

PFENEX INC.

CORPORATE GOVERNANCE PRINCIPLES

(Originally adopted and approved May 2, 2014, and effective as of the Company's initial public offering; as amended on December 15, 2015 and effective as of January 1, 2016)

These principles have been adopted by the Board of Directors (the "Board") of Pfenex Inc. (the "Company") for the purpose of establishing the corporate governance policies pursuant to which the Board intends to conduct its oversight of the business of the Company in accordance with its fiduciary responsibilities.

1. Role of the Board

The role of the Board of Directors at the Company is to oversee the performance of the chief executive officer (the "CEO") and other senior management and to assure that the best interests of stockholders are being served. To satisfy this responsibility, the directors are expected to take a proactive approach to their duties and function as active monitors of corporate management. Accordingly, directors provide oversight in the formulation of the long term strategic, financial and organizational goals of the Company and of the plans designed to achieve those goals. In addition, the Board reviews and approves standards and policies to ensure that the Company is committed to achieving its objectives through the maintenance of the highest standards of responsible conduct and ethics and to assure that management carries out their day-to-day operational duties in a competent and ethical manner.

The day-to-day business of the Company is carried out by its employees, managers and officers, under the direction of the CEO and the oversight of the Board, to enhance the long term value of the Company for the benefit of stockholders. The Board and management also recognize that creating long term enterprise value is advanced by considering the interests and concerns of other stakeholders, including the Company's employees, customers, creditors and suppliers as well as the community generally.

The Board understands that effective directors act on an informed basis after thorough inquiry and careful review, appropriate in scope to the magnitude of the matter being considered. The directors know their position requires them to ask probing questions of management and outside advisors. The directors also rely on the advice, reports and opinions of management, counsel and expert advisers. In doing so, the Board evaluates the qualifications of those it relies upon for information and advice and also looks to the processes used by managers and advisors in reaching their recommendations. In addition, the Board has the authority to hire outside advisors at the Company's expense if they feel it is appropriate.

2. Selection of Chairman and CEO

The Board shall fill the Chairman and CEO positions based upon the Board's view of what is in the best interests of the Company at any point in time. Although the current Chairman is a non-employee director, the Board has not adopted any policy requiring or precluding

separation of the Chairman and CEO positions or requiring allocation of the Chairman position to a non-employee director.

3. Lead Independent Director

In the event that the Board's Chairman is not an independent director, the Board may elect a "Lead Independent Director," who will have the responsibility to schedule and prepare agendas for meetings of outside directors. The Lead Independent Director may communicate with the CEO/Chairman, disseminate information to the rest of the Board in a timely manner, raise issues with management on behalf of the outside directors when appropriate, and facilitate communications between management and the outside directors. In addition, the Lead Independent Director may have other responsibilities, including calling meetings of outside directors when necessary and appropriate, being available, when appropriate, for consultation and direct communication with the Company's stockholders, building a productive relationship between the Board and the CEO/Chairman, ensuring that the Board fulfills its oversight responsibilities in Company strategy, risk oversight and succession planning, and performing such other duties as the Board may from time to time designate. All members of the Board are encouraged to communicate with the CEO/Chairman. As long as the Board's Chairman is an independent, non-employee director, the "Lead Independent Director" responsibility may be assigned to the Chairman.

4. Committees

The Board has three committees: the Audit Committee, the Compensation Committee, and the Corporate Governance and Nominating Committee ("Governance Committee"). The Board will continue to delegate substantial responsibilities to each committee, and each committee should consist solely of independent directors, as defined by the NYSE MKT ("NYSE MKT Rules"), and in the case of the Audit Committee as defined by the rules and regulations of the Securities and Exchange Commission ("SEC Rules") and should appoint one of its members as committee chairman. The members of these committees shall also meet the other membership criteria specified in the respective charters for these committees. New committees may be formed as determined by the Board.

5. Assignment and Rotation of Committee Members

Committees should be appointed (or re-appointed), and chairs of each committee designated, by the full Board, upon recommendation by the Governance Committee, annually. While composition of the committees of the Board should be looked at each year in making certain that these committees are not stagnant or without fair representation, it is the Board's belief that continuity of experience in the specific functions of these committees provides a significant benefit to the stockholders and to management.

6. Frequency and Length of Committee Meetings

Each committee chairman, in consultation with committee members, will determine the frequency and length of meetings of his or her committee, considering all relevant factors such as the committee's mandate, nature of current committee business to be discussed and the like.

