

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

**FORM S-8
REGISTRATION STATEMENT**
UNDER
THE SECURITIES ACT OF 1933

INTREXON CORPORATION

(Exact name of registrant as specified in its charter)

Virginia
(State or other jurisdiction of
incorporation or organization)

26-0084895
(I.R.S. Employer
Identification No.)

20374 Seneca Meadows Parkway
Germantown, Maryland
(Address of Principal Executive Offices)

20876
(Zip Code)

Intrexon Corporation 2019 Incentive Plan for Non-Employee Service Providers
(Full title of the plans)

Randal J. Kirk
Chairman of the Board and Chief Executive Officer
Intrexon Corporation
222 Lakeview Avenue, Suite 1400,
Palm Beach, Florida 33401
(Name and address of agent for service)

(561) 410-7000
(Telephone number, including area code, of agent for service)

Copies of all correspondence to:

William I. Intner
Hogan Lovells US LLP
100 International Drive
Suite 2000
Baltimore, Maryland 21202
(410) 659-2700

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | | |
|-------------------------|-------------------------------------|--|---------------------------|--------------------------|
| Large accelerated filer | <input checked="" type="checkbox"/> | | Accelerated filer | <input type="checkbox"/> |
| Non-accelerated filer | <input type="checkbox"/> | | Smaller reporting company | <input type="checkbox"/> |
| | | | Emerging growth company | <input type="checkbox"/> |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

| Title of Securities to be Registered | Amount to be Registered ⁽¹⁾ | Proposed Maximum Offering Price Per Share ⁽²⁾ | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|---|--|---|--|-------------------------------|
| Common Stock, no par value | 5,000,000 | \$7.03 | \$35,150,000.00 | \$4,260.18 |

(1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers such indeterminable number of additional shares of the Registrant's common stock, no par value (the "Common Stock"), as may become issuable to prevent dilution in the event of stock splits, stock dividends, recapitalizations or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h) under the Securities Act, and is based upon the average of high and low sales prices of the Common Stock on The Nasdaq Global Select Market on August 5, 2019.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in this Part I will be delivered in accordance with Rule 428(b)(1) under the Securities Act of 1933, as amended (the "Securities Act"). Such documents are not required to be, and are not, filed with the Securities and Exchange Commission (the "Commission") either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. These documents, and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed by the Registrant with the Securities and Exchange Commission (the "Commission"):

- (a) The Registrant's [Annual Report on Form 10-K](#) for the fiscal year ended December 31, 2018, filed with the Commission on March 1, 2019;
- (b) All other reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than information contained in Current Reports on Form 8-K that is deemed furnished and not filed), since the end of the fiscal year covered by the Annual Report referred to in (a) above, including the Registrant's Current Reports on Form 8-K, filed on [April 4, 2019](#), [April 12, 2019](#), [April 22, 2019](#), and [June 12, 2019](#), and its Quarterly Reports on Form 10-Q for the fiscal quarter ended on March 31, 2019, filed on [May 9, 2019](#) and for the fiscal quarter ended on June 30, 2019, filed on [August 9, 2019](#); and
- (c) The description of the Registrant's common stock, no par value, contained in our [Form 8-A](#) filed on September 24, 2018, including any amendment or report filed for the purpose of updating such description.

All documents that the Registrant subsequently files pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this Registration Statement which indicates that all of the shares of Common Stock offered have been sold or which deregisters all of such shares of Common Stock then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein, or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Notwithstanding the above, information that is "furnished to" the Commission shall not be deemed "filed with" the Commission and shall not be deemed incorporated by reference into this Registration Statement.

ITEM 4. Description of Securities.

Not applicable.

ITEM 5. Interests of Named Experts and Counsel.

Not applicable.

ITEM 6. Indemnification of Directors and Officers.

