

MATINAS BIOPHARMA HOLDINGS, INC.
COMPENSATION COMMITTEE CHARTER

February 2014

I. Purpose

The purpose of the Compensation Committee (the “Committee”) of Matinas BioPharma Holdings, Inc. (the “Company”) is to: (i) discharge the responsibilities of the Board of Directors (the “Board”) relating to executive compensation and (ii) oversee incentive, equity-based and other compensatory plans in which executive officers and key employees of the Company participate.

The Committee serves a board-level oversight role in which it provides advice, counsel and direction to management on the basis of the information it receives, discussions with management and the experience of the Committee members.

II. Composition

The Committee shall be composed of three (3) or more directors, as determined by the Board, each of whom shall (i) upon the listing of the Company’s securities on a national securities exchange, be independent in accordance with the provisions of Rule 10C-1(b)(1) under the Securities Exchange Act of 1934, as amended, (the “Exchange Act”) and the rules of the principal exchange or quotation service on which the Company’s securities are listed (the “Principal Exchange”), (ii) qualify as a “Non-Employee Director” for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended, and (iii) qualify as an “outside director” for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended. Members shall be appointed to, and removed from the Committee by the Board.

III. Responsibilities

Within the scope of the role of the Committee described above, the Committee is charged by the Board with the responsibility to:

- Develop and periodically review compensation policies and practices applicable to executive officers, including the criteria upon which executive compensation is based, the specific relationship of corporate performance to executive compensation and the composition in terms of base salary, deferred compensation and incentive or equity-based compensation and other benefits.
- Review and approve corporate goals and objectives relevant to Chief Executive Officer (“CEO”) compensation, evaluate at least annually the CEO’s performance in light of these goals and objectives and, based on this evaluation, recommend to the full Board for determination the CEO’s compensation, provided that the CEO shall not be present during voting or deliberations on the CEO’s compensation.
- Determine bases for and fix compensation levels for other executive officers.

- Supervise, administer and evaluate incentive, equity-based and other compensatory plans of the Company in which executive officers and key employees participate, including approving guidelines and size of grants and awards, making grants and awards, interpreting and promulgating rules relating to the plans, modifying or canceling grants or awards, designating employees eligible to participate and imposing limitations and conditions on grants or awards.
- Review and approve, subject to stockholder approval as required, the creation or amendment of any incentive, equity-based and other compensatory plans of the Company in which executive officers and key employees participate, other than amendments to tax-qualified employee benefit plans and trusts, and any supplemental plans thereunder, that do not substantially alter the costs of such plans to the Company or are to conform such plans to applicable laws or regulations.
- Review and approve any employment agreements, severance arrangements, change-in-control arrangements or special or supplemental employee benefits, and any material amendments to any of the foregoing, applicable to executive officers.
- Report to the Board on any significant matters arising from the Committee's work.
- At least annually, evaluate the performance of the Committee, review and reassess this Charter and, if appropriate, recommend changes to the Board.
- At least annually, evaluate the adequacy of director's fees and the composition of such fees.
- Perform such other duties and responsibilities as may be assigned to the Committee by the Board or as designated in plan documents.

IV. Authority

By adopting this Charter, the Board delegates to the Committee full authority to:

- Delegate such of its authority and responsibilities as the Committee deems proper to subcommittees thereof, subject to all applicable laws and regulations (including without limitation regulations of the Principal Exchange).
- Appoint a chair of the Committee, unless a chair is designated by the Board.
- Select, retain and obtain, in the Committee's sole discretion, the advice of a compensation consultant, outside legal counsel or other advisor, as necessary, to assist with the execution of its duties and responsibilities set forth in this Charter. Prior to engaging any such advisors, the Committee shall conduct an analysis of the advisor's independence in accordance with applicable rules of the Principal Exchange and shall evaluate whether any compensation consultant has any conflict of interest in accordance applicable Exchange Act rules.

- Set the compensation and oversee the work of any compensation consultants, outside legal counsel or other advisors which the Committee may retain. The Company shall provide appropriate funding for payment of advisors engaged by the Committee, and the Committee shall have the authority to approve the fees and other terms of retention of any such advisors.

V. Committee Structure and Operations

- The Committee shall meet in person or telephonically at such times and places as shall be determined by the Committee chairperson. The chairperson, with input from the other members of the Committee, shall set the agendas for Committee meetings. A majority of the members of the Committee shall constitute a quorum for purposes of holding a meeting and the Committee may act by a vote of a majority of members present at such meeting. In lieu of a meeting, the Committee may act by unanimous written consent.
- The Committee shall maintain minutes containing a summary of the actions taken at each Committee meeting and shall make regular reports to the Board with respect to actions taken by the Committee and areas of the Committee's responsibilities.

* * *