INTRREXON CORPORATION

CORPORATE GOVERNANCE GUIDELINES

I. Board of Directors.

- The directors of Intrexon Corporation (the "Company") are elected by its shareholders to oversee management and to act in the best interest of the Company and its shareholders.
- The basic responsibility of a director is to discharge his or her duties in accordance with his or her good faith business judgment of the best interests of the Company. In discharging that obligation, directors should be entitled to rely on the honesty and integrity of the Company's senior executives and its outside advisors and auditors

II. Ethical Business Principles.

- Integrity and ethical behavior are core values of the Company. The Board of Directors and employees shall reflect such principles in the conduct of business. The Board of Directors is responsible to provide the best example of these values and should reinforce their importance at appropriate times.
- The Audit Committee should review periodically the Company's Code of Business Conduct and Ethics. The Audit Committee is responsible for evaluating periodically the adequacy of the policies included in the Code of Business Conduct and Ethics. The Audit Committee should have management confirm periodically that those policies are fully understood and implemented.

III. Board Composition.

- The Board of Directors shall consist of the number of directors as the Board of Directors may determine from time to time, subject to compliance with the Company's Articles of Incorporation and Bylaws, and the Virginia Stock Corporation Act. In accordance with the Company's Bylaws, the Board of Directors may have up to 10 members.
- A majority of the directors shall be independent within the meaning of the independence standards of The Nasdaq Stock Market ("NASDAQ") and within the time requirements established by NASDAQ, all as determined by the Board of Directors. The Independence Determination Guidelines attached to these guidelines as Appendix A have been established to assist the Board of Directors in making these independence determinations.
- When an independent director no longer holds the principal position that he or she held when first elected to the Board of Directors or a director who is also an officer of the Company ceases to be an officer, he or she is expected to notify the Chairman of the Nominating and Governance Committee for consideration by that Committee and offer to voluntarily resign from the

Board of Directors. The Nominating and Governance Committee shall make a recommendation to the Board of Directors regarding the director's continued service on the Board of Directors.

- The Nominating and Governance Committee is responsible for recommendation to the Board of Directors of director candidates for shareholder approval. Director vacancies occurring between shareholder meetings are filled by the Board of Directors. The Board of Directors delegates the preliminary review process involved to the Nominating and Governance Committee.

- In considering the composition of the Board of Directors, diversity of backgrounds and expertise should be emphasized and the Nominating and Governance Committee shall consider the average tenure of the entire Board of Directors. In addition, the Nominating and Governance Committee shall take into account the independence classification of each director under the Institutional Shareholder Services Inc. U.S. Proxy Voting Guidelines.

- The Board of Directors does not believe it should establish term or age limits. While such limits could help ensure that there are fresh ideas and viewpoints available to the Board of Directors, they hold the disadvantage of losing the contribution of directors who have been able to develop, over a period of time, increasing insight into the Company and its operations and, therefore, provide an increasing contribution to the Board of Directors.

- A director who serves as a chief executive officer of a publicly-traded company will not serve on more than three public company boards (including his or her own company's board) without the Nominating and Governance Committee approving such service.

- A director who does not serve as a chief executive officer of a publicly-traded company will not serve on more than five public company boards without the Nominating and Governance Committee approving such service.

- The Board of Directors is free to make the choice of the separation of the role of Chairman and the Chief Executive Officer in any way that seems in the best interests of the Company. Therefore, the Board of Directors does not have a policy on whether or not the role of the Chief Executive Officer and Chairman should be separate and, if it is to be separate, whether the Chairman should be selected from the non-employee directors or be an employee.

- The current policy of the Board of Directors is to have a Lead Independent Director of the Board who is an independent director. The Board of Directors may revisit this policy from time to time. The non-management and independent Board members will annually appoint one non-management and independent Board member to serve as the Lead Independent Director. The responsibilities of the Lead Independent Director of the Board include:

    - preside over meetings of the non-management and independent Board members and, as appropriate, provide prompt feedback to the Chief Executive Officer and Chairman.

    - together with the Chief Executive Officer and Chairman, and with input from the non-management and independent Board members, prepare the Board's agenda.
    - serve as a point of contact between non-management and independent Board members and the Chief Executive Officer and Chairman to report or raise matters.
    - call executive sessions of the Board or of the non-management and independent Board members.
    - serve as a "sounding board" and mentor to the Chief Executive Officer and Chairman.
    - take the lead in assuring that the Board carries out its responsibilities in circumstances where the Chief Executive Officer and Chairman is incapacitated or otherwise unable to act.
    - consult with the Chairman of the Compensation Committee to provide performance feedback and compensation information to the Chief Executive Officer and Chairman.
    - perform such other duties and responsibilities as may be delegated to the Lead Independent Director by the Board of Directors from time to time.