Article 10 of Chapter 9 of Title 13.1 of the Code of Virginia, as amended, or the Virginia Stock Corporation Act (the "VSCA"), permits a Virginia corporation to indemnify any director or officer for reasonable expenses incurred in any legal proceeding in advance of final disposition of the proceeding, if the director or officer delivers to the corporation a written undertaking to repay any funds advanced if it is ultimately determined that the director has not met the relevant standard of conduct. In addition, a corporation is permitted to indemnify a director or officer against liability incurred in a proceeding if a determination has been made by the disinterested members of the board of directors, special legal counsel or shareholders that the director or officer conducted himself or herself in good faith and otherwise met the required standard of conduct. In a proceeding by or in the right of the corporation, no indemnification shall be made in respect of any matter as to which a director or officer is adjudged to be liable to the corporation, except for reasonable expenses incurred in connection with the proceeding if it is determined that the director or officer has met the relevant standard of conduct. In any other proceeding, no indemnification shall be made if the director or officer is adjudged liable to the corporation on the basis that he or she improperly received a personal benefit. Corporations are given the power to make any other or further indemnity, including advance of expenses, to any director or officer that may be authorized by the articles of incorporation or any bylaw made by the shareholders, or any resolution adopted, before or after the event, by the shareholders, except an indemnity against willful misconduct or a knowing violation of the criminal law. Unless limited by its articles of incorporation, indemnification against the reasonable expenses incurred by a director or officer is mandatory when he or she entirely prevails in the defense of any proceeding to which he or she is a party because he or she is or was a director or officer. In addition, the VSCA permits a Virginia corporation to limit the personal liability of an officer or director in any proceeding brought by or in the name of the corporation or its shareholders, except if the director or officer engaged in willful misconduct or a knowing violation of the criminal law or any federal or state securities laws, including insider trading or market manipulation.

The Registrant is a Virginia corporation. The Registrant's Amended and Restated Articles of Incorporation contain provisions limiting the liability of and indemnifying its directors and officers to the extent not prohibited by Virginia law. Sections 13.1-692.1 and 13.1-696 through 13.1-704 of the VSCA are incorporated herein by reference.

ITEM 7. Exemption from Registration Claimed.

Not Applicable.

ITEM 8 Exhibits.

| <u>Exhibit Number</u> | <u>Description</u> |
|-----------------------|---|
| 4.1 | Specimen common stock certificate (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-189853)) |
| 4.2 | Amended and Restated Articles of Incorporation of Intrexon Corporation, as amended (incorporated by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K filed on March 1, 2019, as amended on the Registrant's Quarterly Report on Form 10-Q filed on November 9, 2017 and Quarterly Report on Form 10-Q filed on August 9, 2019) |
| 4.3 | Amended and Restated Bylaws of Intrexon Corporation (incorporated by reference to Exhibit 3.2 to the Registrant's Annual Report on Form 10-K filed on March 1, 2019) |
| 5.1 | Opinion of Hogan Lovells US LLP as to the legality of the securities being registered |
| 10.1 | Intrexon Corporation 2019 Incentive Plan for Non-Employee Service Providers, effective as of June 12, 2019 (incorporated by reference to Exhibit 10.5 of the Registrant's Quarterly Report on Form 10-Q, filed on August 9, 2019) |
| 23.1 | Consent of PricewaterhouseCoopers LLP |
| 23.2 | Consent of Hogan Lovells US LLP (included in Exhibit 5.1) |
| 24.1 | Power of Attorney (included on signature page) |

ITEM 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement; *provided, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palm Beach, State of Florida, on August 9, 2019.

