
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): June 28, 2018

INTREXON CORPORATION

(Exact Name of Registrant as Specified in Charter)

Virginia
(State or Other Jurisdiction
of Incorporation)

001-36042
(Commission
File Number)

26-0084895
(IRS Employer
Identification No.)

20374 Seneca Meadows Parkway, Germantown, Maryland 20876
(Address of Principal Executive Offices) (Zip Code)

(301) 556-9900
(Registrant's telephone number, including area code)

N/A
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

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 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement.

Offering of 3.50% Convertible Senior Notes due 2023

On July 3, 2018, Intrexon Corporation (the “Company”) completed its registered underwritten public offering of \$200 million aggregate principal amount of 3.50% convertible senior notes due 2023 (such notes, the “Notes,” and such offering, the “Notes Offering”), pursuant to an underwriting agreement (the “Notes Underwriting Agreement”), dated June 28, 2018, with J.P. Morgan Securities LLC (the “Underwriter”). The Company made customary representations, warranties and covenants and agreed to indemnify the Underwriter against (or contribute to the payment of) certain liabilities, including liabilities under the Securities Act of 1933, as amended (the “Securities Act”).

The Notes were offered and sold in a public offering registered under the Securities Act, pursuant to an automatic shelf registration statement on Form S-3 filed with the Securities and Exchange Commission on September 1, 2017 (Registration No. 333-220326) (the “Registration Statement”), including the prospectus supplement, dated June 28, 2018, to the prospectus contained in the Registration Statement.

The foregoing description of the Notes Underwriting Agreement is qualified by reference to the Notes Underwriting Agreement, which is filed as Exhibit 1.1 hereto and is incorporated by reference in this Item 1.01.

Base Indenture and Supplemental Indenture

The Company issued the Notes under an indenture, dated as of July 3, 2018 (the “Base Indenture”), between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), as supplemented by the First Supplemental Indenture, dated as of July 3, 2018 (the “Supplemental Indenture” and, together with the Base Indenture, the “Indenture”), between the Company and the Trustee.

The Notes are senior unsecured obligations of the Company and bear interest at a rate of 3.50% per year, payable semiannually in arrears on January 1 and July 1 of each year, beginning on January 1, 2019. The Notes will mature on July 1, 2023, unless earlier repurchased or converted. The Notes will be convertible into cash, shares of Common Stock or a combination of cash and shares, at the Company’s election. The conversion rate will initially be 58.6622 shares of Common Stock per \$1,000 principal amount of Notes (equivalent to an initial conversion price of approximately \$17.05 per share of Common Stock). The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date, the Company will increase the conversion rate for a holder who elects to convert its Notes in connection with such a corporate event in certain circumstances. Prior to the close of business on the business day immediately preceding April 1, 2023, the Notes will be convertible at the option of holders only upon the satisfaction of certain conditions. On or after April 1, 2023 until the close of business on the business day immediately preceding the maturity date, holders may convert their Notes at any time.

The Company may not redeem the Notes prior to the maturity date, and no sinking fund is provided for the Notes.

If the Company undergoes a “fundamental change,” holders of the Notes may require the Company to repurchase for cash all or any portion of their Notes at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The Indenture contains customary events of default including: (1) the Company’s default in any payment of interest on any Note when due and payable and the default continues for a period of 30 days; (2) the Company’s default in the payment of principal of any Note when due and payable at its stated maturity, upon any required repurchase, upon declaration of acceleration or otherwise; (3) the Company’s failure to comply with its obligation to convert the Notes in accordance with the Indenture upon exercise of a holder’s conversion right; (4) the Company’s failure to give a fundamental change notice or notice of a specified corporate transaction, in each case when due; (5) the Company’s failure to comply with its obligations under the Indenture with respect to consolidation, merger or

sale of assets of the Company; (6) the Company's failure, for a period of 60 days after written notice from the Trustee or the holders of at least 25% in principal amount of the Notes then outstanding, to comply with any of the Company's other agreements contained in the Notes or Indenture; (7) a default by the Company or any of its subsidiaries with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any indebtedness for money borrowed in excess of \$30.0 million in the aggregate of the Company and/or any such subsidiary (i) resulting in such indebtedness becoming or being declared due and payable or (ii) constituting a failure to pay the principal or interest of any such debt when due and payable at its stated maturity, upon required repurchase, upon declaration of acceleration or otherwise; (8) certain events of bankruptcy, insolvency or reorganization with respect to the Company or any of its significant subsidiaries; and (9) a final judgment for the payment of \$30.0 million or more (excluding any amounts covered by insurance) in the aggregate rendered against the Company or any of its subsidiaries, which judgment is not discharged, bonded, paid, waived or stayed within 60 days after (i) the date on which the right to appeal thereof has expired if no such appeal has commenced, or (ii) the date on which all rights to appeal have been extinguished.

If certain bankruptcy and insolvency-related events of default involving the Company or a significant subsidiary occur, the principal of, and accrued and unpaid interest on, all of the then outstanding Notes shall automatically become due and payable. If any other event of default occurs and is continuing, the Trustee by notice to the Company, or the holders of at least 25% in principal amount of the outstanding Notes, by notice to the Company and the Trustee, may declare the principal of, and accrued and unpaid interest on, all of the then outstanding Notes to be due and payable. Notwithstanding the foregoing, the Indenture provides that, to the extent the Company elects, the sole remedy for an event of default relating to certain failures by the Company to comply with Section 314(a)(1) of the Trust Indenture Act or comply with certain reporting covenants in the Indenture will, for the first 60 days after such event of default, consist exclusively of the right to receive additional interest on the Notes.

The Indenture provides that the Company shall not consolidate with or merge with or into, or sell, convey, transfer or lease all or substantially all of its properties and assets to, another person, unless (i) the resulting, surviving or transferee person (if not the Company) is a corporation organized and existing under the laws of the United States of America, any State thereof or the District of Columbia, and such corporation (if not the Company) expressly assumes by supplemental indenture all of the Company's obligations under the Notes and the Indenture; and (ii) immediately after giving effect to such transaction, no default or event of default has occurred and is continuing under the Indenture.

The foregoing description of the Base Indenture and the Supplemental Indenture (including the form of Note) is qualified by reference to the Base Indenture and the Supplemental Indenture, which are filed as Exhibits 4.1 and 4.2 hereto, respectively, and are incorporated by reference in this Item 1.01.

A copy of the opinion of Troutman Sanders LLP relating to the legality of the issuance and sale of the Notes in the Notes Offering is filed as Exhibit 5.1 hereto.

Share Lending Agreement and Borrowed Shares Offering

Concurrently with the Notes Offering, on June 28, 2018, the Company entered into a share lending agreement (the "Share Lending Agreement") with J.P. Morgan Securities LLC (in such capacity, the "Share Borrower") and JPMorgan Chase Bank, National Association, New York branch (as collateral agent), pursuant to which the Company agreed to lend 7,479,431 shares (the "Borrowed Shares") of common stock of the Company, no par value per share ("Common Stock"), to the Share Borrower. The Company delivered the Borrowed Shares to the Share Borrower on July 3, 2018. The share loan under the Share Lending Agreement will terminate, and the Borrowed Shares must be returned to the Company within five business days of such termination (subject to the Share Borrower's right to extend the settlement due date of the Borrowed Shares in certain circumstances), under the following circumstances: (a) termination by the Share Borrower and (b) the earliest to occur of (i) October 1, 2023 and (ii) the date, if any, on which the Share Lending Agreement is terminated by the parties upon mutual agreement or by one party upon a default with respect to the other party.

The Company also entered into an underwriting agreement (the “Borrowed Shares Underwriting Agreement”), dated June 28, 2018, with the Share Borrower. Pursuant to the Borrowed Shares Underwriting Agreement, the Borrowed Shares were offered and sold to the public at a price of \$13.37 per share, pursuant to a separate prospectus supplement, dated June 28, 2018, to the prospectus contained in the Registration Statement (the “Borrowed Shares Offering”). The Company did not receive any proceeds from the sale of the Borrowed Shares to the public. The Share Borrower or its affiliates received all of the proceeds from the sale of the Borrowed Shares to the public.

The Company has been informed by the Share Borrower that it or one of its affiliates intends to use the short position created by the share loan and the concurrent short sales of the Borrowed Shares to facilitate transactions by which investors in the Notes may hedge their investments through short sales of the Common Stock or privately negotiated derivatives transactions.

Randal J. Kirk, the Chairman, Chief Executive Officer and principal shareholder of the Company, and an entity with which he is affiliated, agreed with the Share Borrower to purchase all of the shares of Common Stock offered in the Borrowed Shares Offering.

The foregoing description of the Share Lending Agreement and the Borrowed Shares Underwriting Agreement is qualified by reference to the Share Lending Agreement and the Borrowed Shares Underwriting Agreement, which are filed as Exhibits 10.1 and 1.2 hereto, respectively, and are incorporated by reference in this Item 1.01.

A copy of the opinion of Troutman Sanders LLP relating to the legality of the issuance of the Borrowed Shares is filed as Exhibit 5.2 hereto.

Item 1.02 Termination of a Material Definitive Agreement.

On October 16, 2017, the Company entered into a Preferred Stock Equity Facility Agreement with Kapital Joe, LLC (“Kapital Joe”), an entity managed by Third Security, LLC, pursuant to which the Company may, at its sole and exclusive option, issue and sell to Kapital Joe, from time to time, and Kapital Joe is required to purchase, up to \$100 million of the Company’s Series A Redeemable Preferred Stock, no par value per share (the “Series A Preferred Stock”), at a purchase price per share of Series A Preferred Stock of \$100.00, as may be adjusted for Preferred Stock splits and similar events (the “Preferred Stock Facility”). Randal J. Kirk, the Company’s Chairman and Chief Executive Officer, serves as the Senior Managing Director and Chief Executive Officer and owns all of the outstanding equity interests of Third Security, LLC.

No shares of Series A Preferred Stock have been issued under the Preferred Stock Facility. On June 28, 2018, the Company entered into a Termination of Preferred Stock Equity Facility Agreement (the “Termination Agreement”) with Kapital Joe, pursuant to which the parties agreed to terminate the Preferred Stock Facility upon closing of the Notes Offering.

The foregoing description of the Termination Agreement is qualified by reference to the Termination Agreement, which is filed as Exhibit 10.2 hereto and is incorporated by reference in this Item 1.02.

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off Balance Sheet Arrangement of a Registrant.

The information set forth in Item 1.01 regarding the Indenture and the Notes is incorporated by reference into this Item 2.03.

Item 8.01 Other.

The Company estimates that the net proceeds from the Notes Offering will be approximately \$193.9 million, after deducting the Underwriter’s discounts and commissions and estimated offering expenses associated with the Notes Offering payable by the Company in connection with the Notes Offering and the Borrowed Shares Offering. The Company intends to use the net proceeds from the Notes Offering for general corporate purposes and for strategic acquisitions or investments, as described in the prospectus supplement for the Notes Offering.

The Company is filing the computation of its ratio of earnings to fixed charges for the three months ended March 31, 2018 and each of the five years from 2013 through 2017 as Exhibit 12.1 hereto, which is incorporated by reference into the Registration Statement.

The Company is filing information relating to Item 14 of the Registration Statement for the Notes Offering and the Borrowed Shares Offering as Exhibits 99.1 and 99.2 hereto, respectively, which are incorporated by reference into the Registration Statement.

Forward-Looking Statements

This current report on Form 8-K contains “forward-looking statements” within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, including, without limitation, statements about the Notes Offering and the Borrowed Shares Offering and the Company’s expectations regarding the expected net proceeds from the Notes Offering and use of those net proceeds. These statements relate to future events and involve known and unknown risks, uncertainties and other factors which may cause the Company’s actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. In some cases, forward-looking statements can be identified by such words as “anticipates,” “believes,” “plan,” “assumes,” “could,” “should,” “estimates,” “expects,” “intends,” “potential,” “seek,” “predict,” “may,” “will” and similar expressions. These statements reflect the Company’s current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent the Company’s estimates and assumptions only as of the date of this current report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

The following exhibits are filed herewith:

<u>Item No.</u>	<u>Description</u>
1.1	Notes Underwriting Agreement, dated June 28, 2018
1.2	Borrowed Shares Underwriting Agreement, dated June 28, 2018
4.1	Base Indenture, dated July 3, 2018
4.2	First Supplemental Indenture (including the form of 3.50% convertible senior notes due 2023), dated July 3, 2018
5.1	Opinion of Troutman Sanders LLP regarding the Notes
5.2	Opinion of Troutman Sanders LLP regarding the Borrowed Shares
10.1	Share Lending Agreement, dated June 28, 2018
10.2	Termination of Preferred Stock Equity Facility Agreement, dated June 28, 2018
12.1	Statement Regarding Computation of Ratio of Earnings to Fixed Charges
23.1	Consent of Troutman Sanders LLP (contained in Exhibit 5.1)
23.2	Consent of Troutman Sanders LLP (contained in Exhibit 5.2)
99.1	Information relating to Item 14 of the Registration Statement on Form S-3ASR (File No. 333-220326) for the Notes Offering
99.2	Information relating to Item 14 of the Registration Statement on Form S-3ASR (File No. 333-220326) for the Borrowed Shares Offering

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: July 3, 2018

INTREXON CORPORATION

By: /s/ Donald P. Lehr

Donald P. Lehr
Chief Legal Officer

INTREXON CORPORATION

3.50% Convertible Senior Notes due 2023

Underwriting Agreement

June 28, 2018

J.P. Morgan Securities LLC
As Representative of the
several Underwriters listed
in Schedule 1 hereto
c/o J.P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

Ladies and Gentlemen:

Intrexon Corporation, a Virginia corporation (the "Company"), proposes to issue and sell to the several underwriters listed in Schedule 1 hereto (the "Underwriters"), for whom you are acting as representative (the "Representative"), \$200,000,000 principal amount of its 3.50% Convertible Senior Notes due 2023 (the "Securities"). The Securities will be convertible into shares of common stock of the Company, no par value (the "Common Stock"), cash or a combination thereof, at the Company's option. The Securities will be issued pursuant to a Base Indenture to be dated as of July 3, 2018 (the "Base Indenture"), between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as supplemented by a Supplemental Indenture to be dated as of July 3, 2018 (the "Supplemental Indenture" and, together with the Base Indenture, the "Indenture") between the Company and the Trustee.

Concurrently with the issuance of the Securities, an aggregate of 7,479,431 shares of Common Stock (the "Borrowed Shares") are being offered in an offering registered under the Securities Act of 1933, as amended, and the rules and regulations of the Securities and Exchange Commission (the "Commission") thereunder (collectively, the "Securities Act"), by means of a prospectus supplement and related prospectus, which Borrowed Shares are being issued and loaned by the Company to J.P. Morgan Securities LLC (in such capacity, "Borrower") pursuant to the terms set forth in the share lending agreement (the "Share Lending Agreement"), dated as of the date hereof, among the Company, Borrower and JPMorgan Chase Bank, National Association, New York Branch, as Collateral Agent, and the Underwriting Agreement dated as of the date hereof (the "Borrowed Shares Underwriting Agreement") between the Company and J.P. Morgan Securities LLC, as Representative of the Underwriters party thereto.

The Company hereby confirms its agreement with the several Underwriters concerning the purchase and sale of the Securities, as follows:

1. Registration Statement. The Company has prepared and filed with the Commission under the Securities Act, an automatic shelf registration statement on Form S-3ASR (File No. 333-220326), including a prospectus, relating to the Securities. Such registration statement, as amended at the time it became effective, including the information, if any, deemed pursuant to Rule 430A, 430B or 430C under the Securities Act to be part of the registration statement at the time of its effectiveness ("Rule 430 Information"), is referred to herein as the "Registration Statement"; and as used herein, the term "Preliminary Prospectus" means any prospectus filed with the Commission pursuant to Rule 424(a) under the

Securities Act and the prospectus included in the Registration Statement at the time of its effectiveness that omits Rule 430 Information, and the term “Prospectus” means the prospectus in the form first used (or made available upon request of purchasers pursuant to Rule 173 under the Securities Act) in connection with confirmation of sales of the Securities. If the Company has filed an abbreviated registration statement pursuant to Rule 462(b) under the Securities Act (the “Rule 462 Registration Statement”), then any reference herein to the term “Registration Statement” shall be deemed to include such Rule 462 Registration Statement. Any reference in this underwriting agreement (this “Agreement”) to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act, as of the effective date of the Registration Statement or the date of such Preliminary Prospectus or the Prospectus, as the case may be, and any reference to “amend”, “amendment” or “supplement” with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any documents filed after such date under the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder (collectively, the “Exchange Act”) that are deemed to be incorporated by reference therein. Capitalized terms used but not defined herein shall have the meanings given to such terms in the Registration Statement and the Prospectus.

At or prior to the Applicable Time (as defined below), the Company had prepared the following information (collectively, the “Pricing Disclosure Package”): a Preliminary Prospectus dated June 27, 2018 and each “free-writing prospectus” (as defined pursuant to Rule 405 under the Securities Act) listed on Annex A hereto.

“Applicable Time” means 11:40 P.M., New York City time, on June 28, 2018.

2. Purchase of the Securities by the Underwriters. (a) The Company agrees to issue and sell the Securities to the several Underwriters as provided in this Agreement, and each Underwriter, on the basis of the representations, warranties and agreements set forth herein and subject to the conditions set forth herein, agrees, severally and not jointly, to purchase from the Company the respective principal amount of Securities set forth opposite such Underwriter’s name in Schedule 1 hereto at a price equal to 97.25% of the principal amount thereof plus accrued interest, if any, from July 3, 2018 to the Closing Date (as defined below).

(b) The Company understands that the Underwriters intend to make a public offering of the Securities as soon after the effectiveness of this Agreement as in the judgment of the Representative is advisable, and initially to offer the Securities on the terms set forth in the Pricing Disclosure Package. The Company acknowledges and agrees that the Underwriters may offer and sell Securities to or through any affiliate of an Underwriter and that any such affiliate may offer and sell Securities purchased by it to or through any Underwriter.

(c) Payment for the Securities shall be made by wire transfer in immediately available funds to the account specified by the Company to the Representative, at the offices of Goodwin Procter LLP at 10:00 A.M., New York City time, on July 3, 2018, or at such other time or place on the same or such other date, not later than the fifth business day thereafter, as the Representative and the Company may agree upon in writing. The time and date of such payment is referred to herein as the “Closing Date.”

Payment for the Securities to be purchased on the Closing Date shall be made against delivery to the nominee of The Depository Trust Company (“DTC”), for the respective accounts of the several Underwriters of the Securities of one or more global notes representing the Securities (collectively, the “Global Note”), with any transfer taxes payable in connection with the sale of such Securities duly paid by the Company. The Global Note will be made available for inspection by the Representative at the office of J.P. Morgan Securities LLC set forth above not later than 1:00 P.M., New York City time, on the business day prior to the Closing Date.

(d) The Company acknowledges and agrees that each Underwriter is acting solely in the capacity of an arm's length contractual counterparty to the Company with respect to the offering of Securities contemplated hereby (including in connection with determining the terms of the offering) and not as a financial advisor or a fiduciary to, or an agent of, the Company or any other person. Additionally, neither the Representative nor any other Underwriter is advising the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction. The Company shall consult with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the Underwriters shall have no responsibility or liability to the Company with respect thereto. Any review by the Underwriters of the Company, the transactions contemplated hereby or other matters relating to such transactions will be performed solely for the benefit of the Underwriters and shall not be on behalf of the Company.

3. Representations and Warranties of the Company. The Company represents and warrants to each Underwriter that:

(a) *Preliminary Prospectus.* No order preventing or suspending the use of any Preliminary Prospectus has been issued by the Commission, and each Preliminary Prospectus included in the Pricing Disclosure Package, at the time of filing thereof, complied in all material respects with the applicable requirements of the Securities Act, and no Preliminary Prospectus included in the Pricing Disclosure Package, at the time of filing thereof, contained any untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representative expressly for use in any Preliminary Prospectus, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 7(b) hereof.

(b) *Pricing Disclosure Package.* The Pricing Disclosure Package, as of the Applicable Time, did not, and as of the Closing Date will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representative expressly for use in such Pricing Disclosure Package, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 7(b) hereof.

(c) *Issuer Free Writing Prospectus.* Other than the Registration Statement, the Preliminary Prospectus and the Prospectus, the Company (including its agents and representatives, other than the Underwriters in their capacity as such) has not prepared, used, authorized, approved or referred to and will not prepare, use, authorize, approve or refer to any "written communication" (as defined in Rule 405 under the Securities Act) that constitutes an offer to sell or solicitation of an offer to buy the Securities (each such communication by the Company or its agents and representatives (other than a communication referred to in clause (i) below) an "Issuer Free Writing Prospectus") other than (i) any document not constituting a prospectus pursuant to Section 2(a)(10)(a) of the Securities Act or Rule 134 under the Securities Act or (ii) the documents listed on Annex A hereto, each electronic road show and any other

written communications approved in writing in advance by the Representative. Each such Issuer Free Writing Prospectus complied in all material respects with the Securities Act, has been or will be (within the time period specified in Rule 433) filed in accordance with the Securities Act (to the extent required thereby) and, when taken together with the Preliminary Prospectus filed prior to the first use of such Issuer Free Writing Prospectus, did not, and at the Closing Date will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in each such Issuer Free Writing Prospectus or Preliminary Prospectus in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representative expressly for use in such Issuer Free Writing Prospectus or Preliminary Prospectus, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 7(b) hereof.

(d) *Registration Statement and Prospectus.* The Registration Statement is an “automatic shelf registration statement” as defined under Rule 405 of the Securities Act that has been filed with the Commission not earlier than three (3) years prior to the date hereof; and no notice of objection of the Commission to the use of such Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act has been received by the Company. No order suspending the effectiveness of the Registration Statement has been issued by the Commission, and no proceeding for that purpose or pursuant to Section 8A of the Securities Act against the Company or related to the offering of the Securities has been initiated or, to the knowledge of the Company, threatened by the Commission; as of the applicable effective date of the Registration Statement and any post-effective amendment thereto, the Registration Statement and any such post-effective amendment complied and will comply in all material respects with the Securities Act and the Trust Indenture Act of 1939, as amended, and the rules and regulations of the Commission thereunder (collectively, the “Trust Indenture Act”), and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading; and as of the date of the Prospectus and any amendment or supplement thereto and as of the Closing Date, the Prospectus does not and will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to (i) that part of the Registration Statement that constitutes the Statement of Eligibility and Qualification (Form T-1) of the Trustee under the Trust Indenture Act or (ii) any statements or omissions made in reliance upon and in conformity with information furnished to the Company in writing by any Underwriter expressly for use in the Registration Statement and the Prospectus and any amendment or supplement thereto, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 7(b) hereof.

(e) *Incorporated Documents.* The documents incorporated by reference in each of the Registration Statement, the Prospectus and the Pricing Disclosure Package, when they were filed with the Commission conformed in all material respects to the requirements of the Exchange Act, and none of such documents contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Prospectus or the Pricing Disclosure Package, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(f) *Financial Statements.* The financial statements (including the related notes thereto) of the Company and its consolidated subsidiaries included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus comply in all material respects with the applicable requirements of the Securities Act and the Exchange Act, as applicable, and present fairly in all material respects the financial position of the Company and its consolidated subsidiaries as of the dates indicated and the results of their operations and the changes in their cash flows for the periods specified; such financial statements have been prepared in conformity with generally accepted accounting principles in the United States applied on a consistent basis throughout the periods covered thereby, except in the case of any unaudited financial statements, which are subject to normal year-end adjustments and do not contain certain footnotes as permitted by the applicable rules of the Commission, and any supporting schedules included or incorporated by reference in the Registration Statement present fairly in all material respects the information required to be stated therein; and the other financial information included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby; and the pro forma financial information and the related notes thereto included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus have been prepared in accordance with the applicable requirements of the Securities Act and the Exchange Act, as applicable, and the assumptions underlying such pro forma financial information are reasonable and are set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(g) *No Material Adverse Change.* Since the date of the most recent financial statements of the Company included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (i) there has not been any change in the capital stock (other than the issuance of shares of Common Stock upon exercise of stock options and warrants described as outstanding in, and the grant of options and awards under existing equity incentive plans described in, the Registration Statement, the Pricing Disclosure Package and the Prospectus), short-term debt (outside the ordinary course of business) or long-term debt of the Company or any of its subsidiaries, or any dividend or distribution of any kind declared, set aside for payment, paid or made by the Company on any class of capital stock, or any material adverse change, or any development involving a prospective material adverse change, in or affecting the business, properties, management, financial position, shareholders' equity or results of operations of the Company and its subsidiaries taken as a whole; (ii) neither the Company nor any of its subsidiaries has entered into any transaction or agreement (whether or not in the ordinary course of business) that is material to the Company and its subsidiaries taken as a whole or incurred any liability or obligation, direct or contingent, that is material to the Company and its subsidiaries taken as a whole; and (iii) neither the Company nor any of its subsidiaries has sustained any loss or interference with its business that is material to the Company and its subsidiaries taken as a whole and that is either from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or any action, order or decree of any court or arbitrator or governmental or regulatory authority, except in each of clauses (i)-(iii) as otherwise disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(h) *Organization and Good Standing.* The Company and each of its subsidiaries have been duly organized and are validly existing and in good standing (or jurisdictional equivalent) under the laws of their respective jurisdictions of organization, are duly qualified to do business and are in good standing in each jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such qualification, and have all corporate power and authority necessary to own or hold their respective properties and to conduct the businesses in which they are engaged, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, have a material adverse effect on the business, properties, management, financial position, shareholders' equity, results of operations or prospects of the Company and its subsidiaries taken as a whole

or on the performance by the Company of its obligations under the Transaction Documents (as defined below) (a “Material Adverse Effect”). The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21.1 to its Annual Report on Form 10-K for the year ended December 31, 2017.

(i) *Capitalization.* The Company has an authorized capitalization as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus under the heading “Capitalization”; all the outstanding shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable and are not subject to any pre-emptive or similar rights that have not been duly waived or satisfied; except as described in or expressly contemplated by the Pricing Disclosure Package and the Prospectus, there are no outstanding rights (including, without limitation, pre-emptive rights), warrants or options to acquire, or instruments convertible into or exchangeable for, any shares of capital stock or other equity interest in the Company or any of its wholly owned subsidiaries, or any contract, commitment, agreement, understanding or arrangement of any kind relating to the issuance of any capital stock of the Company or any of its wholly owned subsidiaries, any such convertible or exchangeable securities or any such rights, warrants or options; and the capital stock of the Company conforms in all material respects to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and all the outstanding shares of capital stock or other equity interests of each subsidiary owned, directly or indirectly, by the Company have been duly and validly authorized and issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of any lien, charge, encumbrance, security interest, restriction on voting or transfer or any other claim of any third party.

(j) *Stock Options.* With respect to the outstanding stock options (the “Stock Options”) granted pursuant to the stock-based compensation plans of the Company and its subsidiaries (the “Company Stock Plans”), (i) each Stock Option intended to qualify as an “incentive stock option” under Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”), so qualifies, (ii) each grant of a Stock Option was duly authorized no later than the date on which the grant of such Stock Option was by its terms to be effective (the “Grant Date”) by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required shareholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto, (iii) each such grant was made in all material respects in accordance with the terms of the Company Stock Plans and all applicable laws and regulatory rules or requirements, and (iv) each such grant was properly accounted for in accordance with GAAP in the financial statements (including the related notes) of the Company.

(k) *Due Authorization.* The Company has full corporate right, power and authority to execute and deliver this Agreement, the Indenture, the Securities and the Share Lending Agreement (collectively, the “Transaction Documents”) and to perform its obligations hereunder and thereunder; and all corporate action required to be taken for the due and proper authorization, execution and delivery by it of each of the Transaction Documents and the consummation by it of the transactions contemplated thereby or hereby has been duly and validly taken.

(l) *The Indenture.* The Indenture has been duly authorized by the Company and on the Closing Date will have been duly executed and delivered in accordance with its terms by the Company and, assuming the due authorization, execution and delivery by the Trustee, will constitute a valid and legally binding agreement of the Company enforceable against the Company in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors’ rights generally or by equitable principles relating to enforceability (collectively, the “Enforceability Exceptions”) and has been duly qualified under the Trust Indenture Act and will conform in all material respects to the requirements of the Trust Indenture Act.

(m) *Underwriting Agreement.* This Agreement has been duly authorized, executed and delivered by the Company.

(n) *The Securities.* The Securities to be issued and sold by the Company hereunder have been duly authorized by the Company and, when duly executed, authenticated, issued and delivered as provided in the Indenture and paid for as provided herein, will be duly and validly issued and outstanding and will constitute valid and legally binding obligations of the Company enforceable against the Company in accordance with their terms, subject to the Enforceability Exceptions, and will be entitled to the benefits of the Indenture.

(o) *The Conversion Shares.* Upon issuance and delivery of the Securities in accordance with this Agreement and the Indenture, the Securities will be convertible at the option of the holder thereof into shares of Common Stock, cash or a combination thereof, at the Company's election, in accordance the terms of the Securities. The maximum number of shares of Common Stock initially issuable upon conversion of the Securities (including the maximum number of shares that may be issued upon any conversions of Securities in connection with any "make-whole fundamental change" (as such term is defined in the Preliminary Prospectus) and assuming the Company elects to issue and deliver solely shares of Common Stock in respect of all conversions (the "Conversion Shares")) has been duly authorized and reserved for issuance upon the conversion of the Securities and, when issued upon conversion of the Securities in accordance with the terms of the Securities and the Indenture, such Conversion Shares will be validly issued, fully paid and non-assessable, and the issuance of such Conversion Shares will not be subject to any preemptive or similar rights.

(p) *Share Lending Agreement.* The Share Lending Agreement has been duly authorized, executed and delivered by the Company and constitutes a valid and legally binding agreement of the Company enforceable against the Company in accordance with its terms, subject to the Enforceability Exceptions.

(q) *The Borrowed Shares.* The Borrowed Shares have been duly authorized and, when issued and delivered as provided in the Share Lending Agreement and the Borrowed Shares Underwriting Agreement, will be duly and validly issued, will be fully paid and non-assessable and will conform to the descriptions thereof in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and the issuance of the Borrowed Shares is not subject to any preemptive or similar rights that have not been duly waived.

(r) *Descriptions of the Transaction Documents.* Each Transaction Document conforms in all material respects to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(s) *No Violation or Default.* Neither the Company nor any of its subsidiaries is (i) in violation of its charter or bylaws or similar organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject (collectively, "Company Contracts"); or (iii) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except, in the case of clauses (ii) and (iii) above, for any such default or violation that would not, individually or in the aggregate, have a Material Adverse Effect. To the knowledge of the Company, all third parties that are parties to any Company Contracts are in compliance with the terms, covenants and conditions contained in such Company Contracts, except for any violation that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(t) *No Conflicts.* The execution, delivery and performance by the Company of each of the Transaction Documents, the issuance and sale of the Securities (including the issuance of the Conversion Shares upon conversion thereof) and the consummation of the transactions contemplated by the Transaction Documents will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, (ii) result in any violation of the provisions of the charter or by-laws or similar organizational documents of the Company or any of its subsidiaries or (iii) result in the violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except, in the case of clauses (i) and (iii) above, for any such conflict, breach, violation or default that would not, individually or in the aggregate, have a Material Adverse Effect.

(u) *No Consents Required.* No consent, approval, authorization, order, licenses, registration or qualification of or with any court or arbitrator or governmental or regulatory authority is required for the execution, delivery and performance by the Company of each of the Transaction Documents, the issuance and sale of the Securities (including the issuance of the Conversion Shares upon conversion thereof) and the consummation of the transactions contemplated by the Transaction Documents, except for the registration of the Securities under the Securities Act, the qualification of the Indenture under the Trust Indenture Act and such consents, approvals, authorizations, orders and registrations or qualifications as may be required by the Financial Industry Regulatory Authority, Inc. (“FINRA”), the New York Stock Exchange, under applicable state securities laws in connection with the purchase and distribution of the Securities by the Underwriters and the waiver under that certain Eighth Amended and Restated Investors’ Rights Agreement, dated as of March 1, 2013, from certain investors in our capital stock.

(v) *Legal Proceedings.* Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no legal, governmental or regulatory investigations, actions, suits or proceedings pending to which the Company or any of its subsidiaries is a party or to which any property of the Company or any of its subsidiaries is the subject that, individually or in the aggregate, if determined adversely to the Company or any of its subsidiaries, would reasonably be expected to have a Material Adverse Effect; to the knowledge of the Company, no such investigations, actions, suits or proceedings are threatened or contemplated by any governmental or regulatory authority or threatened by others; and (i) there are no current or pending legal, governmental or regulatory actions, suits or proceedings that are required under the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that are not so described in the Registration Statement, the Pricing Disclosure Package and the Prospectus and (ii) there are no statutes, regulations or contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement or described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that are not so filed as exhibits to the Registration Statement or described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(w) *Independent Accountants.* PricewaterhouseCoopers LLC who have certified certain financial statements of the Company and its subsidiaries, and RSM US LLP, who have certified certain financial statements of ZIOPHARM Oncology, Inc., is each an independent registered public accounting firm with respect to the Company and its subsidiaries and ZIOPHARM Oncology, Inc., as applicable, within the applicable rules and regulations adopted by the Commission and the Public Company Accounting Oversight Board (United States) and as required by the Securities Act.

(x) *Title to Real and Personal Property.* The Company owns no real property and the Company and its subsidiaries have valid rights to lease or otherwise use, all items of real and personal property that are material to the respective businesses of the Company and its subsidiaries, in each case free and clear of all liens, encumbrances, claims and defects and imperfections of title except those that (i) do not materially interfere with the use made and proposed to be made of such property by the Company and its subsidiaries or (ii) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(y) *Intellectual Property.* Except as described, or incorporated by reference, in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company and its subsidiaries own or possess adequate rights to use all material patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, domain names, goodwill associated with the foregoing, copyrights, licenses, inventions, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) and other technology and intellectual property rights (“Intellectual Property.”) necessary for the conduct of its business as currently conducted and as proposed to be conducted as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except where the failure to own or possess adequate rights to use such Intellectual Property would not reasonably be expected to have a Material Adverse Effect; and, to the knowledge of the Company, the conduct of their respective businesses as currently conducted and as proposed to be conducted as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, does not infringe, misappropriate or otherwise violate any such rights of others, except as would not reasonably be expected to have a Material Adverse Effect. Except as would not reasonably be expected to have a Material Adverse Effect, the Company has not received any notice in the past six years or any written notice of any claim of infringement, misappropriation or other violation of any Intellectual Property of any third party, or any claim challenging the validity, scope, or enforceability of any Intellectual Property owned by or licensed to the Company or the Company’s rights therein, excluding office actions before the U.S. Patent and Trademark Office and foreign patent and trademark offices arising in the ordinary course of prosecuting any pending applications included within such Intellectual Property. Except as would not reasonably be expected to have a Material Adverse Effect, to the knowledge of the Company, no third party has infringed, misappropriated or otherwise used Intellectual Property owned by the Company in conflict with the Company’s rights therein. Except as described, or incorporated by reference, in the Registration Statement, the Pricing Disclosure Package and the Prospectus, all Intellectual Property owned by the Company is owned solely by the Company and is owned free and clear of all material liens, encumbrances, defects or other restrictions. Except as would not reasonably be expected to have a Material Adverse Effect, all licenses pursuant to which any material Intellectual Property is licensed to the Company are free and clear of all liens and free of any restrictions or defects that would conflict with the conduct of the business of the Company. The Company has no knowledge of any specific facts that would support a finding that any of the issued or granted patents owned by or licensed to the Company is invalid or unenforceable and, to the knowledge of the Company, all such issued or granted patents are valid and enforceable. To the knowledge of the Company, there is no patent or patent application of any third party that contains claims that would interfere with a patent or patent application owned by or licensed to the Company or any of its subsidiaries, and no such patent interference has been provoked or declared. The Company is not subject to any judgment, order, writ, injunction or decree of any court or any federal, state, local, foreign or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any arbitrator, nor has it entered into or is it a party to any agreement made in settlement of any pending or threatened litigation, which materially restricts or impairs their respective use of any Intellectual Property. The Company and its subsidiaries have taken all reasonable steps necessary to secure interests in the Intellectual Property owned by the Company from their employees, consultants, agents and contractors. There are no outstanding options, licenses or agreements of any kind relating to the Intellectual Property owned by the Company or any of its subsidiaries that are required to be described in the Registration

Statement, the General Disclosure Package and the Prospectus and are not described in all material respects. The Company and its subsidiaries are not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property of any other person or entity that are required to be set forth in the Prospectus and are not described in all material respects. To the knowledge of the Company, no governmental agency or body or other third party has any claim or right in or to any Intellectual Property owned by the Company or any of its subsidiaries, except as would not reasonably be expected to have a Material Adverse Effect on the conduct of its business as currently conducted and as proposed to be conducted as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus. No software governed by a license commonly referred to as an open source, free software, copyleft or community source code license, including, but not limited to, the GNU General Public License or GNU Lesser General Public License (such software, "Open Source Software"), is used by the Company or any of its subsidiaries in a manner that obligates the Company to (A) distribute or disclose any other software combined, distributed or otherwise made available with such Open Source Software in source code form or (B) license or otherwise make available such Open Source Software and/or other software combined, distributed or otherwise made commercially available with such Open Source Software or any associated Intellectual Property on a royalty free basis, except as would not reasonably be expected to have a Material Adverse Effect. The Company and its subsidiaries have taken all reasonable security measures to protect its rights in material confidential information and material trade secrets they own, including, without limitation, requiring each employee and consultant and any other person with access to material trade secrets to execute a binding confidentiality agreement and, to the knowledge of the Company, there has not been any breach by any party to such confidentiality agreements, except where such breach would not reasonably be expected to have a Material Adverse Effect.

(z) *No Undisclosed Relationships.* No relationship, direct or indirect, exists between or among the Company or any of its subsidiaries, on the one hand, and the directors, officers, shareholders, customers or suppliers of the Company or any of its subsidiaries, on the other, that is required by the Securities Act to be described in the Registration Statement and the Prospectus and that is not so described in such documents and in the Pricing Disclosure Package.

(aa) *Investment Company Act.* The Company is not and, after giving effect to the offering and sale of the Securities and the application of the proceeds thereof as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be required to register as an "investment company" or an entity "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder (the "Investment Company Act").

(bb) *Taxes.* The Company and its subsidiaries have filed all material tax returns that are required to have been filed by them pursuant to applicable state, local or foreign law, and have paid all taxes shown thereon or otherwise assessed, which are due and payable, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided; and except as otherwise disclosed, or incorporated by reference, in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there is no material tax deficiency that has been, or would reasonably be expected to be, asserted against the Company or any of its subsidiaries or any of their respective properties or assets.

(cc) *Licenses and Permits.* The Company and its subsidiaries possess all licenses, certificates, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental or regulatory authorities that are necessary for the ownership or lease of their respective properties or the conduct of their respective businesses as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except where the failure to possess or make the same would not, individually or in the aggregate, have a Material Adverse Effect;

and except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, neither the Company nor any of its subsidiaries has received notice of any revocation or modification of any such license, certificate, permit or authorization or has any reason to believe that any such license, certificate, permit or authorization will not be renewed in the ordinary course, except where such revocation, modification or nonrenewal would not reasonably be expected to have a Material Adverse Effect.

(dd) *No Labor Disputes.* No labor disturbance by or dispute with employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is contemplated or threatened, and the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, except as would not have a Material Adverse Effect.