IV. <u>Meetings</u>.

- <u>Meetings</u>. The Board of Directors shall have an annual meeting as soon as practicable after the adjournment of the annual meeting of shareholders. Other meetings of the Board of Directors shall be held at times fixed by resolution of the Board of Directors, or upon call of the Chairman of the Board, the Chief Executive Officer or a majority of the directors.
- <u>Attendance</u>.
    - Directors are expected to attempt to attend all meetings of the Board of Directors and the Board of Directors committees on which they serve, to ask questions and engage in discussion, and to spend the time needed and meet as frequently as necessary to properly discharge their responsibilities.
    - Directors also are strongly encouraged to attend each annual meeting of the Company's shareholders.
    - Attendance at fewer than 75 percent of the aggregate of (i) the total number of meetings of the Board of Directors (held during the period for which a director has been a director) and (ii) the total number of meetings held by all Board of Directors committees on which such director served (during the periods that such director served) shall be discussed with the Chairman of the Board to determine if excessive time conflicts are likely to continue.
- The independent directors shall meet as a group in executive session at least two times a year. The Lead Independent Director shall chair these sessions. The independent directors have the authority to retain outside counsel and

advisors.

- Meeting materials shall be delivered to each director in sufficient time in advance of each regular meeting of the Board of Directors to permit a thorough review.

V. **Responsibilities of the Board of Directors and Committees**.

- Approve major corporate decisions and oversee, develop and implement Board of Directors policies.
- Review and, where appropriate, approve the Company's major financial objectives and strategic and operating plans and activities.
- Through the Audit Committee, periodically review (at least annually) the Company's legal compliance programs and procedures.
- Monitor and assess performance and ask appropriate questions of management to address accountability with established goals.
- Stay well-informed regarding the Company's businesses.
- Be a partner with the Chief Executive Officer on strategic issues by advising and consulting.
- Through the Audit Committee, oversee the Company's disclosure controls and procedures and internal controls over financial reporting.
- Oversee the Company's program for identifying, evaluating and controlling significant risks.
- Be willing to be proactive in crisis situations.
- Review and approve major capital allocation recommendations of management.
- Oversee financial statements through the Audit Committee.
- Assume responsibility for the selection, retention and replacement of the Chief Executive Officer.
- Review, evaluate the performance of, and approve compensation of executive officers through the Compensation Committee.
- Establish proper governance, which includes a periodic review of the Corporate Governance Guidelines by the Board of Directors; the consideration of the Board of Directors, or at the request of the Board of Directors, by the Nominating and Governance Committee of other corporate governance issues and related matters; and any resulting recommendation by such Committee to the Board of Directors.
- Recruit effective new members through the Nominating and Governance Committee.
- The Board of Directors shall have three standing committees: (i) Audit, (ii) Compensation, and (iii) Nominating and Governance. The responsibilities

of the three committees are set forth in the Bylaws and in the committee charters. Each Committee will have a written charter that will be reviewed annually.

VI. Director Compensation and Ownership of Capital Stock.

- Non-employee directors shall receive reasonable annual compensation, which may take the form of an annual retainer, an annual stock grant, an award of stock options or restricted stock units and/or a fee for attendance at any Board of Directors or Committee meeting.
- It is the responsibility of the Compensation Committee to recommend to the Board of Directors any changes in Board compensation. The Board of Directors makes the final determination with respect to Board compensation. The Compensation Committee will consider whether directors' independence may be jeopardized if director compensation and perquisites exceed customary levels, if the Company makes substantial charitable contributions to organizations with which a director is affiliated, or if the Company enters into consulting contracts with (or provides other indirect forms of compensation to) a director or an organization with which the director is affiliated. The Compensation Committee will review compensation annually.
- Directors are encouraged to own the Company's common stock pursuant to the Company's Stock Ownership Guidelines.

VII. Director Orientation.

- The Chief Executive Officer shall have responsibility for developing an orientation program for each new director, and an ongoing education program for all directors.