INTREXON CORPORATION

By: /s/ Randal J. Kirk

Randal J. Kirk

Chief Executive Officer and Chairman of the Board of Directors

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Randal J. Kirk, Rick Sterling and Donald P. Lehr, and each of them, as his true and lawful attorney-in-fact and agent, upon the action of such appointee, with full power of substitution and resubstitution, to do any and all acts and things and execute, in the name of the undersigned, any and all instruments which each of said attorneys-in-fact and agents may deem necessary or advisable in order to enable Intrexon Corporation to comply with the Securities Act of 1933, as amended (the "Securities Act"), and any requirements of the Securities and Exchange Commission (the "Commission") in respect thereof, in connection with the filing with the Commission of this Registration Statement on Form S-8 under the Securities Act, including specifically, but without limitation, power and authority to sign the name of the undersigned to such Registration Statement, and any amendments to such Registration Statement (including post-effective amendments), and to file the same with all exhibits thereto and other documents in connection therewith, with the Commission, to sign any and all applications, Registration Statements, notices or other documents necessary or advisable to comply with applicable state securities laws, and to file the same, together with other documents in connection therewith with the appropriate state securities authorities, granting unto each of said attorneys-in-fact and agents full power and authority to do and to perform each and every act and thing requisite or necessary to be done in and about the premises, as fully and to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---|--|----------------|
| <u>/s/ Randal J. Kirk</u> Randal J. Kirk | Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer) | August 9, 2019 |
| <u>/s/ Rick L. Sterling</u> Rick L. Sterling | Chief Financial Officer (Principal Accounting and Financial Officer) | August 9, 2019 |
| <u>/s/ Steven R. Frank</u> Steven R. Frank | Director | August 9, 2019 |

| | | |
|---|----------|----------------|
| <u>/s/ Vinita D. Gupta</u> Vinita D. Gupta | Director | August 9, 2019 |
| <u>/s/ Fred Hassan</u> Fred Hassan | Director | August 9, 2019 |
| <u>/s/ Jeffrey B. Kindler</u> Jeffrey B. Kindler | Director | August 9, 2019 |
| <u>/s/ Dean J. Mitchell</u> Dean J. Mitchell | Director | August 9, 2019 |
| <u>/s/ Robert B. Shapiro</u> Robert B. Shapiro | Director | August 9, 2019 |
| <u>/s/ James S. Turley</u> James S. Turley | Director | August 9, 2019 |



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August 9, 2019

Board of Directors
Intrexon Corporation
20374 Seneca Meadows Parkway
Germantown, Maryland 20876

Ladies and Gentlemen:

We are acting as counsel to Intrexon Corporation, a Virginia corporation (the “Company”), in connection with its registration statement on Form S-8 (the “Registration Statement”), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the “Act”) relating to the proposed offering of up to 5,000,000 newly issued shares of common stock, no par value per share (the “Common Stock”) of the Company (the “Shares”), all of which shares are issuable pursuant to the Intrexon Corporation 2019 Incentive Plan for Non-Employee Service Providers (the “Plan”). This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement.

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including pdfs). As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

This opinion letter is based as to matters of law solely on the Virginia Stock Corporation Act, as amended. We express no opinion herein as to any other statutes, rules or regulations.

Based upon, subject to and limited by the foregoing, we are of the opinion that following (i) effectiveness of the Registration Statement, (ii) issuance of the Shares pursuant to the terms of the Plan, and (iii) receipt by the Company of the consideration for the Shares specified in the applicable resolutions of the Board of Directors and in accordance with the Plan, the Shares will be validly issued, fully paid, and nonassessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise of any changes in the foregoing subsequent to the effective date of the Registration Statement.

Hogan Lovells US LLP is a limited liability partnership registered in the District of Columbia. “Hogan Lovells” is an international legal practice that includes Hogan Lovells US LLP and Hogan Lovells International LLP, with offices in: Alicante Amsterdam Baltimore Beijing Birmingham Boston Brussels Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston Johannesburg London Los Angeles Luxembourg Madrid Mexico City Miami Milan Minneapolis Monterrey Moscow Munich New York Northern Virginia Paris Perth Philadelphia Rome San Francisco São Paulo Shanghai Silicon Valley Singapore Sydney Tokyo Warsaw Washington, D.C. Associated Offices: Budapest Jakarta Riyadh Shanghai FTZ Ulaanbaatar Zagreb. Business Service Centers: Johannesburg Louisville. Legal Services Center: Berlin. For more information see www.hoganlovells.com

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement. In giving this consent, we do not thereby admit that we are an “expert” within the meaning of the Act.

Very truly yours,

/s/ Hogan Lovells US LLP

Hogan Lovells US LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Intrexon Corporation of our report dated March 1, 2019 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in Intrexon Corporation's Annual Report on Form 10-K for the year ended December 31, 2018.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Raleigh, North Carolina

August 9, 2019