(ee) *Compliance with and Liability under Environmental Laws.* (i) The Company and its subsidiaries (a) are, and during the past five years were, in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, requirements, decisions, judgments, decrees, orders and the common law relating to pollution or the protection of the environment, natural resources or human health or safety, including those relating to the generation, storage, treatment, use, handling, transportation, Release (as defined below) or threat of Release of Hazardous Materials (as defined below) (collectively, "Environmental Laws"), (b) have received and are in compliance with all permits, licenses, certificates or other authorizations or approvals required of them under applicable Environmental Laws to conduct their respective businesses, (c) have not received notice of any actual or potential liability under or relating to, or actual or potential violation of, any Environmental Laws, including for the investigation or remediation of any Release or threat of Release of Hazardous Materials, and have no knowledge of any event or condition that would reasonably be expected to result in any such notice, (d) are not conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any Environmental Law at any location, and (e) are not a party to any order, decree or agreement that imposes any obligation or liability under any Environmental Law, and (ii) there are no costs or liabilities associated with Environmental Laws of or relating to the Company or its subsidiaries, except in the case of each of (i) and (ii) above, for any such matter, as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (iii) except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) there are no proceedings that are pending, or that are known by the Company to be contemplated, against the Company or any of its subsidiaries under any Environmental Laws in which a governmental entity is also a party, other than such proceedings regarding which it is reasonably believed no monetary sanctions of \$100,000 or more will be imposed against the Company or any of its subsidiaries, (b) to the knowledge of the Company, there are no facts or issues regarding compliance with Environmental Laws, or liabilities or other obligations under Environmental Laws, including the Release or threat of Release of Hazardous Materials, that would reasonably be expected to have a Material Adverse Effect, and (c) none of the Company and its subsidiaries anticipates material capital expenditures relating to any Environmental Laws.

(ff) *Regulatory Compliance.* Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, to the knowledge of the Company, all third parties that are collaborating with the Company are (i) in material compliance with all applicable statutes, rules and regulations of the applicable regulatory authorities (collectively, “Applicable Laws”) and (ii) have not received any notice of adverse finding, warning letter, untitled letter or other correspondence or notice from any regulatory authority alleging or asserting material noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, exemptions, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws, in either case of (i) or (ii) above, solely related to products being developed in collaboration with the Company.

(gg) *Hazardous Materials.* There has been no storage, generation, transportation, use, handling, treatment, Release (as defined below) or threat of Release of Hazardous Materials (as defined below) by, relating to or caused by the Company or any of its subsidiaries (or, to the knowledge of the Company and its subsidiaries, any other entity (including any predecessor) for whose acts or omissions the Company or any of its subsidiaries is or would reasonably be expected to be liable) at, on, under or from any property or facility now or, to the knowledge of the Company, previously owned, operated or leased by the Company or any of its subsidiaries, or, to the knowledge of the Company, at, on, under or from any other property or facility, in violation of any Environmental Laws or in a manner or amount or to a location that would reasonably be expected to result in any liability under any Environmental Law, except for any violation or liability which would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. “Hazardous Materials” means any material, chemical, substance, waste, pollutant, contaminant, compound, mixture, or constituent thereof, in any form or amount, including petroleum (including crude oil or any fraction thereof) and petroleum products, natural gas liquids, asbestos and asbestos containing materials, naturally occurring radioactive materials, brine, and drilling mud, regulated or which can give rise to liability under any Environmental Law. “Release” means any spilling, leaking, seepage, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, disposing, depositing, dispersing, or migrating in, into or through the environment, or in, into, from or through any building or structure.

(hh) *Compliance with ERISA.* Except, in each case, for any such matter as would not, individually, or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), for which the Company or any member of its “Controlled Group” (defined as any organization which is a member of a controlled group of corporations within the meaning of Section 414 of the Code) would have any liability (each, a “Plan”) has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan excluding transactions effected pursuant to a statutory or administrative exemption; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, the minimum funding standard of Section 412 of the Code or Section 302 of ERISA, as applicable, has been satisfied (without taking into account any waiver thereof or extension of any amortization period) and is reasonably expected to be satisfied in the future (without taking into account any waiver thereof or extension of any amortization period); (iv) the fair market value of the assets of each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (v) no “reportable event” (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur; (vi) neither the Company nor any member of the Controlled Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the PBGC, in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan”, within the meaning of Section 4001(a)(3) of ERISA); and (vii) to the knowledge of the Company, there is no pending audit or

investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other governmental agency or any foreign regulatory agency with respect to any Plan. None of the following events has occurred or, to the knowledge of the Company, is reasonably likely to occur: (x) a material increase in the aggregate amount of contributions required to be made to all Plans by the Company or its subsidiaries in the current fiscal year of the Company and its subsidiaries compared to the amount of such contributions made in the Company and its subsidiaries' most recently completed fiscal year; or (y) an increase that is material to the Company and its subsidiaries, taken as a whole, in the Company and its subsidiaries' "accumulated post-retirement benefit obligations" (within the meaning of Statement of Financial Accounting Standards 106) compared to the amount of such obligations in the Company and its subsidiaries' most recently completed fiscal year.

(ii) *Disclosure Controls.* The Company and its subsidiaries maintain an effective system of "disclosure controls and procedures" (as defined in Rule 13a-15(e) of the Exchange Act) that complies with the requirements of the Exchange Act and that has been designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company's management as appropriate to allow timely decisions regarding required disclosure.

(jj) *Accounting Controls.* The Company and its subsidiaries maintain systems of "internal control over financial reporting" (as defined in Rule 13a-15(f) of the Exchange Act) that have been designed to comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences and (v) interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no material weaknesses in the Company's internal control over financial reporting. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which have adversely affected or are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

(kk) *eXtensible Business Reporting Language.* The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(ll) *Insurance.* The Company and its subsidiaries have insurance covering their respective properties, operations, personnel and businesses, including business interruption insurance, which insurance is in amounts and insures against such losses and risks as the Company reasonably believes are adequate to protect the Company and its subsidiaries and their respective businesses; and neither the Company nor any of its subsidiaries has (i) received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance or (ii) any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business in all material respects.

(mm) *No Unlawful Payments.* Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person authorized to act on behalf of the Company or any of its subsidiaries has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company and its subsidiaries have instituted, maintain and enforce, and will continue to maintain and enforce policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

(nn) *Compliance with Anti-Money Laundering Laws.* The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “Anti-Money Laundering Laws”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(oo) *No Conflicts with Sanctions Laws.* None of the Company, any of its subsidiaries, or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person associated with or authorized to act on behalf of the Company or any of its subsidiaries is currently the subject or the target of any sanctions administered or enforced by the U.S. government, (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, Her Majesty’s Treasury or other relevant sanctions authority (collectively, “Sanctions”), nor is the Company, any of its subsidiaries located, organized or resident in a country or territory that is the subject or target of Sanctions, including, without limitation, Cuba, Iran, North Korea, Syria and Crimea (each, a “Sanctioned Country”); and the Company will not directly or indirectly use the proceeds of the offering of the Securities hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person that, at the time of such funding or facilitation, is the subject or target of Sanctions, (ii) to fund or facilitate any activities of or business in any Sanctioned Country or (iii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or

otherwise) of Sanctions. For the past five years, the Company and its subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

(pp) *No Restrictions on Subsidiaries.* Except as prohibited by law, no wholly owned subsidiary of the Company is currently prohibited, directly or indirectly, under any agreement or other instrument to which it is a party or is subject, from paying any dividends to the Company, from making any other distribution on such wholly owned subsidiary's capital stock or similar ownership interest, from repaying to the Company any loans or advances to such wholly owned subsidiary from the Company or from transferring any of such wholly owned subsidiary's properties or assets to the Company or any other subsidiary of the Company.

(qq) *No Broker's Fees.* Neither the Company nor any of its subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Company or any of its subsidiaries or any Underwriter for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Securities.

(rr) *No Registration Rights.* Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no person has the right to require the Company or any of its subsidiaries to register any securities for sale under the Securities Act by reason of the filing of the Registration Statement with the Commission or the issuance and sale of the Securities, except for such rights that have been waived.

(ss) *No Stabilization.* The Company has not taken, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in any stabilization or manipulation of the price of the Securities.

(tt) *Margin Rules.* The application of the proceeds received by the Company from the issuance, sale and delivery of the Securities as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus will not violate Regulation T, U or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

(uu) *Forward-Looking Statements.* No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(vv) *Statistical and Market Data.* Nothing has come to the attention of the Company that has caused the Company to believe that the statistical and market-related data included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus is not based on or derived from sources that are reliable and accurate in all material respects.

(ww) *Sarbanes-Oxley Act.* There is and has been no failure on the part of the Company or, to the knowledge of the Company, any of the Company's directors or officers, in their capacities as such, to comply with any applicable provision of the Sarbanes-Oxley Act of 2002, as amended and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

(xx) *Status under the Securities Act.* At the time of filing the Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or any offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Securities and at the date hereof, the Company was not and is not an “ineligible issuer,” and is a well-known seasoned issuer, in each case as defined in Rule 405 under the Securities Act.

(yy) *No Ratings.* There are no securities or preferred stock of or guaranteed by the Company or any of its subsidiaries that are rated by a “nationally recognized statistical rating organization,” as such term is defined under Section 3(a)(62) under the Exchange Act.

4. Further Agreements of the Company. The Company covenants and agrees with each Underwriter that:

(a) *Required Filings.* The Company will file the final Prospectus with the Commission within the time periods specified by Rule 424(b) and Rule 430A, 430B or 430C under the Securities Act, will file any Issuer Free Writing Prospectus (including the term sheet substantially in the form of Annex B hereto) to the extent required by Rule 433 under the Securities Act; and the Company will furnish copies of the Prospectus and each Issuer Free Writing Prospectus (to the extent not previously delivered) to the Underwriters in New York City prior to 10:00 A.M., New York City time, on the business day next succeeding the date of this Agreement in such quantities as the Representative may reasonably request. The Company will pay the registration fee for this offering within the time period required by Rule 456(b)(1) under the Securities Act (without giving effect to the proviso therein) and in any event prior to the Closing Date.

(b) *Delivery of Copies.* The Company will deliver, without charge, (i) to the Representative, two (2) signed copies of the Registration Statement as originally filed and each amendment thereto, in each case including all exhibits and consents filed therewith and documents incorporated by reference therein; and (ii) to each Underwriter (A) a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) and (B) during the Prospectus Delivery Period (as defined below), as many copies of the Prospectus (including all amendments and supplements thereto and documents incorporated by reference therein) and each Issuer Free Writing Prospectus as the Representative may reasonably request. As used herein, the term “Prospectus Delivery Period” means such period of time after the first date of the public offering of the Securities as in the opinion of counsel for the Underwriters a prospectus relating to the Securities is required by law to be delivered (or required to be delivered but for Rule 172 under the Securities Act) in connection with sales of the Securities by any Underwriter or dealer.

(c) *Amendments or Supplements, Issuer Free Writing Prospectuses.* Before preparing, using, authorizing, approving, referring to or filing any Issuer Free Writing Prospectus, and before filing any amendment or supplement to the Registration Statement or the Prospectus, whether before or after the time that the Registration Statement becomes effective, the Company will furnish to the Representative and counsel for the Underwriters a copy of the proposed Issuer Free Writing Prospectus, amendment or supplement for review and will not prepare, use, authorize, approve, refer to or file any such Issuer Free Writing Prospectus or file any such proposed amendment or supplement to which the Representative reasonably objects.

(d) *Notice to the Representative.* The Company will advise the Representative promptly, and confirm such advice in writing, (i) when the Registration Statement has become effective; (ii) when any amendment to the Registration Statement has been filed or becomes effective; (iii) when any supplement to the Prospectus or any Issuer Free Writing Prospectus or any amendment to the Prospectus has been filed or distributed; (iv) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or the receipt of any comments from the Commission relating to the Registration Statement or any other request by the Commission for any

additional information; (v) of the issuance by the Commission of any order suspending the effectiveness of the Registration Statement or preventing or suspending the use of any Preliminary Prospectus, any of the Pricing Disclosure Package or the Prospectus or the initiation or, to the knowledge of the Company, threatening of any proceeding for that purpose or pursuant to Section 8A of the Securities Act; (vi) of the occurrence of any event or development within the Prospectus Delivery Period as a result of which the Prospectus, the Pricing Disclosure Package or any Issuer Free Writing Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Prospectus, the Pricing Disclosure Package or any such Issuer Free Writing Prospectus is delivered to a purchaser, not misleading; and (vii) of the receipt by the Company of any notice of objection of the Commission to the use of the Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act; and (viii) of the receipt by the Company of any notice with respect to any suspension of the qualification of the Securities for offer and sale in any jurisdiction or the initiation or, to the knowledge of the Company, threatening of any proceeding for such purpose; and the Company will use its commercially reasonable best efforts to prevent the issuance of any such order suspending the effectiveness of the Registration Statement, preventing or suspending the use of any Preliminary Prospectus, any of the Pricing Disclosure Package or the Prospectus or suspending any such qualification of the Securities and, if any such order is issued, will obtain as soon as possible the withdrawal thereof.

(e) *Ongoing Compliance.* (1) If during the Prospectus Delivery Period (i) any event or development shall occur or condition shall exist as a result of which the Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Prospectus is delivered to a purchaser, not misleading or (ii) it is necessary to amend or supplement the Prospectus to comply with law, the Company will as soon as practicable, but in no event later than one (1) business day, notify the Underwriters thereof and forthwith prepare and, subject to paragraph (c) above, file with the Commission and furnish to the Underwriters and to such dealers as the Representative may designate, such amendments or supplements to the Prospectus (or any document to be filed with the Commission and incorporated by reference therein) as may be necessary so that the statements in the Prospectus as so amended or supplemented (or any document to be filed with the Commission and incorporated by reference therein) will not, in the light of the circumstances existing when the Prospectus is delivered to a purchaser, be misleading or so that the Prospectus will comply with law and (2) if at any time prior to the Closing Date (i) any event or development shall occur or condition shall exist as a result of which the Pricing Disclosure Package as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Pricing Disclosure Package is delivered to a purchaser, not misleading or (ii) it is necessary to amend or supplement the Pricing Disclosure Package to comply with law, the Company will immediately notify the Underwriters thereof and forthwith prepare and, subject to paragraph (c) above, file with the Commission (to the extent required) and furnish to the Underwriters and to such dealers as the Representative may designate, such amendments or supplements to the Pricing Disclosure Package (or any document to be filed with the Commission and incorporated by reference therein) as may be necessary so that the statements in the Pricing Disclosure Package as so amended or supplemented will not, in the light of the circumstances existing when the Pricing Disclosure Package is delivered to a purchaser, be misleading or so that the Pricing Disclosure Package will comply with applicable law.

(f) *Blue Sky Compliance.* The Company will use its commercially reasonable best efforts, with the Underwriters' cooperation, if necessary, to qualify the Securities for offer and sale under the securities or Blue Sky laws of such jurisdictions as the Representative shall reasonably request and will use its commercially reasonable best efforts, with the Underwriters' cooperation, if necessary, to continue

such qualifications in effect so long as required for distribution of the Securities; provided that the Company shall not be required to (i) qualify as a foreign corporation or other entity or as a dealer in securities in any such jurisdiction where it would not otherwise be required to so qualify, (ii) file any general consent to service of process in any such jurisdiction or (iii) subject itself to taxation in any such jurisdiction if it is not otherwise so subject.

(g) *Earning Statement.* The Company will make generally available to its security holders and the Representative as soon as practicable an earning statement that satisfies the provisions of Section 11(a) of the Securities Act and Rule 158 of the Commission promulgated thereunder covering a period of at least twelve (12) months beginning with the first fiscal quarter of the Company occurring after the “effective date” (as defined in Rule 158) of the Registration Statement, it being understood and agreed that such earning statement shall be deemed to have been made available by the Company if the Company is in compliance with its reporting obligations pursuant to the Exchange Act, if such compliance satisfies the conditions of Rule 158, and if such earning statement is made available on the Commission’s Electronic Data Gathering, Analysis and Retrieval system (“EDGAR”).

(h) *Clear Market.* For a period of ninety (90) days after the date of the Prospectus, the Company will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file with the Commission a registration statement under the Securities Act relating to, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing (other than filings on Form S-8 relating to Company Stock Plans that are in existence at the Applicable Time and disclosed in the Prospectus), or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, without the prior written consent of J.P. Morgan Securities LLC, other than (A) the Securities to be sold hereunder, (B) any shares of Common Stock of the Company issued upon the exercise of options granted under the Company Stock Plans, (C) any shares of Common Stock of the Company issued upon the exercise of warrants outstanding on the date of the Prospectus, (D) sales of shares pursuant to the Company’s employee stock purchase plan and grants of equity awards granted under Company Stock Plans, in each case as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (E) the issuance of up to that number of shares equal to seven percent (7%) of the Company’s outstanding shares of Common Stock, calculated prior to the issuance of the Common Stock to J.P. Morgan Securities LLC pursuant to the Share Lending Agreement, in connection with mergers or acquisitions of businesses, entities, property or other assets, joint ventures or strategic alliances (“Carveout Shares”), provided that the Company shall cause each such recipient of Carveout Shares to execute and deliver to the Representative a lock-up letter substantially in the form of Exhibit A hereto for the balance of the 90-day restricted period and (F) effect the transactions contemplated by the Share Lending Agreement (including, without limitation, the issuance of the Borrowed Shares).

(i) *Use of Proceeds.* The Company will apply the net proceeds from the sale of the Securities as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus under the heading “Use of proceeds”.

(j) *No Stabilization.* The Company will not take, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in any stabilization or manipulation of the price of the Securities.

(k) *Conversion Shares.* The Company will reserve and keep available at all times, free of pre-emptive rights, shares of Common Stock for the purpose of enabling the Company to satisfy all obligations to issue the Conversion Shares upon conversion of the Securities. The Company will use its best efforts to cause the Conversion Shares to be listed on the New York Stock Exchange (the “Exchange”).

(l) *Reports.* For a period of three (3) years from the date of this Agreement, the Company will furnish to the Representative, as soon as commercially reasonable after the date they are available, copies of all reports or other communications (financial or other) furnished to holders of the Securities, and copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange or automatic quotation system; provided the Company will be deemed to have furnished such reports and financial statements to the Representative to the extent they are filed on EDGAR.

(m) *Record Retention.* The Company will, pursuant to reasonable procedures developed in good faith, retain copies of each Issuer Free Writing Prospectus that is not filed with the Commission in accordance with Rule 433 under the Securities Act.

(n) *Filings.* The Company will file with the Commission such reports as may be required by Rule 463 under the Securities Act.

(m) *Investment Company.* The Company will not invest, or otherwise use the proceeds received by the Company from its sale of the Securities in such a manner as would require the Company to register as an investment company under the Investment Company Act.

(n) *Transfer Agent.* The Company will maintain a transfer agent and, if necessary under the jurisdiction of incorporation of the Company, a registrar for the Underlying Shares.

(n) *Lock-up Agreements.* The Company has caused each officer and director and certain shareholders of the Company to furnish to J.P. Morgan Securities LLC, on or prior to the date of this Agreement, a “lock-up” agreement, each substantially in the form of Exhibit A hereto.

5. Certain Agreements of the Underwriters. Each Underwriter hereby represents and agrees that:

(a) It has not used, authorized use of, referred to or participated in the planning for use of, and will not use, authorize use of, refer to, or participate in the planning for use of, any “free writing prospectus”, as defined in Rule 405 under the Securities Act (which term includes use of any written information furnished to the Commission by the Company and not incorporated by reference into the Registration Statement and any press release issued by the Company) other than (i) a free writing prospectus that contains no “issuer information” (as defined in Rule 433(h)(2) under the Securities Act) that was not included (including through incorporation by reference) in the Preliminary Prospectus or a previously filed Issuer Free Writing Prospectus, (ii) any Issuer Free Writing Prospectus listed on Annex A or prepared pursuant to Section 3(c) or Section 4(c) above (including any electronic road show), or (iii) any free writing prospectus prepared by such Underwriter and approved by the Company in advance in writing (each such free writing prospectus referred to in clauses (i) or (iii), an “Underwriter Free Writing Prospectus”).

(b) It has not and will not, without the prior written consent of the Company, use any free writing prospectus that contains the final terms of the Securities unless such terms have previously been included in a free writing prospectus filed with the Commission; *provided* that Underwriters may use a

term sheet substantially in the form of Annex B hereto without the consent of the Company; *provided further* that any Underwriter using such term sheet shall notify the Company, and provide a copy of such term sheet to the Company, prior to, or substantially concurrently with, the first use of such term sheet.

(c) It is not subject to any pending proceeding under Section 8A of the Securities Act with respect to the offering contemplated by this Agreement (and will promptly notify the Company if any such proceeding against it is initiated during the Prospectus Delivery Period).

6. Conditions of Underwriters' Obligations. The obligation of each Underwriter to purchase the Securities on the Closing Date as provided herein is subject to the performance by the Company of its covenants and other obligations hereunder and to the following additional conditions:

(a) *Registration Compliance; No Stop Order.* No order suspending the effectiveness of the Registration Statement shall be in effect, and no proceeding for such purpose, pursuant to Rule 401(g)(2) or pursuant to Section 8A under the Securities Act shall be pending before or threatened by the Commission; the Prospectus and each Issuer Free Writing Prospectus shall have been timely filed with the Commission under the Securities Act (in the case of an Issuer Free Writing Prospectus, to the extent required by Rule 433 under the Securities Act) and in accordance with Section 4(a) hereof; and all requests by the Commission for additional information shall have been complied with to the reasonable satisfaction of the Representative.

(b) *Representations and Warranties; Covenants.* The representations and warranties of the Company contained herein shall be true and correct on the date hereof and on and as of the Closing Date; and the statements of the Company and its officers made in any certificates delivered pursuant to this Agreement shall be true and correct on and as of the Closing Date. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before the Closing Date.

(c) *Borrowed Shares.* The Borrower shall have received the Borrowed Shares from the Company pursuant to the terms of the Share Lending Agreement prior to 9:00 a.m. New York City time on the Closing Date.

(d) *No Material Adverse Change.* No event or condition of a type described in Section 3(g) hereof shall have occurred or shall exist, which event or condition is not described in the Pricing Disclosure Package (excluding any amendment or supplement thereto) and the Prospectus (excluding any amendment or supplement thereto) and the effect of which in the judgment of the Representative makes it impracticable or inadvisable to proceed with the offering, sale or delivery of the Securities on the Closing Date, on the terms and in the manner contemplated by this Agreement, the Pricing Disclosure Package and the Prospectus.

(e) *Officer's Certificate.* The Representative shall have received on and as of the Closing Date, a certificate of the chief financial officer or chief accounting officer of the Company and one additional senior executive officer of the Company who is satisfactory to the Representative (i) confirming that such officers have carefully reviewed the Registration Statement, the Pricing Disclosure Package and the Prospectus and, to the knowledge of such officers, the representations of the Company set forth in Sections 3(b) and 3(d) hereof are true and correct, (ii) confirming that the other representations and warranties of the Company in this Agreement are true and correct and that the Company has complied in all material respects with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date, and (iii) to the effect set forth in paragraphs (a) and (d) above.

(f) *Comfort Letters.* (i) On the date of this Agreement and on the Closing Date, PricewaterhouseCoopers LLP shall have furnished to the Representative, at the request of the Company, letters, dated the respective dates of delivery thereof and addressed to the Underwriters, in form and substance reasonably satisfactory to the Representative and PricewaterhouseCoopers LLP, containing statements and information of the type customarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus; provided, that the letter delivered on the Closing Date shall use a "cut-off" date no more than three (3) business days prior to such Closing Date.

(ii) On the date of this Agreement and on the Closing Date, if requested by the Representative, the Company shall have furnished to the Representative a certificate, dated the respective dates of delivery thereof and addressed to the Underwriters, of its chief financial officer with respect to certain financial data contained in the Pricing Disclosure Package and the Prospectus, providing "management comfort" with respect to such information, in form and substance reasonably satisfactory to the Representative.

(g) *Opinion and 10b-5 Statement of Counsel for the Company.* Troutman Sanders LLP, counsel for the Company, shall have furnished to the Representative, at the request of the Company, their written opinion and 10b-5 statement dated the Closing Date and addressed to the Underwriters, in form and substance reasonably satisfactory to the Representative.

(h) *Intellectual Property Opinion of Counsel for the Company.* Sterne, Kessler, Goldstein and Fox, intellectual property counsel for the Company, shall have furnished to the Representative, at the request of the Company, their written opinion, dated the Closing Date and addressed to the Underwriters, covering certain intellectual property matters in form and substance reasonably satisfactory to the Representative.

(i) *Opinion and 10b-5 Statement of Counsel for the Underwriters.* The Representative shall have received on and as of the Closing Date an opinion and 10b-5 statement of Goodwin Procter LLP, counsel for the Underwriters, with respect to such matters as the Representative may reasonably request, and such counsel shall have received such documents and information as they may reasonably request to enable them to pass upon such matters.

(j) *Opinion of Counsel for the Underwriters.* The Representative shall have received on and as of the Closing Date an opinion of Davis Polk & Wardwell LLP, counsel for the Underwriters, with respect to such matters as the Representative may reasonably request, and such counsel shall have received such documents and information as they may reasonably request to enable them to pass upon such matters.

(k) *No Legal Impediment to Issuance.* No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any federal, state or foreign governmental or regulatory authority that would, as of the Closing Date, prevent the issuance or sale of the Securities; and no injunction or order of any federal, state or foreign court shall have been issued that would, as of the Closing Date, prevent the issuance or sale of the Securities.

(l) *Good Standing.* The Representative shall have received on and as of the Closing Date satisfactory evidence of the good standing of the Company and its subsidiaries in their respective jurisdictions of organization and their good standing as foreign entities in such other jurisdictions as the Representative may reasonably request, in each case in writing or any standard form of telecommunication from the appropriate governmental authorities of such jurisdictions.

(m) *Exchange Listing.* The Conversion Shares shall have been approved for listing on the Exchange, subject to notice of issuance.

(n) *Lock-up Agreements.* The “lock-up” agreements, each substantially in the form of Exhibit A hereto, between J.P. Morgan Securities LLC and certain shareholders, officers and directors of the Company relating to sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to J.P. Morgan Securities LLC on or before the date hereof, shall be in full force and effect on the Closing Date.

(o) *Additional Documents.* On or prior to the Closing Date, the Company shall have furnished to the Representative such further certificates and documents as the Representative may reasonably request.

All opinions, letters, certificates and evidence mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Underwriters.

7. Indemnification and Contribution.

(a) *Indemnification of the Underwriters.* The Company agrees to indemnify and hold harmless each Underwriter, its affiliates, directors and officers and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any and all losses, claims, damages and liabilities (including, without limitation, reasonable and documented legal fees and other expenses incurred in connection with any suit, action or proceeding or any claim asserted, as such fees and expenses are incurred), joint or several, that arise out of, or are based upon, (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary in order to make the statements therein, not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in the Prospectus (or any amendment or supplement thereto), any Issuer Free Writing Prospectus, any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the Securities Act, any “road show” as defined in Rule 433(h) under the Securities Act (a “road show”) or any Pricing Disclosure Package (including any Pricing Disclosure Package that has subsequently been amended), or caused by any omission or alleged omission to state therein a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, in each case except insofar as such losses, claims, damages or liabilities arise out of, or are based upon, any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Representative expressly for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in subsection (b) below.

(b) *Indemnification of the Company.* Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the indemnity set forth in paragraph (a) above, but only with respect to any losses, claims, damages or liabilities (including, without limitation, reasonable and documented legal fees and other expenses incurred in connection with any suit, action, or proceeding or any claim asserted, as such fees and expenses are incurred) that arise out of, or are based upon, any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to such Underwriter furnished to the

Company in writing by such Underwriter through the Representative expressly for use in the Registration Statement, the Prospectus (or any amendment or supplement thereto), any Issuer Free Writing Prospectus, any road show or any Pricing Disclosure Package (including any Pricing Disclosure Package that has subsequently been amended), it being understood and agreed upon that the only such information furnished by any Underwriter consists of the following information in the Prospectus furnished on behalf of each Underwriter, in each case, under the caption "Underwriting," the information in the seventh, thirteenth and fourteenth paragraphs, the first and second sentences of the twelfth paragraph and the second sentence of the fifteenth paragraph, and under the caption "Underwriting—Certain relationships," the information included in the fourth and fifth sentences of the second paragraph.

(c) *Notice and Procedures.* If any suit, action, proceeding (including any governmental or regulatory investigation), claim or demand shall be brought or asserted against any person in respect of which indemnification may be sought pursuant to either paragraph (a) or (b) above, such person (the "Indemnified Person") shall promptly notify the person against whom such indemnification may be sought (the "Indemnifying Person") in writing; provided that the failure to notify the Indemnifying Person shall not relieve it from any liability that it may have under paragraph (a) or (b) above except to the extent that it has been materially prejudiced (through the forfeiture of substantive rights or defenses) by such failure; and provided, further, that the failure to notify the Indemnifying Person shall not relieve it from any liability that it may have to an Indemnified Person otherwise than under paragraph (a) or (b) above. If any such proceeding shall be brought or asserted against an Indemnified Person and it shall have notified the Indemnifying Person thereof, the Indemnifying Person shall retain counsel reasonably satisfactory to the Indemnified Person (who shall not, without the consent of the Indemnified Person, be counsel to the Indemnifying Person) to represent the Indemnified Person in such proceeding and shall pay the reasonable and documented fees and expenses of such counsel related to such proceeding, as incurred. In any such proceeding, any Indemnified Person shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless (i) the Indemnifying Person and the Indemnified Person shall have mutually agreed to the contrary; (ii) the Indemnifying Person has failed within a reasonable time to retain counsel reasonably satisfactory to the Indemnified Person; (iii) the Indemnified Person shall have reasonably concluded that there may be legal defenses available to it that are different from or in addition to those available to the Indemnifying Person; or (iv) the named parties in any such proceeding (including any impleaded parties) include both the Indemnifying Person and the Indemnified Person and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interest between them. It is understood and agreed that the Indemnifying Person shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all Indemnified Persons, and that all such fees and expenses shall be paid or reimbursed as they are incurred. Any such separate firm for any Underwriter, its affiliates, directors and officers and any control persons of such Underwriter shall be designated in writing the Representative and any such separate firm for the Company, its directors, its officers who signed the Registration Statement and any control persons of the Company shall be designated in writing by the Company. The Indemnifying Person shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the Indemnifying Person agrees to indemnify each Indemnified Person from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an Indemnified Person shall have requested that an Indemnifying Person reimburse the Indemnified Person for reasonable and documented fees and expenses of counsel as contemplated by this paragraph, the Indemnifying Person shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by the Indemnifying Person of such request and (ii) the Indemnifying Person shall not have reimbursed the Indemnified Person in accordance with such request prior to the date of such settlement. No Indemnifying Person shall, without the written consent of the Indemnified Person, effect any settlement of any pending or threatened

proceeding in respect of which any Indemnified Person is or could have been a party and indemnification could have been sought hereunder by such Indemnified Person, unless such settlement (x) includes an unconditional release of such Indemnified Person, in form and substance reasonably satisfactory to such Indemnified Person, from all liability on claims that are the subject matter of such proceeding and (y) does not include any statement as to or any admission of fault, culpability or a failure to act by or on behalf of any Indemnified Person.

(d) *Contribution.* If the indemnification provided for in paragraphs (a) and (b) above is unavailable to an Indemnified Person or insufficient in respect of any losses, claims, damages or liabilities referred to therein, then each Indemnifying Person under such paragraph, in lieu of indemnifying such Indemnified Person thereunder, shall contribute to the amount paid or payable by such Indemnified Person as a result of such losses, claims, damages or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the offering of the Securities or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, shall be deemed to be in the same respective proportions as the net proceeds (before deducting expenses) received by the Company from the sale of the Securities and the total underwriting discounts and commissions received by the Underwriters in connection therewith, in each case as set forth in the table on the cover of the Prospectus, bear to the aggregate offering price of the Securities. The relative fault of the Company, on the one hand, and the Underwriters, on the other, shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

(e) *Limitation on Liability.* The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to paragraph (d) above were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in paragraph (d) above. The amount paid or payable by an Indemnified Person as a result of the losses, claims, damages and liabilities referred to in paragraph (d) above shall be deemed to include, subject to the limitations set forth above, any reasonable and documented legal or other expenses incurred by such Indemnified Person in connection with any such action or claim. Notwithstanding the provisions of paragraphs (d) and (e) above, in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the offering of the Securities exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to this paragraphs (d) and (e) above are several in proportion to their respective purchase obligations hereunder and not joint.

(f) *Non-Exclusive Remedies.* The remedies provided for in this Section 7 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any Indemnified Person at law or in equity.

8. Effectiveness of Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

9. **Termination.** This Agreement may be terminated in the absolute discretion of the Representative, by notice to the Company, if after the execution and delivery of this Agreement and prior to the Closing Date, (i) trading generally shall have been suspended or materially limited on or by any of the New York Stock Exchange or The Nasdaq Stock Market; (ii) trading of any securities issued or guaranteed by the Company shall have been suspended on any exchange or in any over-the-counter market; (iii) a general moratorium on commercial banking activities shall have been declared by federal or New York State authorities; or (iv) there shall have occurred any outbreak or escalation of hostilities or any change in financial markets or any calamity or crisis, either within or outside the United States, that, in the judgment of the Representative, is material and adverse and makes it impracticable or inadvisable to proceed with the offering, sale or delivery of the Securities on the terms and in the manner contemplated by this Agreement, the Pricing Disclosure Package and the Prospectus.

10. **Defaulting Underwriter.** (a) If, on the Closing Date, any Underwriter defaults on its obligation to purchase the Securities that it has agreed to purchase hereunder on such date, the non-defaulting Underwriters may in their discretion arrange for the purchase of such Securities by other persons satisfactory to the Company on the terms contained in this Agreement. If, within 36 hours after any such default by any Underwriter, the non-defaulting Underwriters do not arrange for the purchase of such Securities, then the Company shall be entitled to a further period of 36 hours within which to procure other persons satisfactory to the non-defaulting Underwriters to purchase such Securities on such terms. If other persons become obligated or agree to purchase the Securities of a defaulting Underwriter, either the non-defaulting Underwriters or the Company may postpone the Closing Date for up to five (5) full business days in order to effect any changes that in the opinion of counsel for the Company or counsel for the Underwriters may be necessary in the Registration Statement and the Prospectus or in any other document or arrangement, and the Company agrees to promptly prepare any amendment or supplement to the Registration Statement and the Prospectus that effects any such changes. As used in this Agreement, the term "Underwriter" includes, for all purposes of this Agreement unless the context otherwise requires, any person not listed in Schedule 1 hereto that, pursuant to this Section 10, purchases Securities that a defaulting Underwriter agreed but failed to purchase.

(b) If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by the non-defaulting Underwriters and the Company as provided in paragraph (a) above, the aggregate number of Securities that remain unpurchased on the Closing Date does not exceed one-eleventh of the aggregate number of Securities to be purchased on such date, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Securities that such Underwriter agreed to purchase hereunder on such date plus such Underwriter's pro rata share (based on the number of Securities that such Underwriter agreed to purchase on such date) of the Securities of such defaulting Underwriter or Underwriters for which such arrangements have not been made.

(c) If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by the non-defaulting Underwriters and the Company as provided in paragraph (a) above, the aggregate number of Securities that remain unpurchased on the Closing Date exceeds one-eleventh of the aggregate principal amount of Securities to be purchased on such date, or if the Company shall not exercise the right described in paragraph (b) above, then this Agreement shall terminate without liability on the part of the non-defaulting Underwriters. Any termination of this Agreement pursuant to this Section 10 shall be without liability on the part of the Company, except that the Company and the Underwriters will continue to be liable for the payment of expenses as set forth in Section 11 hereof and except that the provisions of Section 7 hereof shall not terminate and shall remain in effect.

(d) Nothing contained herein shall relieve a defaulting Underwriter of any liability it may have to the Company or any non-defaulting Underwriter for damages caused by its default.

11. **Payment of Expenses.** (a) Whether or not the transactions contemplated by this Agreement are consummated or this Agreement is terminated, the Company will pay or cause to be paid all costs and expenses incident to the performance of its obligations hereunder, including without limitation, (i) the costs incident to the authorization, issuance, sale, preparation and delivery of the Securities and any taxes payable in that connection; (ii) the costs incident to the preparation, printing and filing under the Securities Act of the Registration Statement, the Preliminary Prospectus, any Issuer Free Writing Prospectus, any Pricing Disclosure Package and the Prospectus (including all exhibits, amendments and supplements thereto) and the distribution thereof; (iii) the costs of reproducing and distributing each of the Transaction Documents; (iv) the fees and expenses of the Company's counsel and independent accountants; (v) the fees and expenses incurred in connection with the registration or qualification and determination of eligibility for investment of the Securities under the state or foreign securities or blue sky laws of such jurisdictions as the Representative may designate and the preparation, printing and distribution of a Blue Sky Memorandum (including the related fees and expenses of counsel for the Underwriters) not to exceed \$30,000 without the prior written consent of the Company when taken together with the amount incurred in connection with clause (viii) below; (vi) any fees charged by rating agencies for rating the Securities; (vii) the fees and expenses of the Trustee and any paying agent (including related fees and expenses of any counsel to such parties); (viii) all expenses and application fees incurred in connection with any filing with, and clearance of the offering by, FINRA, in an amount not to exceed \$30,000 (exclusive of filing fees) without the prior written consent of the Company when taken together with the amount incurred in connection with clause (v) above, and the approval of the Securities for book-entry transfer by DTC; (ix) all expenses incurred by the Company in connection with any "road show" presentation to potential investors; and (x) all expenses and application fees related to the listing of the Underlying Securities on the Exchange.

(b) Except as provided for by this Agreement, the Underwriters will pay all of their own expenses, including the fees of their counsel and travel and lodging expenses of the Representative.

(c) If (i) this Agreement is terminated pursuant to Section 9, (ii) the Company for any reason fails to tender the Securities for delivery to the Underwriters at the Closing Date in accordance with this Agreement or (iii) the Underwriters decline to purchase the Securities because any of the conditions to the Underwriters' obligations set forth in Section 6 have not been met, the Company agrees to reimburse the Underwriters for all reasonable and documented out-of-pocket costs and expenses (including the reasonable and documented fees and expenses of their counsel) reasonably incurred by the Underwriters in connection with this Agreement and the offering contemplated hereby. For the avoidance of doubt, the Company will not pay or reimburse any costs, fees or expenses incurred by any Underwriter that defaults on its obligations to purchase the Securities.

12. **Persons Entitled to Benefit of Agreement.** This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers and directors and any controlling persons referred to herein, and the affiliates of each Underwriter referred to in Section 7 hereof. Nothing in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained herein. No purchaser of Securities from any Underwriter shall be deemed to be a successor merely by reason of such purchase.

13. **Survival.** The respective indemnities, rights of contribution, representations, warranties and agreements of the Company and the Underwriters contained in this Agreement or made by or on behalf of the Company or the Underwriters pursuant to this Agreement or any certificate delivered pursuant hereto shall survive the delivery of and payment for the Securities and shall remain in full force and effect, regardless of any termination of this Agreement or any investigation made by or on behalf of the Company or the Underwriters.

14. Certain Defined Terms. For purposes of this Agreement, (a) except where otherwise expressly provided, the term “affiliate” has the meaning set forth in Rule 405 under the Securities Act; (b) the term “business day” means any day other than a day on which banks are permitted or required to be closed in New York City; and (c) the term “subsidiary” has the meaning set forth in Rule 405 under the Securities Act.