Moreover, the committee chairmen should feel free to call additional committee meetings at times other than the scheduled meetings of the full Board.

7. Committee Charters and Agendas

Each committee shall have its own charter, which will set forth the purpose, membership requirements, authority and responsibilities of the committee. Annually, the chairman of each committee should review the existing committee charter and determine, in consultation with the rest of the committee, whether any amendments are required. Committee charters should be within the scope of authority granted by the Board and should be approved by the Board. The chairman of the committee, in consultation with appropriate members of management and staff, should develop the overall annual agenda to the extent it can be foreseen. In addition, each committee chairman should prepare an agenda prior to each committee meeting and should consult with appropriate members of management for additional items which should be included in the agenda. Any committee of the Board is authorized to engage its own outside advisors at the Company's expense, including legal counsel or other consultants, as required, provided that the committee shall promptly advise the full Board of such engagement.

8. Code of Conduct, Conflicts of Interests, Related Party Transactions and Complaints Process

The Governance Committee shall review and approve the Company's code of business ethics and conduct which is applicable to directors, officers and employees; consider questions of possible conflicts of interest of Board members and corporate officers; review actual and potential conflicts of interest (including corporate opportunities) of Board members and corporate officers; and approve or prohibit any involvement of such persons in matters that may involve a conflict of interest or corporate opportunity. Directors may be asked from time to time to leave a Board meeting when the Board is considering a transaction in which the director (or another organization in which the director is a director or officer) has a financial or other interest.

The Audit Committee shall review and approve in advance any proposed related party transactions in compliance with the Company's policies and the NYSE MKT Rules and must present material related party transactions to the full Board for approval; review and approve the financial code of ethics for its senior financial officers; monitor compliance with the Company's financial code of ethics; and review and approve the Company's procedures for handling complaints regarding accounting or auditing matters.

9. Board Meetings and Agenda Items

The Board of Directors shall have no less than four regularly scheduled meetings each year at which it reviews and discusses leadership continuity, management development, management reports on the performance of the Company, its plans and prospects, as well as more immediate issues facing the Company. The Chairman of the Board (in consultation with the CEO if not the same person) will set the agenda for each Board meeting. Each Board member is free to suggest inclusion of items on the agenda. A representative from the Company's outside counsel should be available to attend Board meetings. The Board will review the Company's long-term strategic plans during at least one Board meeting per year.

10. Board Presentations and Discussions

Directors are expected to prepare for, attend, and actively participate in all Board and applicable committee meetings. To the extent possible, information and data which is important to the Board's understanding of matters to be discussed at the meeting and the current status of the Company's business should be distributed in writing to the Board a sufficient number of days before the meeting to enable the directors to read and prepare for the meeting. On those occasions when the subject matter is too sensitive to be distributed, the related materials will be introduced at the meeting. The Company encourages, but does not require, directors to attend the annual meeting of stockholders.

11. Regular Attendance of Non-Directors at Board Meetings

It is anticipated that certain members of management (*e.g.*, the CFO, General Counsel, and such other members of the executive staff as the CEO may from time to time designate) and representatives of the Company's outside counsel will attend Board meetings on a regular basis. Other members of management and staff will attend meetings and present reports from time to time. Specifically, the Board encourages management to schedule managers to be present at Board meetings who can provide additional insight into the items being discussed because of personal involvement in these areas. It is understood that Company personnel and others attending Board meetings may be asked to leave the meeting in order for the Board to meet in executive session.

12. Meetings of Independent Directors and with Outside Auditors

It is the policy of the Board to have separate meeting times for independent directors without management present. Such meetings should be held as a part of every scheduled Board meeting and at such other times as requested by an independent director. In addition, the Audit Committee of the Board should meet periodically with the Company's outside auditors without management present at such times as it deems appropriate. The Chairman (or Co-Chairmen, as applicable) or the Lead Director shall (as appropriate) preside at executive sessions.

13. Board Access to Management

Board members should have full access to members of management, either as a group or individually, and to Company information that they believe is necessary to fulfill their obligations as Board members. The directors should use their judgment to ensure that any such contact or communication is not disruptive to the business operations of the Company.

14. Board Compensation Review

The Compensation Committee should conduct an annual review of director compensation. This review will include input from the Company's Human Resources department in order to evaluate director compensation compared to other companies of like size in the industry. Any change in Board compensation should be approved by the full Board. Ownership of stock by the directors is encouraged.

