

ACER THERAPEUTICS INC.

COMPENSATION COMMITTEE CHARTER (effective August 14, 2018)

I. Committee Membership

The Compensation Committee (the “Committee”) of the Board of Directors (the “Board”) of Acer Therapeutics Inc., a Delaware corporation (the “Company”), shall be comprised of at least two directors each of who is an “independent director,” *i.e.*, those directors who neither are officers or employees of the Company or its subsidiaries nor have a relationship which, in the opinion of the Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director, and who are otherwise “independent” under the listing standards, rules and regulations of The Nasdaq Stock Market and the Securities and Exchange Commission (the “SEC”). In affirmatively determining independence of any director who will 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 directors’ ability to be independent from management in connection with the duties of a Committee member, including, but not limited to: (i) the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by the Company to such director; and (ii) whether such director is affiliated with the Company, a subsidiary of the Company or an affiliate of a subsidiary of the Company.

In addition to satisfying the requirements necessary to be “independent directors,” each member of the Committee shall also satisfy all requirements necessary from time to time to be “non-employee directors” under SEC Rule 16b-3 and qualified “outside directors” under Section 162(m) of the Internal Revenue Code and related regulations.

Committee members shall be appointed from time to time by the Board, having given consideration to the recommendations, if any, from the Nominating and Corporate Governance Committee, and shall serve at the pleasure of the Board and for such term or terms as the Board may determine.

II. Committee Purpose and Responsibilities

The Committee shall have the purpose and direct responsibility to:

1. Review and recommend to the Board for approval corporate goals and objectives relevant to the compensation of the Company’s Chief Executive Officer (“CEO”), evaluate the CEO’s performance in light of those goals and objectives, and either as a committee or together with the other independent directors, determine, or recommend to the Board for determination, the CEO’s compensation level based on this evaluation. In determining or recommending the long-term incentive component of CEO compensation, the Committee shall consider, among

other factors, the Company's performance and relative stockholder return, the value of similar incentive awards to CEOs at comparable companies, and the awards given to the CEO in past years. The CEO may not be present during any voting or deliberations of the Committee regarding the CEO's compensation.

2. Either as a committee or together with the other independent directors, determine, or recommend to the Board for determination, the compensation of all other executive officers of the Company (and evaluate, in conjunction with the CEO, the performance relative to compensation of those executive officers).

3. Make recommendations to the Board with respect to the Company's incentive compensation plans and equity-based plans, oversee the activities of the individuals and committees responsible for administering these plans, and discharge any responsibilities imposed on the Committee by any of these plans.

4. Approve issuances under, or any material amendment of, any tax qualified, nondiscriminatory employee benefit plan or parallel nonqualified plan pursuant to which a director, officer, employee or consultant will acquire stock or options.

5. Approve issuances under, or any material amendment of, any stock incentive or other similar plan pursuant to which a person not previously an employee or director of the Company, as an inducement material to the individual's entering into employment with the Company, will acquire stock or options.

6. Periodically evaluate and make recommendations to the Board regarding compensation of the directors, including for service on Board committees.

7. Review and approve any severance or similar termination payments proposed to be made to any current or former executive officer of the Company.

8. Prepare any required report or disclosure, or make any applicable recommendations regarding compensation disclosure to be included in, the Company's annual proxy statement or annual report on Form 10-K in accordance with applicable SEC rules and regulations.

9. Periodically evaluate whether there are any risks from the Company's compensation policies for its employees and overall actual compensation practices which are reasonably likely to have a material adverse effect on the Company, and recommend to the Board any changes deemed appropriate by the Committee.

10. Report to the Board on a regular basis, and not less than once per year.

11. Perform any other duties or responsibilities expressly delegated to the Committee by the Board from time to time relating to the Company's compensation programs.

III. Committee Structure and Operations

The Board or the Committee shall designate one member of the Committee as its chairperson. In the event of a tie vote on any issue, the chairperson's vote shall decide the issue. The Committee shall meet at least twice a year, and perhaps more frequently, in conjunction with regularly scheduled meetings of the Board at regularly scheduled times and places determined by the Committee chairperson, with further meetings to occur, or actions to be taken by unanimous written consent, when deemed necessary or desirable by the Committee or its chairperson. Members of the Committee may participate in a meeting of the Committee by means of conference call or similar communications equipment by means of which all persons participating in the meeting can hear each other.

IV. Delegation to Subcommittee

The Committee may, in its discretion, delegate all or a portion of its duties and responsibilities to a subcommittee of the Committee consisting of one or more members when appropriate, as provided in the resolutions of the Committee, except to the extent such delegation is limited by applicable law, rules or listing standards.

V. Performance Evaluation

The Committee shall prepare and review with the Board an annual performance evaluation of the Committee, which evaluation shall compare the performance of the Committee with the requirements of this charter. The performance evaluation shall also recommend to the Board any improvements to the Committee's charter deemed necessary or desirable by the Committee. The performance evaluation by the Committee shall be conducted in such manner as the Committee deems appropriate. The report to the Board may take the form of an oral report by the chairperson of the Committee or any other member of the Committee designated by the Committee to make this report.

VI. Resources and Authority of the Committee

The Committee shall have the resources (including any needed funding to be supplied by the Company) and authority appropriate to discharge its duties and responsibilities, including the authority to select, retain, terminate, and approve the fees and other retention terms of special counsel or other experts or consultants, as it deems appropriate, without seeking approval of the Board or management.

All such consultants or advisors shall meet the independence requirements of the Committee and, subject to such exemptions as may be set forth in applicable rules of Nasdaq, prior to retaining or receiving advice from any independent compensation consultant or other advisor (other than in-house counsel), the Committee shall take into consideration the following factors: (1) the provision of other services to the Company by the person that employs the advisor (the "Consultant Employer"); (2) the amount of fees received from the Company by the Consultant Employer, as a percentage of the total revenue of the Consultant Employer; (3) the policies and procedures of the Consultant Employer that are designed to prevent conflicts of interest; (4) any business or personal relationship of the advisor with a member of the Committee; (5) any stock of the Company owned by the advisor; and (6) any business or

personal relationship of the advisor or the Consultant Employer with an executive officer of the Company.