15. Compliance with USA Patriot Act. In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the Underwriters are required to obtain, verify and record information that identifies their respective clients, including the Company, which information may include the name and address of their respective clients, as well as other information that will allow the Underwriters to properly identify their respective clients.

16. Miscellaneous.

(a) *Notices.* All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted and confirmed by any standard form of telecommunication. Notices to the Underwriters shall be given to the Representative c/o J.P. Morgan Securities LLC, 383 Madison Avenue, New York, New York 10179 (fax: (212) 622-8358); Attention: Equity Syndicate Desk; with a copy to Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, NY 10018; Attention: Michael D. Maline, James Barri and Daniel A. Lang. Notices to the Company shall be given to it at Intrexon Corporation, 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (fax: (301) 556-9902); Attention: Donald P. Lehr; with a copy to Troutman Sanders LLP, Troutman Sanders Building, 1001 Haxall Point, 15th Floor, Richmond, VA 23219, Attention: John Owen Gwathmey.

(b) *Governing Law.* This Agreement and any claim, controversy or dispute arising under or related to this Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made and to be performed in such state.

(c) *Authority of the Representative.* Any action by the Underwriters hereunder may be taken by the Representative on behalf of the Underwriters, and any such action taken by the Representative shall be binding upon the Underwriters.

(d) *Waiver of Jury Trial.* Each of the parties hereto hereby waives any right to trial by jury in any suit or proceeding arising out of or relating to this Agreement.

(e) *Counterparts.* This Agreement may be signed in counterparts (which may include counterparts delivered by any standard form of telecommunication), each of which shall be an original and all of which together shall constitute one and the same instrument.

(f) *Amendments or Waivers.* No amendment or waiver of any provision of this Agreement, nor any consent or approval to any departure therefrom, shall in any event be effective unless the same shall be in writing and signed by the parties hereto.

(g) *Headings.* The headings herein are included for convenience of reference only and are not intended to be part of, or to affect the meaning or interpretation of, this Agreement.

[remainder of page intentionally left blank]

If the foregoing is in accordance with your understanding, please indicate your acceptance of this Agreement by signing in the space provided below.

Very truly yours,

INTREXON CORPORATION

By /s/ Donald P. Lehr

Name: Donald P. Lehr

Title: Chief Legal Officer

[Signature Page to Underwriting Agreement (Notes)]

Accepted: As of the date first written above

J.P. MORGAN SECURITIES LLC

For itself and on behalf of the
several Underwriters listed
in Schedule 1 hereto.

By /s/ Kevin Cheng
Authorized Signatory

[Signature Page to Underwriting Agreement (Notes)]

<u>Underwriter</u>	<u>Principal Amount</u>
J.P. Morgan Securities LLC	\$ 200,000,000
Total	\$ 200,000,000

Sch. 1-1

a. Pricing Disclosure Package

Term sheet containing the terms of the Securities, substantially in the form of Annex B.

Launch press release dated June 27, 2018 filed with the Commission as a free writing prospectus on June 27, 2018

Pricing press release to be dated June 29, 2018

Ann. A-1

Pricing Term Sheet

Pricing Term Sheet
Dated June 28, 2018

Issuer Free Writing Prospectus
Filed pursuant to Rule 433
Registration Statement No. 333-220326
Relating to Preliminary Prospectus Supplements dated June 27, 2018
(To Prospectus dated September 1, 2017)

Intrexon Corporation
Concurrent Offerings of
3.50% Convertible Senior Notes due 2023
and
Common Stock Issued Pursuant to a Share Lending Agreement

The information in this pricing term sheet relates to Intrexon Corporation's offering of its 3.50% Convertible Senior Notes due 2023 (the "Notes Offering") and its offering of shares of its common stock pursuant to the share lending agreement described below (the "Borrowed Shares Offering") and should be read together with the preliminary prospectus supplement dated June 27, 2018 relating to the Notes Offering (the "Notes Preliminary Prospectus Supplement") and the preliminary prospectus supplement dated June 27, 2018 relating to the Borrowed Shares Offering (the "Borrowed Shares Preliminary Prospectus Supplement"), in each case, including the documents incorporated by reference therein, and the base prospectus dated September 1, 2017 (the "Base Prospectus"). The information in this pricing term sheet supersedes the information in the Notes Preliminary Prospectus Supplement, the Borrowed Shares Preliminary Prospectus Supplement and the Base Prospectus to the extent inconsistent with the information therein. Terms used herein but not defined herein shall have the respective meanings as set forth in the Notes Preliminary Prospectus Supplement or the Borrowed Shares Preliminary Prospectus Supplement, as applicable. All references to dollar amounts are references to U.S. dollars.

General

Issuer:	Intrexon Corporation ("Intrexon")
Ticker / Exchange:	XON / The New York Stock Exchange ("NYSE")
NYSE last reported sale price on June 28, 2018:	\$13.37 per share of common stock of Intrexon (the "Common Stock")
Trade date:	June 29, 2018
Settlement date:	July 3, 2018
Sole book-running manager:	J.P. Morgan Securities LLC

Notes Offering

Securities offered:	3.50% Convertible Senior Notes due 2023 (the "Notes")
Aggregate principal amount offered:	\$200,000,000 principal amount. The underwriters will not have an option to purchase additional Notes.
Interest:	The Notes will bear interest at a rate of 3.50% per annum from July 3, 2018

Interest payment dates:	January 1 and July 1 of each year, beginning on January 1, 2019
Maturity date:	July 1, 2023
Conversion premium:	Approximately 27.50% above the NYSE last reported sale price on June 28, 2018
Initial conversion price:	Approximately \$17.05 per share of Common Stock
Initial conversion rate:	58.6622 shares of Common Stock per \$1,000 principal amount of Notes
Concurrent offering of Borrowed Shares and share lending agreement:	<p>Concurrently with the Notes Offering, Intrexon is offering 7,479,431 shares of Common Stock pursuant to the Borrowed Shares Preliminary Prospectus Supplement and the Base Prospectus. Such shares (the “Borrowed Shares”) will be loaned by Intrexon to J.P. Morgan Securities LLC (in such capacity, the “Share Borrower”), the underwriter for the Borrowed Shares Offering. The Share Borrower or its affiliates will receive all of the proceeds of the Borrowed Shares Offering and Intrexon will not receive any proceeds of that offering. The Notes Offering is contingent upon the closing of the Borrowed Shares Offering, and the Borrowed Shares Offering is contingent upon the closing of the Notes Offering. Randal J. Kirk, the Chairman, Chief Executive Officer and principal shareholder of Intrexon, has agreed with the Share Borrower to purchase all of the shares of Common Stock offered in the Borrowed Shares Offering.</p> <p>Intrexon has been informed by the Share Borrower that it or one of its affiliates intends to use the short position created by the share loan and the concurrent short sales of the Borrowed Shares to facilitate transactions by which investors in the Notes may hedge their investments through short sales or privately negotiated derivatives transactions. Intrexon expects to make delivery of the Borrowed Shares concurrently with the closing of the Notes Offering. See “Description of share lending agreement” in the Notes Preliminary Prospectus Supplement.</p>
Use of proceeds:	<p>Intrexon estimates that the net proceeds from the Notes Offering will be approximately \$193.9 million after deducting underwriting discounts and commissions and estimated offering expenses payable by Intrexon in connection with the Notes Offering and the Borrowed Shares Offering.</p> <p>Intrexon intends to use the net proceeds from the Notes Offering for general corporate purposes and for strategic acquisitions or investments. General corporate purposes may include additions to working capital, financing internal research and development programs, financing of capital expenditures, repayment or redemption of existing indebtedness or payments to satisfy commitments under Intrexon’s ECCs, joint ventures and other collaborations. In addition, Intrexon intends to use the net proceeds for future strategic acquisitions and strategic investment opportunities, but Intrexon has not determined the amount of net proceeds to be used specifically for such purposes, or any particular acquisitions or investments.</p>

Public offering price, underwriting discount and proceeds:

The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses, to Intrexon:

	Per Note	Total
Public offering price ⁽¹⁾	\$1,000.00	\$200,000,000.00
Underwriting discounts and commissions	\$ 27.50	\$ 5,500,000.00
Proceeds, before expenses, to Intrexon	\$ 972.50	\$194,500,000.00

(1) Plus accrued interest, if any, from the settlement date.

CUSIP: 46122T AA0

ISIN: US46122TAA07

Increase in conversion rate upon conversion upon a make-whole fundamental change:

The table below sets forth the number of additional shares, if any, of Common Stock to be added to the conversion rate per \$1,000 principal amount of Notes that are converted in connection with a “make-whole fundamental change” as described in the Notes Preliminary Prospectus Supplement, based on the stock price and effective date of the make-whole fundamental change.

Effective date	Stock price											
	\$13.37	\$15.00	\$17.05	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$45.00	\$50.00	\$60.00	\$70.00
July 3, 2018	16.1321	13.0033	10.1685	7.4065	4.6576	3.1057	2.1406	1.4973	1.0451	0.7146	0.2748	0.0259
July 1, 2019	16.1321	12.8193	9.8341	6.9930	4.2616	2.7823	1.8920	1.3123	0.9113	0.6212	0.2383	0.0223
July 1, 2020	16.1321	12.5353	9.3372	6.3895	3.7036	2.3410	1.5629	1.0740	0.7438	0.5074	0.1963	0.0187
July 1, 2021	16.1321	11.9327	8.4368	5.3820	2.8460	1.7047	1.1109	0.7595	0.5282	0.3638	0.1443	0.0144
July 1, 2022	16.1321	10.6740	6.6916	3.5965	1.5444	0.8507	0.5511	0.3870	0.2793	0.2008	0.0893	0.0119
July 1, 2023	16.1321	8.0045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact stock prices and effective dates may not be set forth in the table above, in which case:

- If the stock price is between two stock prices in the table or the effective date is between two effective dates in the table, the number of additional shares by which the conversion rate will be increased will be determined by a straight-line interpolation between the number of additional shares set forth for the higher and lower stock prices and the earlier and later effective dates, as applicable, based on a 365-day year.
- If the stock price is greater than \$70.00 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.
- If the stock price is less than \$13.37 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.

Notwithstanding the foregoing, in no event will the conversion rate per \$1,000 principal amount of Notes exceed 74.7943 shares of Common Stock, subject to adjustment in the same manner as the conversion rate as set forth under “Description of the Notes—Conversion rights—Conversion rate adjustments” in the Notes Preliminary Prospectus Supplement.

Borrowed Shares Offering

Offering of Borrowed Shares: Intrexon will lend 7,479,431 shares of Common Stock to the Share Borrower, the underwriter for the Borrowed Shares offering, pursuant to a share lending agreement. Intrexon has been informed by the Share Borrower that it or one of its affiliates intends to use the short position created by the share loan and the concurrent short sales of the Borrowed Shares to facilitate transactions by which investors in the Notes may hedge their investments through short sales of the Common Stock or privately negotiated derivatives transactions. See “Description of share lending agreement” in the Borrowed Shares Preliminary Prospectus Supplement.

Use of proceeds: Intrexon will not receive any proceeds from the sale of the Borrowed Shares. The Share Borrower or its affiliates will receive all of the proceeds from the sale of the Borrowed Shares.

Insider participation: Randal J. Kirk, the Chairman, Chief Executive Officer and principal shareholder of Intrexon, has agreed with the Share Borrower to purchase at the public offering price all of the shares of Common Stock offered in the Borrowed Shares Offering.

Public offering price, underwriting discount and proceeds: The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses, to Intrexon:

	Per Borrowed Share	Total
Public offering price	\$ 13.37	\$99,999,992.47
Underwriting discounts and commissions	\$ 0.00	\$ 0.00
Proceeds, before expenses, to Intrexon	\$ 0.00	\$ 0.00

Intrexon has filed a registration statement (including a prospectus) with the SEC for the offerings to which this communication relates. Before you invest, you should read the prospectus in that registration statement, the Notes Preliminary Prospectus Supplement, the Borrowed Shares Preliminary Prospectus Supplement and other documents Intrexon has filed with the SEC that are incorporated therein by reference for more complete information about Intrexon and these offerings. You may obtain these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, you may request the prospectus for each offering from J.P. Morgan Securities LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, telephone: 1-866-803-9204.

This communication shall not constitute an offer to sell or the solicitation of an offer to buy securities, nor shall there be any sale of these securities, in any state in which such solicitation or sale would be unlawful prior to registration or qualification of these securities under the laws of any such state.

ANY DISCLAIMERS OR OTHER NOTICES THAT MAY APPEAR BELOW ARE NOT APPLICABLE TO THIS COMMUNICATION AND SHOULD BE DISREGARDED. SUCH DISCLAIMERS OR OTHER NOTICES WERE AUTOMATICALLY GENERATED AS A RESULT OF THIS COMMUNICATION BEING SENT VIA BLOOMBERG OR ANOTHER EMAIL SYSTEM.

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Ann. B-5

Form of Lock-Up Agreement

[], 2018

J. P. MORGAN SECURITIES LLC
As Representative of
the several Underwriters listed in
Schedule 1 to the Underwriting
Agreement referred to below
c/o J. P. Morgan Securities LLC
383 Madison Avenue
New York, NY 10179

Re: Intrexon Corporation — Public Offering

Ladies and Gentlemen:

The undersigned understands that you, as Representative of the several Underwriters, propose to enter into an underwriting agreement (the “**Underwriting Agreement**”) with Intrexon Corporation, a Virginia corporation (the “**Company**”), providing for the public offering (the “**Public Offering**”) by the several Underwriters named in Schedule 1 to the Underwriting Agreement (the “**Underwriters**”), of convertible senior notes of the Company (the “**Securities**”). Capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Underwriting Agreement.

In consideration of the Underwriters’ agreement to purchase and make the Public Offering of the Securities, and for other good and valuable consideration receipt of which is hereby acknowledged, the undersigned hereby agrees that, without the prior written consent of J. P. Morgan Securities LLC on behalf of the Underwriters, the undersigned will not, during the period beginning on the date of this Letter Agreement and ending ninety (90-day) days after the date of the final prospectus relating to the Public Offering (the “**Prospectus**” and such period, the “**Restricted Period**”), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock, no par value per share, of the Company (the “**Common Stock**”) or any securities convertible into or exercisable or exchangeable for Common Stock (including without limitation, Common Stock or such other securities which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the United States Securities and Exchange Commission (the “**SEC**”) and securities which may be issued upon exercise of a stock option or warrant) (collectively, the “**Equity Securities**”), or publicly disclose the intention to make any offer, sale, pledge or disposition, (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Equity Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of the Equity Securities, in cash or otherwise or (3) make any demand for or exercise any right with respect to the registration of any Equity Securities, in each case other than (A) the Securities to be sold by the undersigned pursuant to the Underwriting Agreement, (B) transfers of shares of the Common Stock as a bona fide gift or gifts, (C) distributions of shares of the Common Stock to general or limited partners, members, shareholders, affiliates or wholly owned subsidiaries of the undersigned or any investment fund or other entity controlled or managed by the undersigned, (D)

Ex. A-1

transfers or dispositions of the Equity Securities to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned in a transaction not involving a disposition for value, (E) transfers or dispositions of the Equity Securities to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the undersigned or the immediate family of the undersigned in a transaction not involving a disposition for value, and (F) transfers or dispositions of the Equity Securities by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned; provided that in the case of any transfer or distribution pursuant to clause (B), (C), (D), (E) or (F), each donee or distributee shall execute and deliver to the Representative a lock-up letter in the form of this paragraph; and provided further that in the case of any transfer or distribution pursuant to clause (B), (C), (D), (E) or (F), no filing by any party (donor, donee, transferor or transferee) under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the Restricted Period).

For purposes of this Letter Agreement, “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. Furthermore, notwithstanding the restrictions imposed by this Letter Agreement, the undersigned may, without the prior written consent of J. P. Morgan Securities LLC on behalf of the Underwriters, (i) exercise an option to purchase shares of the Common Stock granted under any stock-based compensation plan of the Company utilizing any “cashless” or “net-exercise” provision, provided that the shares of Common Stock issued upon such exercise remain subject to the Restricted Period pursuant to this Letter Agreement, and (ii) establish a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of the Common Stock, provided that, such plan does not provide for any transfers of the Common Stock during the Restricted Period pursuant to this Letter Agreement, and provided further, in either the case of (i) or (ii) above, that no filing with the SEC or other public announcement shall be required or voluntarily made by the undersigned or any other person in connection therewith.

In furtherance of the foregoing, the Company, and any duly appointed transfer agent for the registration or transfer of the securities described herein, are hereby authorized to decline to make any transfer of securities if such transfer would constitute a violation or breach of this Letter Agreement.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Letter Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned understands that, if (i) the Underwriting Agreement does not become effective by July 31, 2018, (ii) the Company informs the undersigned that the Board of Directors for the Company has determined not to proceed with the Public Offering, or (iii) the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Common Stock to be sold thereunder, the undersigned shall be released from, all obligations under this Letter Agreement. The undersigned understands that the Underwriters are entering into the Underwriting Agreement and proceeding with the Public Offering in reliance upon this Letter Agreement.

The undersigned hereby agrees that, to the extent that the terms of this Letter Agreement conflict with or are in any way inconsistent with any (i) registration rights agreement, (ii) “market standoff” agreement or (iii) other lockup agreement related to the Equity Securities to which the undersigned and the Company may be a party, this Letter Agreement supersedes such agreements with respect to the Equity Securities.

This Letter Agreement and any claim, controversy or dispute arising under or related to this Letter Agreement shall be governed by and construed in accordance with the laws of the State of New York.

Very truly yours,

[NAME OF STOCKHOLDER]

By: _____
Name: _____
Title: _____

Ann. B-3

INTREXON CORPORATION

Common Stock, no par value

Underwriting Agreement

June 28, 2018

J. P. Morgan Securities LLC
As Representative of the
several Underwriters listed
in Schedule 1 hereto

c/o J. P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

Ladies and Gentlemen:

Intrexon Corporation, a Virginia corporation (the "Company"), proposes to issue and lend to J. P. Morgan Securities LLC ("J.P. Morgan" and, in such capacity, the "Borrower") as a share loan, pursuant to and upon the terms set forth in the share lending agreement (the "Share Lending Agreement"), dated as of the date hereof, among the Company, the Borrower and JPMorgan Chase Bank, National Association, New York Branch, as Collateral Agent, 7,479,431 shares of Common Stock, no par value per share (the "Common Stock"), of the Company (the "Borrowed Shares"). The Company has been advised that the several underwriters listed in Schedule 1 hereto (the "Underwriters") will sell such Borrowed Shares to the public in a public offering by the Underwriters described below, and for whom J.P. Morgan has agreed to act as representative (the "Representative"). To the extent the firm or firms listed on Schedule 1 hereto include only the Representative, the term "Representative" and "Underwriters" as used herein shall mean J.P. Morgan, as Underwriter.

Concurrently with the issuance of the Borrowed Shares, the Company is offering (the "Notes Offering"), in an offering registered under the Securities Act of 1933, as amended, and the rules and regulations of the Securities and Exchange Commission (the "Commission") thereunder (collectively, the "Securities Act"), by means of a prospectus supplement and related prospectus, an aggregate principal amount of \$200,000,000 of 3.50% Convertible Senior Notes due 2023 (the "Notes") to be issued pursuant to an indenture (the "Base Indenture") to be dated on or prior to the initial issuance of the Notes between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee"), as supplemented by a supplemental indenture to be dated on or prior to the initial issuance of the Notes between the Company and the Trustee (the "Supplemental Indenture" and together with the Base Indenture, the "Indenture"). The Notes will be convertible into shares of Common Stock, cash or a combination thereof, at the Company's option. In connection with such offering of the Notes, the Company will enter into an underwriting agreement dated as of the date hereof between the Company and J.P. Morgan, as representative of the several underwriter(s) (the "Notes Underwriters"), relating to the Notes Offering (the "Notes Underwriting Agreement"). The Notes are expected to be issued on the Closing Date (as defined in the Notes Underwriting Agreement), which is referred to herein as the "Notes Closing Date."

The Company hereby confirms its agreement with the several Underwriters concerning the purchase and sale of the Borrowed Shares, as follows:

1. Registration Statement. The Company has prepared and filed with the Commission under the Securities Act an automatic shelf registration statement on Form S-3ASR (File No. 333-220326), including a prospectus, relating to the Borrowed Shares. Such registration statement, as amended at the time it became effective, including the information, if any, deemed pursuant to Rule 430A, 430B or 430C under the Securities Act to be part of the registration statement at the time of its effectiveness (“Rule 430 Information”), is referred to herein as the “Registration Statement”; and as used herein, the term “Preliminary Prospectus” means any prospectus filed with the Commission pursuant to Rule 424(a) under the Securities Act and the prospectus included in the Registration Statement at the time of its effectiveness that omits Rule 430 Information, and the term “Prospectus” means the prospectus in the form first used (or made available upon request of purchasers pursuant to Rule 173 under the Securities Act) in connection with confirmation of sales of the Borrowed Shares. If the Company has filed an abbreviated registration statement pursuant to Rule 462(b) under the Securities Act (the “Rule 462 Registration Statement”), then any reference herein to the term “Registration Statement” shall be deemed to include such Rule 462 Registration Statement. Any reference in this underwriting agreement (this “Agreement”) to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act, as of the effective date of the Registration Statement or the date of such Preliminary Prospectus or the Prospectus, as the case may be, and any reference to “amend”, “amendment” or “supplement” with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any documents filed after such date under the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder (collectively, the “Exchange Act”) that are deemed to be incorporated by reference therein. Capitalized terms used but not defined herein shall have the meanings given to such terms in the Registration Statement and the Prospectus.

At or prior to the Applicable Time (as defined below), the Company had prepared the following information (the “Pricing Disclosure Package”): a Preliminary Prospectus dated June 27, 2018 and each “free-writing prospectus” (as defined pursuant to Rule 405 under the Securities Act) listed on Annex A hereto.

“Applicable Time” means 11:40 P.M., New York City time, on June 28, 2018.

2. Delivery and Acceptance of the Borrowed Shares.

(a) On the basis of the representations, warranties and agreements contained herein, and upon the terms set forth herein, and subject to the terms and conditions in the Share Lending Agreement, (i) the Company agrees to deliver in accordance with instructions specified by the Borrower and (ii) the Borrower agrees to borrow from the Company, the Borrowed Shares.

(b) The Company understands that the Underwriters intend to make a public offering of the Borrowed Shares as soon after the effectiveness of this Agreement as in the judgment of the Representative is advisable, and initially to offer the Borrowed Shares on the terms set forth in the Pricing Disclosure Package. The Company acknowledges and agrees that the Underwriters may offer and sell Borrowed Shares to or through any affiliate of an Underwriter and that any affiliate may offer and sell Securities purchased by it to or through any Underwriter.

(c) In accordance with the Share Lending Agreement, delivery of the Borrowed Shares shall be made to the Borrower at 9:00 A.M., New York City time, on July 3, 2018, or at such other times on the same or such other date, not later than the fifth business day thereafter, as the Representative and the Company may agree upon in writing. The time and date of such delivery for the Borrowed Shares is referred to herein as the “Closing Date.”

(d) The Borrowed Shares shall be delivered by the Company to the Borrower on or before the Closing Date in accordance with the terms of the Share Lending Agreement and this Section 2. Delivery of the Borrowed Shares shall be made through the facilities of The Depository Trust Company unless the Representative shall otherwise instruct, and the Borrowed Shares shall be registered in such names and in such denominations as the Representative shall request in writing not later than one business day prior to the Closing Date.

(e) The Company acknowledges and agrees that each Underwriter and the Borrower are each acting solely in the capacity of an arm's length contractual counterparty to the Company with respect to the offering of Borrowed Shares contemplated hereby and not as a financial advisor or a fiduciary to, or an agent of, the Company or any other person. Additionally, none of the Representative, any other Underwriter or the Borrower is advising the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction. The Company shall consult with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the none of the Underwriters or the Borrower shall have any responsibility or liability to the Company with respect thereto. Any review by the Underwriters or the Borrower of the Company, the transactions contemplated hereby or other matters relating to such transactions will be performed solely for the benefit of the Underwriters or the Borrower, as the case may be, and shall not be on behalf of the Company.

3. Representations and Warranties of the Company. The Company represents and warrants to each Underwriter and the Borrower that:

(a) *Preliminary Prospectus.* No order preventing or suspending the use of any Preliminary Prospectus has been issued by the Commission, and each Preliminary Prospectus included in the Pricing Disclosure Package, at the time of filing thereof, complied in all material respects with the applicable requirements of the Securities Act, and no Preliminary Prospectus included in the Pricing Disclosure Package, at the time of filing thereof, contained any untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with information relating to any Underwriter or the Borrower furnished to the Company in writing by such Underwriter through the Representative or the Borrower expressly for use in any Preliminary Prospectus, it being understood and agreed that the only such information furnished by any Underwriter or the Borrower consists of the information described as such in Section 7(b) hereof.

(b) *Pricing Disclosure Package.* The Pricing Disclosure Package, as of the Applicable Time, did not, and as of the Closing Date will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with information relating to any Underwriter or the Borrower furnished to the Company in writing by such Underwriter through the Representative or the Borrower expressly for use in such Pricing Disclosure Package, it being understood and agreed that the only such information furnished by any Underwriter or the Borrower consists of the information described as such in Section 7(b) hereof.

(c) *Issuer Free Writing Prospectus.* Other than the Registration Statement, the Preliminary Prospectus and the Prospectus, the Company (including its agents and representatives, other than the Underwriters or the Borrower in their respective capacities as such)

has not prepared, used, authorized, approved or referred to and will not prepare, use, authorize, approve or refer to any “written communication” (as defined in Rule 405 under the Securities Act) that constitutes an offer to sell or solicitation of an offer to buy the Borrowed Shares (each such communication by the Company or its agents and representatives (other than a communication referred to in clause (i) below) an “Issuer Free Writing Prospectus”) other than (i) any document not constituting a prospectus pursuant to Section 2(a)(10)(a) of the Securities Act or Rule 134 under the Securities Act or (ii) the documents listed on Annex A hereto, each electronic road show and any other written communications approved in writing in advance by the Representative. Each such Issuer Free Writing Prospectus complied in all material respects with the Securities Act, has been or will be (within the time period specified in Rule 433) filed in accordance with the Securities Act (to the extent required thereby), and, when taken together with the Preliminary Prospectus filed prior to the first use of such Issuer Free Writing Prospectus, did not, and at the Closing Date will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in each such Issuer Free Writing Prospectus or Preliminary Prospectus in reliance upon and in conformity with information relating to any Underwriter or the Borrower furnished to the Company in writing by such Underwriter through the Representative or the Borrower expressly for use in such Issuer Free Writing Prospectus or Preliminary Prospectus, it being understood and agreed that the only such information furnished by any Underwriter or the Borrower consists of the information described as such in Section 7(b) hereof.

(d) *Registration Statement and Prospectus.* The Registration Statement is an “automatic shelf registration statement” as defined under Rule 405 of the Securities Act that has been filed with the Commission not earlier than three (3) years prior to the date hereof; and no notice of objection of the Commission to the use of such Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act has been received by the Company. No order suspending the effectiveness of the Registration Statement has been issued by the Commission, and no proceeding for that purpose or pursuant to Section 8A of the Securities Act against the Company or related to the offering of the Borrowed Shares has been initiated or, to the knowledge of the Company, threatened by the Commission; as of the applicable effective date of the Registration Statement and any post-effective amendment thereto, the Registration Statement and any such post-effective amendment complied and will comply in all material respects with the Securities Act, and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading; and as of the date of the Prospectus and any amendment or supplement thereto and as of the Closing Date the Prospectus does not and will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided that the Company makes no representation or warranty with respect to any statements or omissions made in reliance upon and in conformity with information furnished to the Company in writing by any Underwriter or the Borrower expressly for use in the Registration Statement and the Prospectus and any amendment or supplement thereto, it being understood and agreed that the only such information furnished by any Underwriter or the Borrower consists of the information described as such in Section 7(b) hereof.

(e) *Incorporated Documents.* The documents incorporated by reference in each of the Registration Statement, the Prospectus and the Pricing Disclosure Package, when they were filed with the Commission conformed in all material respects to the requirements of the Exchange Act, and none of such documents contained any untrue statement of a material fact or omitted to

state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Prospectus or the Pricing Disclosure Package, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(f) *Financial Statements.* The financial statements (including the related notes thereto) of the Company and its consolidated subsidiaries included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus comply in all material respects with the applicable requirements of the Securities Act and the Exchange Act, as applicable, and present fairly in all material respects the financial position of the Company and its consolidated subsidiaries as of the dates indicated and the results of their operations and the changes in their cash flows for the periods specified; such financial statements have been prepared in conformity with generally accepted accounting principles in the United States applied on a consistent basis throughout the periods covered thereby, except in the case of any unaudited financial statements, which are subject to normal year-end adjustments and do not contain certain footnotes as permitted by the applicable rules of the Commission, and any supporting schedules included or incorporated by reference in the Registration Statement present fairly in all material respects the information required to be stated therein; and the other financial information included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus has been derived from the accounting records of the Company and its consolidated subsidiaries and presents fairly in all material respects the information shown thereby; and the *pro forma* financial information and the related notes thereto included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus have been prepared in accordance with the applicable requirements of the Securities Act and the Exchange Act, as applicable, and the assumptions underlying such *pro forma* financial information are reasonable and are set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(g) *No Material Adverse Change.* Since the date of the most recent financial statements of the Company included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (i) there has not been any change in the capital stock (other than the issuance of shares of Common Stock upon exercise of stock options and warrants described as outstanding in, and the grant of options and awards under existing equity incentive plans described in, the Registration Statement, the Pricing Disclosure Package and the Prospectus), short-term debt (outside the ordinary course of business) or long-term debt of the Company or any of its subsidiaries, or any dividend or distribution of any kind declared, set aside for payment, paid or made by the Company on any class of capital stock, or any material adverse change, or any development involving a prospective material adverse change, in or affecting the business, properties, management, financial position, shareholders' equity or results of operations of the Company and its subsidiaries taken as a whole; (ii) neither the Company nor any of its subsidiaries has entered into any transaction or agreement (whether or not in the ordinary course of business) that is material to the Company and its subsidiaries taken as a whole or incurred any liability or obligation, direct or contingent, that is material to the Company and its subsidiaries taken as a whole; and (iii) neither the Company nor any of its subsidiaries has sustained any loss or interference with its business that is material to the Company and its subsidiaries taken as a whole and that is either from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or any action, order or decree of any court or arbitrator or governmental or regulatory authority, except in each of clauses (i)-(iii) as otherwise disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(h) *Organization and Good Standing.* The Company and each of its subsidiaries have been duly organized and are validly existing and in good standing (or jurisdictional equivalent) under the laws of their respective jurisdictions of organization, are duly qualified to do business and are in good standing in each jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such qualification, and have all corporate power and authority necessary to own or hold their respective properties and to conduct the businesses in which they are engaged, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, have a material adverse effect on the business, properties, management, financial position, shareholders' equity, results of operations or prospects of the Company and its subsidiaries taken as a whole or on the performance by the Company of its obligations under the Transaction Documents (as defined below) (a "Material Adverse Effect"). The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21.1 to its Annual Report on Form 10-K for the year ended December 31, 2017.

(i) *Capitalization.* The Company has an authorized capitalization as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus under the heading "Capitalization"; all the outstanding shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable and are not subject to any pre-emptive or similar rights that have not been duly waived or satisfied; except as described in or expressly contemplated by the Pricing Disclosure Package and the Prospectus, there are no outstanding rights (including, without limitation, pre-emptive rights), warrants or options to acquire, or instruments convertible into or exchangeable for, any shares of capital stock or other equity interest in the Company or any of its wholly owned subsidiaries, or any contract, commitment, agreement, understanding or arrangement of any kind relating to the issuance of any capital stock of the Company or any of its wholly owned subsidiaries, any such convertible or exchangeable securities or any such rights, warrants or options; and the capital stock of the Company conforms in all material respects to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and all the outstanding shares of capital stock or other equity interests of each subsidiary owned, directly or indirectly, by the Company have been duly and validly authorized and issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of any lien, charge, encumbrance, security interest, restriction on voting or transfer or any other claim of any third party.

(j) *Stock Options.* With respect to the outstanding stock options (the "Stock Options") granted pursuant to the stock-based compensation plans of the Company and its subsidiaries (the "Company Stock Plans"), (i) each Stock Option intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), so qualifies, (ii) each grant of a Stock Option was duly authorized no later than the date on which the grant of such Stock Option was by its terms to be effective (the "Grant Date") by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required shareholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto, (iii) each such grant was made in all material respects in accordance with the terms of the Company Stock Plans and all applicable laws and regulatory rules or requirements, and (iv) each such grant was properly accounted for in accordance with GAAP in the financial statements (including the related notes) of the Company.

(k) *Due Authorization.* The Company has full corporate right, power and authority to execute and deliver this Agreement and the Share Lending Agreement (together, the “Transaction Documents”) and to perform its obligations hereunder and thereunder; and all corporate action required to be taken for the due and proper authorization, execution and delivery by it of each of the Transaction Documents and the consummation by it of the transactions contemplated thereby or hereby has been duly and validly taken.

(l) *Underwriting Agreement.* This Agreement has been duly authorized, executed and delivered by the Company.

(m) *Share Lending Agreement.* The Share Lending Agreement has been duly authorized, executed and delivered by the Company and constitutes a valid and legally binding agreement of the Company enforceable against the Company in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting the enforcement of creditors’ rights generally or by equitable principles relating to enforceability.

(n) *The Borrowed Shares.* The Borrowed Shares to be issued and delivered by the Company hereunder have been duly authorized and, when issued and delivered as provided in the Transaction Documents, will be duly and validly issued, will be fully paid and nonassessable and will conform to the descriptions thereof in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and the issuance of the Borrowed Shares is not subject to any preemptive or similar rights that have not been duly waived.

(o) *Descriptions of the Transaction Documents.* Each Transaction Document conforms in all material respects to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(p) *No Violation or Default.* Neither the Company nor any of its subsidiaries is (i) in violation of its charter or bylaws or similar organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject (collectively, “Company Contracts”); or (iii) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except, in the case of clauses (ii) and (iii) above, for any such default or violation that would not, individually or in the aggregate, have a Material Adverse Effect. To the knowledge of the Company, all third parties that are parties to any Company Contracts are in compliance with the terms, covenants and conditions contained in such Company Contracts, except for any violation that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(q) *No Conflicts.* The execution, delivery and performance by the Company of each of the Transaction Documents, the issuance and delivery of the Borrowed Shares by the Company and the consummation by the Company of the transactions contemplated by each of the Transaction Documents will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of

its subsidiaries is subject, (ii) result in any violation of the provisions of the charter or by-laws or similar organizational documents of the Company or any of its subsidiaries or (iii) result in the violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except, in the case of clauses (i) and (iii) above, for any such conflict, breach, violation or default that would not, individually or in the aggregate, have a Material Adverse Effect.

(r) *No Consents Required.* No consent, approval, authorization, order, license, registration or qualification of or with any court or arbitrator or governmental or regulatory authority is required for the execution, delivery and performance by the Company of the Transaction Documents, the issuance and delivery of the Borrowed Shares and the consummation of the transactions contemplated by the Transaction Documents, except for the registration of the Borrowed Shares under the Securities Act and such consents, approvals, authorizations, orders and registrations or qualifications as may be required by the Financial Industry Regulatory Authority, Inc. ("FINRA"), the New York Stock Exchange, under applicable state securities laws in connection with the borrowing and distribution of the Borrowed Shares by the Borrower and the Underwriters, and the waiver under that certain Eighth Amended and Restated Investors' Rights Agreement, dated as of March 1, 2013, from certain investors in our capital stock.

(s) *Legal Proceedings.* Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no legal, governmental or regulatory investigations, actions, suits or proceedings pending to which the Company or any of its subsidiaries is a party or to which any property of the Company or any of its subsidiaries is the subject that, individually or in the aggregate, if determined adversely to the Company or any of its subsidiaries, would reasonably be expected to have a Material Adverse Effect; to the knowledge of the Company, no such investigations, actions, suits or proceedings are threatened or contemplated by any governmental or regulatory authority or threatened by others; and (i) there are no current or pending legal, governmental or regulatory actions, suits or proceedings that are required under the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that are not so described in the Registration Statement, the Pricing Disclosure Package and the Prospectus and (ii) there are no statutes, regulations or contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement or described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that are not so filed as exhibits to the Registration Statement or described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(t) *Independent Accountants.* PricewaterhouseCoopers LLC who have certified certain financial statements of the Company and its subsidiaries, and RSM US LLP, who have certified certain financial statements of ZIOPHARM Oncology, Inc., is each an independent registered public accounting firm with respect to the Company and its subsidiaries and ZIOPHARM Oncology, Inc., as applicable, within the applicable rules and regulations adopted by the Commission and the Public Company Accounting Oversight Board (United States) and as required by the Securities Act.

(u) *Title to Real and Personal Property.* The Company owns no real property and the Company and its subsidiaries have valid rights to lease or otherwise use, all items of real and personal property that are material to the respective businesses of the Company and its subsidiaries, in each case free and clear of all liens, encumbrances, claims and defects and imperfections of title except those that (i) do not materially interfere with the use made and proposed to be made of such property by the Company and its subsidiaries or (ii) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(v) *Intellectual Property*. Except as described, or incorporated by reference, in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company and its subsidiaries own or possess adequate rights to use all material patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, domain names, goodwill associated with the foregoing, copyrights, licenses, inventions, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) and other technology and intellectual property rights ("Intellectual Property") necessary for the conduct of its business as currently conducted and as proposed to be conducted as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except where the failure to own or possess adequate rights to use such Intellectual Property would not reasonably be expected to have a Material Adverse Effect; and, to the knowledge of the Company, the conduct of their respective businesses as currently conducted and as proposed to be conducted as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, does not infringe, misappropriate or otherwise violate any such rights of others, except as would not reasonably be expected to have a Material Adverse Effect. Except as would not reasonably be expected to have a Material Adverse Effect, the Company has not received any notice in the past six years or any written notice of any claim of infringement, misappropriation or other violation of any Intellectual Property of any third party, or any claim challenging the validity, scope, or enforceability of any Intellectual Property owned by or licensed to the Company or the Company's rights therein, excluding office actions before the U.S. Patent and Trademark Office and foreign patent and trademark offices arising in the ordinary course of prosecuting any pending applications included within such Intellectual Property. Except as would not reasonably be expected to have a Material Adverse Effect, to the knowledge of the Company, no third party has infringed, misappropriated or otherwise used Intellectual Property owned by the Company in conflict with the Company's rights therein. Except as described, or incorporated by reference, in the Registration Statement, the Pricing Disclosure Package and the Prospectus, all Intellectual Property owned by the Company is owned solely by the Company and is owned free and clear of all material liens, encumbrances, defects or other restrictions. Except as would not reasonably be expected to have a Material Adverse Effect, all licenses pursuant to which any material Intellectual Property is licensed to the Company are free and clear of all liens and free of any restrictions or defects that would conflict with the conduct of the business of the Company. The Company has no knowledge of any specific facts that would support a finding that any of the issued or granted patents owned by or licensed to the Company is invalid or unenforceable and, to the knowledge of the Company, all such issued or granted patents are valid and enforceable. To the knowledge of the Company, there is no patent or patent application of any third party that contains claims that would interfere with a patent or patent application owned by or licensed to the Company or any of its subsidiaries, and no such patent interference has been provoked or declared. The Company is not subject to any judgment, order, writ, injunction or decree of any court or any federal, state, local, foreign or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any arbitrator, nor has it entered into or is it a party to any agreement made in settlement of any pending or threatened litigation, which materially restricts or impairs their respective use of any Intellectual Property. The Company and its subsidiaries have taken all reasonable steps necessary to secure interests in the Intellectual Property owned by the Company from their employees, consultants, agents and contractors. There are no outstanding options, licenses or agreements of any kind relating to the Intellectual Property owned by the Company or any of its subsidiaries that are required to be described in the Registration Statement, the General Disclosure Package and the Prospectus and are not described in all material respects. The Company and its subsidiaries are not a party to or bound by any options, licenses or agreements with respect to the Intellectual Property of any other person or entity that are required to be set forth in the Prospectus and are not described in all material respects. To the knowledge of the Company, no governmental agency or body or other third party has any claim or right in or to any Intellectual

Property owned by the Company or any of its subsidiaries, except as would not reasonably be expected to have a Material Adverse Effect on the conduct of its business as currently conducted and as proposed to be conducted as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus. No software governed by a license commonly referred to as an open source, free software, copyleft or community source code license, including, but not limited to, the GNU General Public License or GNU Lesser General Public License (such software, "Open Source Software"), is used by the Company or any of its subsidiaries in a manner that obligates the Company to (A) distribute or disclose any other software combined, distributed or otherwise made available with such Open Source Software in source code form or (B) license or otherwise make available such Open Source Software and/or other software combined, distributed or otherwise made commercially available with such Open Source Software or any associated Intellectual Property on a royalty free basis, except as would not reasonably be expected to have a Material Adverse Effect. The Company and its subsidiaries have taken all reasonable security measures to protect its rights in material confidential information and material trade secrets they own, including, without limitation, requiring each employee and consultant and any other person with access to material trade secrets to execute a binding confidentiality agreement and, to the knowledge of the Company, there has not been any breach by any party to such confidentiality agreements, except where such breach would not reasonably be expected to have a Material Adverse Effect.