15. Size of the Board

The size of the Board is determined by the Board in accordance with the Company's Bylaws. The size of the Board may vary based upon the size of the business and the availability of qualified candidates. Board size should facilitate active interaction and participation by all Board members. The Board will review from time to time the appropriateness of its size.

16. Composition of Board

The Board believes that as a matter of policy there should be a majority of independent Directors on the Board. Within that policy, the mix of Board members should provide a range of expertise and perspective in areas relevant to the Company's business.

17. Board Definition of "Independence" for Directors

A director shall be considered "independent" for purposes of serving on the Board if he or she meets the criteria for independence established by the NYSE MKT Rules. A director shall be considered "independent" for purposes of serving on a Board committee based on the definition of independence used in that committee's charter, which shall conform to any requirements established for such a committee by the NYSE MKT Rules and any applicable SEC Rules.

18. Board Membership Criteria and Selection

The Governance Committee should review on an annual basis, in the context of recommending a slate of directors for stockholder approval, the composition of the Board, including issues of character, judgment, diversity, age, expertise, corporate experience, length of service, independence, other commitments and the like. Selection of new directors requires recommendation of a candidate by the Governance Committee to the full Board, which has responsibility for naming new members in the event of a vacancy or expansion of the Board between annual meetings of stockholders.

19. Extending the Invitation to Join the Board to a New Director

An invitation to join the Board should be extended by the Chairman or the Lead Director, on behalf of the entire Board.

20. Notifying a Director of Non-Inclusion on a Proposed Slate of Directors

Any proposal to decrease the size of the Board, or to substitute a new director for an existing director, should be made first by the Governance Committee, then approved by the full Board. After receipt of a recommendation from the Governance Committee, the Chairman or the Lead Director should notify the director of such recommendation prior to the meeting of the Board at which the slate of nominees is proposed to be approved.

21. Assessing the Board's Performance

The Chairman and the Governance Committee should annually review the Board's and each committee's performance during the prior year. This assessment should focus on areas in which the Board or management believes contributions can be made going forward to increase the effectiveness of the Board and each committee. As part of this process directors will conduct an evaluation to review the progress and effectiveness of the Board and its committees, and will submit comments to the Chairman and the Governance Committee. The Governance Committee will then report back to the Board. Each of the full Board and each committee will consider and discuss the committee's report.

22. Term Limits

The Board believes that Directors should not have "unlimited tenure." Directors of each class shall be subject to election at the annual meeting of stockholders corresponding to the expiration of the term of directors comprising such class. However, the Board may fill vacancies or add new directors at any time as provided in the Company's charter documents.

23. Director Orientation and Continuing Education

Meetings of the Board shall be designed to provide orientation for new directors to assist them in understanding the Company's business as well as an introduction to the Company's senior management. Further, the Company encourages directors to participate in continuing education programs focused on the business, Company's industry, and legal and ethical responsibilities of board members.

24. Formal Evaluation and Compensation of the Chief Executive Officer and Other Executive Officers

The formal evaluation of the CEO and the other executive officers should be made in the context of annual compensation review by the Compensation Committee, with appropriate input from other Board members, and should be communicated to the CEO by the chairman of the Compensation Committee. The evaluation should be based on objective criteria, including performance of the business and accomplishment of long-term strategic objectives in accordance with the principles established by the Compensation Committee. Ownership of stock by the CEO and other executive officers is encouraged and will be reviewed by the Board.

25. Succession Planning

The Governance Committee, in consultation with the full Board, is primarily responsible for CEO succession planning. In addition, it shall monitor management's succession plans for other key executives. Succession planning can be critical in the event the CEO or other key executives should cease to serve for any reason, including resignation or unexpected disability. In addition, however, the Board believes that establishment of a strong management team is the best way to prepare for an unanticipated executive departure.

26. Management Development

In addition to its responsibilities related to executive succession planning, the Board shall confer with the CEO to encourage management's employee development programs.

27. Board Interaction with Investors, the Press, Customers, etc.

The Board believes that management speaks for the Company. Individual Board members may, from time to time, meet or otherwise communicate with various constituencies that are involved with the Company, but it is expected that Board members would do this with knowledge of management and, in most instances, only at the request of management.

28. Formulation of Strategy

The Board should provide oversight to management in formulating corporate strategy.

29. Periodic Review of Guidelines

The Governance Committee and the Board should review these guidelines no less frequently than annually.