

SIONNA THERAPEUTICS, INC.

AMENDED AND RESTATED COMPENSATION COMMITTEE CHARTER

I. General Statement of Purpose

The purpose of the Compensation Committee (the “Compensation Committee”) of the Board of Directors (the “Board”) of Sionna Therapeutics, Inc. (the “Company”) is to discharge certain of the Board’s responsibilities relating to compensation of the Company’s non-employee directors and executive officers, oversee the Company’s overall compensation structure, policies and programs, and review the Company’s processes and procedures for the consideration and determination of non-employee director and executive officer compensation. 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. The Compensation Committee may also review and discuss with management the Company’s key human resource management strategies and programs, including (i) diversity, equity and inclusion; (ii) employee health, safety and well-being and (iii) initiatives and programs related to corporate culture, employee engagement and enterprise-wide talent development and succession planning.

II. 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, by video or telephone conference or by other means of communications by which all participants 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 vote

of a majority of members present at a meeting. In lieu of a meeting, the Compensation Committee may act by unanimous written consent (which may include electronic consent) in accordance with the Company's fifth amended and restated certificate of incorporation and amended and restated bylaws. The Chair of the Compensation Committee, in consultation with the other members and management, may set meeting agendas consistent with this Amended and Restated Compensation Committee Charter (the "Charter").

IV. Compensation Committee Activities

The Compensation Committee's purpose and responsibilities shall include, but are not limited to:

A. 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 (the "CEO").
- Evaluate the CEO's performance in light of the goals and objectives that were set for the CEO and recommend to the Board the CEO's compensation based on that evaluation.
- In formulating its recommendation regarding the long-term incentive component of the CEO's compensation, consider the Company's performance and stockholder return, the magnitude of similar incentive awards to CEOs at comparable companies and the awards made by the Company to the CEO in past years.
- Review periodically the aggregate amount of compensation being paid or potentially payable to 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.
- Exclude the CEO during voting or deliberations regarding the CEO's compensation.

B. 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 and, at the discretion of the Compensation Committee, other members of senior management, including salaries, bonuses, long-term incentives (including equity-based awards), and other benefits; for this purpose, the term "officer" has the meaning defined in Rule 16a-1 promulgated under the Exchange Act.

- Oversee an annual compensation evaluation of all “officers” of the Company other than the CEO and, at the discretion of the Compensation Committee, other members of senior management.
- Review periodically the aggregate amount of compensation being paid or potentially payable to all “officers” of the Company other than the CEO, and at the discretion of the Compensation Committee, other members of senior management.
- For the “officers” of the Company other than the CEO, and at the discretion of the Compensation Committee, other members of senior management, periodically review and approve (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.

C. Recommendations Regarding Non-Employee Director Compensation

- Periodically review and make recommendations to the Board regarding the compensation of non-employee directors.

D. Processes and Procedures for Considering and Determining Non-Employee 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 considering and determining non-employee director and executive officer compensation, and review and discuss with management the description, if any, of such processes and procedures to be included in the Company’s proxy statement or annual report on Form 10-K.
- Review and assess the results of the most recent stockholder advisory vote on executive compensation, if any, and, to the extent the Compensation Committee deems appropriate, take such results into consideration in connection with its review and approval of compensation for executive officers.

E. Compensation Committee Report

- Review and discuss with management the Compensation Discussion and Analysis, if any, to be included in the Company’s proxy statement or annual report on Form 10-K (“CD&A”).
- Based on its review and discussions with management, recommend to the Board that the CD&A, if and when required, be included in the Company’s proxy statement or annual report on Form 10-K.

- Prepare the Compensation Committee Report, if and when required, to be included in the Company's proxy statement or annual report on Form 10-K in accordance with the rules and regulations of the Securities and Exchange Commission, the Nasdaq Stock Market rules, and any other rules and regulations applicable to the Company.

F. Incentive-Based Compensation and Equity-Based Plans

- The Compensation Committee shall exercise all rights, authority and functions of the Board under all of the Company's stock option, stock incentive, employee stock purchase and other equity-based plans, including without limitation, the authority to interpret the terms thereof, to grant stock awards thereunder. To the extent permitted by applicable law and the provisions of a given equity-based plan, the Compensation Committee may delegate to a committee consisting of one or more executive officers of the Company, including the CEO, all or part of the authority and duties, with respect to granting stock awards, to any individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not members of the delegated committee, such power to be subject to the parameters and limitations set forth in the applicable resolutions adopted by the Compensation Committee.
- 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 approve any policies and procedures for the grant of equity-based awards, including the Company's Equity Award Grant Policy as may be in effect from time to time.
- Oversee and approve, or, upon the request of the Board, oversee and recommend to the Board for approval, the establishment and modification of executive incentive plans, such as annual short-term incentive plans, long-term incentive plans, including equity-based compensation programs.
- 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.

G. 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 Securities and Exchange Commission and Nasdaq pursuant to Section 10D of the Exchange Act.

H. Annual Evaluation of the Compensation Committee

- Perform an annual evaluation of the Compensation Committee and report the results to the Board.
- Annually review the risks arising from the Company's compensation policies and practices applicable to all employees, including those related to pay equity laws, to assess whether such compensation policies and practices create risks that are reasonably likely to have a material adverse effect on the Company.

I. Review of Charter

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

V. Additional Compensation Committee Authority

The Compensation Committee is authorized, on behalf of the Board, to do any of the following:

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

- Retain or obtain the advice of compensation consultants, legal counsel and/or other advisers as it deems necessary or as required by applicable regulations.
- Have sole responsibility for the appointment, retention, 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 non-employee 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.

C. Employee Benefit Plans; Non-Executive Compensation Policies

- The Compensation Committee shall periodically review the goals and objectives of the Company's non-executive compensation plans and other employee benefit plans. The Compensation Committee shall also perform such duties and responsibilities, and have such authority, related to employee benefit plans specifically assigned to the Board under the terms of such employee benefit plans or applicable law or regulation. To the extent permitted by applicable law and the provisions of any employee benefit plan, the Compensation Committee may delegate any of its duties, responsibilities or authority in connection with any employee benefit plan to members of management as the Compensation Committee deems appropriate.

D. Employee Health, Safety and Well-Being

- The Compensation Committee may assist the Board in its oversight of the Company's strategies, programs and initiatives related to employee health, safety and well-being, engagement, pay equity and diversity and inclusion.

VI. General

- The Compensation Committee may establish and delegate authority to one or more subcommittees consisting of one or more of its members to carry out its responsibilities.
- The Compensation Committee shall make regular reports to the Board on matters for which it has responsibility.

- In carrying out its responsibilities, the Compensation Committee shall be entitled to rely on advice and information it receives from management and any experts, advisors and professionals with whom it 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 meet with the Compensation Committee or its members or advisers.
- The Compensation Committee may perform such other functions the Board may request from time to time.

Adopted by the Board of Directors on December 12, 2024, subject to effectiveness of the Company's Registration Statement on Form S-1 for its initial public offering.