(w) *No Undisclosed Relationships.* No relationship, direct or indirect, exists between or among the Company or any of its subsidiaries, on the one hand, and the directors, officers, shareholders, customers or suppliers of the Company or any of its subsidiaries, on the other, that is required by the Securities Act to be described in the Registration Statement and the Prospectus and that is not so described in such documents and in the Pricing Disclosure Package.

(x) *Investment Company Act.* The Company is not and, after giving effect to the offering and delivery of the Borrowed Shares and the application of the proceeds thereof as described in the Registration Statement, the Pricing Disclosure Package, the Prospectus and the Share Lending Agreement, will not be required to register as an "investment company" or an entity "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder (the "Investment Company Act").

(y) *Taxes.* The Company and its subsidiaries have filed all material tax returns that are required to have been filed by them pursuant to applicable state, local or foreign law, and have paid all taxes shown thereon or otherwise assessed, which are due and payable, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves have been provided; and except as otherwise disclosed, or incorporated by reference, in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there is no material tax deficiency that has been, or would reasonably be expected to be, asserted against the Company or any of its subsidiaries or any of their respective properties or assets.

(z) *Licenses and Permits.* The Company and its subsidiaries possess all licenses, certificates, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental or regulatory authorities that are necessary for the ownership or lease of their respective properties or the conduct of their respective businesses as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except where the failure to possess or make the same would not, individually or in the aggregate, have a Material Adverse Effect; and except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, neither the Company nor any of its subsidiaries has received notice of any revocation or modification of any such license, certificate,

permit or authorization or has any reason to believe that any such license, certificate, permit or authorization will not be renewed in the ordinary course, except where such revocation, modification or nonrenewal would not reasonably be expected to have a Material Adverse Effect.

(aa) *No Labor Disputes.* No labor disturbance by or dispute with employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is contemplated or threatened, and the Company is not aware of any existing or imminent labor disturbance by, or dispute with, the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, except as would not have a Material Adverse Effect.

(bb) *Compliance with and Liability under Environmental Laws.* (i) The Company and its subsidiaries (a) are, and during the past five years were, in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, requirements, decisions, judgments, decrees, orders and the common law relating to pollution or the protection of the environment, natural resources or human health or safety, including those relating to the generation, storage, treatment, use, handling, transportation, Release (as defined below) or threat of Release of Hazardous Materials (as defined below) (collectively, "Environmental Laws"), (b) have received and are in compliance with all permits, licenses, certificates or other authorizations or approvals required of them under applicable Environmental Laws to conduct their respective businesses, (c) have not received notice of any actual or potential liability under or relating to, or actual or potential violation of, any Environmental Laws, including for the investigation or remediation of any Release or threat of Release of Hazardous Materials, and have no knowledge of any event or condition that would reasonably be expected to result in any such notice, (d) are not conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any Environmental Law at any location, and (e) are not a party to any order, decree or agreement that imposes any obligation or liability under any Environmental Law, and (ii) there are no costs or liabilities associated with Environmental Laws of or relating to the Company or its subsidiaries, except in the case of each of (i) and (ii) above, for any such matter, as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (iii) except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) there are no proceedings that are pending, or that are known by the Company to be contemplated, against the Company or any of its subsidiaries under any Environmental Laws in which a governmental entity is also a party, other than such proceedings regarding which it is reasonably believed no monetary sanctions of \$100,000 or more will be imposed against the Company or any of its subsidiaries, (b) to the knowledge of the Company, there are no facts or issues regarding compliance with Environmental Laws, or liabilities or other obligations under Environmental Laws, including the Release or threat of Release of Hazardous Materials, that would reasonably be expected to have a Material Adverse Effect, and (c) none of the Company and its subsidiaries anticipates material capital expenditures relating to any Environmental Laws.

(cc) *Regulatory Compliance.* Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, to the knowledge of the Company, all third parties that are collaborating with the Company are (i) in material compliance with all applicable statutes, rules and regulations of the applicable regulatory authorities (collectively, "Applicable Laws") and (ii) have not received any notice of adverse finding, warning letter, untitled letter or other correspondence or notice from any regulatory authority alleging or asserting material noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, exemptions, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws, in either case of (i) or (ii) above, solely related to products being developed in collaboration with the Company.

(dd) *Hazardous Materials*. There has been no storage, generation, transportation, use, handling, treatment, Release (as defined below) or threat of Release of Hazardous Materials (as defined below) by, relating to or caused by the Company or any of its subsidiaries (or, to the knowledge of the Company and its subsidiaries, any other entity (including any predecessor) for whose acts or omissions the Company or any of its subsidiaries is or would reasonably be expected to be liable) at, on, under or from any property or facility now or, to the knowledge of the Company, previously owned, operated or leased by the Company or any of its subsidiaries, or, to the knowledge of the Company, at, on, under or from any other property or facility, in violation of any Environmental Laws or in a manner or amount or to a location that would reasonably be expected to result in any liability under any Environmental Law, except for any violation or liability which would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. “Hazardous Materials” means any material, chemical, substance, waste, pollutant, contaminant, compound, mixture, or constituent thereof, in any form or amount, including petroleum (including crude oil or any fraction thereof) and petroleum products, natural gas liquids, asbestos and asbestos containing materials, naturally occurring radioactive materials, brine, and drilling mud, regulated or which can give rise to liability under any Environmental Law. “Release” means any spilling, leaking, seepage, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, disposing, depositing, dispersing, or migrating in, into or through the environment, or in, into, from or through any building or structure.

(ee) *Compliance with ERISA*. Except, in each case, for any such matter as would not, individually, or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), for which the Company or any member of its “Controlled Group” (defined as any organization which is a member of a controlled group of corporations within the meaning of Section 414 of the Code) would have any liability (each, a “Plan”) has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan excluding transactions effected pursuant to a statutory or administrative exemption; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, the minimum funding standard of Section 412 of the Code or Section 302 of ERISA, as applicable, has been satisfied (without taking into account any waiver thereof or extension of any amortization period) and is reasonably expected to be satisfied in the future (without taking into account any waiver thereof or extension of any amortization period); (iv) the fair market value of the assets of each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (v) no “reportable event” (within the meaning of Section 4043(c) of ERISA) has occurred or is reasonably expected to occur; (vi) neither the Company nor any member of the Controlled Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the PBGC, in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan”, within the meaning of Section 4001(a)(3) of ERISA); and (vii) to the knowledge of the Company, there is no pending audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other governmental agency or any foreign regulatory agency with respect to any Plan. None of the following events has occurred or, to the knowledge of the Company, is reasonably likely to occur: (x) a material increase in the aggregate amount of contributions required to be made to all Plans by the Company or its subsidiaries in the current fiscal year of the Company and its subsidiaries compared to the amount of such contributions made in the Company and its

subsidiaries' most recently completed fiscal year; or (y) an increase that is material to the Company and its subsidiaries, taken as a whole, in the Company and its subsidiaries' "accumulated post-retirement benefit obligations" (within the meaning of Statement of Financial Accounting Standards 106) compared to the amount of such obligations in the Company and its subsidiaries' most recently completed fiscal year.

(ff) *Disclosure Controls.* The Company and its subsidiaries maintain an effective system of "disclosure controls and procedures" (as defined in Rule 13a-15(e) of the Exchange Act) that complies with the requirements of the Exchange Act and that has been designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company's management as appropriate to allow timely decisions regarding required disclosure.

(gg) *Accounting Controls.* The Company and its subsidiaries maintain systems of "internal control over financial reporting" (as defined in Rule 13a-15(f) of the Exchange Act) that have been designed to comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences and (v) interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no material weaknesses in the Company's internal control over financial reporting. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which have adversely affected or are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

(hh) *eXtensible Business Reporting Language.* The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(ii) *Insurance.* The Company and its subsidiaries have insurance covering their respective properties, operations, personnel and businesses, including business interruption insurance, which insurance is in amounts and insures against such losses and risks as the Company reasonably believes are adequate to protect the Company and its subsidiaries and their

respective businesses; and neither the Company nor any of its subsidiaries has (i) received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance or (ii) any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business in all material respects.

(jj) *No Unlawful Payments.* Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person authorized to act on behalf of the Company or any of its subsidiaries has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested any unlawful bribe or other unlawful benefit, including, without limitation, any rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company and its subsidiaries have instituted, maintain and enforce, and will continue to maintain and enforce policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws.

(kk) *Compliance with Anti-Money Laundering Laws.* The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the applicable money laundering statutes of all jurisdictions where the Company or any of its subsidiaries conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency (collectively, the “Anti-Money Laundering Laws”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(ll) *No Conflicts with Sanctions Laws.* None of the Company, any of its subsidiaries, or, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person associated with or authorized to act on behalf of the Company or any of its subsidiaries is currently the subject or the target of any sanctions administered or enforced by the U.S. government, (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State and including, without limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council, the European Union, Her Majesty’s Treasury or other relevant sanctions authority (collectively, “Sanctions”), nor is the Company, any of its subsidiaries located, organized or resident in a country or territory that is the subject or target of Sanctions, including, without limitation, Cuba, Iran, North Korea, Syria and Crimea (each, a “Sanctioned Country”); and the Company will not directly or indirectly use the proceeds of the offering of the Borrowed Shares hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity (i) to fund or facilitate any activities of or business with any person that, at the time of such funding or facilitation, is the subject or target of Sanctions, (ii) to fund or facilitate any activities of or business in any Sanctioned Country or (iii) in any other manner that will result in a violation by any person (including any person

participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions. For the past five years, the Company and its subsidiaries have not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country.

(mm) *No Restrictions on Subsidiaries.* Except as prohibited by law, no wholly owned subsidiary of the Company is currently prohibited, directly or indirectly, under any agreement or other instrument to which it is a party or is subject, from paying any dividends to the Company, from making any other distribution on such wholly owned subsidiary's capital stock or similar ownership interest, from repaying to the Company any loans or advances to such wholly owned subsidiary from the Company or from transferring any of such wholly owned subsidiary's properties or assets to the Company or any other subsidiary of the Company.

(nn) *No Broker's Fees.* Neither the Company nor any of its subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Company or any of its subsidiaries or any Underwriter or the Borrower for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Borrowed Shares.

(oo) *No Registration Rights.* Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no person has the right to require the Company or any of its subsidiaries to register any securities for sale under the Securities Act by reason of the filing of the Registration Statement with the Commission or the issuance and sale of the Borrowed Shares, except for such rights that have been waived.

(pp) *No Stabilization.* The Company has not taken, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in any stabilization or manipulation of the price of the Borrowed Shares.

(qq) *Margin Rules.* The application of the proceeds received by the Company from the issuance and delivery of the Borrowed Shares as described in the Registration Statement, the Pricing Disclosure Package, the Prospectus and the Share Lending Agreement will not violate Regulation T, U or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

(rr) *Forward-Looking Statements.* No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(ss) *Statistical and Market Data.* Nothing has come to the attention of the Company that has caused the Company to believe that the statistical and market-related data included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus is not based on or derived from sources that are reliable and accurate in all material respects.

(tt) *Sarbanes-Oxley Act.* There is and has been no failure on the part of the Company or, to the knowledge of the Company, any of the Company's directors or officers, in their capacities as such, to comply with any applicable provision of the Sarbanes-Oxley Act of 2002, as amended and the rules and regulations promulgated in connection therewith, including Section 402 related to loans and Sections 302 and 906 related to certifications.

(uu) *Status under the Securities Act.* At the time of filing the Registration Statement and any post-effective amendment thereto, at the earliest time thereafter that the Company or any offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Borrowed Shares and at the date hereof, the Company was not and is not an “ineligible issuer,” and is a well-known seasoned issuer, in each case as defined in Rule 405 under the Securities Act.

(vv) *Insolvency.* The Company is not “insolvent” (as such term is defined under Section 101(32) of Title 11 of the United States Code), and the Company would be able to purchase a number of shares of Common Stock equal to the number of Borrowed Shares in compliance with the corporate law of the Company’s jurisdiction of incorporation.

4. Further Agreements of the Company. The Company covenants and agrees with each Underwriter and the Borrower that:

(a) *Required Filings.* The Company will file the final Prospectus with the Commission within the time periods specified by Rule 424(b) and Rule 430A, 430B or 430C under the Securities Act, will file any Issuer Free Writing Prospectus (including the term sheet substantially in the form of Annex B hereto) to the extent required by Rule 433 under the Securities Act; and the Company will furnish copies of the Prospectus and each Issuer Free Writing Prospectus (to the extent not previously delivered) to the Underwriters and the Borrower in New York City prior to 10:00 A.M., New York City time, on the business day next succeeding the date of this Agreement in such quantities as the Representative or the Borrower may reasonably request. The Company will pay the registration fee for this offering within the time period required by Rule 456(b)(1) under the Securities Act (without giving effect to the proviso therein) and in any event prior to the Closing Date.

(b) *Delivery of Copies.* The Company will deliver, without charge, (i) to the Representative, two (2) signed copies of the Registration Statement as originally filed and each amendment thereto, in each case including all exhibits and consents filed therewith and documents incorporated by reference therein; and (ii) to each Underwriter and the Borrower (A) a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) and (B) during the Prospectus Delivery Period (as defined below), as many copies of the Prospectus (including all amendments and supplements thereto and documents incorporated by reference therein) and each Issuer Free Writing Prospectus as the Representative or the Borrower may reasonably request. As used herein, the term “Prospectus Delivery Period” means such period of time after the first date of the public offering of the Borrowed Shares as in the opinion of counsel for the Underwriters and the Borrower a prospectus relating to the Borrowed Shares is required by law to be delivered (or required to be delivered but for Rule 172 under the Securities Act) in connection with sales of the Borrowed Shares by any Underwriter or dealer.

(c) *Amendments or Supplements, Issuer Free Writing Prospectuses.* Before preparing, using, authorizing, approving, referring to or filing any Issuer Free Writing Prospectus, and before filing any amendment or supplement to the Registration Statement or the Prospectus, whether before or after the time that the Registration Statement becomes effective, the Company will furnish to the Representative, the Borrower and counsel for the Underwriters and the Borrower a copy of the proposed Issuer Free Writing Prospectus, amendment or supplement for

review and will not prepare, use, authorize, approve, refer to or file any such Issuer Free Writing Prospectus or file any such proposed amendment or supplement to which the Representative or the Borrower reasonably object.

(d) *Notice to the Representative and the Borrower.* The Company will advise the Representative and the Borrower promptly, and confirm such advice in writing, (i) when the Registration Statement has become effective; (ii) when any amendment to the Registration Statement has been filed or becomes effective; (iii) when any supplement to the Prospectus or any Issuer Free Writing Prospectus or any amendment to the Prospectus has been filed or distributed; (iv) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or the receipt of any comments from the Commission relating to the Registration Statement or any other request by the Commission for any additional information; (v) of the issuance by the Commission of any order suspending the effectiveness of the Registration Statement or preventing or suspending the use of any Preliminary Prospectus, any of the Pricing Disclosure Package or the Prospectus or the initiation or, to the knowledge of the Company, threatening of any proceeding for that purpose or pursuant to Section 8A of the Securities Act; (vi) of the occurrence of any event or development within the Prospectus Delivery Period as a result of which the Prospectus, the Pricing Disclosure Package or any Issuer Free Writing Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Prospectus, the Pricing Disclosure Package or any such Issuer Free Writing Prospectus is delivered to a purchaser, not misleading; (vii) of the receipt by the Company of any notice of objection of the Commission to the use of the Registration Statement or any post-effective amendment thereto pursuant to Rule 401(g)(2) under the Securities Act; and (viii) of the receipt by the Company of any notice with respect to any suspension of the qualification of the Borrowed Shares for offer and sale in any jurisdiction or the initiation or, to the knowledge of the Company, threatening of any proceeding for such purpose; and the Company will use its commercially reasonable best efforts to prevent the issuance of any such order suspending the effectiveness of the Registration Statement, preventing or suspending the use of any Preliminary Prospectus, any of the Pricing Disclosure Package or the Prospectus or suspending any such qualification of the Borrowed Shares and, if any such order is issued, will obtain as soon as possible the withdrawal thereof.

(e) *Ongoing Compliance.* (i) If during the Prospectus Delivery Period (A) any event or development shall occur or condition shall exist as a result of which the Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances existing when the Prospectus is delivered to a purchaser, not misleading or (B) it is necessary to amend or supplement the Prospectus to comply with law, the Company will as soon as practicable, but in no event later than one (1) business day, notify the Underwriters and the Borrower thereof and forthwith prepare and, subject to paragraph (c) above, file with the Commission and furnish to the Underwriters, the Borrower and to such dealers as the Representative may designate, such amendments or supplements to the Prospectus (or any document to be filed with the Commission and incorporated by reference therein) as may be necessary so that the statements in the Prospectus as so amended or supplemented (or any document to be filed with the Commission and incorporated by reference therein) will not, in the light of the circumstances existing when the Prospectus is delivered to a purchaser, be misleading or so that the Prospectus will comply with law and (ii) if at any time prior to the Closing Date (A) any event or development shall occur or condition shall exist as a result of which the Pricing Disclosure Package as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein,

in the light of the circumstances existing when the Pricing Disclosure Package is delivered to a purchaser, not misleading or (B) it is necessary to amend or supplement the Pricing Disclosure Package to comply with law, the Company will immediately notify the Underwriters and the Borrower thereof and forthwith prepare and, subject to paragraph (c) above, file with the Commission (to the extent required) and furnish to the Underwriters, the Borrower and to such dealers as the Representative may designate, such amendments or supplements to the Pricing Disclosure Package (or any document to be filed with the Commission and incorporated by reference therein) as may be necessary so that the statements in the Pricing Disclosure Package as so amended or supplemented will not, in the light of the circumstances existing when the Pricing Disclosure Package is delivered to a purchaser, be misleading or so that the Pricing Disclosure Package will comply with applicable law.

(f) *Blue Sky Compliance.* The Company will use its commercially reasonable best efforts, with the Underwriters' and the Borrower's cooperation, if necessary, to qualify the Borrowed Shares for offer and sale under the securities or Blue Sky laws of such jurisdictions as the Representative and the Borrower shall reasonably request and will use its commercially reasonable best efforts, with the Underwriters' cooperation, if necessary, to continue such qualifications in effect so long as required for distribution of the Borrowed Shares; provided that the Company shall not be required to (i) qualify as a foreign corporation or other entity or as a dealer in securities in any such jurisdiction where it would not otherwise be required to so qualify, (ii) file any general consent to service of process in any such jurisdiction or (iii) subject itself to taxation in any such jurisdiction if it is not otherwise so subject.

(g) *Earning Statement.* The Company will make generally available to its security holders and the Representative as soon as practicable an earning statement that satisfies the provisions of Section 11(a) of the Securities Act and Rule 158 of the Commission promulgated thereunder covering a period of at least twelve (12) months beginning with the first fiscal quarter of the Company occurring after the "effective date" (as defined in Rule 158) of the Registration Statement, it being understood and agreed that such earning statement shall be deemed to have been made available by the Company if the Company is in compliance with its reporting obligations pursuant to the Exchange Act, if such compliance satisfies the conditions of Rule 158, and if such earning statement is made available on the Commission's Electronic Data Gathering, Analysis and Retrieval system ("EDGAR").

(h) *Clear Market.* For a period of ninety (90) days after the date of the Prospectus, the Company will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file with the Commission a registration statement under the Securities Act relating to, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing (other than filings on Form S-8 relating to Company Stock Plans that are in existence at the Applicable Time and disclosed in the Prospectus), or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, without the prior written consent of J.P. Morgan Securities LLC, other than (A) to effect the transactions contemplated by this Agreement and the Share Lending Agreement (including, without limitation, the issuance of the Borrowed Shares), (B) any shares of Common Stock of the Company issued upon the exercise of options granted under the Company Stock Plans, (C) any shares of Common Stock of the Company issued upon the exercise of warrants outstanding on the date of the Prospectus, (D)

sales of shares pursuant to the Company's employee stock purchase plan and grants of equity awards granted under Company Stock Plans, in each case as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (E) the issuance of up to that number of shares equal to seven percent (7%) of the Company's outstanding shares of Common Stock, calculated prior to the issuance of the Common Stock to the Borrower pursuant to the Share Lending Agreement, in connection with mergers or acquisitions of businesses, entities, property or other assets, joint ventures or strategic alliances ("Carveout Shares"), provided that the Company shall cause each such recipient of Carveout Shares to execute and deliver to the Representative a lock-up letter substantially in the form of Exhibit A hereto for the balance of the 90-day restricted period and (F) the Notes to be sold pursuant to the Notes Underwriting Agreement and any Underlying Securities (as defined in the Notes Underwriting Agreement) issuable upon conversion of the Notes.

(i) *No Stabilization.* The Company will not take, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in any stabilization or manipulation of the price of the Common Stock.

(j) *Exchange Listing.* The Company will cause the Borrowed Shares to be listed, subject to notice of issuance, on the New York Stock Exchange and will maintain the listing of the Borrowed Shares at all times prior to the termination of the Share Lending Agreement.

(k) *Reports.* For a period of three (3) years from the date of this Agreement, the Company will furnish to the Representative, as soon as commercially reasonable after the date they are available, copies of all reports or other communications (financial or other) furnished to holders of the Borrowed Shares, and copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange or automatic quotation system; provided the Company will be deemed to have furnished such reports and financial statements to the Representative to the extent they are filed on EDGAR.

(l) *Record Retention.* The Company will, pursuant to reasonable procedures developed in good faith, retain copies of each Issuer Free Writing Prospectus that is not filed with the Commission in accordance with Rule 433 under the Securities Act.

(m) *Filings.* The Company will file with the Commission such reports as may be required by Rule 463 under the Securities Act.

(n) *Investment Company.* The Company will not invest, or otherwise use the proceeds received by the Company from its sale of the Borrowed Shares in such a manner as would require the Company to register as an investment company under the Investment Company Act.

(o) *Transfer Agent.* The Company will maintain a transfer agent and, if necessary under the jurisdiction of incorporation of the Company, a registrar for the Common Stock.

(p) *Lock-up Agreements.* The Company has caused each officer and director and certain shareholders of the Company to furnish to J.P. Morgan Securities LLC, on or prior to the date of this Agreement, a "lock-up" agreement, each substantially in the form of Exhibit A to the Notes Underwriting Agreement.

5. Certain Agreements of the Underwriters and the Borrower. Each Underwriter and the Borrower hereby represents and agrees that:

(a) It has not used, authorized use of, referred to or participated in the planning for use of, and will not use, authorize use of, refer to or participate in the planning for use of, any “free writing prospectus”, as defined in Rule 405 under the Securities Act (which term includes use of any written information furnished to the Commission by the Company and not incorporated by reference into the Registration Statement and any press release issued by the Company) other than (i) a free writing prospectus that contains no “issuer information” (as defined in Rule 433(h)(2) under the Securities Act) that was not included (including through incorporation by reference) in the Preliminary Prospectus or a previously filed Issuer Free Writing Prospectus, (ii) any Issuer Free Writing Prospectus listed on Annex A or prepared pursuant to Section 3(c) or Section 4(c) above (including any electronic road show), or (iii) any free writing prospectus prepared by such Underwriter and/or the Borrower and approved by the Company in advance in writing (each such free writing prospectus referred to in clauses (i) or (iii), an “Underwriter Free Writing Prospectus”).

(b) It has not and will not, without the prior written consent of the Company, use any free writing prospectus that contains the final terms of the Borrowed Shares unless such terms have previously been included in a free writing prospectus filed with the Commission; *provided* that the Underwriters and the Borrower may use a term sheet substantially in the form of Annex B hereto without the consent of the Company; *provided further* that any Underwriter using such term sheet shall notify the Company, and provide a copy of such term sheet to the Company, prior to, or substantially concurrently with, the first use of such term sheet.

(c) It is not subject to any pending proceeding under Section 8A of the Securities Act with respect to the offering contemplated by this Agreement (and will promptly notify the Company if any such proceeding against it is initiated during the Prospectus Delivery Period).

6. Conditions of Underwriters’ and Borrower’s Obligations. The obligation of each Underwriter and the Borrower with respect to the Borrowed Shares to be delivered on the Closing Date as provided herein is subject to the performance by the Company of its covenants and other obligations hereunder and to the following additional conditions:

(a) *Registration Compliance; No Stop Order.* No order suspending the effectiveness of the Registration Statement shall be in effect, and no proceeding for such purpose, pursuant to Rule 401(g)(2) or pursuant to Section 8A under the Securities Act shall be pending before or threatened by the Commission; the Prospectus and each Issuer Free Writing Prospectus shall have been timely filed with the Commission under the Securities Act (in the case of an Issuer Free Writing Prospectus, to the extent required by Rule 433 under the Securities Act) and in accordance with Section 4(a) hereof; and all requests by the Commission for additional information shall have been complied with to the reasonable satisfaction of the Representative and the Borrower.

(b) *Representations and Warranties; Covenants.* The representations and warranties of the Company contained herein shall be true and correct on the date hereof and on and as of the Closing Date; and the statements of the Company and its officers made in any certificates delivered pursuant to this Agreement shall be true and correct on and as of the Closing Date. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before the Closing Date.

(c) *No Material Adverse Change.* No event or condition of a type described in Section 3(g) hereof shall have occurred or shall exist, which event or condition is not described in the Pricing Disclosure Package (excluding any amendment or supplement thereto) and the Prospectus (excluding any amendment or supplement thereto) and the effect of which in the judgment of the Representative or the Borrower makes it impracticable or inadvisable to proceed with the offering, sale or delivery of the Borrowed Shares on the Closing Date on the terms and in the manner contemplated by this Agreement, the Share Lending Agreement, the Pricing Disclosure Package and the Prospectus.

(d) *Officer's Certificate.* The Representative and the Borrower shall have received on and as of the Closing Date a certificate of the chief financial officer or chief accounting officer of the Company and one additional senior executive officer of the Company who is satisfactory to the Representative and the Borrower (i) confirming that such officers have carefully reviewed the Registration Statement, the Pricing Disclosure Package and the Prospectus and, to the knowledge of such officers, the representations of the Company set forth in Sections 3(b) and 3(d) hereof are true and correct, (ii) confirming that the other representations and warranties of the Company in this Agreement are true and correct and that the Company has complied in all material respects with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date and (iii) to the effect set forth in paragraphs (a) and (c) above.

(e) *Comfort Letters.*

(i) On the date of this Agreement and on the Closing Date, PricewaterhouseCoopers LLP shall have furnished to the Representative and the Borrower, at the request of the Company, letters, dated the respective dates of delivery thereof and addressed to the Underwriters and the Borrower, in form and substance reasonably satisfactory to the Representative, the Borrower and PricewaterhouseCoopers LLP, containing statements and information of the type customarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus; provided, that the letter delivered on the Closing Date shall use a "cut-off" date no more than three (3) business days prior to such Closing Date.

(ii) On the date of this Agreement and on the Closing Date, if requested by the Representative and the Borrower, the Company shall have furnished to the Representative and the Borrower a certificate, dated the respective dates of delivery thereof and addressed to the Underwriters and the Borrower, of its chief financial officer with respect to certain financial data contained in the Pricing Disclosure Package and the Prospectus, providing "management comfort" with respect to such information, in form and substance reasonably satisfactory to the Representative and the Borrower.

(f) *Opinion and 10b-5 Statement of Counsel for the Company.* Troutman Sanders LLP, counsel for the Company, shall have furnished to the Representative and the Borrower, at the request of the Company, their written opinion and 10b-5 statement, dated the Closing Date, and addressed to the Underwriters and the Borrower, in form and substance reasonably satisfactory to the Representative and the Borrower.

(g) *Intellectual Property Opinion of Counsel for the Company.* Sterne, Kessler, Goldstein and Fox, intellectual property counsel for the Company, shall have furnished to the Representative and the Borrower, at the request of the Company, their written opinion, dated the Closing Date, and addressed to the Underwriters and the Borrower, covering certain intellectual property matters in form and substance reasonably satisfactory to the Representative and the Borrower.

(h) *Opinion and 10b-5 Statement of Counsel for the Underwriters.* The Representative shall have received on and as of the Closing Date, an opinion and 10b-5 statement of Goodwin Procter LLP, counsel for the Underwriters, with respect to such matters as the Representative may reasonably request, and such counsel shall have received such documents and information as they may reasonably request to enable them to pass upon such matters.

(i) *Opinion of Counsel for the Underwriters and the Borrower.* The Representative and the Borrower shall have received on and as of the Closing Date, an opinion of Davis Polk & Wardwell LLP, counsel for the Underwriters and the Borrower, with respect to such matters as the Representative and the Borrower may reasonably request, and such counsel shall have received such documents and information as they may reasonably request to enable them to pass upon such matters.

(j) *No Legal Impediment to Issuance.* No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any federal, state or foreign governmental or regulatory authority that would, as of the Closing Date, prevent the issuance, delivery or sale of the Borrowed Shares; and no injunction or order of any federal, state or foreign court shall have been issued that would, as of the Closing Date, prevent the issuance, delivery or sale of the Borrowed Shares.

(k) *Good Standing.* The Representative and the Borrower shall have received on and as of the Closing Date, satisfactory evidence of the good standing of the Company and its subsidiaries in their respective jurisdictions of organization and their good standing as foreign entities in such other jurisdictions as the Representative and the Borrower may reasonably request, in each case in writing or any standard form of telecommunication from the appropriate governmental authorities of such jurisdictions.

(l) *Exchange Listing.* The Borrowed Shares to be delivered on the Closing Date shall have been approved for listing on the New York Stock Exchange, subject to official notice of issuance.

(m) *Lock-up Agreements.* The “lock-up” agreements, each substantially in the form of Exhibit A to the Notes Underwriting Agreement, between J.P. Morgan Securities LLC and certain shareholders, officers and directors of the Company relating to sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to J.P. Morgan Securities LLC on or before the date hereof, shall be in full force and effect on the Closing Date.

(n) *Borrowed Shares.* The Borrower shall have received from the Company the Borrowed Shares pursuant to the terms of the Share Lending Agreement prior to 9:00 A.M. New York City time on the Closing Date.

(o) *Share Lending Agreement.* The Company shall have entered into the Share Lending Agreement as of the date hereof, and the Borrower shall have received executed copies thereof.

(p) *Notes Offering.* The Notes Offering, substantially on the terms described in the Prospectus, shall have been consummated.

(q) *Additional Documents.* On or prior to the Closing Date, the Company shall have furnished to the Representative and the Borrower such further certificates and documents as the Representative or the Borrower may reasonably request.

All opinions, letters, certificates and evidence mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Underwriters and the Borrower.

7. Indemnification and Contribution.

(a) *Indemnification of the Underwriters and the Borrower.* The Company agrees to indemnify and hold harmless each Underwriter and the Borrower, their respective affiliates, directors and officers and each person, if any, who controls such Underwriter or the Borrower within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any and all losses, claims, damages and liabilities (including, without limitation, reasonable and documented legal fees and other expenses incurred in connection with any suit, action or proceeding or any claim asserted, as such fees and expenses are incurred), joint or several, that arise out of, or are based upon, (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary in order to make the statements therein, not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in the Prospectus (or any amendment or supplement thereto), any Issuer Free Writing Prospectus, any “issuer information” filed or required to be filed pursuant to Rule 433(d) under the Securities Act, any road show as defined in Rule 433(h) under the Securities Act (a “road show”) or any Pricing Disclosure Package (including any Pricing Disclosure Package that has subsequently been amended), or caused by any omission or alleged omission to state therein a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, in each case except insofar as such losses, claims, damages or liabilities arise out of, or are based upon, any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to any Underwriter or the Borrower furnished to the Company in writing by such Underwriter through the Representative or the Borrower expressly for use therein, it being understood and agreed that the only such information furnished by any Underwriter or the Borrower consists of the information described as such in subsection (b) below.

(b) *Indemnification of the Company.* Each Underwriter and the Borrower agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the indemnity set forth in paragraph (a) above, but only with respect to any losses, claims, damages or liabilities (including, without limitation, reasonable and documented legal fees and other expenses incurred in connection with any suit, action, or proceeding or any claim asserted, as such fees and expenses are incurred) that arise out of, or are based upon, any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with any information relating to such Underwriter or the Borrower furnished to the Company in writing by such Underwriter through the Representative or the Borrower expressly for use in the Registration Statement, the Prospectus (or any amendment or supplement thereto), any Issuer Free Writing Prospectus, any road show or any Pricing Disclosure Package (including any Pricing Disclosure Package that has subsequently been amended), it being understood and agreed upon that the only such information furnished by any Underwriter or the Borrower consists of the following information in the Prospectus furnished on behalf of each Underwriter or the Borrower, in each case, under the caption “Underwriting; conflicts of interest,” the information contained in the seventh and twelfth paragraphs and the second sentence of the thirteenth paragraph, and under the caption “Underwriting; conflicts of interest—Share lending agreement,” the information contained in the first,

third and fifth through seventh sentences of the second paragraph, the information contained in the ninth sentence of the second paragraph with respect to the determination of allocations and the information contained in the third paragraph.

(c) *Notice and Procedures.* If any suit, action, proceeding (including any governmental or regulatory investigation), claim or demand shall be brought or asserted against any person in respect of which indemnification may be sought pursuant to either paragraph (a) or (b) above, such person (the “Indemnified Person”) shall promptly notify the person against whom such indemnification may be sought (the “Indemnifying Person”) in writing; provided that the failure to notify the Indemnifying Person shall not relieve it from any liability that it may have under paragraph (a) or (b) above except to the extent that it has been materially prejudiced (through the forfeiture of substantive rights or defenses) by such failure; and provided, further, that the failure to notify the Indemnifying Person shall not relieve it from any liability that it may have to an Indemnified Person otherwise than under paragraph (a) or (b) above. If any such proceeding shall be brought or asserted against an Indemnified Person and it shall have notified the Indemnifying Person thereof, the Indemnifying Person shall retain counsel reasonably satisfactory to the Indemnified Person (who shall not, without the consent of the Indemnified Person, be counsel to the Indemnifying Person) to represent the Indemnified Person in such proceeding and shall pay the reasonable and documented fees and expenses of such counsel related to such proceeding, as incurred. In any such proceeding, any Indemnified Person shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless (i) the Indemnifying Person and the Indemnified Person shall have mutually agreed to the contrary; (ii) the Indemnifying Person has failed within a reasonable time to retain counsel reasonably satisfactory to the Indemnified Person; (iii) the Indemnified Person shall have reasonably concluded that there may be legal defenses available to it that are different from or in addition to those available to the Indemnifying Person; or (iv) the named parties in any such proceeding (including any impleaded parties) include both the Indemnifying Person and the Indemnified Person and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interest between them. It is understood and agreed that the Indemnifying Person shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all Indemnified Persons, and that all such fees and expenses shall be paid or reimbursed as they are incurred. Any such separate firm for any Underwriter or the Borrower, their respective affiliates, directors and officers and any control persons of such Underwriter or Borrower shall be designated in writing by the Representative or the Borrower, as applicable, and any such separate firm for the Company, its directors, its officers who signed the Registration Statement and any control persons of the Company shall be designated in writing by the Company. The Indemnifying Person shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the Indemnifying Person agrees to indemnify each Indemnified Person from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an Indemnified Person shall have requested that an Indemnifying Person reimburse the Indemnified Person for reasonable and documented fees and expenses of counsel as contemplated by this paragraph, the Indemnifying Person shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by the Indemnifying Person of such request and (ii) the Indemnifying Person shall not have reimbursed the Indemnified Person in accordance with such request prior to the date of such settlement. No Indemnifying Person shall, without the written consent of the Indemnified Person, effect any settlement of any pending or threatened proceeding in respect of which any Indemnified Person is or could have been a party and indemnification could have been sought hereunder by such Indemnified Person, unless such settlement (x) includes an unconditional release of such Indemnified Person, in form and substance reasonably satisfactory to such Indemnified Person, from all liability on claims that are the subject matter of such proceeding and (y) does not include any statement as to or any admission of fault, culpability or a failure to act by or on behalf of any Indemnified Person.

(d) *Contribution.* If the indemnification provided for in paragraphs (a) and (b) above is unavailable to an Indemnified Person or insufficient in respect of any losses, claims, damages or liabilities referred to therein, then each Indemnifying Person under such paragraph, in lieu of indemnifying such Indemnified Person thereunder, shall contribute to the amount paid or payable by such Indemnified Person as a result of such losses, claims, damages or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters and the Borrower on the other, from the offering of the Borrowed Shares or (ii) if the allocation provided by clause (i) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) but also the relative fault of the Company, on the one hand, and the Underwriters and the Borrower on the other, in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters and the Borrower on the other, shall be deemed to be in the same respective proportions as the net proceeds (before deducting expenses) received by the Company from the sale of the Notes in the Notes Offering and the total underwriting discounts and commissions received by the Notes Underwriters in connection with the Notes Offering, in each case as set forth in the table on the cover of the Prospectus (as defined in the Notes Underwriting Agreement), bear to the aggregate offering price of the Notes in the Notes Offering. The relative fault of the Company, on the one hand, and the Underwriters and the Borrower on the other, shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the Borrower and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

(e) *Limitation on Liability.* The Company, the Borrower and the Underwriters agree that it would not be just and equitable if contribution pursuant to paragraph (d) above were determined by pro rata allocation (even if the Borrower and the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in paragraph (d) above. The amount paid or payable by an Indemnified Person as a result of the losses, claims, damages and liabilities referred to in paragraph (d) above shall be deemed to include, subject to the limitations set forth above, any reasonable and documented legal or other expenses incurred by such Indemnified Person in connection with any such action or claim. Notwithstanding the provisions of paragraph (d) above and this paragraph (e), in no event shall an Underwriter nor the Borrower be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the offering of the Borrowed Shares exceeds the amount of any damages that such Underwriter or the Borrower has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to paragraphs (d) and (e) are several in proportion to their respective purchase obligations hereunder and not joint.