VIII. Board Contacts and Access.

- Board of Directors members shall have access to the Company's management at all times. Directors are expected to consider whether the results of any contact with a member of management other than the Chief Executive Officer should be reported to the Chief Executive Officer.
- The Board of Directors encourages management to bring managers to Board meetings from time to time who: (a) can provide additional insight to the items being discussed because of personal involvement in these areas and/or (b) represent managers with future potential that management believes should be given exposure to the Board of Directors.
- Dealings with the press and with investors generally should be the sole province of the Chief Executive Officer and his designees. From time to time the Chief Executive Officer may request director participation.

IX. Shareholders Access to Directors.

- Shareholder Communications. Shareholders may communicate with the Board of Directors as a group and individual directors by sending written correspondence to the Chairperson of the Nominating and Governance

Committee at the following address: Intrexon Corporation, 20374 Seneca Meadows Parkway, Germantown, Maryland 20876, Attention: Corporate Secretary.

- Process for Collecting and Organizing Shareholder Communications. The Chairperson of the Nominating and Governance Committee and his or her duly authorized agents shall be responsible for collecting and organizing shareholder communications. Absent a conflict of interest, the Chairperson of the Nominating and Governance Committee is responsible for evaluating the materiality of each shareholder communication and determining whether further distribution is appropriate, and, if so, whether to (i) the full Board of Directors, (ii) one or more Board of Directors members and/or (iii) other individuals or entities.

- A form of "Communicating with Directors," listing the methods for shareholders and interested parties to communicate directly with the Lead Independent Director or with the Audit Committee, to be posted on the Company's website, is attached hereto as Appendix B.

X. **Board Performance Review.**

- The Board of Directors shall conduct an annual review of its performance, reflecting on whether the Board of Directors could have done a better job, *i.e.*, lessons learned and improvements needed by the group and, if appropriate, by individual directors.

XI. **Chief Executive Officer Performance Review.**

- Provide for regular oral communication from the Board of Directors members to the Chief Executive Officer regarding concerns, suggestions, needs and expectations; written communication will be provided to the Chief Executive Officer upon the request of the Board of Directors.

- The Compensation Committee, together with the Lead Independent Director, shall provide an annual review of the Chief Executive Officer's performance.

XII. **Chief Executive Officer Succession.**

- Chief Executive Officer succession planning process should include a regular (at least annual) Board of Directors review. Any review of possible internal candidates should include:
    - readiness and potential;
    - demonstrated skills and competencies;
    - needed experience and training to fill gaps; and
    - a plan for adequate exposure to the Board of Directors.

XIII. **Policy With Respect to Failing to Achieve Majority "For" Votes in an Uncontested Election.**

- Any nominee for director in an uncontested election (*i.e.*, an election where the number of nominees is not greater than the number of directors to be elected) who receives a greater number of votes "against" from his or her election than votes "for" such election shall, promptly following certification of the shareholder vote, tender his or her resignation to the Board of Directors for consideration in accordance with the following procedures, all of which procedures shall be completed within 90 days following certification of the shareholder vote:
    - The Committee (as defined below) shall evaluate the best interests of the Company and its shareholders and shall recommend to the Board of Directors the action to be taken with respect to such tendered resignation (which recommendation could consist of, without limitation, accepting the resignation, rejecting the resignation and maintaining the director, rejecting the resignation and maintaining the director but addressing what the Committee believes to be the underlying cause of the against votes, or rejecting the resignation but resolving that the director will not be re-nominated in the future for election). In reaching its recommendation, the Committee shall consider all factors it deems relevant, including, without limitation, the stated reasons why shareholders voted "against" election of such director, the length of service and qualifications of the director whose resignation has been tendered, the director's contributions to the Company, and the Company's Corporate Governance Guidelines. If a resignation is accepted by the Committee, the Committee will recommend to the Board of Directors whether to fill the resulting vacancy or reduce the size of the Board of Directors.
    - The Board of Directors shall act on the Committee's recommendation. In acting on the Committee's recommendation, the Board of Directors will consider all of the factors considered by the Committee and such additional factors as it deems relevant.
    - Following the Board of Directors' determination, the Company shall promptly publicly disclose in a document furnished to or filed with the Securities and Exchange Commission (the "SEC") the Board of Directors' decision of whether or not to accept the resignation and an explanation of how the decision was reached, including, if applicable, the reasons for rejecting the resignation.
    - A director who is required to tender his or her resignation in accordance with this policy shall not be present during deliberations or voting of the Committee or the Board of Directors regarding whether to accept his or her resignation or, except as otherwise provided below, a resignation tendered by any other director in accordance with this policy. Prior to voting, the Committee and the Board of Directors will afford the affected director an opportunity to provide the Committee or the Board of Directors with any information that he or she deems relevant.

