

ALNYLAM PHARMACEUTICALS, INC.

NOMINATING AND CORPORATE GOVERNANCE COMMITTEE CHARTER

A. Purpose

The purpose of the Nominating and Corporate Governance Committee is to:

- recommend to the Board the persons to be nominated for election as directors at any meeting of stockholders;
- develop and recommend to the Board a set of corporate governance principles applicable to the Company; and
- oversee the evaluation of the Board.

B. Structure and Membership

1. Number. The Nominating and Corporate Governance Committee shall consist of such number of directors as the Board shall from time to time determine.
2. Independence. Except as otherwise permitted by the applicable rules of The NASDAQ National Market, each member of the Nominating and Corporate Governance Committee shall be an “independent director” as defined by such rules.
3. Chair. Unless the Board elects a Chair of the Nominating and Corporate Governance Committee, the Committee shall elect a Chair by majority vote.
4. Compensation. The compensation of Nominating and Corporate Governance Committee members shall be as determined by the Board.
5. Selection and Removal. Members of the Nominating and Corporate Governance Committee shall be appointed by the Board, upon the recommendation of the Committee. The Board may remove members of the Nominating and Corporate Governance Committee from such Committee, with or without cause.

C. Authority and Responsibilities

General

The Nominating and Corporate Governance Committee shall discharge its responsibilities, and shall assess the information provided by the Company’s management, in accordance with its business judgment.

Board and Committee Membership

1. Selection of Director Nominees. Except where the Company is legally required by contract, bylaw or otherwise to provide third parties with the right to nominate directors, the Nominating and Corporate Governance Committee shall be responsible for recommending to the Board the nominees for election as directors at any meeting of stockholders and the persons to be elected by the Board to fill any vacancies on the Board. In making such recommendations, the Committee shall consider candidates proposed by stockholders. The Committee shall review and evaluate information available to it regarding candidates proposed by stockholders and shall apply the same criteria, and shall follow substantially the same process in considering them, as it does in considering other candidates.
2. Criteria for Selecting Directors. The Board's criteria and principles for selecting directors shall be set forth in the Corporate Governance Guidelines referred to in Section C.5 below. The Nominating and Corporate Governance Committee shall use such criteria and the principles set forth in such Guidelines to guide its director selection process. The Committee shall be responsible for reviewing with the Board, on an annual basis, the requisite skills and criteria for new Board members as well as the composition of the Board as a whole. The Committee may adopt, and periodically review and revise as it deems appropriate, procedures regarding director candidates proposed by stockholders.
3. Search Firms. The Nominating and Corporate Governance Committee shall have the sole authority to retain and terminate any search firm to be used to identify director nominees, including sole authority to approve the search firm's fees and other retention terms. The Committee is empowered, without further action by the Board, to cause the Company to pay the compensation of any search firm engaged by the Committee.
4. Selection of Committee Members. The Nominating and Corporate Governance Committee shall be responsible for recommending to the Board the directors to be appointed to each committee of the Board, including the Nominating and Corporate Governance Committee.

Corporate Governance

5. Corporate Governance Guidelines. The Nominating and Corporate Governance Committee shall develop and recommend to the Board a set of Corporate Governance Guidelines applicable to the Company. The Committee shall, from time to time as it deems appropriate, review and reassess the adequacy of such Corporate Governance Guidelines and recommend any proposed changes to the Board for approval.

Evaluation of the Board; Succession Planning

6. Evaluation of the Board. The Nominating and Corporate Governance Committee shall be responsible for overseeing a periodic self-evaluation of the Board to determine whether it and its committees are functioning effectively. The Committee shall determine the nature of the evaluation, supervise the conduct of the evaluation and prepare an assessment of the Board's performance, which assessment shall be discussed with the Board.
7. Succession of Senior Executives. The Nominating and Corporate Governance Committee shall oversee an annual review by the Board on succession planning, which shall include transitional leadership in the event of an unplanned vacancy. The Committee shall identify, and periodically review and reassess, the qualities and characteristics necessary for an effective Chief Executive Officer and other executive officer. With these principles in mind, the committee should monitor periodically and review the development and progression of potential internal candidates against these standards.
8. Additional Powers. The Nominating and Corporate Governance Committee shall have such other duties as may be delegated from time to time by the Board of Directors.

D. Procedures and Administration

1. Meetings. The Nominating and Corporate Governance Committee shall meet as often as it deems necessary in order to perform its responsibilities. The Committee shall keep such records of its meetings as it shall deem appropriate.
2. Subcommittees. The Nominating and Corporate Governance Committee may form and delegate authority to one or more subcommittees (including a subcommittee consisting of a single member), as it deems appropriate from time to time under the circumstances.
3. Reports to the Board. The Nominating and Corporate Governance Committee shall report regularly to the Board.
4. Charter. The Nominating and Corporate Governance Committee shall, from time to time as it deems appropriate, review and reassess the adequacy of this Charter and recommend any proposed changes to the Board for approval.
5. Independent Advisors. The Nominating and Corporate Governance Committee shall have the authority to engage such independent legal and other advisors as it deems necessary or appropriate to carry out its responsibilities. Such independent advisors may be the regular advisors to the Company. The Committee is empowered, without further action by the Board, to cause the Company to pay the compensation of such advisors as established by the Committee.

6. Investigations. The Nominating and Corporate Governance Committee shall have the authority to conduct or authorize investigations into any matters within the scope of its responsibilities as it shall deem appropriate, including the authority to request any officer, employee or advisor of the Company to meet with the Committee or any advisors engaged by the Committee.
7. Periodic Self-Evaluation. The Nominating and Corporate Governance Committee shall evaluate periodically its own performance.