(f) *Non-Exclusive Remedies.* The remedies provided for in this Section 7 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any Indemnified Person at law or in equity.

8. Effectiveness of Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

9. Termination. This Agreement may be terminated in the absolute discretion of the Representative or the Borrower, by notice to the Company, if after the execution and delivery of this Agreement and prior to the Closing Date (i) trading generally shall have been suspended or materially limited on or by any of the New York Stock Exchange or The Nasdaq Stock Market; (ii) trading of any securities issued or guaranteed by the Company shall have been suspended on any exchange or in any over-the-counter market; (iii) a general moratorium on commercial banking activities shall have been declared by federal or New York State authorities; or (iv) there shall have occurred any outbreak or escalation of hostilities or any change in financial markets or any calamity or crisis, either within or outside the United States, that, in the judgment of the Representative, is material and adverse and makes it impracticable or inadvisable to proceed with the offering, sale or delivery of the Borrowed Shares on the Closing Date, on the terms and in the manner contemplated by this Agreement, the Share Lending Agreement, the Pricing Disclosure Package and the Prospectus.

10. Defaulting Underwriter.

(a) If, on the Closing Date, any Underwriter defaults on its obligation to purchase the Borrowed Shares that it has agreed to purchase hereunder on such date, the non-defaulting Underwriters may in their discretion arrange for the purchase of such Borrowed Shares by other persons satisfactory to the Company on the terms contained in this Agreement. If, within 36 hours after any such default by any Underwriter, the non-defaulting Underwriters do not arrange for the purchase of such Borrowed Shares, then the Company shall be entitled to a further period of 36 hours within which to procure other persons satisfactory to the non-defaulting Underwriters to purchase such Borrowed Shares on such terms. If other persons become obligated or agree to purchase the Borrowed Shares of a defaulting Underwriter, either the non-defaulting Underwriters or the Company may postpone the Closing Date for up to five (5) full business days in order to effect any changes that in the opinion of counsel for the Company or counsel for the Underwriters may be necessary in the Registration Statement and the Prospectus or in any other document or arrangement, and the Company agrees to promptly prepare any amendment or supplement to the Registration Statement and the Prospectus that effects any such changes. As used in this Agreement, the term "Underwriter" includes, for all purposes of this Agreement unless the context otherwise requires, any person not listed in Schedule 1 hereto that, pursuant to this Section 10, purchases Borrowed Shares that a defaulting Underwriter agreed but failed to purchase.

(b) If, after giving effect to any arrangements for the purchase of the Borrowed Shares of a defaulting Underwriter or Underwriters by the non-defaulting Underwriters and the Company as provided in paragraph (a) above, the aggregate number of Borrowed Shares that remain unpurchased on the Closing Date does not exceed one-eleventh of the aggregate number of Borrowed Shares to be purchased on such date, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Borrowed Shares that such Underwriter agreed to purchase hereunder on such date plus such Underwriter's pro rata share (based on the number of Borrowed Shares that such Underwriter agreed to purchase on such date) of the Borrowed Shares of such defaulting Underwriter or Underwriters for which such arrangements have not been made.

(c) If, after giving effect to any arrangements for the purchase of the Borrowed Shares of a defaulting Underwriter or Underwriters by the non-defaulting Underwriters and the Company as provided in paragraph (a) above, the aggregate number of Borrowed Shares that remain unpurchased on the Closing Date exceeds one-eleventh of the aggregate amount of Borrowed Shares to be purchased on such date, or if the Company shall not exercise the right described in paragraph (b) above, then this Agreement shall terminate without liability on the part of the non-defaulting Underwriters. Any termination of this Agreement pursuant to this Section 10 shall be without liability on the part of the Company, except that the Company and the Underwriters will continue to be liable for the payment of expenses as set forth in Section 11 hereof and except that the provisions of Section 7 hereof shall not terminate and shall remain in effect.

(d) Nothing contained herein shall relieve a defaulting Underwriter of any liability it may have to the Company or any non-defaulting Underwriter for damages caused by its default.

11. Payment of Expenses.

(a) Whether or not the transactions contemplated by this Agreement are consummated or this Agreement is terminated, the Company will pay or cause to be paid all costs and expenses incident to the performance of its obligations hereunder, including without limitation, (i) the costs incident to the authorization, issuance, sale, preparation and delivery of the Borrowed Shares and any taxes payable in that connection; (ii) the costs incident to the preparation, printing and filing under the Securities Act of the Registration Statement, the Preliminary Prospectus, any Issuer Free Writing Prospectus, any Pricing Disclosure Package and the Prospectus (including all exhibits, amendments and supplements thereto) and the distribution thereof; (iii) the costs of reproducing and distributing each of the Transaction Documents; (iv) the fees and expenses of the Company's counsel and independent accountants; (v) the fees and expenses incurred in connection with the registration or qualification of the Borrowed Shares and determination of eligibility of investment thereof under the state or foreign securities or blue sky laws of such jurisdictions as the Representative may designate and the preparation, printing and distribution of a Blue Sky Memorandum (including the related fees and expenses of counsel for the Underwriters and the Borrower) not to exceed \$30,000 without the prior written consent of the Company when taken together with the amount incurred in connection with clause (viii) below; (vi) the cost of preparing stock certificates; (vii) the costs and charges of any transfer agent and any registrar; (viii) all expenses and application fees incurred in connection with any filing with, and clearance of the offering by, FINRA, in an amount not to exceed \$30,000 (exclusive of filing fees) without the prior written consent of the Company when taken together with the amount incurred in connection with clause (iv) above; (ix) all reasonable and documented expenses incurred by the Company in connection with any "road show" presentation to potential investors, provided, however, the Company and the Underwriters shall each pay 50% of the total costs of chartering any aircraft to be used in connection with any such "road shows"; and (x) all expenses and application fees related to the listing of the Borrowed Shares on the New York Stock Exchange.

(b) Except as provided for by this Agreement, the Underwriters and the Borrower will pay all of their own expenses, including the fees of their counsel and travel and lodging expenses of the Representative.

(c) If (i) this Agreement is terminated pursuant to Section 9, (ii) the Company for any reason fails to tender the Borrowed Shares for delivery to the Borrower or the Underwriters at the Closing Date in accordance with this Agreement or (iii) the Borrower or the Underwriters decline to borrow the Borrowed Shares because any of the conditions to the Borrower's or Underwriters' obligations set forth in Section 6 have not been met, the Company agrees to reimburse the Borrower and/or the Underwriters for all reasonable and documented out-of-pocket costs and expenses (including the reasonable and documented fees and expenses of their counsel) reasonably incurred by the Borrower and/or the Underwriters in connection with this Agreement and the offering contemplated hereby. For the avoidance of doubt, the Company will not pay or reimburse any costs, fees or expenses incurred by any Underwriter that defaults on its obligations to purchase the Borrowed Shares.

12. Persons Entitled to Benefit of Agreement. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers and directors and any controlling persons referred to herein, and the affiliates of each Underwriter referred to in Section 7 hereof. Nothing in this Agreement is intended or shall be construed to give any other person any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained herein. No purchaser of Borrowed Shares from any Underwriter or the Borrower shall be deemed to be a successor merely by reason of such purchase.

13. Survival. The respective indemnities, rights of contribution, representations, warranties and agreements of the Company, the Borrower and the Underwriters contained in this Agreement or made by or on behalf of the Company, the Borrower or the Underwriters pursuant to this Agreement or any certificate delivered pursuant hereto shall survive the delivery of and payment for the Borrowed Shares and shall remain in full force and effect, regardless of any termination of this Agreement or any investigation made by or on behalf of the Company, the Borrower or the Underwriters.

14. Certain Defined Terms. For purposes of this Agreement, (a) except where otherwise expressly provided, the term “affiliate” has the meaning set forth in Rule 405 under the Securities Act; (b) the term “business day” means any day other than a day on which banks are permitted or required to be closed in New York City; and (c) the term “subsidiary” has the meaning set forth in Rule 405 under the Securities Act.

15. Compliance with USA Patriot Act. In accordance with the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), the Underwriters and the Borrower are required to obtain, verify and record information that identifies their respective clients, including the Company, which information may include the name and address of their respective clients, as well as other information that will allow the Underwriters and the Borrower to properly identify their respective clients.

16. Miscellaneous.

(a) *Authority of the Representative*. Any action by the Underwriters hereunder may be taken by the Representative on behalf of the Underwriters, and any such action taken by the Representative shall be binding upon the Underwriters.

(b) *Notices*. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted and confirmed by any standard form of telecommunication. Notices to the Underwriters shall be given to the Representative: c/o J. P. Morgan Securities LLC, 383 Madison Avenue, New York, New York 10179 (fax: (212) 622-8358); Attention: Equity Syndicate Desk and with a copy to Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, NY 10018; Attention: Michael D. Maline, James Barri and Daniel A. Lang. Notices to the Borrower shall be given to it at J. P. Morgan Securities LLC, 383 Madison Avenue, New York, New York 10179 (fax: (212) 622-8358); Attention: Equity Syndicate Desk and with a copy to Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, NY 10018; Attention: Michael D. Maline, James Barri and Daniel A. Lang. Notices to the Company shall be given to it at Intrexon Corporation, 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (fax: (301) 556-9902); Attention: Donald P. Lehr; with a copy to Troutman Sanders LLP, 1001 Haxall Point, Richmond, Virginia 23219 (fax: (804) 698-5176); Attention: John Owen Gwathmey.

(c) *Governing Law*. This Agreement and any claim, controversy or dispute arising under or related to this Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made and to be performed in such state.

(d) *Waiver of Jury Trial*. Each of the parties hereto hereby waives any right to trial by jury in any suit or proceeding arising out of or relating to this Agreement.

(e) *Counterparts.* This Agreement may be signed in counterparts (which may include counterparts delivered by any standard form of telecommunication), each of which shall be an original and all of which together shall constitute one and the same instrument.

(f) *Amendments or Waivers.* No amendment or waiver of any provision of this Agreement, nor any consent or approval to any departure therefrom, shall in any event be effective unless the same shall be in writing and signed by the parties hereto.

(g) *Headings.* The headings herein are included for convenience of reference only and are not intended to be part of, or to affect the meaning or interpretation of, this Agreement.

[remainder of page intentionally left blank]

If the foregoing is in accordance with your understanding, please indicate your acceptance of this Agreement by signing in the space provided below.

Very truly yours,

INTREXON CORPORATION

By: /s/ Donald P. Lehr

Name: Donald P. Lehr

Title: Chief Legal Officer

Accepted: As of the date first written above

J.P. MORGAN SECURITIES LLC

By: /s/ Kevin Cheng
Authorized Signatory

Name: Kevin Cheng

Title: Vice President

On behalf of itself and each of the Underwriters

[Signature Page to Underwriting Agreement (Share Borrowing)]

<u>Underwriter</u>	<u>Number of Shares</u>
J.P. Morgan Securities LLC	<u>7,479,431</u>
Total	<u>7,479,431</u>

Sch. 1-1

a. **Pricing Disclosure Package**

Pricing term sheet, substantially in the form of Annex B.

Launch press release dated June 27, 2018 filed with the Commission as a free writing prospectus on June 27, 2018

Pricing press release to be dated June 29, 2018

Ann. A-1

Pricing Term Sheet

Pricing Term Sheet
Dated June 28, 2018

Issuer Free Writing Prospectus
Filed pursuant to Rule 433
Registration Statement No. 333-220326
Relating to Preliminary Prospectus Supplements dated June 27, 2018
(To Prospectus dated September 1, 2017)

Intrexon Corporation
Concurrent Offerings of
3.50% Convertible Senior Notes due 2023
and
Common Stock Issued Pursuant to a Share Lending Agreement

The information in this pricing term sheet relates to Intrexon Corporation's offering of its 3.50% Convertible Senior Notes due 2023 (the "Notes Offering") and its offering of shares of its common stock pursuant to the share lending agreement described below (the "Borrowed Shares Offering") and should be read together with the preliminary prospectus supplement dated June 27, 2018 relating to the Notes Offering (the "Notes Preliminary Prospectus Supplement") and the preliminary prospectus supplement dated June 27, 2018 relating to the Borrowed Shares Offering (the "Borrowed Shares Preliminary Prospectus Supplement"), in each case, including the documents incorporated by reference therein, and the base prospectus dated September 1, 2017 (the "Base Prospectus"). The information in this pricing term sheet supersedes the information in the Notes Preliminary Prospectus Supplement, the Borrowed Shares Preliminary Prospectus Supplement and the Base Prospectus to the extent inconsistent with the information therein. Terms used herein but not defined herein shall have the respective meanings as set forth in the Notes Preliminary Prospectus Supplement or the Borrowed Shares Preliminary Prospectus Supplement, as applicable. All references to dollar amounts are references to U.S. dollars.

General

Issuer:	Intrexon Corporation ("Intrexon")
Ticker / Exchange:	XON / The New York Stock Exchange ("NYSE")
NYSE last reported sale price on June 28, 2018:	\$13.37 per share of common stock of Intrexon (the "Common Stock")
Trade date:	June 29, 2018
Settlement date:	July 3, 2018
Sole book-running manager:	J.P. Morgan Securities LLC

Notes Offering

Securities offered:	3.50% Convertible Senior Notes due 2023 (the "Notes")
Aggregate principal amount offered:	\$200,000,000 principal amount. The underwriters will not have an option to purchase additional Notes.
Interest:	The Notes will bear interest at a rate of 3.50% per annum from July 3, 2018

Interest payment dates:	January 1 and July 1 of each year, beginning on January 1, 2019
Maturity date:	July 1, 2023
Conversion premium:	Approximately 27.50% above the NYSE last reported sale price on June 28, 2018
Initial conversion price:	Approximately \$17.05 per share of Common Stock
Initial conversion rate:	58.6622 shares of Common Stock per \$1,000 principal amount of Notes
Concurrent offering of Borrowed Shares and share lending agreement:	<p>Concurrently with the Notes Offering, Intrexon is offering 7,479,431 shares of Common Stock pursuant to the Borrowed Shares Preliminary Prospectus Supplement and the Base Prospectus. Such shares (the “Borrowed Shares”) will be loaned by Intrexon to J.P. Morgan Securities LLC (in such capacity, the “Share Borrower”), the underwriter for the Borrowed Shares Offering. The Share Borrower or its affiliates will receive all of the proceeds of the Borrowed Shares Offering and Intrexon will not receive any proceeds of that offering. The Notes Offering is contingent upon the closing of the Borrowed Shares Offering, and the Borrowed Shares Offering is contingent upon the closing of the Notes Offering. Randal J. Kirk, the Chairman, Chief Executive Officer and principal shareholder of Intrexon, has agreed with the Share Borrower to purchase all of the shares of Common Stock offered in the Borrowed Shares Offering.</p> <p>Intrexon has been informed by the Share Borrower that it or one of its affiliates intends to use the short position created by the share loan and the concurrent short sales of the Borrowed Shares to facilitate transactions by which investors in the Notes may hedge their investments through short sales or privately negotiated derivatives transactions. Intrexon expects to make delivery of the Borrowed Shares concurrently with the closing of the Notes Offering. See “Description of share lending agreement” in the Notes Preliminary Prospectus Supplement.</p>
Use of proceeds:	<p>Intrexon estimates that the net proceeds from the Notes Offering will be approximately \$193.9 million after deducting underwriting discounts and commissions and estimated offering expenses payable by Intrexon in connection with the Notes Offering and the Borrowed Shares Offering.</p> <p>Intrexon intends to use the net proceeds from the Notes Offering for general corporate purposes and for strategic acquisitions or investments. General corporate purposes may include additions to working capital, financing internal research and development programs, financing of capital expenditures, repayment or redemption of existing indebtedness or payments to satisfy commitments under Intrexon’s ECCs, joint ventures and other collaborations. In addition, Intrexon intends to use the net proceeds for future strategic acquisitions and strategic investment opportunities, but Intrexon has not determined the amount of net proceeds to be used specifically for such purposes, or any particular acquisitions or investments.</p>

Public offering price, underwriting discount and proceeds:

The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses, to Intrexon:

	Per Note	Total
Public offering price ⁽¹⁾	\$1,000.00	\$200,000,000.00
Underwriting discounts and commissions	\$ 27.50	\$ 5,500,000.00
Proceeds, before expenses, to Intrexon	\$ 972.50	\$194,500,000.00

(1) Plus accrued interest, if any, from the settlement date.

CUSIP: 46122T AA0

ISIN: US46122TAA07

Increase in conversion rate upon conversion upon a make-whole fundamental change:

The table below sets forth the number of additional shares, if any, of Common Stock to be added to the conversion rate per \$1,000 principal amount of Notes that are converted in connection with a “make-whole fundamental change” as described in the Notes Preliminary Prospectus Supplement, based on the stock price and effective date of the make-whole fundamental change.

Effective date	Stock price											
	\$13.37	\$15.00	\$17.05	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$45.00	\$50.00	\$60.00	\$70.00
July 3, 2018	16.1321	13.0033	10.1685	7.4065	4.6576	3.1057	2.1406	1.4973	1.0451	0.7146	0.2748	0.0259
July 1, 2019	16.1321	12.8193	9.8341	6.9930	4.2616	2.7823	1.8920	1.3123	0.9113	0.6212	0.2383	0.0223
July 1, 2020	16.1321	12.5353	9.3372	6.3895	3.7036	2.3410	1.5629	1.0740	0.7438	0.5074	0.1963	0.0187
July 1, 2021	16.1321	11.9327	8.4368	5.3820	2.8460	1.7047	1.1109	0.7595	0.5282	0.3638	0.1443	0.0144
July 1, 2022	16.1321	10.6740	6.6916	3.5965	1.5444	0.8507	0.5511	0.3870	0.2793	0.2008	0.0893	0.0119
July 1, 2023	16.1321	8.0045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact stock prices and effective dates may not be set forth in the table above, in which case:

- If the stock price is between two stock prices in the table or the effective date is between two effective dates in the table, the number of additional shares by which the conversion rate will be increased will be determined by a straight-line interpolation between the number of additional shares set forth for the higher and lower stock prices and the earlier and later effective dates, as applicable, based on a 365-day year.
- If the stock price is greater than \$70.00 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.
- If the stock price is less than \$13.37 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.

Notwithstanding the foregoing, in no event will the conversion rate per \$1,000 principal amount of Notes exceed 74.7943 shares of Common Stock, subject to adjustment in the same manner as the conversion rate as set forth under “Description of the Notes—Conversion rights—Conversion rate adjustments” in the Notes Preliminary Prospectus Supplement.

Borrowed Shares Offering

Offering of Borrowed Shares:	Intrexon will lend 7,479,431 shares of Common Stock to the Share Borrower, the underwriter for the Borrowed Shares offering, pursuant to a share lending agreement. Intrexon has been informed by the Share Borrower that it or one of its affiliates intends to use the short position created by the share loan and the concurrent short sales of the Borrowed Shares to facilitate transactions by which investors in the Notes may hedge their investments through short sales of the Common Stock or privately negotiated derivatives transactions. See “Description of share lending agreement” in the Borrowed Shares Preliminary Prospectus Supplement.
Use of proceeds:	Intrexon will not receive any proceeds from the sale of the Borrowed Shares. The Share Borrower or its affiliates will receive all of the proceeds from the sale of the Borrowed Shares.
Insider participation:	Randal J. Kirk, the Chairman, Chief Executive Officer and principal shareholder of Intrexon, has agreed with the Share Borrower to purchase at the public offering price all of the shares of Common Stock offered in the Borrowed Shares Offering.
Public offering price, underwriting discount and proceeds:	The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses, to Intrexon:

	Per Borrowed Share	Total
Public offering price	\$ 13.37	\$99,999,992.47
Underwriting discounts and commissions	\$ 0.00	\$ 0.00
Proceeds, before expenses, to Intrexon	\$ 0.00	\$ 0.00

Intrexon has filed a registration statement (including a prospectus) with the SEC for the offerings to which this communication relates. Before you invest, you should read the prospectus in that registration statement, the Notes Preliminary Prospectus Supplement, the Borrowed Shares Preliminary Prospectus Supplement and other documents Intrexon has filed with the SEC that are incorporated therein by reference for more complete information about Intrexon and these offerings. You may obtain these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, you may request the prospectus for each offering from J.P. Morgan Securities LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, telephone: 1-866-803-9204.

This communication shall not constitute an offer to sell or the solicitation of an offer to buy securities, nor shall there be any sale of these securities, in any state in which such solicitation or sale would be unlawful prior to registration or qualification of these securities under the laws of any such state.

ANY DISCLAIMERS OR OTHER NOTICES THAT MAY APPEAR BELOW ARE NOT APPLICABLE TO THIS COMMUNICATION AND SHOULD BE DISREGARDED. SUCH DISCLAIMERS OR OTHER NOTICES WERE AUTOMATICALLY GENERATED AS A RESULT OF THIS COMMUNICATION BEING SENT VIA BLOOMBERG OR ANOTHER EMAIL SYSTEM.

INTREXON CORPORATION
and
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.
Trustee
INDENTURE
Dated as of July 3, 2018
SENIOR DEBT SECURITIES

CROSS-REFERENCE TABLE(1)

<u>Section of Trust Indenture Act of 1939, as amended</u>	<u>Section of Indenture</u>
310(a)	6.09
310(b)	6.08 6.10
310(c)	Inapplicable
311(a)	6.13
311(b)	6.13
311(c)	Inapplicable
312(a)	4.01 4.04
312(b)	4.04(c)
312(c)	4.04(c)
313(a)	4.03
313(b)	4.03
313(c)	4.03
313(d)	4.03
314(a)	4.02
314(b)	Inapplicable
314(c)	2.04
	8.04
	9.01(c)
	10.01(b)
	11.05
314(d)	Inapplicable
314(e)	11.05
314(f)	Inapplicable

**Section of
Trust Indenture Act
of 1939, as amended**

**Section of
Indenture**

315(a)	6.01
	6.02
315(b)	5.11
315(c)	6.01
315(d)	6.01
	6.02
315(e)	5.12
316(a)	5.09
	5.10
	7.04
316(b)	5.06
	5.10
316(c)	7.02
317(a)	5.04
317(b)	3.04
318(a)	11.07

- (1) This Cross-Reference Table does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

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THIS INDENTURE, dated as of July 3, 2018 between Intrexon Corporation, a Virginia corporation (the “Issuer”), and The Bank of New York Mellon Trust Company, N.A., a national banking association (the “Trustee”),

WITNESSETH:

WHEREAS, the Issuer may from time to time duly authorize the issue of its unsecured debentures, notes or other evidences of indebtedness to be issued in one or more series (the “**Securities**”) up to such principal amount or amounts as may from time to time be authorized in accordance with the terms of this Indenture;

WHEREAS, the Issuer has duly authorized the execution and delivery of this Indenture to provide, among other things, for the authentication, delivery and administration of the Securities; and

WHEREAS, all things necessary to make this Indenture a valid indenture and agreement according to its terms have been done;

NOW, THEREFORE:

In consideration of the premises and the purchases of the Securities by the holders thereof, the Issuer and the Trustee mutually covenant and agree for the equal and proportionate benefit of the respective holders from time to time of the Securities as follows:

**ARTICLE 1
DEFINITIONS**

Section 1.01 **Certain Terms Defined.** The following terms (except as otherwise expressly provided or unless the context otherwise clearly requires) for all purposes of this Indenture and of any indenture supplemental hereto shall have the respective meanings specified in this Section. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939 or the definitions of which in the Securities Act of 1933 are referred to in the Trust Indenture Act of 1939, including terms defined therein by reference to the Securities Act of 1933 (except as herein otherwise expressly provided or unless the context otherwise clearly requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of this Indenture. All accounting terms used herein and not expressly defined shall have the meanings assigned to such terms in accordance with generally accepted accounting principles, and the term “**generally accepted accounting principles**” means such accounting principles as are generally accepted in the United States at the time of any computation. The words “herein”, “hereof” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision. The terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular.

“**Board of Directors**” means either the Board of Directors of the Issuer or any committee of such Board duly authorized to act on its behalf.

“**Board Resolution**” means a copy of one or more resolutions, certified by the secretary or an assistant secretary of the Issuer to have been duly adopted by the Board of Directors, or a duly authorized committee thereof, and to be in full force and effect, and delivered to the Trustee.

“**Business Day**” means, with respect to any Security, a day that in the city (or in any of the cities, if more than one) in which amounts are payable, as specified in the form of such Security, is not a Saturday, Sunday or a day on which banking institutions are authorized or required by law or regulation to close.

“**Commission**” means the Securities and Exchange Commission, as from time to time constituted, created under the Securities Exchange Act of 1934, or if at any time after the execution and delivery of this Indenture such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act of 1939, then the body performing such duties on such date.

“**Common Stock**” means shares of common stock, no par value per share, of the Issuer as the same exists at the date of execution and delivery of this Indenture or as such stock may be reconstituted from time to time.

“**Corporate Trust Office**” means the office of the Trustee at which the corporate trust business of the Trustee shall, at any particular time, be principally administered, which office is, at the date as of which this Indenture is dated, located at The Bank of New York Mellon Trust Company, N.A., 200 Ashford Center North, Suite 550, Atlanta, Georgia 30338, Attention : Corporate Trust Administration.

“**Debt**” of any Person means any debt for money borrowed which is created, assumed, incurred or guaranteed in any manner by such Person or for which such Person is otherwise responsible or liable, and shall expressly include any such guaranty thereof by such Person. For the purpose of computing the amount of the Debt of any Person there shall be excluded all Debt of such Person for the payment or redemption or satisfaction of which money or securities (or evidences of such Debt, if permitted under the terms of the instrument creating such Debt) in the necessary amount shall have been deposited in trust with the proper depository, whether upon or prior to the maturity or the date fixed for redemption of such Debt; and, in any instance where Debt is so excluded, for the purpose of computing the assets of such Person there shall be excluded the money, securities or evidences of Debt deposited by such Person in trust for the purpose of paying or satisfying such Debt.

“**Depository**” means, with respect to the Securities of any series issuable or issued in the form of one or more Global Securities, the Person designated as Depository by the Issuer pursuant to Section 2.04 until a successor Depository shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “**Depository**” shall mean or include each Person who is then a Depository hereunder, and if at any time there is more than one such Person, “**Depository**” as used with respect to the Securities of any such series shall mean the Depository with respect to the Global Securities of that series.

“**Dollar**” means the currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

“**Event of Default**” means any event or condition specified as such in Section 5.01.

“**Foreign Currency**” means a currency issued by the government of a country other than the United States.

“**Global Security**”, means a Security evidencing all or a part of a series of Securities, issued to the Depository for such series in accordance with Section 2.04, and bearing the legend prescribed in Section 2.04.

“**Holder**”, “**holder**”, “**holder of Securities**”, “**Securityholder**” or other similar terms mean the Person in whose name such Security is registered in the Security register kept by the Issuer for that purpose in accordance with the terms hereof.

“**Indenture**” means this instrument as originally executed and delivered or, if amended or supplemented as herein provided, as so amended or supplemented or both, and shall include the forms and terms of particular series of Securities established as contemplated hereunder.

“Interest”, unless the context otherwise requires, refers to interest, and when used with respect to non-interest bearing Securities, refers to interest payable after maturity, if any.

“Issuer” means Intrexon Corporation, a Virginia corporation, and, subject to Article 9, its successors and assigns.

“Issuer Order” means a written statement, request or order of the Issuer signed in its name by the chairman of the Board of Directors, the chief executive officer, the chief financial officer, the treasurer or the secretary of the Issuer.

“Notice of Default” shall have the meaning set forth in Section 5.01(c).

“Officer’s Certificate” means a certificate signed by the chairman of the Board of Directors, the chief executive officer, the chief financial officer, the treasurer or the secretary of the Issuer and delivered to the Trustee. Each such certificate shall comply with Section 314 of the Trust Indenture Act of 1939 and, except to the extent provided herein, shall include the statements provided for in Section 11.05.

“Opinion of Counsel” means an opinion in writing signed by the general corporate counsel or such other legal counsel who may be an employee of or counsel to the Issuer and who shall be reasonably satisfactory to the Trustee. Each such opinion shall comply with Section 314 of the Trust Indenture Act of 1939 and shall include the statements provided for in Section 11.05, if and to the extent required hereby.

“original issue date” of any Security (or portion thereof) means the earlier of (a) the date of such Security or (b) the date of any Security (or portion thereof) for which such Security was issued (directly or indirectly) on registration of transfer, exchange or substitution.

“Original Issue Discount Security” means any Security that provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the maturity thereof pursuant to Section 5.01.

“Outstanding”, when used with reference to Securities, shall, subject to the provisions of Section 7.04, mean, as of any particular time, all Securities authenticated and delivered by the Trustee under this Indenture, except

(a) Securities theretofore cancelled by the Trustee or delivered to the Trustee for cancellation;

(b) Securities, or portions thereof, for the payment or redemption of which cash or U.S. Government Obligations (as provided for in Section 10.01(a) and Section 10.01(b)) in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Issuer) or shall have been set aside, segregated and held in trust by the Issuer for the Holders of such Securities (if the Issuer shall act as its own paying agent); provided, that if such Securities, or portions thereof, are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as herein provided, or provision satisfactory to the Trustee shall have been made for giving such notice; and

(c) Securities in substitution for which other Securities shall have been authenticated and delivered, or which shall have been paid, pursuant to the terms of Section 2.09 (except with respect to any such Security as to which proof satisfactory to the Trustee is presented that such Security is held by a Person in whose hands such Security is a legal, valid and binding obligation of the Issuer), Securities converted into Common Stock pursuant hereto and Securities not deemed outstanding pursuant to Section 12.02.

In determining whether the Holders of the requisite principal amount of Outstanding Securities of any or all series have given any request, demand, authorization, direction, notice, consent or waiver hereunder, the principal amount of an Original Issue Discount Security that shall be deemed to be Outstanding for such purposes shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon a declaration of acceleration of the maturity thereof pursuant to Section 5.01.

“**Person**” means any individual, corporation, partnership, limited partnership, limited liability company, joint venture, association, joint stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“**principal**” whenever used with reference to the Securities or any Security or any portion thereof, shall be deemed to include “and premium, if any”.

“**record date**” shall have the meaning set forth in Section 2.07.

“**Responsible Officer**” shall mean, when used with respect to the Trustee, any officer within the corporate trust department of the Trustee, including any vice president, assistant vice president, assistant secretary, assistant treasurer, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such person’s knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“**Security**” or “**Securities**” has the meaning stated in the first recital of this Indenture, or, as the case may be, Securities that have been authenticated and delivered under this Indenture.

“**Security Registrar**” shall have the meaning set forth in Section 4.01(b).

“**Subsidiary**” means, with respect to any specified Person: (1) any corporation, association or other business entity of which more than 50% of the total voting power entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders’ agreement that effectively transfers voting power) to vote in the election of directors, managers or trustees of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and (2) any partnership (a) the sole general partner or the managing general partner of which is such Person or a Subsidiary of such Person or (b) the only general partners of which are that Person or one or more Subsidiaries of that Person (or any combination thereof) to the extent such partnership is included in the consolidated financial statements of such Person.

“**Trust Indenture Act of 1939**” (except as otherwise provided in Sections 8.01 and 8.02) means the Trust Indenture Act of 1939 as in force at the date as of which this Indenture was originally executed.

“**Trustee**” means the Person identified as “Trustee” in the first paragraph hereof and, subject to the provisions of Article 6, shall also include any successor trustee. “Trustee” shall also mean or include each Person who is then a trustee hereunder and if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean the trustee with respect to the Securities of such series.

“**U.S. Government Obligation**” means (a) a direct obligation of the United States of America, backed by its full faith and credit, or (b) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America.

“**vice president**”, when used with respect to the Trustee, means any vice president, whether or not designated by a number or a word or words added before or after the title of “vice president”.

“**Yield to Maturity**” means the yield to maturity on a series of securities, calculated at the time of issuance of such series, or, if applicable, at the most recent redetermination of interest on such series, and calculated in accordance with accepted financial practice.

ARTICLE 2 SECURITIES

Section 2.01 **Forms Generally**. The Securities of each series shall be substantially in such form (not inconsistent with this Indenture) as shall be established by or pursuant to one or more Board Resolutions (as set forth in a Board Resolution or, to the extent established pursuant to (rather than set forth in) a Board Resolution, an Officer’s Certificate detailing such establishment) or in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture and may have imprinted or otherwise reproduced thereon such legend or legends or endorsements, not inconsistent with the provisions of this Indenture, as may be required to comply with any law or with any rules or regulations pursuant thereto, or with any rules of any securities exchange or to conform to general usage, all as may be determined by the officers executing such Securities as evidenced by their execution of such Securities.

The definitive Securities shall be printed, lithographed or engraved on steel engraved borders or may be produced in any other manner, all as determined by the officers executing such Securities as evidenced by their execution of such Securities.

Section 2.02 **Form of Trustee’s Certificate of Authentication**. The Trustee’s certificate of authentication on all Securities shall be in substantially the following form:

This is one of the Securities of the series designated herein and referred to in the within-mentioned Indenture.

Dated: _____

The Bank of New York Mellon Trust Company, N.A.,
as Trustee

By:

Authorized Officer

Section 2.03 **Amount Unlimited; Issuable in Series**. The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

The Securities may be issued in one or more series. The terms of a series of Securities shall be established prior to the initial issuance thereof in or pursuant to one or more Board Resolutions, or, to the extent established pursuant to (rather than set forth in) a Board Resolution, in an Officer's Certificate detailing such establishment and/or established in one or more indentures supplemental hereto. The terms of such series reflected in such Board Resolution, Officer's Certificate, or supplemental indenture may include the following or any additional or different terms:

- (a) the designation of the Securities of the series (which may be part of a series of Securities previously issued);
- (b) the terms and conditions, if applicable, upon which conversion or exchange of the Securities into or for any other securities or property of the Issuer will be effected, including the initial conversion or exchange price or rate and any adjustments thereto, the conversion or exchange period and other provisions in addition to or in lieu of those described herein;
- (c) any limit upon the aggregate principal amount of the Securities of the series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 2.08, 2.09, 2.11, 8.05 or 12.03);
- (d) if other than Dollars, the Foreign Currency in which the Securities of that series are denominated;
- (e) any date on which the principal and interest of the Securities of the series is payable and the right, if any, to extend such date or dates;
- (f) the rate or rates at which the Securities of the series shall bear interest, if any, the record date or dates for the determination of holders to whom interest is payable, the date or dates from which such interest shall accrue and on which such interest shall be payable and/or the method by which such rate or rates or date or dates shall be determined, and the right, if any, to extend the interest payment periods and the duration of that extension;
- (g) the place or places where the principal of and any interest on Securities of the series shall be payable (if other than as provided in Section 3.02);
- (h) the price or prices at which, the period or periods within which and the terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Issuer, pursuant to any sinking fund or otherwise;
- (i) the obligation, if any, of the Issuer to redeem, purchase or repay Securities of the series pursuant to any mandatory redemption, sinking fund or analogous provisions or at the option of a Holder thereof and the price or prices at which and the period or periods within which and any terms and conditions upon which Securities of the series shall be redeemed, purchased or repaid, in whole or in part, pursuant to such obligation;
- (j) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which Securities of the series shall be issuable;
- (k) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;

(l) if other than the currency in which the Securities of that series are denominated, the currency in which payment of the principal of or interest on the Securities of such series shall be payable;

(m) if the principal of or interest on the Securities of the series is to be payable, at the election of the Issuer or a Holder thereof, in a currency other than that in which the Securities are denominated, the period or periods within which, and the terms and conditions upon which, such election may be made;

(n) if the amount of payments of principal of and interest on the Securities of the series may be determined with reference to an index based on a currency other than that in which the Securities of the series are denominated, or by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices, the manner in which such amounts shall be determined;

(o) if Sections 10.01(b) or 10.01(c) are inapplicable to Securities of such series;

(p) whether and under what circumstances the Issuer will pay additional amounts on the Securities of any series in respect of any tax, assessment or governmental charge withheld or deducted and, if so, whether the Issuer will have the option to redeem such Securities rather than pay such additional amounts;

(q) if the Securities of such series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, then the form and terms of such certificates, documents or conditions;

(r) any trustees, authenticating or paying agents, transfer agents or registrars or any other agents with respect to the Securities of such series;

(s) any other events of default or covenants with respect to the Securities of such series in addition to or in lieu of those contained in this Indenture;

(t) if the Securities of the series may be issued in exchange for surrendered Securities of another series, or for other securities of the Issuer, pursuant to the terms of such Securities or securities or of any agreement entered into by the Issuer, the ratio of the principal amount of the Securities of the series to be issued to the principal amount of the Securities or securities to be surrendered in exchange, and any other material terms of the exchange; and

(u) any other terms of the series.

The Issuer may from time to time, without notice to or the consent of the holders of any series of Securities, create and issue further Securities of any such series ranking equally with the Securities of such series in all respects (or in all respects other than (1) the payment of interest accruing prior to the issue date of such further Securities or (2) the first payment of interest following the issue date of such further Securities). Such further Securities may be consolidated and form a single series with the Securities of such series and have the same terms as to status, redemption or otherwise as the Securities of such series.

Section 2.04 **Authentication and Delivery of Securities**. The Issuer may deliver Securities of any series executed by the Issuer to the Trustee for authentication together with the applicable documents referred to below in this Section, and the Trustee shall thereupon authenticate and deliver such Securities to

or upon the order of the Issuer (contained in the Issuer Order referred to below in this Section) or pursuant to such procedures acceptable to the Trustee and to such recipients as may be specified from time to time by an Issuer Order. In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to Section 6.01) shall be fully protected in relying upon:

- (a) an Issuer Order requesting such authentication and setting forth delivery instructions if the Securities are not to be delivered to the Issuer;
- (b) any Board Resolution, Officer's Certificate and/or executed supplemental indenture referred to in Sections 2.01 and 2.03 by or pursuant to which the forms and terms of the Securities were established;
- (c) an Officer's Certificate stating that the form or forms and terms of the Securities have been established pursuant to Sections 2.01 and 2.03 and comply with this Indenture, and covering such other matters as the Trustee may reasonably request; and
- (d) an Opinion of Counsel to the effect that:
 - (i) the form or forms and terms of such Securities have been established pursuant to Sections 2.01 and 2.03 and comply with this Indenture,
 - (ii) the authentication and delivery of such Securities by the Trustee are authorized under the provisions of this Indenture,
 - (iii) such Securities when authenticated and delivered by the Trustee and issued by the Issuer in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute valid and binding obligations of the Issuer enforceable against the Issuer in accordance with their terms, and
 - (iv) all laws and requirements in respect of the execution and delivery by the Issuer of the Securities have been complied with,

and covering such other matters as the Trustee may reasonably request.

The Trustee shall have the right to decline to authenticate and deliver any Securities under this Section if the Trustee, being advised by counsel, determines that such action may not lawfully be taken by the Issuer or if the Trustee in good faith by its board of directors or board of trustees, executive committee, or a trust committee of directors or trustees or Responsible Officers shall determine that such action would expose the Trustee to personal liability to existing Holders or would affect the Trustee's own rights, duties or immunities under the Securities, this Indenture or otherwise.

