review and approve on an annual basis the corporate and individual goals and objectives with respect to compensation for the chief executive officer. The Committee shall evaluate at least once a year the chief executive officer's performance in light of these established goals and objectives and based upon these evaluations shall set, or recommend to the Board for approval, the chief executive officer's annual compensation, including, as applicable, salary, bonus, incentive and equity compensation. The chief executive officer may not be present during voting or deliberations regarding his or her compensation.
- Review and approve on an annual basis the evaluation process and compensation structure for the Company's other executive officers (as defined in SEC rules), with

input from the chief executive officer. The Committee shall evaluate the performance of the Company's other executive officers and shall approve, or recommend to the Board for approval, the annual compensation, including, as applicable, salary, bonus, incentive and equity compensation, for the other executive officers. The Committee also shall provide oversight of management's decisions concerning the performance and compensation of the Company's other executive officers.

- Review on an annual basis the Company's general compensation policies, including salary and annual incentive bonus plan policies for employees whose compensation is not otherwise specifically set by the Committee or the Board.
- Review the Company's incentive compensation and any equity-based plans, including the Company's Equity Incentive Plan and Employee Stock Purchase Plan, and recommend changes in such plans to the Board as needed. The Committee shall have and shall exercise all the authority of the Board with respect to the administration of such plans, including (i) approving, or recommending to the Board for approval, the grant of any awards to executive officers, (ii) approving, or recommending to the Board for approval, all other awards under the plans, or (iii) deciding to delegate, or recommending to the Board that it delegate, to the chief executive officer authority to approve awards under the plans as determined by the Committee or the Board and to the extent permitted under the plans.
- Oversee, as applicable, the Company's compliance with SEC rules and regulations regarding stockholder approval of certain executive compensation matters, including advisory votes on executive compensation and the frequency of such votes, and the requirements under the rules of NASDAQ that, with limited exceptions, stockholders approve equity compensation plans.
- Review the extent to which the Company's compensation policies and programs for all employees may create incentives that can affect risk and discuss the Company's management of that risk as well as whether the Company's compensation programs are appropriately aligned with the Company's risk management.
- Review Board and committee compensation and benefits, including all forms of cash, incentive or equity-based compensation provided to members of the Board, and recommend any proposed changes to the Board for approval.
- Review executive officer compensation for compliance with Section 16 of the Exchange Act and Section 162(m) of the Internal Revenue Code, each as in effect from time to time, and other applicable laws, rules and regulations.
- Review and approve, or to review and recommend to the Board for approval, non-routine employment agreements, severance arrangements and change in control agreements and provisions when, and if, appropriate, as well as any special supplemental benefits.
- Review major organizational and staffing matters.

- Prepare and publish an annual Compensation Committee Report to be included in the Company’s proxy statement.
- Report regularly to the Board on the Committee’s activities.
- Review and discuss annually with management the “Compensation Discussion and Analysis” disclosure if required by SEC rules.
- Engage, as the Committee may determine, in an annual self-assessment with the goal of continuing improvement, and annually review and reassess the adequacy of this charter and recommend any changes to the full Board.
- Perform any other activities consistent with this charter, the Company’s certificate of incorporation and by-laws, each as may be amended from time to time and in effect, and applicable law, as the Committee or the Board deems appropriate.

Committee Access and Information

The Committee is at all times authorized to have direct, independent and confidential access to the Company’s other directors, management and personnel to carry out the Committee’s purposes. The Committee is authorized to conduct or authorize investigations into any matters relating to the purposes, duties or responsibilities of the Committee.

Reliance on Others

Nothing in this Charter is intended to preclude or impair the protection provided in Section 141(e) of the Delaware General Corporation Law for good faith reliance by members of the Committee on reports or other information provided by others.

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Adopted October 5, 2017