

CALITHERA BIOSCIENCES, INC.

**CHARTER OF THE COMPENSATION COMMITTEE
OF THE BOARD OF DIRECTORS**

APPROVED BY THE BOARD OF DIRECTORS

ON SEPTEMBER 18, 2014

PURPOSE AND POLICY

The primary purpose of the Compensation Committee (the “*Committee*”) of the Board of Directors (the “*Board*”) of Calithera Biosciences, Inc. (the “*Company*”) shall be to act on behalf of the Board in fulfilling the Board’s oversight responsibilities with respect to the Company’s compensation policies, plans and programs, and to review and determine the compensation to be paid to the Company’s executive officers and directors. In addition, following the Public Effective Date (as defined below) the Committee shall review and discuss with management the Company’s disclosures contained under the caption “Compensation Discussion and Analysis” (“*CD&A*”), when and as required by applicable rules and regulations of the Securities and Exchange Commission (the “*SEC*”) in effect from time to time for use in any of the Company’s annual reports on Form 10-K, registration statements, proxy statements or information statements filed with the SEC and to prepare and review the Committee report on executive compensation included in the Company’s annual proxy statement in accordance with applicable rules and regulations of the SEC in effect from time to time.

The term “compensation” shall include salary, long-term incentives, bonuses, perquisites, equity incentives, severance arrangements, retirement benefits and other related benefits and benefit plans.

The “*Public Effective Date*” shall mean the date on which the Company has agreed to become a public reporting company subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), and applicable rules and regulations of the SEC.

COMPOSITION

The Committee shall consist of at least two (2) members of the Board. Following the Public Effective Date, all members of the Committee shall satisfy (i) the independence requirements imposed by any stock exchange on which any of the Company’s capital stock is listed as applicable to Committee members, as in effect from time to time, when and as required, including any exceptions permitted by these requirements, (ii) any other qualifications determined by the Board or the Nominating and Corporate Governance Committee of the Board from time to time, (iii) unless otherwise approved by the Board, the “non-employee director” standard within the meaning of Rule 16b-3 promulgated under the Exchange Act and (iv) unless otherwise approved by the Board, the “outside director” standard within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended from time to time (the “*Code*”) and (v) any other requirements imposed by applicable law. The members of the Committee shall be appointed by and serve at the discretion of the Board. Vacancies occurring on the Committee shall be filled by the Board. The Committee’s chairperson shall be designated by the Board, or if it does not do so, the Committee members shall elect a chairperson by vote of a majority of the full Committee.

MEETINGS AND MINUTES

The Committee shall hold at least two (2) regular meetings per year and additional or special

meetings as its members shall deem necessary or appropriate. Minutes of each meeting of the Committee shall be prepared and distributed to each director of the Company and the Secretary of the Company promptly after each meeting. The chairperson of the Committee shall report to the Board from time to time and whenever requested to do so by the Board. In addition, the chairperson of the Committee or his or her delegate shall be available to answer any questions the other directors may have regarding the matters considered and actions taken by the Committee.

AUTHORITY

The Committee shall have access to all books, records, facilities and personnel of the Company as deemed necessary or appropriate by any member of the Committee to discharge his or her responsibilities hereunder, including human resources personnel preparing the CD&A for inclusion in the Company's filings with the SEC following the Public Effective Date. The Committee shall have the authority to obtain, at the expense of the Company, advice and assistance from internal or external legal, accounting or other advisors and consultants. In addition, the Committee shall have sole authority to retain and terminate any compensation consultant to assist the Committee in the evaluation of director, chief executive officer, executive officer or senior executive compensation, including sole authority to approve such consultant's reasonable fees and other retention terms, all at the Company's expense. The Committee shall also have authority to pay, at the expense of the Company, ordinary administrative expenses (including expenditures for external resources) that the Committee deems necessary or appropriate in carrying out its duties. Except as limited by applicable law, rules and regulations, the Committee shall have authority to require that any of the Company's personnel, counsel, accountants or investment bankers, or any other consultant or advisor to the Company, attend any meeting of the Committee or meet with any member of the Committee or any of its special, outside legal, accounting or other, advisors or consultants.

The Committee may form and delegate authority to subcommittees as appropriate, including, but not limited to, a subcommittee composed of one or more members of the Board or officers of the Company to grant stock awards under the Company's equity incentive plans to persons who are not (a) "Covered Employees" under Section 162(m) of the Code; (b) individuals with respect to whom the Company wishes to comply with Section 162(m) of the Code or (c) then subject to Section 16 of the Exchange Act. Delegation by the Committee to any subcommittee shall not limit or restrict the Committee on any matter so delegated, and, unless the Committee alters or terminates such delegation, any action by the Committee on any matter so delegated shall not limit or restrict future action by such subcommittee on such matters. The operation of the Committee shall be subject to the Bylaws of the Company as in effect from time to time and Section 141 of the Delaware General Corporation Law. The approval of this Compensation Committee Charter by the Board shall be construed as a delegation of authority to the Committee with respect to the responsibilities set forth herein.