The Issuer shall execute and the Trustee shall, in accordance with this Section with respect to the Securities of a series, authenticate and deliver one or more Global Securities that (i) shall represent and shall be denominated in an amount equal to the aggregate principal amount of all of the Securities of such series issued and not yet cancelled, (ii) shall be registered in the name of the Depository for such Global Security or Securities or the nominee of such Depository, (iii) shall be delivered by the Trustee to such Depository or pursuant to such Depository's instructions and (iv) shall bear a legend substantially to the following effect:

"Unless and until it is exchanged in whole or in part for Securities in definitive registered form, this Security may not be transferred except as a whole by the Depository to the nominee of the Depository or by a nominee of the Depository to the Depository or another nominee of the Depository or by the Depository or any such nominee to a successor Depository or a nominee of such successor Depository."

Each Depositary designated pursuant to this Section must, at the time of its designation and at all times while it serves as Depositary, be a clearing agency registered under the Securities Exchange Act of 1934 and any other applicable statute or regulation.

Section 2.05 *Execution of Securities.* The Securities shall be signed on behalf of the Issuer by the chairman of the Board of Directors, the chief executive officer, the chief financial officer, the treasurer or the secretary of the Issuer. Such signatures may be the manual or facsimile signatures of the present or any future such officers. Typographical and other minor errors or defects in any such reproduction of any such signature shall not affect the validity or enforceability of any Security that has been duly authenticated and delivered by the Trustee.

In case any officer of the Issuer who shall have signed any of the Securities shall cease to be such officer before the Security so signed shall be authenticated and delivered by the Trustee or disposed of by the Issuer, such Security nevertheless may be authenticated and delivered or disposed of as though the person who signed such Security had not ceased to be such officer of the Issuer; and any Security may be signed on behalf of the Issuer by such persons as, at the actual date of the execution of such Security, shall be the proper officers of the Issuer, although at the date of the execution and delivery of this Indenture any such person was not such an officer.

Section 2.06 *Certificate of Authentication.* Only such Securities as shall bear thereon a certificate of authentication substantially in the form hereinbefore recited, executed by the Trustee by the manual signature of one of its authorized officers, shall be entitled to the benefits of this Indenture or be valid or obligatory for any purpose. The execution of such certificate by the Trustee upon any Security executed by the Issuer shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the Holder is entitled to the benefits of this Indenture.

Section 2.07 *Denomination and Date of Securities; Payments of Interest.* The Securities of each series shall be issuable in denominations established as contemplated by Section 2.03 or, if not so established, in denominations of \$1,000 and any integral multiple thereof. The Securities of each series shall be numbered, lettered or otherwise distinguished in such manner or in accordance with such plan as the officers of the Issuer executing the same may determine with the approval of the Trustee, as evidenced by the execution and authentication thereof. Unless otherwise indicated in a Board Resolution, Officer's Certificate or supplemental indenture for a particular series, interest will be calculated on the basis of a 360-day year of twelve 30-day months.

Each Security shall be dated the date of its authentication. The Securities of each series shall bear interest, if any, from the date, and such interest shall be payable on the dates, established as contemplated by Section 2.03.

The Person in whose name any Security of any series is registered at the close of business on any record date applicable to a particular series with respect to any interest payment date for such series shall be entitled to receive the interest, if any, payable on such interest payment date notwithstanding any transfer, exchange or conversion of such Security subsequent to the record date and prior to such interest payment date, except if and to the extent the Issuer shall default in the payment of the interest due on such interest payment date for such series, in which case such defaulted interest shall be paid to the Persons in whose names Outstanding Securities for such series are registered at the close of business on a subsequent record date (which shall be not less than five Business Days prior to the date of payment of such defaulted interest)

established by notice given by mail or otherwise electronically delivered by or on behalf of the Issuer to the Holders of Securities not less than 15 days preceding such subsequent record date. The term “**record date**” as used with respect to any interest payment date (except a date for payment of defaulted interest) for the Securities of any series shall mean the date specified as such in the terms of the Securities of such series established as contemplated by Section 2.03, or, if no such date is so established, if such interest payment date is the first day of a calendar month, the 15th day of the immediately preceding calendar month or, if such interest payment date is the 15th day of a calendar month, the first day of such calendar month, whether or not such record date is a Business Day.

Section 2.08 **Registration, Transfer and Exchange**. The Issuer will keep at each office or agency to be maintained for the purpose as provided in Section 3.02 for each series of Securities a register or registers in which, subject to such reasonable regulations as it may prescribe, it will provide for the registration of Securities of such series and the registration of transfer of Securities of such series. Such register shall be in written form in the English language or in any other form capable of being converted into such form within a reasonable time. At all reasonable times such register or registers shall be open for inspection by the Trustee.

Upon due presentation for registration of transfer of any Security of any series at any such office or agency to be maintained for the purpose as provided in Section 3.02, the Issuer shall execute and the Trustee shall authenticate and deliver in the name of the transferee or transferees a new Security or Securities of the same series, maturity date, interest rate and original issue date in authorized denominations for a like aggregate principal amount.

At the option of the Holder thereof, Securities of any series (except a Global Security) may be exchanged for a Security or Securities of such series having authorized denominations and an equal aggregate principal amount, upon surrender of such Securities to be exchanged at the agency of the Issuer that shall be maintained for such purpose in accordance with Section 3.02 and upon payment, if the Issuer shall so require, of the charges hereinafter provided. Whenever any Securities are so surrendered for exchange, the Issuer shall execute, and the Trustee shall authenticate and deliver, the Securities which the Holder making the exchange is entitled to receive. All Securities surrendered upon any exchange or transfer provided for in this Indenture shall be promptly cancelled and disposed of by the Trustee and the Trustee will deliver a certificate of disposition thereof to the Issuer.

All Securities presented for registration of transfer, exchange, redemption or payment shall (if so required by the Issuer or the Trustee) be duly endorsed by, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Issuer and the Trustee duly executed by, the Holder or his or her attorney duly authorized in writing.

The Issuer may require payment of a sum sufficient to cover any stamp or other tax or other governmental charge that may be imposed in connection with any exchange or registration of transfer of Securities. No service charge shall be made for any such transaction.

The Issuer shall not be required to exchange or register a transfer of (a) any Securities of any series for a period of 15 days immediately preceding the first mailing of notice of redemption of Securities of such series to be redeemed or (b) any Securities selected, called or for which notice of redemption has been provided to the Trustee, in whole or in part, except, in the case of any Security to be redeemed in part, the portion thereof not so to be redeemed.

Notwithstanding any other provision of this Section 2.08, unless and until it is exchanged in whole or in part for Securities in definitive registered form, a Global Security representing all or a portion of the Securities of a series may not be transferred except as a whole by the Depositary for such series to a nominee of such Depositary or by a nominee of such Depositary to such Depositary or another nominee of such Depositary or by such Depositary or any such nominee to a successor Depositary for such series or a nominee of such successor Depositary.

If at any time the Depositary for the Securities of a series notifies the Issuer that it is unwilling or unable to continue as Depositary for the Securities of such series or if at any time the Depositary for the Securities of a series shall no longer be eligible under Section 2.04, the Issuer shall appoint a successor Depositary with respect to the Securities of such series. If a successor Depositary for the Securities of such series is not appointed by the Issuer within 90 days after the Issuer receives such notice or becomes aware of such ineligibility, the Issuer's determination pursuant to Section 2.03 that the Securities of such series be represented by a Global Security shall no longer be effective and the Issuer will execute, and the Trustee, upon receipt of an Officer's Certificate for the authentication and delivery of definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing the Securities of such series, in exchange for such Global Security or Securities.

The Issuer may at any time and in its sole discretion determine that the Securities of any series issued in the form of one or more Global Securities shall no longer be represented by a Global Security or Securities. In such event the Issuer will execute, and the Trustee, upon receipt of an Officer's Certificate for the authentication and delivery of definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such series, in exchange for such Global Security or Securities.

The Depositary for such Global Security may surrender such Global Security in exchange in whole or in part for Securities of the same series in definitive registered form in accordance with the two preceding paragraphs or on such other terms as are acceptable to the Issuer and such Depositary. Thereupon, the Issuer shall execute, and the Trustee shall authenticate and deliver, without service charge,

(i) to the Person specified by such Depositary a new Security or Securities of the same series, of any authorized denominations as requested by such Person, in an aggregate principal amount equal to and in exchange for such Person's beneficial interest in the Global Security; and

(ii) to such Depositary a new Global Security in a denomination equal to the difference, if any, between the principal amount of the surrendered Global Security and the aggregate principal amount of Securities authenticated and delivered pursuant to clause (i) above.

Upon the exchange of a Global Security for Securities in definitive registered form, in authorized denominations, such Global Security shall be cancelled by the Trustee. Securities in definitive registered form issued in exchange for a Global Security pursuant to this Section 2.08 shall be registered in such names and in such authorized denominations as the Depositary for such Global Security, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Securities to or as directed by the Persons in whose names such Securities are so registered.

All Securities issued upon any transfer or exchange of Securities shall be valid obligations of the Issuer, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such transfer or exchange.

Section 2.09 *Mutilated, Defaced, Destroyed, Lost and Stolen Securities.* In case any temporary or definitive Security shall become mutilated, defaced or be destroyed, lost or stolen, the Issuer in its discretion may execute, and upon the written request of any officer of the Issuer, the Trustee shall authenticate and deliver a new Security of the same series, maturity date, interest rate and original issue date, bearing a number or other distinguishing symbol not contemporaneously outstanding, in exchange and substitution for the mutilated or defaced Security, or in lieu of and substitution for the Security so destroyed, lost or stolen. In every case the applicant for a substitute Security shall furnish to the Issuer and to the Trustee and any agent of the Issuer or the Trustee such security or indemnity as may be required by them to indemnify and defend and to save each of them harmless and, in every case of destruction, loss or theft, evidence to their satisfaction of the destruction, loss or theft of such Security and of the ownership thereof and in the case of mutilation or defacement shall surrender the Security to the Trustee.

Upon the issuance of any substitute Security, the Issuer may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith. In case any Security which has matured or is about to mature or has been called for redemption in full, or is being surrendered for conversion in full, shall become mutilated or defaced or be destroyed, lost or stolen, the Issuer may, instead of issuing a substitute Security (with the Holder's consent, in the case of convertible Securities), pay or authorize the payment of the same or convert, or authorize conversion of the same (without surrender thereof except in the case of a mutilated or defaced Security), if the applicant for such payment shall furnish to the Issuer and to the Trustee and any agent of the Issuer or the Trustee such security or indemnity as any of them may require to save each of them harmless, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Issuer and the Trustee and any agent of the Issuer or the Trustee evidence to their satisfaction of the destruction, loss or theft of such Security and of the ownership thereof.

Every substitute Security of any series issued pursuant to the provisions of this Section by virtue of the fact that any such Security is destroyed, lost or stolen shall constitute an additional contractual obligation of the Issuer, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone and shall be entitled to all the benefits of (but shall be subject to all the limitations of rights set forth in) this Indenture equally and proportionately with any and all other Securities of such series duly authenticated and delivered hereunder. All Securities shall be held and owned upon the express condition that, to the extent permitted by law, the foregoing provisions are exclusive with respect to the replacement or payment or conversion of mutilated, defaced or destroyed, lost or stolen Securities and shall preclude any and all other rights or remedies notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

Section 2.10 *Cancellation of Securities; Destruction Thereof.* All Securities surrendered for exchange for Securities of the same series or for payment, redemption, registration of transfer, conversion or for credit against any payment in respect of a sinking or analogous fund, if surrendered to the Issuer or any agent of the Issuer or the Trustee, shall be delivered to the Trustee for cancellation along with an Issuer order directing the cancellation thereof or, if surrendered to the Trustee, shall be cancelled by it; and no Securities shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Indenture. The Trustee shall dispose of cancelled Securities held by it and deliver a certificate of disposition to the Issuer. If the Issuer shall acquire any of the Securities, such acquisition shall not operate as a redemption or satisfaction of the Debt represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

Section 2.11 *Temporary Securities.* Pending the preparation of definitive Securities for any series, the Issuer may execute and the Trustee shall authenticate and deliver temporary Securities for such series (printed, lithographed, typewritten or otherwise reproduced, in each case in form satisfactory to the

Trustee). Temporary Securities of any series shall be issuable in any authorized denomination, and substantially in the form of the definitive Securities of such series but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Issuer with the concurrence of the Trustee as evidenced by the execution and authentication thereof. Temporary Securities may contain such reference to any provisions of this Indenture as may be appropriate. Every temporary Security shall be executed by the Issuer and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities. Without unreasonable delay the Issuer shall execute and shall furnish definitive Securities of such series and thereupon temporary Securities of such series may be surrendered in exchange therefor without charge at each office or agency to be maintained by the Issuer for that purpose pursuant to Section 3.02 and the Trustee shall authenticate and deliver in exchange for such temporary

Securities of such series an equal aggregate principal amount of definitive Securities of the same series having authorized denominations. Until so exchanged, the temporary Securities of any series shall be entitled to the same benefits under this Indenture as definitive Securities of such series, unless the benefits of the temporary Securities are limited pursuant to Section 2.03.

ARTICLE 3 COVENANTS OF THE ISSUER

Section 3.01 **Payment of Principal and Interest.** The Issuer covenants and agrees for the benefit of each series of Securities that it will duly and punctually pay or cause to be paid the principal of, and interest on, each of the Securities of such series (together with any additional amounts payable pursuant to the terms of such Securities) at the place or places, at the respective times and in the manner provided in such Securities and in this Indenture. The interest on Securities (together with any additional amounts payable pursuant to the terms of such Securities) shall be payable only to or upon the written order of the Holders thereof and at the option of the Issuer may be paid by mailing checks for such interest payable to or upon the written order of such Holders at their last addresses as they appear on the Security register of the Issuer or otherwise paid through the facilities of the Depositary.

Section 3.02 **Offices for Payments, Etc.** The Issuer will maintain (i) in Germantown, Maryland, an agency where the Securities of each series may be presented for payment, an agency where the Securities of each series may be presented for exchange and conversion, if applicable, as provided in this Indenture and an agency where the Securities of each series may be presented for registration of transfer as in this Indenture provided and (ii) such further agencies in such places as may be determined for the Securities of such series pursuant to Section 2.03.

The Issuer will maintain in Germantown, Maryland, an agency where notices and demands to or upon the Issuer in respect of the Securities of any series or this Indenture may be served.

The Issuer will give to the Trustee written notice of the location of each such agency and of any change of location thereof. In case the Issuer shall fail to maintain any agency required by this Section to be located in Germantown, Maryland, or shall fail to give such notice of the location or of any change in the location of any of the above agencies, presentations and demands may be made and notices may be served at the Corporate Trust Office of the Trustee.

The Issuer may from time to time designate one or more additional agencies where the Securities of a series may be presented for payment, where the Securities of that series may be presented for exchange or conversion, if applicable, as provided in this Indenture and pursuant to Section 2.03 and where the Securities of that series may be presented for registration of transfer as in this Indenture provided, and the Issuer may from time to time rescind any such designation, as the Issuer may deem desirable or expedient;

provided, however, that no such designation or rescission shall in any manner relieve the Issuer of its obligation to maintain the agencies provided for in this Section. The Issuer will give to the Trustee prompt written notice of any such designation or rescission thereof.

Section 3.03 **Appointment to Fill a Vacancy in Office of Trustee.** The Issuer, whenever necessary to avoid or fill a vacancy in the office of Trustee, will appoint, in the manner provided in Section 6.10, a Trustee, so that there shall at all times be a Trustee with respect to each series of Securities hereunder.

Section 3.04 **Paying Agents.** Whenever the Issuer shall appoint a paying agent other than the Trustee with respect to the Securities of any series, it will cause such paying agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section,

(a) that it will hold all sums received by it as such agent for the payment of the principal of or interest on the Securities of such series (whether such sums have been paid to it by the Issuer or by any other obligor on the Securities of such series) in trust for the benefit of the Holders of the Securities of such series or of the Trustee,

(b) that it will give the Trustee notice of any failure by the Issuer (or by any other obligor on the Securities of such series) to make any payment of the principal of or interest on the Securities of such series when the same shall be due and payable, and

(c) that at any time during the continuance of any such failure, upon the written request of the Trustee, it will forthwith pay to the Trustee all sums so held in trust by such paying agent.

The Issuer will, on or prior to each due date of the principal of or interest on the Securities of such series, deposit with the paying agent a sum sufficient to pay such principal or interest so becoming due, and (unless such paying agent is the Trustee) the Issuer will promptly notify the Trustee of any failure to take such action.

If the Issuer shall act as its own paying agent with respect to the Securities of any series, it will, on or before each due date of the principal of or interest on the Securities of such series, set aside, segregate and hold in trust for the benefit of the Holders of the Securities of such series a sum sufficient to pay such principal or interest so becoming due. The Issuer will promptly notify the Trustee of any failure to take such action.

Anything in this Section to the contrary notwithstanding, but subject to Section 10.01, the Issuer may at any time, for the purpose of obtaining a satisfaction and discharge with respect to one or more or all series of Securities hereunder, or for any other reason, pay or cause to be paid to the Trustee all sums held in trust for any such series by the Issuer or any paying agent hereunder, as required by this Section, such sums to be held by the Trustee upon the trusts herein contained.

Anything in this Section to the contrary notwithstanding, the agreement to hold sums in trust as provided in this Section is subject to the provisions of Sections 10.03 and 10.04.

Section 3.05 **Written Statement to Trustee.** So long as any Securities are Outstanding hereunder, the Issuer will deliver to the Trustee, within 120 days after the end of each fiscal year of the Issuer ending after the date hereof, a written statement covering the previous fiscal year, signed by two of its officers (which need not comply with Section 11.05), stating that in the course of the performance of their

duties as officers of the Issuer they would normally have knowledge of any default by the Issuer in the performance or fulfillment of any covenant, agreement or condition contained in this Indenture, stating whether or not they have knowledge of any such default and, if so, specifying each such default of which the signers have knowledge and the nature thereof.

ARTICLE 4 SECURITYHOLDERS LISTS AND REPORTS BY THE ISSUER AND THE TRUSTEE

Section 4.01 **Issuer to Furnish Trustee Information as to Names and Addresses of Securityholders.** The Issuer covenants and agrees that it will furnish or cause to be furnished to the Trustee a list in such form as the Trustee may reasonably require of the names and addresses of the Holders of the Securities of each series pursuant to Section 312 of the Trust Indenture Act of 1939:

(a) semiannually and not more than 15 days after each record date for the payment of interest on such Securities, as hereinabove specified, as of such record date and on dates to be determined pursuant to Section 2.03 for non-interest bearing Securities in each year, and

(b) at such other times as the Trustee may request in writing, within 30 days after receipt by the Issuer of any such request as of a date not more than 15 days prior to the time such information is furnished, provided, that, if and so long as the Trustee shall be the Security registrar (the “**Security Registrar**”) for such series, such list shall not be required to be furnished.

Section 4.02 **Reports by the Issuer.** The Issuer covenants to comply with Section 314(a) of the Trust Indenture Act insofar as it relates to information, documentations, and other reports which the Issuer may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934.

Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee’s receipt of such shall not constitute constructive or actual notice or knowledge of any information contained therein or determinable from information contained therein, including the Issuer’s compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers’ Certificates).

Section 4.03 **Reports by the Trustee.** Any Trustee’s report required under Section 313(a) of the Trust Indenture Act of 1939 shall be transmitted within 60 days of May 15th in each year following the date hereof, so long as any Securities are Outstanding hereunder, and shall be dated as of a date convenient to the Trustee but no more than 60 nor less than 45 days prior thereto. The Trustee shall comply with Sections 313(b), 313(c) and 313(d) of the Trust Indenture Act.

Section 4.04 **Preservation of Information; Communication with Securityholders.** (a) The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the holders of Securities contained in the most recent list furnished to it as provided in Section 4.01 and as to the names and addresses of holders of Securities received by the Trustee in its capacity as Security Registrar (if acting in such capacity).

(b) The Trustee may destroy any list furnished to it as provided in Section 4.01 upon receipt of a new list so furnished.

(c) Securityholders may communicate as provided in Section 312(b) of the Trust Indenture Act with other Securityholders with respect to their rights under this Indenture or under the Securities. The Issuer, the Trustee, the Security Registrar and any other Person shall have the protection of Section 312(c) of the Trust Indenture Act.

ARTICLE 5
REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS ON EVENT OF DEFAULT

Section 5.01 *Event of Default Defined; Acceleration of Maturity; Waiver of Default*. “Event of Default”, with respect to Securities of any series wherever used herein, means each one of the following events which shall have occurred and be continuing (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(a) default in the payment of any installment of interest upon any of the Securities of such series as and when the same shall become due and payable, and continuance of such default for a period of 90 days (or such other period as may be established for the Securities of such series as contemplated by Section 2.03); or

(b) default in the payment of all or any part of the principal on any of the Securities of such series as and when the same shall become due and payable either at maturity, upon redemption, by declaration or otherwise (and, if established for the Securities of such series as contemplated by Section 2.03, the continuance of such default for a specified period); or

(c) default in the performance, or breach, of any covenant or agreement of the Issuer in respect of the Securities of such series (other than a covenant or agreement in respect of the Securities of such series a default in the performance or breach of which is elsewhere in this Section specifically dealt with), and continuance of such default or breach for a period of 90 days after there has been given, to the Issuer by the Trustee or to the Issuer and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of all series affected thereby, a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a “Notice of Default” hereunder; or

(d) a court having jurisdiction in the premises shall enter a decree or order for relief in respect of the Issuer in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or appointing a receiver, liquidator, assignee, custodian, trustee or sequestrator (or similar official) of the Issuer or for all or substantially all of its property and assets or ordering the winding up or liquidation of its affairs, and such decree or order shall remain unstayed and in effect for a period of 90 consecutive days; or

(e) the Issuer shall commence a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or consent to the entry of an order for relief in an involuntary case under any such law, or consent to the appointment of or taking possession by a receiver, liquidator, assignee, custodian, trustee or sequestrator (or similar official) of the Issuer or for all or substantially all of its property and assets, or make any general assignment for the benefit of creditors; or

(f) any other Event of Default provided for in such series of Securities.

If an Event of Default described in clauses (a), (b), (c) or (f) occurs and is continuing, then, and in each and every such case, unless the principal of all of the Securities of such series shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding hereunder (each such series voting as a separate

class) by notice in writing to the Issuer (and also to the Trustee if given by Securityholders), may declare the entire principal (or, if the Securities of such series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of all Securities of such series and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable. If an Event of Default described in clauses (d) or (e) occurs and is continuing, then and in each and every such case, the entire principal (or, if any Securities are Original Issue Discount Securities, such portion of the principal as may be specified in the terms thereof) of all the Securities then Outstanding and interest accrued thereon, if any, shall become immediately due and payable.

The foregoing provisions, however, are subject to the condition that if, at any time after the principal of the Securities of any series shall have been so declared due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered as hereinafter provided, the Issuer shall pay or shall deposit with the Trustee a sum sufficient to pay all matured installments of interest upon all the Securities of such series and the principal of any and all Securities of such series which shall have become due otherwise than by acceleration (with interest upon such principal and, to the extent that payment of such interest is enforceable under applicable law, on overdue installments of interest, at the same rate as the rate of interest specified in the Securities of such series to the date of such payment or deposit) and such amount as shall be sufficient to cover reasonable compensation to the Trustee, its agents, attorneys and counsel, and all other expenses and liabilities incurred, and all advances made, by the Trustee except as a result of negligence or willful misconduct, and if any and all Events of Default under the Indenture with respect to such series, other than the non-payment of the principal of Securities of such series which shall have become due by acceleration, shall have been cured, waived or otherwise remedied as provided herein—then and in every such case the Holders of a majority in aggregate principal amount of all the Securities of such series then Outstanding, by written notice to the Issuer and to the Trustee, may waive all defaults with respect to such series and rescind and annul such declaration and its consequences, but no such waiver or rescission and annulment shall extend to or shall affect any subsequent default or shall impair any right consequent thereon.

Unless otherwise indicated in the Board Resolution, Officer's Certificate or supplemental indenture for a series of Original Issue Discount Securities, for all purposes under this Indenture, if a portion of the principal of any Original Issue Discount Securities shall have been accelerated and declared due and payable pursuant to the provisions hereof, then, from and after such declaration, unless such declaration has been rescinded and annulled, the principal amount of such Original Issue Discount Securities shall be deemed, for all purposes hereunder, to be such portion of the principal thereof as shall be due and payable as a result of such acceleration, and payment of such portion of the principal thereof as shall be due and payable as a result of such acceleration, together with interest, if any, thereon and all other amounts owing thereunder, shall constitute payment in full of such Original Issue Discount Securities.

Section 5.02 **Collection of Debt by Trustee; Trustee May Prove Debt.** The Issuer covenants that (a) in case default shall be made in the payment of any installment of interest on any of the Securities of any series when such interest shall have become due and payable, and such default shall have continued for a period of 30 days or (b) in case default shall be made in the payment of all or any part of the principal of any of the Securities of any series when the same shall have become due and payable, whether upon maturity of the Securities of such series or upon any redemption or by declaration or otherwise—then, upon demand of the Trustee, the Issuer will pay to the Trustee for the benefit of the Holders of the Securities of such series the whole amount that then shall have become due and payable on all Securities of such series for principal or interest, as the case may be (with interest to the date of such payment upon the overdue principal and, to the extent that payment of such interest is enforceable under applicable law, on overdue installments of interest at the same rate as the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) specified in the Securities of such series); and, in addition thereto, such further

amount as shall be sufficient to cover the costs and expenses of collection, including reasonable compensation to the Trustee and each predecessor trustee, their respective agents, attorneys and counsel, and any expenses and liabilities incurred, and all advances made, by the Trustee and each predecessor trustee except as a result of its negligence or willful misconduct.

In case the Issuer shall fail forthwith to pay such amounts upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceedings to judgment or final decree, and may enforce any such judgment or final decree against the Issuer or other obligor upon such Securities and collect in the manner provided by law out of the property of the Issuer or other obligor upon such Securities, wherever situated, the moneys adjudged or decreed to be payable.

In case there shall be pending proceedings relative to the Issuer or any other obligor upon the Securities under Title 11 of the United States Code or any other applicable Federal or state bankruptcy, insolvency or other similar law, or in case a receiver, assignee or trustee in bankruptcy or reorganization, liquidator, sequestrator or similar official shall have been appointed for or taken possession of the Issuer or its property or such other obligor or its property, or in case of any other comparable judicial proceedings relative to the Issuer or other obligor upon the Securities of any series, or to the creditors or property of the Issuer or such other obligor, the Trustee, irrespective of whether the principal of any Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand pursuant to the provisions of this Section, shall be entitled and empowered, by intervention in such proceedings or otherwise:

(i) to file and prove a claim or claims for the whole amount of principal and interest (or, if the Securities of any series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of such series) owing and unpaid in respect of the Securities of any series, and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for reasonable compensation to the Trustee and each predecessor trustee, and their respective agents, attorneys and counsel, and for reimbursement of all expenses and liabilities incurred, and all advances made, by the Trustee and each predecessor trustee, except as a result of negligence or bad faith) and of the Securityholders allowed in any judicial proceedings relative to the Issuer or other obligor upon the Securities of any series, or to the creditors or property of the Issuer or such other obligor,

(ii) unless prohibited by applicable law and regulations, to vote on behalf of the Holders of the Securities of any series in any election of a trustee or a standby trustee in arrangement, reorganization, liquidation or other bankruptcy or insolvency proceedings or person performing similar functions in comparable proceedings, and

(iii) to collect and receive any moneys or other property payable or deliverable on any such claims, and to distribute all amounts received with respect to the claims of the Securityholders and of the Trustee on their behalf; and any trustee, receiver or liquidator, custodian or other similar official is hereby authorized by each of the Securityholders to make payments to the Trustee, and, in the event that the Trustee shall consent to the making of payments directly to the Securityholders, to pay to the Trustee such amounts as shall be sufficient to cover reasonable compensation to the Trustee, each predecessor trustee and their respective agents, attorneys and counsel, and all other expenses and liabilities incurred, and all advances made, by the Trustee and each predecessor trustee except as a result of negligence or bad faith and all other amounts due to the Trustee or any predecessor trustee pursuant to Section 6.06.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or vote for or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of any series or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding except, as aforesaid, to vote for the election of a trustee in bankruptcy or similar person.

All rights of action and of asserting claims under this Indenture, or under any of the Securities of any series, may be enforced by the Trustee without the possession of any of the Securities of such series or the production thereof on any trial or other proceedings relative thereto, and any such action or proceedings instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment, subject to the payment of the expenses, disbursements and compensation of the Trustee, each predecessor trustee and their respective agents and attorneys, shall be for the ratable benefit of the Holders of the Securities in respect of which such action was taken.

In any proceedings brought by the Trustee (and also any proceedings involving the interpretation of any provision of this Indenture to which the Trustee shall be a party), the Trustee shall be held to represent all the Holders of the Securities in respect to which such action was taken, and it shall not be necessary to make any Holders of such Securities parties to any such proceedings.

Section 5.03 **Application of Proceeds.** Any moneys collected by the Trustee pursuant to this Article in respect of any series shall be applied in the following order at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal or interest, upon presentation of the several Securities in respect of which monies have been collected and stamping (or otherwise noting) thereon the payment, or issuing Securities of such series in reduced principal amounts in exchange for the presented Securities of like series if only partially paid, or upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due to the Trustee or any predecessor trustee pursuant to Section 6.06;

SECOND: In case the principal of the Securities of such series in respect of which moneys have been collected shall not have become and be then due and payable, to the payment of interest on the Securities of such series in default in the order of the maturity of the installments of such interest, with interest (to the extent that such interest has been collected by the Trustee) upon the overdue installments of interest, to the extent permitted by applicable law, at the same rate as the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) specified in such Securities, such payments to be made ratably to the Persons entitled thereto, without discrimination or preference;

THIRD: In case the principal of the Securities of such series in respect of which moneys have been collected shall have become and shall be then due and payable, to the payment of the whole amount then owing and unpaid upon all the Securities of such series for principal and interest, with interest upon the overdue principal, and (to the extent that such interest has been collected by the Trustee) upon overdue installments of interest, to the extent permitted by applicable law, at the same rate as the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) specified in the Securities of such series; and in case such moneys shall be insufficient to pay in full the whole amount so due and unpaid upon the Securities of such series, then to the payment of such principal and interest or Yield to Maturity, without preference or priority of principal over interest or Yield to Maturity, or of interest or Yield to Maturity over principal, or of any installment of interest over any other installment of interest, or of any Security of such series over any other Security of such series, ratably to the aggregate of such principal and accrued and unpaid interest or Yield to Maturity; and

FOURTH: To the payment of the remainder, if any, to the Issuer or any other Person lawfully entitled thereto or otherwise as a court of competent jurisdiction may direct.

Section 5.04 *Suits for Enforcement.* In case an Event of Default has occurred, has not been waived and is continuing, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in this Indenture or in aid of the exercise of any power granted in this Indenture or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law.

Section 5.05 *Restoration of Rights on Abandonment of Proceedings.* In case the Trustee shall have proceeded to enforce any right under this Indenture and such proceedings shall have been discontinued or abandoned for any reason, or shall have been determined adversely to the Trustee, then and in every such case (subject to any determination in such proceeding) the Issuer and the Trustee shall be restored respectively to their former positions and rights hereunder, and all rights, remedies and powers of the Issuer, the Trustee and the Securityholders shall continue as though no such proceedings had been taken.

Section 5.06 *Limitations on Suits by Securityholders.* No Holder of any Security of any series shall have any right by virtue or by availing of any provision of this Indenture to institute any action or proceeding at law or in equity or in bankruptcy or otherwise upon or under or with respect to this Indenture, or for the appointment of a trustee, receiver, liquidator, custodian or other similar official or for any other remedy hereunder, unless such Holder previously shall have given to the Trustee written notice of default and of the continuance thereof, as hereinbefore provided, and unless also the Holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding shall have made written request upon the Trustee to institute such action or proceedings in its own name as trustee hereunder and shall have offered to the Trustee such reasonable indemnity as it may require against the costs, expenses and liabilities to be incurred therein or thereby and the Trustee for 60 days after its receipt of such notice, request and offer of indemnity shall have failed to institute any such action or proceeding and no direction inconsistent with such written request shall have been given to the Trustee pursuant to Section 5.09; it being understood and intended, and being expressly covenanted by the Holder of every Security with every other Holder and the Trustee, that no one or more Holders of Securities of any series shall have any right in any manner whatever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of any other such Holder of Securities, or to obtain or seek to obtain priority over or preference to any other such Holder or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all Holders of Securities of the applicable series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Section 5.07 *Unconditional Right of Securityholders to Institute Certain Suits.* Notwithstanding any other provision in this Indenture and any provision of any Security, the right of any Holder of any Security to receive payment of the principal of and interest on such Security on or after the respective due dates expressed in such Security in accordance with the terms hereof and thereof, or to institute suit for the enforcement of any such payment on or after such respective dates, or for the enforcement of such conversion right, shall not be impaired or affected without the consent of such Holder; it being understood and intended, and being expressly covenanted by the Holder of every Security with

every other Holder and the Trustee, that no one or more Holders of Securities of any series shall have any right in any manner whatever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of any other such Holder of Securities, or to obtain or seek to obtain priority over or preference to any other such Holder or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all Holders of Securities of the applicable series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Section 5.08 **Powers and Remedies Cumulative; Delay or Omission Not Waiver of Default.** Except as provided in Section 5.06, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders of Securities is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

No delay or omission of the Trustee or of any Holder of Securities to exercise any right or power accruing upon any Event of Default occurring and continuing as aforesaid shall impair any such right or power or shall be construed to be a waiver of any such Event of Default or an acquiescence therein; and, subject to Section 5.06, every power and remedy given by this Indenture or by law to the Trustee or to the Holders of Securities may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Holders of Securities.

Section 5.09 **Control by Holders of Securities.** The Holders of a majority in aggregate principal amount of the Securities of each series affected (with each series voting as a separate class) at the time Outstanding shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee with respect to the Securities of such series by this Indenture; provided, that such direction shall not be otherwise than in accordance with law and the provisions of this Indenture and provided, further, that (subject to the provisions of Section 6.01) the Trustee shall have the right to decline to follow any such direction if the Trustee, being advised by counsel, shall determine that the action or proceeding so directed may not lawfully be taken or if the Trustee in good faith by its board of directors, the executive committee, or a trust committee of directors or Responsible Officers of the Trustee shall determine that the action or proceedings so directed would involve the Trustee in personal liability or if the Trustee in good faith shall so determine that the actions or forbearances specified in or pursuant to such direction would be unduly prejudicial to the interests of Holders of the Securities of all series so affected not joining in the giving of said direction, it being understood that (subject to Section 6.01) the Trustee shall have no duty to ascertain whether or not such actions or forbearances are unduly prejudicial to such Holders.

Nothing in this Indenture shall impair the right of the Trustee in its discretion to take any action deemed proper by the Trustee and which is not inconsistent with such direction or directions by Securityholders.

Section 5.10 **Waiver of Past Defaults.** Prior to the declaration of the acceleration of the maturity of the Securities of any series as provided in Section 5.01, the Holders of a majority in aggregate principal amount of the Securities of such series at the time Outstanding, by notice to the Trustee, may on behalf of the Holders of all the Securities of such series waive any existing default in the performance of any of the covenants contained herein or established pursuant to Section 2.03 with respect to such series and its consequences, except a default in the payment of the principal of, or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities. In the case of any such waiver, the Issuer, the Trustee and the Holders of the Securities of such series shall be restored to their

former positions and rights hereunder, respectively, such default shall cease to exist and be deemed to have been cured and not to have occurred, and any Event of Default arising therefrom shall be deemed to have been cured, and not to have occurred for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

Section 5.11 **Trustee to Give Notice of Default.** The Trustee shall, within 90 days after it receives written notice of the occurrence of a default with respect to the Securities of any series, give notice of all defaults with respect to that series of which the Trustee has received such written notice to all Holders of Securities of such series in the manner and to the extent provided in Section 4.03, unless in each case such defaults shall have been cured before the mailing or publication of such notice (the term “defaults” for the purpose of this Section being hereby defined to mean any event or condition which is, or with notice or lapse of time or both would become, an Event of Default); provided, that, except in the case of default in the payment of the principal of or interest on any of the Securities of such series, or in the payment of any sinking fund installment on such series, the Trustee shall be protected in withholding such notice if and so long as Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interests of the Securityholders of such series.

Section 5.12 **Right of Court to Require Filing of Undertaking to Pay Costs.** All parties to this Indenture agree, and each Holder of any Security by his or her acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys’ fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Securityholder or group of Securityholders of any series holding in the aggregate more than 10% in aggregate principal amount of the Securities of such series, or to any suit instituted by any Securityholder for the enforcement of the payment of the principal of or interest on any Security of such series, on or after the respective due dates expressed in such Security or established pursuant to this Indenture.

ARTICLE 6 CONCERNING THE TRUSTEE

Section 6.01 **Duties and Responsibilities of the Trustee; During Default; Prior to Default.** With respect to the Holders of any series of Securities issued hereunder, the Trustee, prior to the occurrence of an Event of Default with respect to the Securities of a particular series and after the curing or waiving of all Events of Default which may have occurred with respect to such series, undertakes to perform such duties and only such duties as are specifically set forth in this Indenture. In case an Event of Default with respect to the Securities of a series has occurred (which has not been cured or waived), the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of his or her own affairs.

No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act or its own willful misconduct.

Section 6.02 **Certain Rights of the Trustee.** In furtherance of and subject to the Trust Indenture Act of 1939 and subject to Section 6.01:

(a) In the absence of bad faith on the part of the Trustee, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any statements, certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but, in the case of any such statements, certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein);

(b) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer or Responsible Officers of the Trustee, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(c) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders pursuant to Section 5.09 relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture;

(d) none of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers if there shall be reasonable ground for believing that the repayment of such funds or adequate indemnity against such liability is not reasonably assured to it;

(e) the Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, Officer's Certificate or any other certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, debenture, note, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(f) any request, direction, order or demand of the Issuer mentioned herein shall be sufficiently evidenced by an Officer's Certificate (unless other evidence in respect thereof be herein specifically prescribed); and any resolution of the Board of Directors may be evidenced to the Trustee by a copy thereof certified by the secretary or an assistant secretary of the Issuer;

(g) the Trustee may consult with counsel and any advice or Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted to be taken by it hereunder in good faith and in accordance with such advice or Opinion of Counsel;

(h) the Trustee shall be under no obligation to exercise any of the trusts or powers vested in it by this Indenture at the request, order or direction of any of the Securityholders pursuant to the provisions of this Indenture, unless such Securityholders shall have offered to the Trustee reasonable security and/or indemnity against the costs, expenses and liabilities which might be incurred therein or thereby;

(i) the Trustee shall not be liable for any action taken or omitted by it in good faith and believed by it to be authorized or within the discretion, rights or powers conferred upon it by this Indenture;

(j) prior to the occurrence of an Event of Default hereunder and after the curing or waiving of all Events of Default, the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice,

request, consent, order, approval, appraisal, bond, debenture, note, security, or other paper or document unless requested in writing so to do by the Holders of not less than a majority in aggregate principal amount of the Securities of all series affected then Outstanding; provided, that, if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such expenses or liabilities as a condition to proceeding; the reasonable expenses of every such investigation shall be paid by the Issuer or, if paid by the Trustee or any predecessor trustee, shall be repaid by the Issuer upon demand;

(k) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys not regularly in its employ and the Trustee shall not be responsible for any misconduct or negligence on the part of any such agent or attorney appointed with due care by it hereunder;

(l) in no event shall the Trustee be responsible or liable for special, indirect, punitive or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action;

(m) the Trustee shall not be deemed to have notice of any default or Event of Default unless written notice of any event which is in fact such a default is received by a Responsible Officer of the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Securities and this Indenture; and

(n) in no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 6.03 **Trustee Not Responsible for Recitals, Disposition of Securities or Application of Proceeds Thereof.** The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Issuer, and the Trustee assumes no responsibility for the correctness of the same. The Trustee makes no representation as to the validity or sufficiency of this Indenture or of the Securities. The Trustee shall not be accountable for the use or application by the Issuer of any of the Securities or of the proceeds thereof.