- For purposes of this policy, the term “Committee” means (i) the Nominating and Governance Committee, provided such committee then consists of at least three directors, each of whom is an independent director and none of whom is a director who is required to tender his or her resignation in accordance with this policy, or (ii) if clause (i) is not satisfied, a committee of at least three directors designated by the Board of Directors, each of the members of which is an independent director and none of the members of which is a director who is required to tender his or her resignation in accordance with this policy. However, if there are fewer than three independent directors then serving on the Board of Directors who are not required to tender their resignations in accordance with this policy, then the Committee shall be comprised of all of the independent directors and each independent director who is required to tender his or her resignation in accordance with this policy shall recuse himself or herself from the Committee and Board of Directors’ deliberations and voting with respect to his or her individual resignation.
- The foregoing procedures will be summarized and disclosed each year in the proxy statement for the Company’s annual meeting of shareholders.

Adopted by the Board of Directors, September 11, 2018

APPENDIX A

Independence Determination Guidelines

For a director to be deemed "independent," the Board of Directors of Intrexon Corporation ("Intrexon") shall affirmatively determine that the director has no material relationship with Intrexon either directly or as a partner, shareholder or officer of an organization that has a relationship with Intrexon. In making this determination, the Board of Directors shall apply the following standards:

(a) A director who is, or has been within the last three years, an employee of Intrexon, or whose family member is, or has been within the last three years, an executive officer, of Intrexon, is not independent. Employment as an interim Chairman, Chief Executive Officer or other executive officer will not disqualify a director from being considered independent following such employment, provided the interim employment did not last longer than one year.

(b) A director who has received, or who has a family member serving as an executive officer who has received, during any twelve-month period within the three years preceding the determination of independence, more than $120,000 in direct compensation from Intrexon (excluding director and committee fees, compensation made to a family member who is an employee (other than an executive officer) of Intrexon and benefits under a tax-qualified retirement plan or non-discretionary compensation), is not independent. Compensation received by a director for former service as an interim Chairman, Chief Executive Officer or other executive officer will not count toward the $120,000 limitation, provided the interim employment did not last longer than one year.

(c) (A) A director who is a current partner of a firm that is Intrexon's internal or external auditor; (B) a director who has a family member who is a current partner of such a firm; or (C) a director who was or whose family member was, within the last three years a partner or employee of such a firm and personally worked on Intrexon's audit within that time, in any such instance ((A)-(C)) is not independent.

(d) A director who is or has been within the last three years, or whose family member is, or has been within the last three years, employed as an executive officer of another company where any of Intrexon's present executive officers at the same time serves or served on that company's compensation committee, is not independent.

(e) A director who is, or has a family member who is, a partner in (excluding limited partners), or a controlling shareholder or executive officer of, any organization to which Intrexon made, or from which Intrexon received, payments for property or services in an amount which, in any of the last three fiscal years, exceeds the greater of $200,000, or 5% of the recipient's consolidated gross revenues, is not independent. Payments arising solely from investments in Intrexon's securities or under non-discretionary charitable contribution programs need not be considered.

A "family member" means a person's spouse, parents, children, siblings, mothers and fathers-in-law, sons and daughters-in-law, brothers and sisters-in-law, or anyone (other than domestic employees) residing in such person's home.

APPENDIX B

Intrexon Corporation

Communicating with Directors

Interested parties may contact the non-management members of the Board of Directors through the following address:

Intrexon Corporation
20374 Seneca Meadows Parkway
Germantown, Maryland 20876
Attention: Lead Independent Director

Such correspondence will be provided to the Lead Independent Director at or prior to the next regularly scheduled executive session of the Board of Directors.

Complaints and concerns regarding accounting, securities law or auditing matters may be communicated to the Audit Committee through any of the following methods:

Mailing Address: Intrexon Corporation
20374 Seneca Meadows Parkway
Germantown, Maryland 20876
Attention: Audit Committee

Intrexon Compliance AlertLine, via NAVEX Global: 1-855-840-0194

Please note: For interested parties outside of the US or Canada, please refer to the Whistleblower Policy for country-specific access codes.

NAVEX Global website: www.intrexon.ethicspoint.com

Such complaints and concerns will be referred to the Audit Committee at or prior to the next regularly scheduled Audit Committee meeting. Complaints and concerns will be handled anonymously and confidentially if requested.