CABALETTA BIO, INC.

Compensation Committee Charter

I. General Statement of Purpose

The purpose of the Compensation Committee of the Board of Directors (the "Compensation Committee") of Cabaletta Bio, Inc. (the "Company") is to discharge the Board's responsibilities relating to compensation of the Company's 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 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.

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 three 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"), and as "outside directors" as defined in Section 162(m) of the Internal Revenue Code of 1986, as amended.

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 or by conference telephone or other communications equipment by means of 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 in accordance with the Company's bylaws. The Chair of the Compensation Committee, in consultation with the other members and management, may set meeting agendas consistent with this Compensation Committee Charter (the "Charter").

IV. Compensation Committee Activities

The Compensation Committee's purpose and responsibilities shall be to:

A. Review of Charter

• Review and reassess the adequacy of this Charter annually and submit any proposed changes to the Board for approval.

B. Processes and Procedures for Considering and Determining 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 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.

C. 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 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.

D. Evaluation of the Compensation Committee

• Perform a periodic evaluation of the Compensation Committee and report the results to the Board.

E. Incentive-Compensation and Equity-Based Plans

 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 recommend to the Board policies and procedures for the grant of equity-based awards.

F. 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 determine and approve 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 value of similar incentive awards to CEOs at comparable companies, and the awards made by the Company to the CEO and CFO in past years.
- Review periodically the aggregate amount of compensation being paid or potentially payable to the CEO and CFO.
- Exclude the CEO and CFO during voting or deliberations regarding their compensation.

G. 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; for this purpose, the term "officer" has the meaning defined in Rule 16a-1 promulgated under the Exchange Act.
- Review periodically the aggregate amount of compensation being paid or potentially payable to the Company's officers.

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 of the Company's Directors and Members of Senior Management

 Review and make such recommendations to the Board as it deems advisable regarding the compensation of the directors of the Company, including compensation under any equity-based plans.

- Provide oversight of management's decisions regarding the compensation of all members of senior management of the Company (other than the CEO and CFO), including with respect to any incentive-compensation plans and equitybased plans.
- Review periodically the aggregate amount of compensation being paid or potentially payable to members of the Company's senior management.

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

- Retain or obtain the advice of compensation consultants, legal counsel and/or other advisers.
- Have sole responsibility for the appointment, 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 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.

 Prohibit the Company from engaging a compensation consultant engaged by the Compensation Committee, or an affiliate of any such compensation consultant, to provide any other services to the Company without the approval of the Compensation Committee.

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.

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Adopted September 10, 2019, subject to effectiveness of the Company's Registration Statement on Form S-1.