Section 6.04 **Trustee and Agents May Hold Securities; Collections, Etc.** The Trustee or any agent of the Issuer or the Trustee, in its individual or any other capacity, may become the owner or pledgee of Securities with the same rights it would have if it were not the Trustee or such agent and may otherwise deal with the Issuer and receive, collect, hold and retain collections from the Issuer with the same rights it would have if it were not the Trustee or such agent.

Section 6.05 **Moneys Held by Trustee.** Subject to the provisions of Section 10.04 hereof, all moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by mandatory provisions of law. Neither the Trustee nor any agent of the Issuer or the Trustee shall be under any liability for interest on any moneys received by it hereunder.

Section 6.06 *Compensation and Indemnification of Trustee and Its Prior Claim.* The Issuer covenants and agrees to pay to the Trustee from time to time, and the Trustee shall be entitled to, such reasonable compensation (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust) as the Issuer and the Trustee may from time to time agree in writing and, except as otherwise expressly provided herein, the Issuer covenants and agrees to pay or reimburse the Trustee and each predecessor trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by or on behalf of it in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all agents and other persons not regularly in its employ) except any such expense, disbursement or advance as may arise from its negligence or willful misconduct. The Issuer also covenants to indemnify the Trustee and each predecessor trustee for, and to hold it harmless against, any loss, liability, claim, damage or expense incurred without negligence or willful misconduct on its part, arising out of or in connection with the acceptance or administration of this Indenture or the trusts hereunder and its duties hereunder, including the costs and expenses of defending itself against or investigating any claim of liability in the premises. The obligations of the Issuer under this Section to compensate and indemnify the Trustee and each predecessor trustee and to pay or reimburse the Trustee and each predecessor trustee for expenses, disbursements and advances shall constitute additional indebtedness hereunder and shall survive the satisfaction and discharge of this Indenture. Such additional indebtedness shall be a lien prior to that of the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the Holders of particular Securities, and the Securities are hereby subordinated to such prior lien.

Section 6.07 *Right of Trustee to Rely on Officer's Certificate, Etc.* Subject to Sections 6.01 and 6.02, whenever in the administration of the trusts of this Indenture the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering or omitting any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or willful misconduct on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate delivered to the Trustee, and such certificate, in the absence of negligence or willful misconduct on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted by it under the provisions of this Indenture upon the faith thereof.

Section 6.08 *Disqualification; Conflicting Interests.* If the Trustee has or shall acquire any "conflicting interest" within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Issuer shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act.

Section 6.09 *Persons Eligible for Appointment as Trustee.* The Trustee for each series of Securities hereunder shall at all times be a corporation having a combined capital and surplus of at least \$50,000,000 and shall be eligible in accordance with the provisions of Section 310(a) of the Trust Indenture Act of 1939. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of a Federal, State or District of Columbia supervising or examining authority, then, for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

Section 6.10 *Resignation and Removal; Appointment of Successor Trustee.* (a) The Trustee, or any trustee or trustees hereafter appointed, may at any time resign with respect to one or more or all series of Securities by giving 30 days' written notice of resignation to the Issuer and by sending notice of such resignation to the Holders of then Outstanding Securities of each series affected at their addresses as they shall appear on the Security register. Upon receiving such notice of resignation, the Issuer shall promptly appoint a successor trustee or trustees with respect to the applicable series by written instrument in

duplicate, executed by authority of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee or trustees. If no successor trustee shall have been so appointed with respect to any series and have accepted appointment within 30 days after the sending of such notice of resignation, the resigning trustee may at the Issuer's expense petition any court of competent jurisdiction for the appointment of a successor trustee, or any Holder of a Security who has been a bona fide Holder of a Security or Securities of the applicable series for at least six months may, on behalf of himself or herself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(b) In case at any time any of the following shall occur:

(i) the Trustee shall fail to comply with the provisions of Section 310(b) of the Trust Indenture Act of 1939 with respect to any series of Securities after written request therefor by the Issuer or by any Holder of a Security who has been a bona fide Holder of a Security or Securities of such series for at least six months; or

(ii) the Trustee shall cease to be eligible in accordance with the provisions of Section 310(a) of the Trust Indenture Act of 1939 and shall fail to resign after written request therefor by the Issuer or by any Holder of a Security; or

(iii) the Trustee shall become incapable of acting with respect to any series of Securities, or shall be adjudged bankrupt or insolvent, or a receiver or liquidator of the Trustee or of its property shall be appointed, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, (A) the Issuer may, upon 30 days' written notice, remove the Trustee with respect to the applicable series of Securities and appoint a successor trustee for such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or, (B) subject to Section 315(e) of the Trust Indenture Act of 1939, any Holder of a Security who has been a bona fide Holder of a Security or Securities of such series for at least six months may on behalf of himself or herself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee with respect to such series. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The Holders of a majority in aggregate principal amount of the Securities of each series at the time Outstanding may, upon 30 days' written notice, at any time remove the Trustee with respect to Securities of such series and, with the consent of the Issuer, appoint a successor trustee with respect to the Securities of such series by delivering to the Trustee so removed, to the successor trustee so appointed and to the Issuer the evidence provided for in Section 7.01 of the action in that regard taken by the Securityholders.

(d) Any resignation or removal of the Trustee with respect to any series and any appointment of a successor trustee with respect to such series pursuant to any of the provisions of this Section 6.10 shall become effective upon acceptance of appointment by the successor trustee as provided in Section 6.11.

Section 6.11 **Acceptance of Appointment by Successor Trustee.** Any successor trustee appointed as provided in Section 6.10 shall execute and deliver to the Issuer and to its predecessor trustee an

instrument accepting such appointment hereunder, and thereupon the resignation or removal of the predecessor trustee with respect to all or any applicable series shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all rights, powers, duties and obligations with respect to such series of its predecessor hereunder, with like effect as if originally named as trustee for such series hereunder; but, nevertheless, on the written request of the Issuer or of the successor trustee, upon payment of its charges then unpaid, the trustee ceasing to act shall, subject to Section 10.04, pay over to the successor trustee all moneys at the time held by it hereunder and shall execute and deliver an instrument transferring to such successor trustee all such rights, powers, duties and obligations. Upon request of any such successor trustee, the Issuer shall execute any and all instruments in writing for more fully and certainly vesting in and confirming to such successor trustee all such rights and powers. Any trustee ceasing to act shall, nevertheless, retain a prior claim upon all property or funds held or collected by such trustee to secure any amounts then due it pursuant to the provisions of Section 6.06.

If a successor trustee is appointed with respect to the Securities of one or more (but not all) series, the Issuer, the predecessor trustee and each successor trustee with respect to the Securities of any applicable series shall execute and deliver an indenture supplemental hereto which shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the predecessor trustee with respect to the Securities of any series as to which the predecessor trustee is not retiring shall continue to be vested in the predecessor trustee, and shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such trustees co-trustees of the same trust and that each such trustee shall be trustee of a trust or trusts under separate indentures.

No successor trustee with respect to any series of Securities shall accept appointment as provided in this Section 6.11 unless at the time of such acceptance such successor trustee shall be qualified under the provisions of Section 310(b) of the Trust Indenture Act of 1939 and eligible under the provisions of Section 310(a) of the Trust Indenture Act of 1939.

Upon acceptance of appointment by any successor trustee as provided in this Section 6.11, the Issuer shall mail notice thereof to the Holders of Securities of each series affected, by mailing such notice to such Holders at their addresses as they shall appear on the Security register. If the acceptance of appointment is substantially contemporaneous with the resignation, then the notice called for by the preceding sentence may be combined with the notice called for by Section 6.10. If the Issuer fails to mail such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be given at the expense of the Issuer.

Section 6.12 ***Merger, Conversion, Consolidation or Succession to Business of Trustee.*** Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder; provided, that such corporation shall be qualified under the provisions of Section 310(b) of the Trust Indenture Act of 1939 and eligible under the provisions of Section 310(a) of the Trust Indenture Act of 1939, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding.

In case, at the time such successor to the Trustee shall succeed to the trusts created by this Indenture, any of the Securities of any series shall have been authenticated but not delivered, any such successor to the Trustee may adopt the certificate of authentication of any predecessor trustee and deliver such Securities so authenticated; and, in case at that time any of the Securities of any series shall not have been authenticated, any successor to the Trustee may authenticate such Securities either in the name of any

predecessor hereunder or in the name of the successor trustee; and in all such cases such certificate shall have the full force which it is anywhere in the Securities of such series or in this Indenture provided that the certificate of the Trustee shall have; provided, that the right to adopt the certificate of authentication of any predecessor trustee or to authenticate Securities of any series in the name of any predecessor trustee shall apply only to its successor or successors by merger, conversion or consolidation.

Section 6.13 **Preferential Collection of Claims Against the Issuer.** The Trustee shall comply with Section 311(a) of the Trust Indenture Act, excluding any creditor relationship described in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent included therein.

ARTICLE 7 CONCERNING THE SECURITYHOLDERS

Section 7.01 **Evidence of Action Taken by Securityholders.** Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by a specified percentage in principal amount of the Securityholders of any or all series may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such specified percentage of Securityholders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee. Proof of execution of any instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Sections 6.01 and 6.02) conclusive in favor of the Trustee and the Issuer, if made in the manner provided in this Article.

Section 7.02 **Proof of Execution of Instruments and of Holding of Securities.** Subject to Sections 6.01 and 6.02, the execution of any instrument by a Holder or his agent or proxy may be proved by the affidavit of a witness to such execution or by the certificate of any notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof. Where such execution is by an officer of a corporation or a member of a partnership or limited liability company, on behalf of such corporation, partnership or limited liability company, such certificate or affidavit shall also constitute sufficient proof of his authority. The execution of any such instrument or writing, or the authority of the person executing the same, may also be proved in any other manner which the Trustee deems sufficient. The holding of Securities shall be proved by the Security register or by a certificate of the registrar thereof. The Issuer may set a record date for purposes of determining the identity of Holders of any series entitled to vote or consent to any action referred to in Section 7.01, which record date may be set at any time or from time to time by notice to the Trustee, for any date or dates (in the case of any adjournment or reconsideration) not more than 60 days nor less than five days prior to the proposed date of such vote or consent, and thereafter, notwithstanding any other provisions hereof, only Holders of such series of record on such record date shall be entitled to so vote or give such consent or revoke such vote or consent. Notice of such record date may be given before or after any request for any action referred to in Section 7.01 is made by the Issuer.

Section 7.03 **Holders to Be Treated as Owners.** The Issuer, the Trustee and any agent of the Issuer or of the Trustee may deem and treat the Person in whose name any Security shall be registered upon the Security register for such series as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notation of ownership or other writing thereon) for the purpose of receiving payment of or on account of the principal of, and, subject to the provisions of this Indenture, interest on, such Security and for all other purposes; and neither the Issuer nor the Trustee nor any agent of the Issuer or the Trustee shall be affected by any notice to the contrary. All such payments so made to any such Person, or upon his or her order, shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability for moneys payable.

Section 7.04 **Securities Owned by Issuer Deemed Not Outstanding**. In determining whether the Holders of the requisite aggregate principal amount of Outstanding Securities of any or all series have concurred in any direction, consent or waiver under this Indenture, Securities which are owned by the Issuer or any other obligor on the Securities with respect to which such determination is being made or by any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer or any other obligor on the Securities with respect to which such determination is being made shall be disregarded and deemed not to be Outstanding for the purpose of any such determination, except that, for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver, only Securities which the Trustee knows are so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not the Issuer or any other obligor upon the Securities or any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer or any other obligor on the Securities. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice.

Section 7.05 **Right of Revocation of Action Taken**. At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 7.01, of the taking of any action by the Holders of the percentage in aggregate principal amount of the Securities of any or all series, as the case may be, specified in this Indenture in connection with such action, any Holder of a Security the serial number of which is shown by the evidence to be included among the serial numbers of the Securities the Holders of which have consented to such action may, by filing written notice at the Corporate Trust Office and upon proof of holding as provided in this Article, revoke such action so far as concerns such Security. Except as aforesaid, any such action taken by the Holder of any Security shall be conclusive and binding upon such Holder and upon all future Holders and owners of such Security and of any Securities issued in exchange or substitution therefor or on registration of transfer thereof, irrespective of whether or not any notation in regard thereto is made upon any such Security. Any action taken by the Holders of the percentage in aggregate principal amount of the Securities of any or all series, as the case may be, specified in this Indenture in connection with such action shall be conclusively binding upon the Issuer, the Trustee and the Holders of all the Securities affected by such action.

ARTICLE 8 SUPPLEMENTAL INDENTURES

Section 8.01 **Supplemental Indentures Without Consent of Securityholders**. The Issuer, when authorized by a resolution of its Board of Directors, and the Trustee may from time to time and at any time, without the consent of any of the Securityholders, enter into an indenture or indentures supplemental hereto in form satisfactory to the Trustee for one or more of the following purposes:

- (a) to convey, transfer, assign, mortgage or pledge to the Trustee as security for the Securities of one or more series any property or assets;
- (b) to evidence the succession of a corporation, limited liability company, partnership or trust to the Issuer, or successive successions, and the assumption by such successor of the covenants, agreements and obligations of the Issuer pursuant to Article 9;
- (c) to add to the covenants of the Issuer such further covenants, restrictions, conditions or provisions as its Board of Directors shall consider to be for the protection of the Holders of Securities, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Indenture as herein

set forth; provided, that in respect of any such additional covenant, restriction, condition or provision such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Trustee upon such an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such series to waive such an Event of Default;

(d) to cure any ambiguity, defect or inconsistency, or to conform this Indenture or any supplemental indenture to the description of the Securities set forth in any prospectus or prospectus supplement related to such series of Securities;

(e) to provide for or add guarantors for the Securities of one or more series;

(f) to establish the form or terms of Securities of any series as permitted by Sections 2.01 and 2.03;

(g) to evidence and provide for the acceptance of appointment hereunder by a successor trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one trustee, pursuant to the requirements of Section 6.11;

(h) to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms, purposes of issue, authentication and delivery of any series of Securities, as herein set forth;

(i) to make any change to the Securities of any series so long as no Securities of such series are Outstanding; and

(j) to make any other change that does not adversely affect the interests of the Holders of the Securities in any material respect.

The Trustee shall join with the Issuer in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations which may be therein contained and to accept the conveyance, transfer, assignment, mortgage or pledge of any property thereunder, but the Trustee shall not be obligated to enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section may be executed without the consent of the Holders of any of the Securities at the time Outstanding, notwithstanding any of the provisions of Section 8.02.

Section 8.02 **Supplemental Indentures With Consent of Securityholders.** With the consent (evidenced as provided in Article 7) of the Holders of not less than a majority in aggregate principal amount of the Securities at the time Outstanding of one or more series affected by such supplemental indenture (voting as separate series), the Issuer, when authorized by a resolution of the Board of Directors, and the Trustee may, from time to time and at any time, enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner the rights of the Holders of the Securities of each such consenting series; provided, that no such supplemental indenture shall, without the consent of the Holder of each Security so affected, (a) extend the final maturity of any Security,

or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any amount payable on redemption thereof, or make the principal thereof (including any amount in respect of original issue discount) or interest thereon payable in any currency other than that provided in the Securities or in accordance with the terms thereof, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon an acceleration of the maturity thereof pursuant to Section 5.01 or the amount thereof provable in bankruptcy pursuant to Section 5.02, or waive a default in the payment of principal of any Security or interest thereon or change a provision related to the waiver of past defaults or changes or impair the right of any Securityholder to institute suit for the payment or conversion thereof or, if the Securities provide therefor, any right of repayment at the option of the Securityholder, or (b) modify any of the provisions of this section except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the Holder of each Security so affected, or (c) reduce the aforesaid percentage of Securities of any series, the consent of the Holders of which is required for any such supplemental indenture or the consent of Holders of which is required for any modification, amendment or waiver of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences provided for in this Indenture.

A supplemental indenture which changes or eliminates any covenant, Event of Default or other provision of this Indenture (1) that has been expressly included solely for the benefit of one or more particular series of Securities, if any, or (2) which modifies the rights of Holders of Securities of one or more series with respect to any covenant, Event of Default or provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series with respect to which such covenant, Event of Default or other provision has not be modified.

Upon the request of the Issuer, accompanied by a Board Resolution authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders as aforesaid and other documents, if any, required by Section 7.01, the Trustee shall join with the Issuer in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

It shall not be necessary for the consent of the Securityholders under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such consent shall approve the substance thereof.

Promptly after the execution by the Issuer and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Trustee shall give a notice thereof to the Holders of then Outstanding Securities of each series affected thereby, by mailing a notice thereof by first-class mail to such Holders at their addresses as they shall appear on the Security register, and in each case such notice shall set forth in general terms the substance of such supplemental indenture. Any failure of the Trustee to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture.

Section 8.03 ***Effect of Supplemental Indenture***. Upon the execution of any supplemental indenture pursuant to the provisions hereof, this Indenture shall be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Issuer and the Holders of Securities of each series affected thereby shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 8.04 **Documents to Be Given to Trustee.** The Trustee, subject to the provisions of Sections 6.01 and 6.02, may receive an Officer's Certificate and an Opinion of Counsel that state that such supplemental indenture is authorized or permitted by this Indenture and as conclusive evidence that any supplemental indenture executed pursuant to this Article 8 complies with the applicable provisions of this Indenture.

Section 8.05 **Notation on Securities in Respect of Supplemental Indentures.** Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to the provisions of this Article may bear a notation in form approved by the Trustee for such series as to any matter provided for by such supplemental indenture or as to any action taken by Securityholders. If the Issuer or the Trustee shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Issuer, authenticated by the Trustee and delivered in exchange for the Securities of such series then Outstanding.

ARTICLE 9 CONSOLIDATION, MERGER, SALE OR CONVEYANCE

Section 9.01 **Issuer May Consolidate, Etc., on Certain Terms.** The Issuer shall not consolidate with or merge into any other Person (in a transaction in which the Issuer is not the surviving corporation) or convey, transfer or lease its properties and assets as an entirety or substantially as an entirety to any Person, unless (a) the Person formed by such consolidation or into which the Issuer is merged or the Person which acquires by conveyance or transfer, or which leases, the properties and assets of the Issuer as an entirety or substantially as an entirety (i) shall be a corporation, limited liability company, partnership or trust, (ii) shall be organized and validly existing under the laws of the United States of America, any State thereof or the District of Columbia and (iii) shall expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, the due and punctual payment of the principal of and interest on all the Securities and the performance or observance of every covenant of this Indenture on the part of the Issuer to be performed, by supplemental indenture satisfactory in form to the Trustee, executed and delivered to the Trustee, by the Person formed by such consolidation or into which the Issuer shall have been merged or by the Person which shall have acquired the Issuer's assets; (b) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Issuer or any Subsidiary as a result of such transaction as having been incurred by the Issuer or such Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing; and (c) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article and that all conditions precedent herein provided for relating to such transaction have been complied with.

The conditions of (a)(ii) above shall not apply in the case of a corporation or entity not organized under the laws of the United States of America, any State thereof or the District of Columbia which shall agree, in form satisfactory to the Trustee, (i) to subject itself to the jurisdiction of the United States district court for the Southern District of New York and (ii) to indemnify and hold harmless the holders of all Securities against (A) any tax, assessment or governmental charge imposed on such holders by a jurisdiction other than the United States or any political subdivision or taxing authority thereof or therein with respect to, and withheld on the making of, any payment of principal or interest on such Securities and which would not have been so imposed and withheld had such consolidation, merger, sale or conveyance not been made and (B) any tax, assessment or governmental charge imposed on or relating to, and any costs or expenses involved in, such consolidation, merger, sale or conveyance.

The restrictions in this Section 9.01 shall not apply to (i) the merger or consolidation of the Issuer with one of its affiliates, if the Board of Directors determines in good faith that the purpose of such transaction is principally to change the Issuer's State of incorporation or convert the Issuer's form of organization to another form, or (ii) the merger of the Issuer with or into a single direct or indirect wholly owned Subsidiary.

Nothing contained in this Article shall apply to, limit or impose any requirements upon the consolidation or merger of any Person into the Issuer where the Issuer is the survivor of such transaction, or the acquisition by the Issuer, by purchase or otherwise, of all or any part of the property of any other Person (whether or not affiliated with the Issuer).

Section 9.02 **Successor Issuer Substituted.** Upon any consolidation of the Issuer with, or merger of the Issuer into, any other Person or any conveyance, transfer or lease of the properties and assets of the Issuer as an entirety or substantially as an entirety in accordance with Section 9.01, the successor Person formed by such consolidation or into which the Issuer is merged or to which such conveyance, transfer or lease is made shall succeed to, and be substituted for, and may exercise every right and power of, the Issuer under this Indenture with the same effect as if such successor Person had been named as the Issuer herein, and thereafter, except in the case of a lease, the predecessor Person shall be relieved of all obligations and covenants under this Indenture and the Securities.

In case of any such consolidation, merger, sale, lease or conveyance, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

ARTICLE 10 SATISFACTION AND DISCHARGE OF INDENTURE; DEFEASANCE; UNCLAIMED MONEYS

Section 10.01 Satisfaction and Discharge of Indenture; Defeasance. (a) If at any time

(i) the Issuer shall have paid or caused to be paid the principal of and interest on all the Securities of any series Outstanding hereunder (other than Securities of such series which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 2.09) as and when the same shall have become due and payable, or

(ii) the Issuer shall have delivered to the Trustee for cancellation all Securities of any series theretofore authenticated (other than any Securities of such series which shall have been destroyed, lost or stolen and which shall have been replaced or paid as provided in Section 2.09), or

(iii) in the case of any series of Securities the exact amount (including the currency of payment) of principal of and interest due on which on the dates referred to in clause (B) below can be determined at the time of making the deposit referred to in such clause,

(A) all the Securities of such series not theretofore delivered to the Trustee for cancellation shall have become due and payable, or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and

(B) the Issuer shall have irrevocably deposited or caused to be deposited with the Trustee as trust funds the entire amount in cash (other than moneys repaid by the Trustee or any paying agent to the Issuer in accordance with Section 10.04) or, in the case of any series of Securities the payments on which may only be made in Dollars, U.S. Government Obligations maturing as to principal and interest in such amounts and at such times as will insure the availability of cash sufficient to pay on any subsequent interest payment date all interest due on such interest payment date on the Securities of such series and to pay at maturity or upon redemption all Securities of such series (in each case other than any Securities of such series which shall have been destroyed, lost or stolen and which shall have been replaced or paid as provided in Section 2.09) not theretofore delivered to the Trustee for cancellation, including principal and interest due or to become due to such date of maturity, as the case may be,

and if, in any such case (i), (ii) or (iii), the Issuer shall also pay or cause to be paid all other sums payable hereunder by the Issuer, including amounts due the Trustee pursuant to Section 6.06, with respect to Securities of such series, then this Indenture shall cease to be of further effect with respect to Securities of such series (except as to (1) rights of registration of transfer, conversion and exchange of Securities of such series and the Issuer's right of optional redemption, (2) substitution of mutilated, defaced, destroyed, lost or stolen Securities, (3) rights of Holders of Securities to receive, solely from the trust fund described in Section 10.01(a)(iii)(B), payments of principal thereof and interest thereon, upon the original stated due dates therefor (but not upon acceleration) and remaining rights of the Holders to receive, solely from the trust fund described in Section 10.01(a)(iii)(B), sinking fund payments, if any, (4) the rights (including the Trustee's rights under Section 10.05) and immunities of the Trustee hereunder and the Trustee's obligations under Sections 10.02 and 10.04 and (5) the obligations of the Issuer under Section 3.02), and the Trustee, on demand of the Issuer accompanied by an Officer's Certificate and an Opinion of Counsel which complies with Section 11.05 and at the cost and expense of the Issuer, shall execute proper instruments acknowledging such satisfaction of and discharging this Indenture with respect to such series. The Issuer agrees to reimburse the Trustee for any costs or expenses thereafter reasonably and properly incurred and to compensate the Trustee for any services thereafter reasonably and properly rendered by the Trustee in connection with this Indenture or the Securities of such series.

(b) The following subsection shall apply to the Securities of each series unless specifically otherwise provided in a Board Resolution, Officer's Certificate or indenture supplemental hereto provided pursuant to Section 2.03. In addition to the right to discharge of the Indenture pursuant to subsection (a) above, the Issuer, at its option and at any time, by written notice by an officer delivered to the Trustee, may elect to have all of its obligations discharged with all Outstanding Securities of a series ("**Legal Defeasance**"), such discharge to be effective on the date that the conditions set forth in clauses (i) through (iv) and (vi) of Section 10.01(d) are satisfied, and thereafter the Issuer shall be deemed to have paid and discharged the entire Debt on all the Securities of such a series, and satisfied all its other obligations under such Securities and this Indenture insofar as such Securities are concerned and this Indenture shall cease to be of further effect with respect to Securities of such series (except as to (1) rights of registration of transfer, conversion and exchange of Securities of such series, (2) substitution of apparently mutilated, defaced, destroyed, lost or stolen Securities, (3) rights of Holders of Securities to receive, solely from the trust fund described in Section 10.01(d)(i), payments of principal thereof and interest thereon, upon the original stated due dates therefor (but not upon acceleration) and remaining rights of the Holders to receive, solely from the trust fund described in Section 10.01(d)(i), sinking fund payments, if any, (4) the rights (including the Trustee's rights under Section 10.05) and immunities of the Trustee hereunder and the Trustee's obligations with respect to the Securities of such series under Sections 10.02 and 10.04 and (5) the obligations of the Issuer under Section 3.02).

(c) The following subsection shall apply to the Securities of each series unless specifically otherwise provided in a Board Resolution, Officer's Certificate or indenture supplemental hereto provided pursuant to Section 2.03. In addition to the right to discharge of the Indenture pursuant to subsection (a) and to Legal Defeasance pursuant to subsection (b), above, the Issuer, at its option and at any time, by written notice executed by an officer delivered to the Trustee, may elect to have its obligations under any covenant contained in this Indenture or in the Board Resolution or supplemental indenture relating to such series pursuant to Section 2.03 discharged with respect to all Outstanding Securities of a series, this Indenture and any indentures supplemental to this Indenture with respect to such series ("**Covenant Defeasance**"), such discharge to be effective on the date the conditions set forth in clauses (i) through (iii) and (v) through (vi) of Section 10.01(d) are satisfied, and such Securities shall thereafter be deemed to be not "Outstanding" for the purposes of any direction, waiver, consent or declaration of Securityholders (and the consequences of any thereof) in connection with such covenants, but shall continue to be "Outstanding" for all other purposes under this Indenture. For this purpose, such Covenant Defeasance means that, with respect to the Outstanding Securities of a series, the Issuer may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of reference in any such covenant to any other provision herein or in any other document and such omission to comply shall not constitute an Event of Default under Section 5.01(c) or otherwise, but except as specified in this Section 10.01(c), the remainder of the Issuer's obligations under the Securities of such series, this Indenture, and any indentures supplemental to this Indenture with respect to such series shall be unaffected thereby.

(d) The following shall be the conditions to the application of Legal Defeasance under subsection (b) or Covenant Defeasance under subsection (c) to the Securities of the applicable series:

(iv) the Issuer irrevocably deposits or causes to be deposited in trust with the Trustee or, at the option of the Trustee, with a trustee satisfactory to the Trustee and the Company under the terms of an irrevocable trust agreement in form and substance satisfactory to the Trustee, cash or U.S. Government Obligations that will generate cash sufficient, in the opinion of a firm of independent accountants of national recognition, to pay principal of and interest on the Outstanding Securities of such series to maturity or redemption, as the case may be, and to pay all other amounts payable by it hereunder, provided that (A) the trustee of the irrevocable trust, if any, shall have been irrevocably instructed to pay such funds or the proceeds of such U.S. Government Obligations to the Trustee and (B) the Trustee shall have been irrevocably instructed to apply such funds or the proceeds of such U.S. Government Obligations to (x) the principal and interest on all Securities of such series on the date that such principal or interest is due and payable and (y) any mandatory sinking fund payments on the day on which such payments are due and payable in accordance with the terms of the Indenture and the Securities of such series, and the Issuer shall also pay or cause to be paid all other amounts payable hereunder with respect to such series;

(v) the Issuer delivers to the Trustee an Officer's Certificate stating that all conditions precedent specified herein relating to Legal Defeasance or Covenant Defeasance, as the case may be, have been complied with, and an Opinion of Counsel to the same effect;

(vi) no Event of Default under subsection (a), (b), (d) or (e) of Section 5.01 shall have occurred and be continuing, and no event which with notice or lapse of time or both would become such an Event of Default shall have occurred and be continuing, on the date of such deposit;

(vii) in the event of an election for Legal Defeasance under subsection (b), the Issuer shall have delivered to the Trustee an Opinion of Counsel stating that (A) the Issuer has received from, or there has been published by, the Internal Revenue Service a ruling or (B) since the date of this instrument, there has been a change in the applicable Federal income tax law, in either case (A) or (B) to the effect that, and based thereon such opinion shall confirm that, the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit, defeasance and discharge to be effected with respect to such Securities and will be subject to Federal income tax on the same amounts, in the same manner and at the same times as would be the case if such deposit, defeasance and discharge were not to occur;

(viii) in the event of an election for Covenant Defeasance under subsection (c), the Issuer shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit and Covenant Defeasance to be effected with respect to such Securities and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would be the case if such deposit and Covenant Defeasance were not to occur; and

(ix) notwithstanding any other provisions of this subsection (d), such defeasance shall be effected in compliance with any additional or substitute terms, conditions or limitations which may be imposed on the Issuer pursuant to Section 2.03.

After such irrevocable deposit made pursuant to this Section 10.01(d) and satisfaction of the other conditions set forth in this subsection (d), the Trustee upon request shall execute proper instruments acknowledging the discharge of the Issuer's obligations pursuant to this Section 10.01.

Section 10.02 **Application by Trustee of Funds Deposited for Payment of Securities.** Subject to Section 10.04, all moneys deposited with the Trustee (or other trustee) pursuant to Section 10.01 shall be held in trust and applied by it to the payment, either directly or through any paying agent (including the Issuer acting as its own paying agent), to the Holders of the particular Securities of such series for the payment or redemption of which such moneys have been deposited with the Trustee, of all sums due and to become due thereon for principal and interest; but such money need not be segregated from other funds except to the extent required by law.

Section 10.03 **Repayment of Moneys Held by Paying Agent.** In connection with the satisfaction and discharge of this Indenture with respect to Securities of any series, all moneys then held by any paying agent under the provisions of this Indenture with respect to such series of Securities shall, upon demand of the Issuer, be repaid to it or paid to the Trustee and thereupon such paying agent shall be released from all further liability with respect to such moneys.

Section 10.04 **Return of Moneys Held by Trustee and Paying Agent Unclaimed for Two Years.** Any moneys deposited with or paid to the Trustee or any paying agent for the payment of the principal of, interest on or additional amounts in respect of any Security of any series and not applied but remaining unclaimed for two years after the date upon which such principal, interest or additional amount shall have become due and payable, shall be repaid to the Issuer by the Trustee for such series or such paying agent, and the Holder of the Securities of such series shall thereafter look only to the Issuer for any payment which such Holder may be entitled to collect, and all liability of the Trustee or any paying agent with respect to such moneys shall thereupon cease.

Section 10.05 **Indemnity for U.S. Government Obligations.** The Issuer shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the U.S. Government Obligations deposited pursuant to Section 10.01 or the principal or interest received in respect of such obligations.

ARTICLE 11 MISCELLANEOUS PROVISIONS

Section 11.01 **No Recourse.** No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, past, present or future as such, of the Issuer or of any predecessor or successor corporation, either directly or through the Issuer or any such predecessor or successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors as such, of the Issuer or of any predecessor or successor corporation, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom; and that any and all such personal liability of every name and nature, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director as such, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issuance of such Securities.

Section 11.02 **Provisions of Indenture for the Sole Benefit of Parties and Holders of Securities.** Nothing in this Indenture or in the Securities, expressed or implied, shall give or be construed to give to any person, firm or corporation, other than the parties hereto and their successors and the Holders of the Securities any legal or equitable right, remedy or claim under this Indenture or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto and their successors and of the Holders of the Securities.

Section 11.03 **Successors and Assigns of Issuer Bound by Indenture.** All the covenants, stipulations, promises and agreements contained in this Indenture by or on behalf of the Issuer shall bind its successors and assigns, whether so expressed or not.

Section 11.04 **Notices and Demands on Issuer, Trustee and Holders of Securities.** Any notice or demand which by any provision of this Indenture is required or permitted to be given or served by the Trustee or by the Holders of Securities to or on the Issuer may be given or served by being deposited postage prepaid, first-class mail (except as otherwise specifically provided herein) addressed (until another address of the Issuer is filed by the Issuer with the Trustee) to Intrexon Corporation, 20374 Seneca Meadows Parkway, Germantown, Maryland 20876, Attn: Corporate Secretary. Any notice, direction, request or demand by the Issuer or any Holder of Securities to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made at The Bank of New York Mellon Trust Company, N.A., 200 Ashford Center North, Suite 550, Atlanta, Georgia 30338, Attention : Corporate Trust Administration.

Where this Indenture provides for notice to Holders of Securities, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Holder entitled thereto, at his or her last address as it appears in the Security register. In case, by reason

of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice of any event to Holders of Securities when said notice is required to be given pursuant to any provision of this Indenture or of the Securities, then any manner of giving such notice as shall be satisfactory to the Trustee shall be deemed to be a sufficient giving of such notice.

In case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice to the Issuer when such notice is required to be given pursuant to any provision of this Indenture, then any manner of giving such notice as shall be satisfactory to the Trustee shall be deemed to be a sufficient giving of such notice.

Neither the failure to give notice, nor any defect in any notice so given, to any particular Holder of a Security shall affect the sufficiency of such notice with respect to other Holders of Securities given as provided above.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

The Trustee agrees to accept and act upon instructions or directions pursuant to this Indenture sent by unsecured e-mail, pdf, facsimile transmission or other similar unsecured electronic methods, provided, however, that the Trustee shall have received an incumbency certificate listing persons designated to give such instructions or directions and containing specimen signatures of such designated persons, which such incumbency certificate shall be amended and replaced whenever a person is to be added or deleted from the listing. If the Issuer elects to give the Trustee e-mail or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding such instructions conflict or are inconsistent with a subsequent written instruction. The Issuer agrees to assume all risks arising out of the use of such electronic methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties.

Notwithstanding any other provision of this Indenture or any Note, where this Indenture or any Note provides for notice of any event or any other communication (including any notice of redemption or repurchase) to a holder of a Global Note (whether by mail or otherwise), such notice shall be sufficiently given if given to the Depository (or its designee) pursuant to the standing instructions from the Depository or its designee, including by electronic mail in accordance with accepted practices at the Depository.

Section 11.05 ***Officer's Certificates and Opinions of Counsel; Statements to Be Contained Therein.*** Upon any application or demand by the Issuer to the Trustee to take any action under any of the provisions of this Indenture, the Issuer shall furnish to the Trustee an Officer's Certificate stating that all conditions precedent provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent have been complied with, except that in the case of any such application or demand as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or demand, no additional certificate or opinion need be furnished.

Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant provided for in this Indenture shall include (a) a statement that the person making such certificate or opinion has read such covenant or condition, (b) a brief statement as to

the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based, (c) a statement that, in the opinion of such person, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such covenant or condition has been complied with and (d) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

Any certificate, statement or opinion of an officer of the Issuer may be based, insofar as it relates to legal matters, upon a certificate or opinion of or representations by counsel, unless such officer knows that the certificate or opinion or representations with respect to the matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous. Any certificate, statement or opinion of counsel may be based, insofar as it relates to factual matters, information with respect to which is in the possession of the Issuer, upon the certificate, statement or opinion of or representations by an officer or officers of the Issuer, unless such counsel knows that the certificate, statement or opinion or representations with respect to the matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous.

Any certificate, statement or opinion of an officer of the Issuer or of counsel may be based, insofar as it relates to accounting matters, upon a certificate or opinion of or representations by an accountant or firm of accountants in the employ of the Issuer, unless such officer or counsel, as the case may be, knows that the certificate or opinion or representations with respect to the accounting matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous.

Section 11.06 **Payments Due on Saturdays, Sundays and Holidays.** If the date of maturity of interest on or principal of the Securities of any series or the date fixed for redemption or repayment of any such Security, or the last day on which a Holder has the right to convert any Security, shall not be a Business Day, then payment of interest or principal, or any conversion, need not be made on such date, but may be made on the next succeeding Business Day with the same force and effect as if made on the date of maturity or the date fixed for redemption or on such last day for conversion, and no interest shall accrue for the period after such date.

Section 11.07 **Conflict of Any Provision of Indenture With Trust Indenture Act of 1939.** If and to the extent that any provision of this Indenture limits, qualifies or conflicts with another provision included in this Indenture by operation of Sections 310 to 317, inclusive, of the Trust Indenture Act of 1939, such incorporated provision shall control.

Section 11.08 **New York Law to Govern.** This Indenture and each Security shall be deemed to be a contract under the laws of the State of New York, and for all purposes shall be governed by and construed in accordance with the laws of such State without regard to any principle of conflict of laws that would require or permit the application of the laws of any other jurisdiction, except as may otherwise be required by mandatory provisions of law.

Section 11.09 **Counterparts.** This Indenture may be executed in any number of counterparts, each of which shall be an original; but such counterparts shall together constitute but one and the same instrument.

Section 11.10 **Effect of Headings.** The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 11.11 **Actions by Successor.** Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board of directors or its equivalent, committee or officer of the Issuer shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Issuer.

Section 11.12 **Severability.** In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

Section 11.13 **Waiver of Jury Trial.** EACH OF THE ISSUER, THE TRUSTEE, AND EACH HOLDER BY THEIR ACCEPTANCE OF THE SECURITIES HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE NOTES OR THE TRANSACTION CONTEMPLATED HEREBY.

Section 11.14 **Submission to Jurisdiction.** The Issuer hereby irrevocably submits to the jurisdiction of any New York State court sitting in the Borough of Manhattan in the City of New York or any federal court sitting in the Borough of Manhattan in the City of New York in respect of any suit, action or proceeding arising out of or relating to this Indenture and the Notes, and irrevocably accepts for itself and in respect of its property, generally and unconditionally, jurisdiction of the aforesaid courts.

Section 11.15 **FATCA.** In order to comply with applicable tax laws, rules and regulations (inclusive of directives, guidelines and interpretations promulgated by competent authorities) in effect from time to time ("Applicable Law") the Issuer agrees to provide to the Trustee sufficient information about holders or other applicable parties and/or transactions (including any modification to the terms of such transactions) so the Trustee can determine whether it has tax related obligations under Applicable Law, and the Issuer and the Holders agree (i) that the Trustee shall be entitled to make any withholding or deduction from payments under the Indenture to the extent necessary to comply with Applicable Law for which the Trustee shall not have any liability, and (ii) to hold harmless the Trustee for any losses it may suffer due to the actions it takes to comply with such Applicable Law. The terms of this section shall survive the termination of this Indenture.