RESPONSIBILITIES

To implement the Committee's purpose, the Committee shall have the following responsibilities. The Committee may supplement and, except as otherwise required by applicable law or the requirements of any stock exchange on which any of the Company's capital stock is listed, deviate from these activities as appropriate under the circumstances:

1. Overall Compensation Strategy. The Committee shall review, modify (as needed) and approve the overall compensation strategy and policies for the Company, including:

- reviewing and approving corporate performance goals and objectives relevant to the compensation of the Company's executive officers and other senior management, as appropriate, which powers shall include the power to exercise discretion to adjust compensation based on such goals and objectives;
- evaluating and approving the compensation plans and programs advisable for the Company, as well as evaluating and approving the modification or termination of existing plans and programs;
- establishing policies with respect to equity compensation arrangements with the objective of appropriately balancing the perceived value of equity compensation and the dilutive and other costs of that compensation to the Company;
- reviewing compensation practices and trends to assess the adequacy and competitiveness of the Company's executive compensation programs among comparable companies in the Company's industry; however, the Committee shall exercise independent judgment in determining the appropriate levels and types of compensation to be paid;
- reviewing and approving the terms of any employment agreements, severance arrangements, change-of-control protections and any other compensatory arrangements (including, without limitation, perquisites and any other form of compensation) for the Company's executive officers and, as appropriate, other senior management;
- reviewing and approving any compensation arrangement for any executive officer involving any subsidiary, special purpose or similar entity, taking into account the potential for conflicts of interest in such arrangements and whether the arrangement has the potential to benefit the Company;
- approving any loans by the Company to employees;
- reviewing the Company's practices and policies of employee compensation as they relate to risk management and risk-taking incentives, to determine whether such compensation policies and practices are reasonably likely to have a material adverse effect on the Company; and

- evaluating the efficacy of the Company's compensation policy and strategy in achieving expected benefits to the Company and otherwise furthering the Committee's policies.

2. Compensation of Chief Executive Officer. The Committee shall review and approve the compensation and other terms of employment of the Company's Chief Executive Officer and shall evaluate the Chief Executive Officer's performance in light of relevant corporate performance goals and objectives, taking into account, among other things, the policies of the Committee and the Chief Executive Officer's performance in:

- fostering a corporate culture that promotes the highest level of integrity and the highest ethical standards;
- developing and executing the Company's long-term strategic plan and conducting the business of the Company in a manner appropriate to enhance long-term stockholder value;
- achieving the Chief Executive Officer's individual performance goals and objectives; and
- the achievement of any other corporate performance goals and objectives deemed relevant to the Chief Executive Officer as established by the Committee.

In determining the long-term incentive component of the Chief Executive Officer's compensation, the Committee should seek to achieve an appropriate level of risk and reward, taking into consideration the Company's performance and relative stockholder return, the potential benefits and costs to the Company of the award and such other criteria as the Committee deems advisable. Following the Public Effective Date, the Chief Executive Officer may not be present during the voting or deliberations regarding his or her compensation.

3. Compensation of Other Executive Officers and Senior Management. The Committee shall review and approve the individual and corporate performance goals and objectives of the Company's other executive officers (as that term is defined in Section 16 of the Exchange Act and Rule 16a-1 thereunder) and other senior management, as appropriate, that are periodically established. The Committee shall determine and approve all elements of the compensation and other terms of employment of these executive officers and other senior management, as appropriate, taking into consideration the person's success in achieving his or her individual performance goals and objectives and the corporate performance goals and objectives deemed relevant to the person as established by the Committee. The Chief Executive Officer may be present during these deliberations, but may not vote.

4. Compensation of Directors. The Committee shall review and recommend to the Board the type and amount of compensation to be paid or awarded to Board members, including any consulting, retainer, Board meeting, committee and committee chair fees and stock option grants or awards. The Committee may invite the Company's Chief Executive Officer to be present during these deliberations.

5. Selection of Compensation Consultants, Independent Legal Counsel and Other Advisors. The Committee shall have direct responsibility for the appointment, compensation and oversight of the work of compensation consultants, independent legal counsel or any other advisors engaged for the purpose of advising the Committee. Such compensation consultants, independent legal counsel or other advisors and consultants shall report directly, and be accountable, to the Committee. The Committee may select compensation consultants, independent legal counsel and other advisors to the

Committee only after assessing the independence of such person in accordance with the requirements of any stock exchange on which any of the Company's capital stock is listed.

6. Administration of Benefit Plans. The Committee shall have full power and authority to adopt, amend and terminate the Company's stock option plans, stock appreciation rights plans, pension and profit sharing plans, incentive plans, stock bonus plans, stock purchase plans, bonus plans, deferred compensation plans and sub-plans thereof and similar programs. The Committee shall have full power and authority to administer these plans, establish guidelines, interpret plan documents, select participants, approve grants and awards, approve modifications to awards, and exercise such other power and authority as may be permitted or required under such plans. Notwithstanding the foregoing, the Board shall retain the right to act on all such matters without limiting the Committee's authority, subject to compliance with applicable laws and regulations.

7. Compensation Discussion and Analysis. When and as required by applicable rules and regulations of the SEC in effect from time to time, the Committee shall review and discuss with management the Company's disclosures contained under the caption "Compensation Discussion and Analysis" for use in any of the Company's annual reports on Form 10-K, registration statements, proxy statements or information statements and make recommendations to the Board that the CD&A be approved for inclusion in the Company's annual reports on Form 10-K, registration statements, proxy statements or information statements.

8. Conflict of Interest Disclosure. The Committee shall review and discuss with management any conflicts of interest raised by the work of a compensation consultant or advisor retained by the Committee or management and how such conflict is being addressed, and prepare any necessary disclosure in the Company's annual proxy statement in accordance with applicable SEC rules and regulations.

9. Committee Report. Following the Public Effective Date, the Committee shall prepare and review the Committee report on executive compensation to be included in the Company's annual proxy statement in accordance with applicable SEC rules and regulations.

10. Committee Self-Assessment. Following the Public Effective Date, the Committee shall review, discuss and assess its own performance at least annually. The Committee shall also at least annually review and assess the adequacy of this charter and shall recommend any proposed changes to the Board for its consideration.

11. General Authority. The Committee shall perform such other functions and have such other powers as may be necessary or appropriate in the discharge of any of the foregoing.