

**COMPENSATION COMMITTEE CHARTER
OF
LANTERN PHARMA INC.**

1. Membership.

1.1 The Compensation Committee (the “Committee”) of the Board of Directors (the “Board”) of Lantern Pharma Inc. (the “Company”) shall consist of at least two members of the Board, all of whom satisfy the independence requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the NASDAQ Listing Rules with respect to Committees, as such requirements are interpreted by the Board in its business judgment. In addition, members of the Committee shall qualify as “non-employee directors” for purposes of Rule 16b-3 under the Exchange Act, and as “outside directors” for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended. If the Committee is comprised of at least three members, the Committee may have one (1) non-independent member in accordance with Rule 5605(d)(2)(B).

1.2 Members of the Committee shall be appointed by the Board, and shall serve at the pleasure of the Board and for such term as the Board may determine. Vacancies shall be filled by majority vote of the Board. The entire Committee or an individual Committee member may be removed without cause by the affirmative vote of a majority of the Board.

1.3 The Board shall designate one member of the Committee as its chairperson. In the absence of such designation, the members of the Committee may designate a chairperson by a majority vote of the full Committee. If a chairperson has been designated and a tie vote occurs on any issue, the chairperson’s vote will decide the issue.

2. Purpose.

2.1 The purpose of the Committee is to assist the Board in carrying out its responsibilities with respect to compensation. In particular, the Committee shall evaluate the compensation paid or payable to the Company’s Chief Executive Officer (“CEO”) and other executive officers (“EOs”). The Committee’s review shall include, without limitation, compensation paid or payable under employee qualified benefit plans, employee stock option and restricted stock plans, individual employment agreements and executive compensation and bonus programs.

2.2 If any subsidiary or affiliate controlled by the Company (a “Controlled Entity”) does not have its own Committee, then the Company’s Committee shall perform the same functions with respect to such Controlled Entity’s CEO and other EOs. If a Controlled Entity does have its own Committee, then as to the CEO, other EOs and other employees of such Controlled Entity, the Company’s Committee shall act in coordination with such Controlled Entity’s Committee.

3. Duties and Responsibilities.

3.1 The Committee shall annually review and approve corporate goals and objectives relevant to CEO compensation, evaluate the CEO’s performance relative to those goals and objectives, and determine and approve the CEO’s compensation level based on this evaluation. In evaluating and determining CEO compensation, the Committee shall consider the results of the most recent stockholder advisory vote on executive compensation (“Say on Pay Vote”) required by Section 14A of the Exchange Act.

3.2 With the participation of the CEO, the Committee shall annually review and make recommendations to the Board regarding the corporate goals and objectives relevant to the compensation of other EOs, evaluate their performance relative to those goals and objectives, and determine and approve the compensation of such other EOs based on this evaluation. In evaluating and making recommendations regarding executive compensation, the Committee shall consider the results of the most recent Say on Pay Vote.

3.3 The Committee shall review and approve, and when appropriate, and make recommendations to the Board for approval, the compensation for the CEO and other EOs of the Company and Controlled Entities, if applicable, including their salaries, annual and long-term incentives, employment and severance agreements, and retirement and savings plans and other benefits.

3.4 The Committee shall review compensation philosophy and major compensation programs, including goals and objectives, and to review executive incentive compensation plans and equity-based plans and similar arrangements for which the Committee is the designated administrator. The CEO cannot be present during any voting or deliberations by the Committee on his or her compensation.

3.5 The Committee shall review and approve and, when appropriate, and make recommendations to the Board for approval, awards under incentive compensation plans and equity-based plans, to the extent that such awards exceed thresholds, if any, designated in advance by the Board. In reviewing and making recommendations regarding incentive compensation plans and equity-based plans, including whether to adopt, amend or terminate any such plans, the Committee shall consider the results of the most recent Say on Pay Vote. In addition, the Committee shall have non-exclusive authority to act as Administrator under the Amended and Restated Lantern Pharma Inc. 2018 Equity Incentive Plan (the "Plan") and to grant stock options and other Awards (as defined in the Plan), with the Board to also retain the ability to take actions as Administrator under the Plan, including, without limitation, the granting of options and other Awards under the Plan.

3.6 The Committee shall issue the report required by the rules of the Securities and Exchange Commission ("SEC") to be included in the Company's annual proxy statement, if applicable, and otherwise review and report to the Board on risks arising from the Company's compensation policies and practices as may be required by SEC rules.

3.7 The Committee shall review and recommend to the Board for approval the frequency with which the Company will conduct Say on Pay Votes, taking into account the results of the most recent stockholder advisory vote on frequency of Say on Pay Votes required by Section 14A of the Exchange Act, and review and approve the proposals regarding the Say on Pay Vote and the frequency of the Say on Pay Vote to be included in the Company's proxy statement.

3.8 The Committee shall review all director compensation and benefits for services on the Board and Board Committees at least once a year and recommend any changes to the Board as necessary.

3.9 The Committee shall review and reassess the adequacy of this Charter annually and recommend any changes to the Board for approval.

3.10 The Committee shall refer to the Board those items that the Committee deems appropriate for full Board consideration and to decide itself on all other matters.

4. Outside Advisors.

4.1 The Committee shall have the authority, in its sole discretion, to select, retain and obtain the advice of compensation consultants, legal counsel, and such other advisors as necessary to assist

with the execution of its duties and responsibilities as set forth in this Charter. The Committee shall set the compensation, and oversee the work, of the compensation consultants, legal counsel and other advisors. The Committee shall receive appropriate funding from the Company, as determined by the Committee in its capacity as a committee of the Board, for the payment of compensation to its compensation consultants, outside legal counsel and any other advisors. However, the Committee shall not be required to implement or act consistently with the advice or recommendations of its compensation consultant, legal counsel or other advisor to the compensation committee, and the authority granted in this Charter shall not affect the ability or obligation of the Committee to exercise its own judgment in fulfillment of its duties under this Charter.

4.2 The Committee may select, or receive advice from, a compensation consultant, legal counsel or other adviser to the 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 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.

4.3 The Committee is not required to assess the independence of any compensation consultant or other advisor that acts in a role limited to consulting on any broad-based plan that does not discriminate in scope, terms or operation in favor of executive officers or directors and that is generally available to all salaried employees or providing information that is not customized for a particular company or that is customized based on parameters that are not developed by the consultant or advisor, and about which the consultant or advisor does not provide advice. The Committee shall evaluate whether any compensation consultant retained or to be retained by it has any conflict of interest in accordance with Item 407(e)(3)(iv) of Regulation S-K.

5. Meetings. The Committee shall meet as often as may be deemed necessary or appropriate in its judgment or at the direction of the Board (and in no event less than once per fiscal year), either in person or telephonically (as permitted by the laws of Delaware), and at such times and places as the Committee shall determine. A quorum of the Committee will consist of a majority of its members. The Committee may invite such members of management and other persons to its meetings as it may deem desirable or appropriate; however, the CEO shall not be present when his or her compensation or performance is discussed or determined. The Committee shall keep proper minutes and shall report its activities to the Board on a regular basis.

6. Delegation of Authority. The Committee shall have the authority to delegate any of its responsibilities, along with the authority to take action in relation to such responsibilities, to one or more subcommittees as the Committee may deem appropriate in its sole discretion.

7. Amendment. This Charter and any provision contained herein may be amended or repealed by the Board.

Adopted October 15, 2019, and amended March 2, 2021.