ARTICLE 12 REDEMPTION OF SECURITIES AND SINKING FUNDS

Section 12.01 **Applicability of Article.** The provisions of this Article shall be applicable to the Securities of any series which are redeemable before their maturity or to any sinking fund for the retirement of Securities of a series, except as otherwise specified, as contemplated by Section 2.03 for Securities of such series.

Section 12.02 **Notice of Redemption; Partial Redemptions.** Notice of redemption to the Holders of Securities of any series to be redeemed as a whole or in part at the option of the Issuer shall be given by mailing (or otherwise electronically delivering through the facilities of the Depositary) notice of such redemption by first class mail, postage prepaid, at least 15 days and not more than 60 days prior to the date fixed for redemption to such Holders of Securities of such series at their last addresses as they shall appear upon the Security register. Any notice which is given in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the Holder receives the notice. Failure to give notice or any defect in the notice to the Holder of any Security of a series designated for redemption as a whole or in part shall not affect the validity of the proceedings for the redemption of any other Security of such series.

The notice of redemption to each such Holder shall specify the principal amount of each Security of such series to be redeemed, the date fixed for redemption, the redemption price, the place or places of payment, that payment will be made upon presentation and surrender of such Securities, that such redemption is pursuant to the mandatory or optional sinking fund, or both, if such be the case, that interest accrued to the date fixed for redemption will be paid as specified in such notice and that on and after said date interest thereon or on the portions thereof to be redeemed will cease to accrue and shall also specify, if applicable, the conversion price then in effect and the date on which the right to convert such Securities or the portions thereof to be redeemed will expire. In case any Security of a series is to be redeemed in part only, the notice of redemption shall state the portion of the principal amount thereof to be redeemed and shall state that on and after the date fixed for redemption, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the unredeemed portion thereof will be issued.

The notice of redemption of Securities of any series to be redeemed at the option of the Issuer shall be given by the Issuer or, at the Issuer's request, by the Trustee in the name and at the expense of the Issuer.

On or before the redemption date specified in the notice of redemption given as provided in this Section, the Issuer will deposit with the Trustee or with one or more paying agents (or, if the Issuer is acting as its own paying agent, set aside, segregate and hold in trust as provided in Section 3.04) an amount of money sufficient to redeem on the redemption date all the Securities of such series so called for redemption (other than those Securities theretofore surrendered for conversion into Common Stock in accordance with their terms) at the appropriate redemption price, together with accrued interest to the date fixed for redemption. If any Security called for redemption is converted pursuant hereto and in accordance with the terms thereof, any money deposited with the Trustee or any paying agent or so segregated and held in trust for the redemption of such Security shall be paid to the Issuer upon the Issuer's request, or, if then held by the Issuer, shall be discharged from such trust. The Issuer will deliver to the Trustee at least 10 days prior to the date the notice required to be delivered to the Holders is to be sent (unless a shorter time period shall be acceptable to the Trustee) an Officer's Certificate (which need not comply with Section 11.05) stating the aggregate principal amount of Securities to be redeemed. In case of a redemption at the election of the Issuer prior to the expiration of any restriction on such redemption, the Issuer shall deliver to the Trustee, prior to the giving of any notice of redemption to Holders pursuant to this Section, an Officer's Certificate stating that such restriction has been complied with.

If less than all the Securities of a series are to be redeemed, in the case of a Global Security, the Securities to be redeemed shall be selected in accordance with the policies and procedures of the Depositary, and in the case of definitive Securities, the Trustee shall select, by lot, Securities of such series to be redeemed in whole or in part. Securities may be redeemed in part in multiples equal to the minimum authorized denomination for Securities of such series or any multiple thereof. The Trustee shall promptly notify the Issuer in writing of the Securities of such series selected for redemption and, in the case of any Securities of such series selected for partial redemption, the principal amount thereof to be redeemed. For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities of any series shall relate, in the case of any Security redeemed or to be redeemed only in part, to the portion of the principal amount of such Security which has been or is to be redeemed. If any Security selected for partial redemption is surrendered for conversion after such selection, the converted portion of such Security shall be deemed (so far as may be possible) to be the portion selected for redemption.

Section 12.03 *Payment of Securities Called for Redemption.* If notice of redemption has been given as above provided, the Securities or portions of Securities specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to the date fixed for redemption, and on and after said date (unless the Issuer shall default in the payment of such Securities at the redemption price, together with interest accrued to said date)

interest on the Securities or portions of Securities so called for redemption shall cease to accrue, and such Securities shall cease from and after the date fixed for redemption to be convertible into Common Stock (to the extent otherwise convertible in accordance with their terms), if applicable, and cease to be entitled to any benefit or security under this Indenture, and except as provided in the paragraph below, the Holders thereof shall have no right in respect of such Securities except the right to receive the redemption price thereof and unpaid interest to the date fixed for redemption. On presentation and surrender of such Securities at a place of payment specified in said notice, said Securities or the specified portions thereof shall be paid and redeemed by the Issuer at the applicable redemption price, together with interest accrued thereon to the date fixed for redemption; provided, that payment of interest becoming due on or prior to the date fixed for redemption shall be payable to the Holders of such Securities registered as such on the relevant record date subject to the terms and provisions of Sections 2.03 and 2.07 hereof.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal shall, until paid or duly provided for, bear interest from the date fixed for redemption at the rate of interest or Yield to Maturity (in the case of an Original Issue Discount Security) borne by such Security and, if applicable, such Security shall remain convertible into Common Stock until the principal of such Security shall have been paid or duly provided for.

Upon presentation of any Security redeemed in part only, the Issuer shall execute and the Trustee shall authenticate and deliver to or on the order of the Holder thereof, at the expense of the Issuer, a new Security or Securities of such series, of authorized denominations, in principal amount equal to the unredeemed portion of the Security so presented.

Section 12.04 **Exclusion of Certain Securities from Eligibility for Selection for Redemption.** Securities shall be excluded from eligibility for selection for redemption if they are identified by registration and certificate number in an Officer's Certificate delivered to the Trustee at least 40 days prior to the last date on which notice of redemption may be given as being owned of record and beneficially by, and not pledged or hypothecated by either (a) the Issuer or (b) an entity specifically identified in such written statement as directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer.

Section 12.05 **Mandatory and Optional Sinking Funds.** The minimum amount of any sinking fund payment provided for by the terms of the Securities of any series is herein referred to as a "mandatory sinking fund payment", and any payment in excess of such minimum amount provided for by the terms of the Securities of any series is herein referred to as an "optional sinking fund payment". The date on which a sinking fund payment is to be made is herein referred to as the "sinking fund payment date".

In lieu of making all or any part of any mandatory sinking fund payment with respect to any series of Securities in cash, the Issuer may at its option (a) deliver to the Trustee Securities of such series theretofore purchased or otherwise acquired (except upon redemption pursuant to the mandatory sinking fund) by the Issuer or receive credit for Securities of such series (not previously so credited) theretofore purchased or otherwise acquired (except as aforesaid) by the Issuer and delivered to the Trustee for cancellation pursuant to Section 2.10 and, if applicable, receive credit for Securities (not previously so credited) converted into Common Stock and so delivered to the Trustee for cancellation, (b) receive credit for optional sinking fund payments (not previously so credited) made pursuant to this Section, or (c) receive credit for Securities of such series (not previously so credited) redeemed by the Issuer through any optional redemption provision contained in the terms of such series. Securities so delivered or credited shall be received or credited by the Trustee at the sinking fund redemption price specified in such Securities.

On or before the 60th day next preceding each sinking fund payment date for any series, the Issuer will deliver to the Trustee an Officer's Certificate (which need not contain the statements required by Section 11.05) (a) specifying the portion of the mandatory sinking fund payment to be satisfied by payment of cash and the portion to be satisfied by credit of Securities of such series and the basis for such credit, (b) stating that none of the Securities of such series for which credit will be taken has theretofore been so credited, (c) stating that no defaults in the payment of interest or Events of Default with respect to such series have occurred (which have not been waived or cured) and are continuing and (d) stating whether or not the Issuer intends to exercise its right to make an optional sinking fund payment with respect to such series and, if so, specifying the amount of such optional sinking fund payment which the Issuer intends to pay on or before the next succeeding sinking fund payment date. Any Securities of such series to be credited and required to be delivered to the Trustee in order for the Issuer to be entitled to credit therefor as aforesaid which have not theretofore been delivered to the Trustee shall be delivered for cancellation pursuant to Section 2.10 to the Trustee with such Officer's Certificate (or reasonably promptly thereafter if acceptable to the Trustee). Such Officer's Certificate shall be irrevocable and upon its receipt by the Trustee the Issuer shall become unconditionally obligated to make all the cash payments or payments therein referred to, if any, on or before the next succeeding sinking fund payment date. Failure of the Issuer, on or before any such 60th day, to deliver such Officer's Certificate and Securities specified in this paragraph, if any, shall not constitute a default but shall constitute, on and as of such date, the irrevocable election of the Issuer that the mandatory sinking fund payment for such series due on the next succeeding sinking fund payment date shall be paid entirely in cash without the option to deliver or credit Securities of such series in respect thereof.

If the sinking fund payment or payments (mandatory or optional or both) to be made in cash on the next succeeding sinking fund payment date plus any unused balance of any preceding sinking fund payments made in cash shall exceed \$50,000 (or the equivalent thereof in any Foreign Currency or a lesser sum in Dollars or in any Foreign Currency if the Issuer shall so request) with respect to the Securities of any particular series, such cash shall be applied on the next succeeding sinking fund payment date to the redemption of Securities of such series at the sinking fund redemption price together with accrued interest to the date fixed for redemption. If such amount shall be \$50,000 (or the equivalent thereof in any Foreign Currency) or less and the Issuer makes no such request then it shall be carried over until a sum in excess of \$50,000 (or the equivalent thereof in any Foreign Currency) is available, which delay in accordance with this paragraph shall not be a default or breach of the obligation to make such payment. The Trustee shall select, in the manner provided in Section 12.02, for redemption on such sinking fund payment date a sufficient principal amount of Securities of such series to which such cash may be applied, as nearly as may be, and shall (if requested in writing by the Issuer) inform the Issuer of the serial numbers of the Securities of such series (or portions thereof) so selected. The Trustee, in the name and at the expense of the Issuer (or the Issuer, if it shall so request the Trustee in writing), shall cause notice of redemption of the Securities of such series to be given in substantially the manner provided in Section 12.02 (and with the effect provided in Section 12.03) for the redemption of Securities of such series in part at the option of the Issuer. The amount of any sinking fund payments not so applied or allocated to the redemption of Securities of such series shall be added to the next cash sinking fund payment for such series and, together with such payment, shall be applied in accordance with the provisions of this Section. Any and all sinking fund moneys held on the stated maturity date of the Securities of any particular series (or earlier, if such maturity is accelerated), which are not held for the payment or redemption of particular Securities of such series, shall be applied, together with other moneys, if necessary, sufficient for the purpose, to the payment of the principal of, and interest on, the Securities of such series at maturity. The Issuer's obligation to make a mandatory or optional sinking fund payment shall automatically be reduced by an amount equal to the sinking fund redemption price allocable to any Securities or portions thereof called for redemption pursuant to the preceding paragraph on any sinking fund payment date and converted into Common Stock in accordance with the terms of such Securities; provided that, if the Trustee is not the conversion agent for the Securities, the Issuer or such conversion agent shall give the Trustee written notice on or prior to the date fixed for redemption of the principal amount of Securities or portions thereof so converted.

On or before each sinking fund payment date, the Issuer shall pay to the Trustee in cash or shall otherwise provide for the payment of all interest accrued to the date fixed for redemption on Securities to be redeemed on such sinking fund payment date.

The Trustee shall not redeem or cause to be redeemed any Securities of a series with sinking fund moneys or give any notice of redemption of Securities for such series by operation of the sinking fund during the continuance of a default in payment of interest on such Securities or of any Event of Default except that, where the giving of notice of redemption of any Securities shall theretofore have been made, the Trustee shall redeem or cause to be redeemed such Securities, provided that it shall have received from the Issuer a sum sufficient for such redemption. Except as aforesaid, any moneys in the sinking fund for such series at the time when any such default or Event of Default shall occur, and any moneys thereafter paid into the sinking fund, shall, during the continuance of such default or Event of Default, be deemed to have been collected under Article 5 and held for the payment of all such Securities. In case such Event of Default shall have been waived as provided in Section 5.10, or the default cured on or before the 60th day preceding the sinking fund payment date in any year, such moneys shall thereafter be applied on such sinking fund payment date in accordance with this Section to the redemption of such Securities.

[Signature pages follow]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of July 3, 2018.

INTREXON CORPORATION

By: /s/ Donald P. Lehr

Donald P. Lehr

Chief Legal Officer

THE BANK OF NEW YORK MELLON TRUST COMPANY,
N.A., as Trustee

By: /s/ Karen Yu

Name: Karen Yu

Title: Vice President

INTREXON CORPORATION

AND

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,

as Trustee

FIRST SUPPLEMENTAL INDENTURE

Dated as of July 3, 2018

3.50% Convertible Senior Notes due 2023

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EXHIBIT

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FIRST SUPPLEMENTAL INDENTURE (this “**First Supplemental Indenture**”) dated as of July 3, 2018 between INTREXON CORPORATION, a Virginia corporation, as issuer (the “**Issuer**,” as more fully set forth in Section 1.02) and THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., a national banking association, as trustee (the “**Trustee**,” as more fully set forth in Section 1.02).

WITNESSETH:

WHEREAS, the Issuer and the Trustee executed and delivered an Indenture, dated as of July 3, 2018 (the “**Base Indenture**” and as supplemented by this First Supplemental Indenture and as may be further supplemented or amended with respect to the Notes, the “**Indenture**”), to provide for the issuance by the Issuer from time to time of its unsecured debentures, notes or other evidences of indebtedness (the “**Securities**”);

WHEREAS, Section 2.01, Section 2.03 and Section 8.01(f) of the Base Indenture provide that the Issuer, when authorized by a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental to the Base Indenture, without the consent of any Holders, to, among other things, establish the form or terms of Securities of any series as permitted by the Base Indenture;

WHEREAS, for its lawful corporate purposes, the Issuer has duly authorized the issuance of its 3.50% Convertible Senior Notes due 2023 (the “**Notes**”), initially in an aggregate principal amount not to exceed \$200,000,000, and in order to provide the terms and conditions upon which the Notes are to be authenticated, issued and delivered, the Issuer has duly authorized the execution and delivery of this First Supplemental Indenture; and

WHEREAS, the Form of Note, the certificate of authentication to be borne by each Note, the Form of Notice of Conversion and the Form of Fundamental Change Repurchase Notice to be borne by the Notes are to be substantially in the forms hereinafter provided; and

WHEREAS, all acts and things necessary to make the Notes, when executed by the Issuer and authenticated and delivered by the Trustee, as in the Indenture provided, the valid, binding and legal obligations of the Issuer, and the Indenture a valid agreement according to its terms, have been done and performed, and the execution of the Indenture and the issuance hereunder of the Notes have in all respects been duly authorized.

NOW, THEREFORE, THIS FIRST SUPPLEMENTAL INDENTURE WITNESSETH:

That in order to declare the terms and conditions upon which the Notes are, and are to be, authenticated, issued and delivered, and in consideration of the premises and of the purchase and acceptance of the Notes by the Holders thereof, the Issuer covenants and agrees with the Trustee for the equal and proportionate benefit of the respective Holders from time to time of the Notes (except as otherwise provided below), as follows:

ARTICLE 1
DEFINITIONS

Section 1.01. *Scope.* This First Supplemental Indenture constitutes a supplement to the Base Indenture and an integral part of the Indenture and shall be read together with the Base Indenture as though all the provisions thereof are contained in one instrument. Except as expressly amended by this First Supplemental Indenture, the terms and provisions of the Base Indenture shall remain in full force and effect. Notwithstanding the foregoing, this First Supplemental Indenture shall only apply to the Notes. For all purposes under the Base Indenture, the Notes shall constitute a single series, and with regard to any matter requiring the consent under the Base Indenture of Holders (as defined under the Base Indenture) of multiple series of Securities voting together as a single class, the consent of Holders of the Notes issued hereunder voting as a separate class shall also be required and the same threshold shall apply. With respect to the Notes, if the terms of the Base Indenture are inconsistent with the terms of this First Supplemental Indenture, the terms of this First Supplemental Indenture shall control.

Section 1.02. *Definitions.* For all purposes of this First Supplemental Indenture unless otherwise specified herein:

- (a) all terms used in this First Supplemental Indenture that are not otherwise defined herein shall have the meanings they are given in the Base Indenture;
- (b) the rules of construction stated in Section 1.01 of the Base Indenture shall apply to this First Supplemental Indenture;
- (c) the words “herein,” “hereof,” “hereunder” and words of similar import in this First Supplemental Indenture shall refer to this First Supplemental Indenture as a whole and not to the Base Indenture or any particular Article, Section or other subdivision;
- (d) the terms defined in this Article include the plural as well as the singular; and
- (e) Section 1.01 of the Base Indenture is amended and supplemented, solely with respect to the Notes, by inserting the following additional defined terms in their appropriate alphabetical positions and deleting any defined terms therein that are also defined in this Section 1.02.

“**Additional Interest**” means all amounts, if any, payable pursuant to Section 5.04.

“**Additional Shares**” shall have the meaning specified in Section 9.03(a).

“**Affiliate**” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control,” when used with respect to any specified Person means the power to direct or cause the direction of the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing. Notwithstanding anything to the contrary herein, the determination of whether one Person is an “**Affiliate**” of another Person for purposes of the Indenture shall be made based on the facts at the time such determination is made or required to be made, as the case may be, hereunder.

“**Base Indenture**” shall have the meaning specified in the first paragraph of the recitals of this First Supplemental Indenture.

“**Bid Solicitation Agent**” means the Issuer or the Person appointed by the Issuer to solicit bids for the Trading Price of the Notes in accordance with Section 9.01(b)(i). The Issuer shall initially act as the Bid Solicitation Agent. In no event shall the Trustee be appointed nor act as Bid Solicitation Agent.

“**Business Day**” means, with respect to any Note, any day other than a Saturday, a Sunday or a day on which the Federal Reserve Bank of New York is authorized or required by law or executive order to close or be closed.

“**Capital Stock**” means, for any entity, any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) stock issued by that entity.

“**Cash Settlement**” shall have the meaning specified in Section 9.02(a).

“**Clause A Distribution**” shall have the meaning specified in Section 9.04(c).

“**Clause B Distribution**” shall have the meaning specified in Section 9.04(c).

“**Clause C Distribution**” shall have the meaning specified in Section 9.04(c).

“**close of business**” means 5:00 p.m. (New York City time).

“**Combination Settlement**” shall have the meaning specified in Section 9.02(a).

“**Common Equity**” of any Person means Capital Stock of such Person that is generally entitled (a) to vote in the election of directors of such Person or (b) if such Person is not a corporation, to vote or otherwise participate in the selection of the governing body, partners, managers or others that will control the management or policies of such Person.

“**Common Stock**” means the common stock of the Issuer, no par value per share, at the date of this First Supplemental Indenture, subject to Section 9.07.

“**Conversion Agent**” shall have the meaning specified in Section 4.01.

“**Conversion Date**” shall have the meaning specified in Section 9.02(c).

“**Conversion Obligation**” shall have the meaning specified in Section 9.01(a).

“**Conversion Price**” means as of any time, \$1,000, *divided by* the Conversion Rate as of such time.

“**Conversion Rate**” shall have the meaning specified in Section 9.01(a).

“**Custodian**” means the Trustee, as custodian for The Depository Trust Company, with respect to the Global Notes, or any successor entity thereto.

“**Daily Conversion Value**” means, for each of the 30 consecutive Trading Days during the Observation Period, one-thirtieth of the product of (a) the Conversion Rate on such Trading Day and (b) the Daily VWAP for such Trading Day.

“**Daily Measurement Value**” means the Specified Dollar Amount (if any), *divided by 30*.

“**Daily Settlement Amount**,” for each of the 30 consecutive Trading Days during the Observation Period, shall consist of:

- (a) cash in an amount equal to the lesser of (i) the Daily Measurement Value and (ii) the Daily Conversion Value on such Trading Day; and
- (b) if the Daily Conversion Value on such Trading Day exceeds the Daily Measurement Value, a number of shares of Common Stock equal to (i) the difference between the Daily Conversion Value and the Daily Measurement Value, divided by (ii) the Daily VWAP for such Trading Day.

“**Daily VWAP**” means, for each of the 30 consecutive Trading Days during the relevant Observation Period, the per share volume-weighted average price as displayed under the heading “Bloomberg VWAP” on Bloomberg page “XON <equity> AQR” (or its equivalent successor if such page is not available) in respect of the period from the scheduled open of trading until the scheduled close of trading of the primary trading session on such Trading Day (or if such volume-weighted average price is unavailable, the market value of one share of the Common Stock on such Trading Day determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained for this purpose by the Issuer). The “**Daily VWAP**” shall be determined without regard to after-hours trading or any other trading outside of the regular trading session trading hours.

“**Default**” means any event that is, or after notice or passage of time, or both, would be, an Event of Default.

“**Defaulted Amounts**” means any amounts on any Note (including, without limitation, the Fundamental Change Repurchase Price, principal and interest) that are payable but are not punctually paid or duly provided for.

“**Depository**” means, with respect to each Global Note, the Person specified in Section 2.04(c) as the Depository with respect to such Notes, until a successor shall have been appointed and become such pursuant to the applicable provisions of the Indenture, and thereafter, “**Depository**” shall mean or include such successor.

“**Distributed Property**” shall have the meaning specified in Section 9.04(c).

“**Effective Date**” shall have the meaning specified in Section 9.03(c), except that, as used in Section 9.04 and Section 9.05, “**Effective Date**” means the first date on which shares of the Common Stock trade on the applicable exchange or in the applicable market, regular way, reflecting the relevant share split or share combination, as applicable.

“**Event of Default**” shall have the meaning specified in Section 5.02.

“**Ex-Dividend Date**” means the first date on which shares of the Common Stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from the Issuer or, if applicable, from the seller of Common Stock on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“**First Supplemental Indenture**” shall have the meaning specified in the first paragraph of this First Supplemental Indenture.

“**Form of Fundamental Change Repurchase Notice**” means the “Form of Fundamental Change Repurchase Notice” attached as Attachment 2 to the Form of Note attached hereto as Exhibit A.

“**Form of Note**” means the “Form of Note” attached hereto as Exhibit A.

“**Form of Notice of Conversion**” means the “Form of Notice of Conversion” attached as Attachment 1 to the Form of Note attached hereto as Exhibit A.

“**Fundamental Change**” shall be deemed to have occurred at the time after the Notes are originally issued if any of the following occurs:

(a) except as described in clause (2) below, a “person” or “group” within the meaning of Section 13(d) of the Exchange Act, other than the Issuer, its Wholly Owned Subsidiaries and the employee benefit plans of the Issuer and its Wholly Owned Subsidiaries, has become the direct or indirect “beneficial owner,” as defined in Rule 13d-3 under the Exchange Act, of the Common Stock representing (A) in the case of any such person or group, other than any Permitted Holder or any group that includes any Permitted Holder, more than 50% of the voting power of the Common Stock or (B) in the case of any Permitted Holder or any group that includes any Permitted Holder, more than 60% of the voting power of the Common Stock; *provided* that, solely for purposes of this clause (B), the Permitted Holders shall be deemed not to beneficially own any shares of the Common Stock purchased (or underlying or acquired upon conversion or exchange of any convertible or exchangeable securities purchased) by a Permitted Holder directly from the Company (or from an investment bank in an offering by the Company) for cash after the closing date of the initial issuance of the Notes and any such shares of the Common Stock shall be deemed not to be outstanding;

(b) the consummation of (A) any recapitalization, reclassification or change of the Common Stock (other than changes resulting from a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets; (B) any share exchange, consolidation or merger of the Issuer pursuant to which the Common Stock will be converted into cash, securities or other property or assets; or (C) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Issuer and its Subsidiaries, taken as a whole, to any Person other than one of the Issuer's Wholly Owned Subsidiaries; *provided, however*, that a transaction described in clause (B) in which the holders of all classes of the Issuer's Common Equity immediately prior to such transaction own, directly or indirectly, more than 50% of all classes of Common Equity of the continuing or surviving corporation or transferee or the parent thereof immediately after such transaction in substantially the same proportions as such ownership immediately prior to such transaction shall not be a Fundamental Change pursuant to this clause (b);

(c) the stockholders of the Issuer approve any plan or proposal for the liquidation or dissolution of the Issuer; or

(d) the Common Stock (or other common stock underlying the Notes) ceases to be listed or quoted on any of The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors);

provided, however, that a transaction or transactions described in clause (b) above shall not constitute a Fundamental Change if at least 90% of the consideration received or to be received by the common stockholders of the Issuer, excluding cash payments for fractional shares, in connection with such transaction or transactions consists of shares of common stock that are listed or quoted on any of The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors) or will be so listed or quoted when issued or exchanged in connection with such transaction or transactions and as a result of such transaction or transactions the Notes become convertible into such consideration, excluding cash payments for fractional shares (subject to the provisions of Section 9.02(a)). If any transaction in which the Common Stock is replaced by the securities of another entity occurs, following completion of any related Make-Whole Fundamental Change Period (or, in the case of a transaction that would have been a Fundamental Change or a Make-Whole Fundamental Change but for the proviso immediately following clause (d) of this definition, following the effective date of such transaction) references to the Issuer in this definition shall instead be references to such other entity.

"Fundamental Change Issuer Notice" shall have the meaning specified in Section 10.02(c).

"Fundamental Change Repurchase Date" shall have the meaning specified in Section 10.02(a).

"Fundamental Change Repurchase Notice" shall have the meaning specified in Section 10.02(b)(i).

“**Fundamental Change Repurchase Price**” shall have the meaning specified in Section 10.02(a).

“**Global Note**” shall have the meaning specified in Section 2.04(b).

“**Holder**,” as applied to any Note, or other similar terms (but excluding the term “beneficial holder”), means any Person in whose name at the time a particular Note is registered on the Note Register.

“**Indenture**” shall have the meaning specified in the first paragraph of the recitals of this First Supplemental Indenture.

“**Interest Payment Date**” means each January 1 and July 1 of each year, beginning on January 1, 2019.

“**Issuer**” shall have the meaning specified in the first paragraph of this First Supplemental Indenture, and subject to the provisions of Article 8, shall include its successors and assigns.

“**Last Reported Sale Price**” of the Common Stock on any date means the closing sale price per share (or if no closing sale price is reported, the average of the bid and ask prices or, if more than one in either case, the average of the average bid and the average ask prices) on that date as reported in composite transactions for the principal U.S. national or regional securities exchange on which the Common Stock is traded. If the Common Stock is not listed for trading on a U.S. national or regional securities exchange on the relevant date, the “**Last Reported Sale Price**” shall be the last quoted bid price for the Common Stock in the over-the-counter market on the relevant date as reported by OTC Markets Group Inc. or a similar organization. If the Common Stock is not so quoted, the “**Last Reported Sale Price**” shall be the average, as determined by the Issuer, of the mid-point of the last bid and ask prices for the Common Stock on the relevant date from each of at least three nationally recognized independent investment banking firms selected by the Issuer for this purpose.

“**Make-Whole Fundamental Change**” means any transaction or event that constitutes a Fundamental Change (as defined above and determined after giving effect to any exceptions to or exclusions from such definition, but without regard to the *proviso* in clause (b) of the definition thereof).

“**Make-Whole Fundamental Change Period**” shall have the meaning specified in Section 9.03(a).

“**Market Disruption Event**” means, for the purposes of determining amounts due upon conversion (a) a failure by the primary U.S. national or regional securities exchange or market on which the Common Stock is listed or admitted for trading to open for trading during its regular trading session or (b) the occurrence or existence prior to 1:00 p.m., New York City time, on any Scheduled Trading Day for the Common Stock for more than one half-hour period in the aggregate during regular trading hours of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise) in the Common Stock or in any options contracts or futures contracts relating to the Common Stock.

“**Maturity Date**” means July 1, 2023.

“**Measurement Period**” shall have the meaning specified in Section 9.01(b)(i).

“**Merger Event**” shall have the meaning specified in Section 9.07(a).

“**Note**” or “**Notes**” shall have the meaning specified in the third paragraph of the recitals of this First Supplemental Indenture.

“**Note Register**” shall have the meaning specified in Section 2.04(a).

“**Note Registrar**” shall have the meaning specified in Section 2.04(a).

“**Notice of Conversion**” shall have the meaning specified in Section 9.02(b).

“**Observation Period**” with respect to any Note surrendered for conversion means: (i) if the relevant Conversion Date occurs prior to April 1, 2023, the 30 consecutive Trading Day period beginning on, and including, the second Trading Day immediately succeeding such Conversion Date; and (ii) if the relevant Conversion Date occurs on or after April 1, 2023, the 30 consecutive Trading Days beginning on, and including, the 31st Scheduled Trading Day immediately preceding the Maturity Date.

“**Officer**” means, with respect to the Issuer, the President, the Chief Executive Officer, the Treasurer, the Secretary, any Executive or Senior Vice President or any Vice President (whether or not designated by a number or numbers or word or words added before or after the title “Vice President”).

“**open of business**” means 9:00 a.m. (New York City time).

“**outstanding**,” when used with reference to Notes, shall, subject to the provisions of Section 7.04 of the Base Indenture, mean, as of any particular time, all Notes authenticated and delivered by the Trustee under the Indenture, except:

(a) Notes theretofore canceled by the Trustee or accepted by the Trustee for cancellation;

(b) Notes, or portions thereof, that have become due and payable and in respect of which monies in the necessary amount shall have been deposited in trust with the Trustee or with any Paying Agent (other than the Issuer) or shall have been set aside and segregated in trust by the Issuer (if the Issuer shall act as its own Paying Agent);

(c) Notes that have been paid pursuant to Section 2.05 or Notes in lieu of which, or in substitution for which, other Notes shall have been authenticated and delivered pursuant to the terms of Section 2.05 unless proof satisfactory to the Trustee is presented that any such Notes are held by protected purchasers in due course;

(d) Notes converted pursuant to Article 9 and required to be cancelled pursuant to Section 2.06; and

(e) Notes repurchased by the Issuer pursuant to the penultimate sentence of Section 2.08.

“**Paying Agent**” shall have the meaning specified in Section 4.01.

“**Permitted Holder**” means (i) Randal J. Kirk, (ii) the spouse and lineal descendants and spouses of lineal descendants of Randal J. Kirk, (iii) the estates or legal representatives of any person named in clauses (i) or (ii), (iv) trusts established for the benefit of any person named in clauses (i) or (ii) and (v) any entity solely owned or controlled, directly or indirectly, by one or more of the foregoing; *provided* that the foregoing persons shall be “Permitted Holders” only so long as such persons shall collectively be “beneficial owners”, as defined in Rule 13d-3 under the Exchange Act, of more than 40% of the voting power of the Common Stock. For the avoidance of doubt, at any time when the foregoing persons are not collectively beneficial owners of more than 40% of the voting power of the Common Stock, there shall be no Permitted Holders; *provided* that at any time that the foregoing persons collectively beneficially own more than 40% of the voting power of the Common Stock then such persons shall be “Permitted Holders.”

“**Physical Notes**” means permanent certificated Notes in registered form issued in denominations of \$1,000 principal amount and integral multiples thereof.

“**Physical Settlement**” shall have the meaning specified in Section 9.02(a).

“**Predecessor Note**” of any particular Note means every previous Note evidencing all or a portion of the same debt as that evidenced by such particular Note; and, for the purposes of this definition, any Note authenticated and delivered under Section 2.05 in lieu of or in exchange for a mutilated, lost, destroyed or stolen Note shall be deemed to evidence the same debt as the mutilated, lost, destroyed or stolen Note that it replaces.

“**Prospectus Supplement**” means the preliminary prospectus supplement dated June 27, 2018, as supplemented by the related pricing term sheet dated June 28, 2018, relating to the offering and sale of the Notes.

“**Record Date**” means, with respect to any dividend, distribution or other transaction or event in which the holders of Common Stock (or other applicable security) have the right to receive any cash, securities or other property or in which the Common Stock (or such other security) is exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of holders of the Common Stock (or such other security) entitled to receive such cash, securities or other property (whether such date is fixed by the Board of Directors, by statute, by contract or otherwise).

“**Reference Property**” shall have the meaning specified in Section 9.07(a).

“**Regular Record Date**,” with respect to any Interest Payment Date, means the December 15 or June 15 (whether or not such day is a Business Day) immediately preceding the applicable January 1 or July 1 Interest Payment Date, respectively.

“**Rule 144**” means Rule 144 as promulgated under the Securities Act.

“**Scheduled Trading Day**” means a day that is scheduled to be a Trading Day on the principal U.S. national or regional securities exchange or market on which the Common Stock is listed or admitted for trading. If the Common Stock is not so listed or admitted for trading, “**Scheduled Trading Day**” means a Business Day.

“**Securities**” shall have the meaning specified in the first paragraph of the recitals of this First Supplemental Indenture.

“**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“**Settlement Amount**” has the meaning specified in Section 9.02(a)(iv).

“**Settlement Method**” means, with respect to any conversion of Notes, Physical Settlement, Cash Settlement or Combination Settlement, as elected (or deemed to have been elected) by the Issuer.

“**Settlement Notice**” has the meaning specified in Section 9.02(a)(iii).

“**Significant Subsidiary**” means a Subsidiary of the Issuer that meets the definition of “significant subsidiary” in Article 1, Rule 1-02 of Regulation S-X under the Exchange Act.

“**Specified Dollar Amount**” means the maximum cash amount per \$1,000 principal amount of Notes to be received upon conversion as specified in the Settlement Notice related to any converted Notes.

“**Spin-Off**” shall have the meaning specified in Section 9.04(c).

“**Stock Price**” shall have the meaning specified in Section 9.03(c).

“**Successor Issuer**” shall have the meaning specified in Section 8.02(a).

“**Trading Day**” means a day on which (i) trading in the Common Stock (or other security for which a closing sale price must be determined) generally occurs on The New York Stock Exchange or, if the Common Stock (or such other security) is not then listed on The New York Stock Exchange, on the principal other U.S. national or regional securities exchange on which the Common Stock (or such other security) is then listed or, if the Common Stock (or such other security) is not then listed on a U.S. national or regional securities exchange, on the principal other market on which the Common Stock (or such other security) is then traded and (ii) a Last Reported Sale Price for the Common Stock (or closing sale price for such other security) is available on such securities exchange or market; *provided* that if the Common Stock (or such other security) is not so listed or traded, “**Trading Day**” means a Business Day; and *provided*,

further, that for purposes of determining amounts due upon conversion only, “**Trading Day**” means a day on which (x) there is no Market Disruption Event and (y) trading in the Common Stock generally occurs on The New York Stock Exchange or, if the Common Stock is not then listed on The New York Stock Exchange, on the principal other U.S. national or regional securities exchange on which the Common Stock is then listed or, if the Common Stock is not then listed on a U.S. national or regional securities exchange, on the principal other market on which the Common Stock is then listed or admitted for trading, except that if the Common Stock is not so listed or admitted for trading, “**Trading Day**” means a Business Day.

“**Trading Price**” of the Notes on any date of determination means the average of the secondary market bid quotations obtained by the Bid Solicitation Agent for \$5,000,000 principal amount of Notes at approximately 3:30 p.m., New York City time, on such determination date from three independent nationally recognized securities dealers the Issuer selects for this purpose; *provided* that if three such bids cannot reasonably be obtained by the Bid Solicitation Agent but two such bids are obtained, then the average of the two bids shall be used, and if only one such bid can reasonably be obtained by the Bid Solicitation Agent, that one bid shall be used. If the Bid Solicitation Agent cannot reasonably obtain at least one bid for \$5,000,000 principal amount of Notes from a nationally recognized securities dealer on any determination date, then the Trading Price per \$1,000 principal amount of Notes on such determination date shall be deemed to be less than 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate.

“**Trigger Event**” shall have the meaning specified in Section 9.04(c).

“**Trust Indenture Act**” means the Trust Indenture Act of 1939, as amended, as it was in force at the date of execution of this First Supplemental Indenture; *provided, however*, that in the event the Trust Indenture Act of 1939 is amended after the date hereof, the term “Trust Indenture Act” shall mean, to the extent required by such amendment, the Trust Indenture Act of 1939, as so amended.

“**Trustee**” means the Person named as the “**Trustee**” in the first paragraph of this First Supplemental Indenture until a successor trustee shall have become such pursuant to the applicable provisions of the Indenture, and thereafter “**Trustee**” shall mean or include each Person who is then a Trustee hereunder.

“**unit of Reference Property**” shall have the meaning specified in Section 9.07(a).

“**Valuation Period**” shall have the meaning specified in Section 9.04(c).

“**Wholly Owned Subsidiary**” means, with respect to any Person, any Subsidiary of such Person, except that, solely for purposes of this definition, the reference to “more than 50%” in the definition of “Subsidiary” shall be deemed replaced by a reference to “100%”.

Section 1.03. *References to Interest.* Unless the context otherwise requires, any reference to interest on, or in respect of, any Note in the Indenture shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to Section 5.04. Unless the context otherwise requires, any express mention of Additional Interest in any provision hereof shall not be construed as excluding Additional Interest in those provisions hereof where such express mention is not made.

Section 1.04. *References to Principal.* Unless the context otherwise requires, any reference to the principal of, or the principal amount of, any Note in the Base Indenture or this First Supplemental Indenture shall be deemed to include the Fundamental Change Repurchase Price, if, in such context, the Fundamental Change Repurchase Price is, was or would be payable in accordance with Article 10. Unless the context otherwise requires, any express mention of the Fundamental Change Repurchase Price in any provision hereof shall not be construed as excluding the Fundamental Change Repurchase Price in those provisions hereof where such express mention is not made.

ARTICLE 2
ISSUE, DESCRIPTION, EXECUTION, REGISTRATION AND EXCHANGE OF NOTES

Section 2.01. *Designation and Amount.* The Notes shall be designated as the “3.50% Convertible Senior Notes due 2023.” The aggregate principal amount of Notes that may be authenticated and delivered under the Indenture is initially limited to \$200,000,000, subject to Section 2.08 and except for Notes authenticated and delivered upon registration or transfer of, or in exchange for, or in lieu of other Notes to the extent expressly permitted under the Indenture.

Section 2.02. *Form of Notes.* The Notes and the Trustee’s certificate of authentication to be borne by such Notes shall be substantially in the respective forms set forth in Exhibit A, the terms and provisions of which shall constitute, and are hereby expressly incorporated in and made a part of the Indenture. To the extent applicable, the Issuer and the Trustee, by their execution and delivery of this First Supplemental Indenture, expressly agree to such terms and provisions and to be bound thereby.

Any Global Note may be endorsed with or have incorporated in the text thereof such legends or recitals or changes not inconsistent with the provisions of the Indenture as may be required by the Custodian or the Depositary, or as may be required to comply with any applicable law or any regulation thereunder or with the rules and regulations of any securities exchange or automated quotation system upon which the Notes may be listed or traded or designated for issuance or to conform with any usage with respect thereto, or to indicate any special limitations or restrictions to which any particular Notes are subject.

Any of the Notes may have such letters, numbers or other marks of identification and such notations, legends or endorsements as the Officer executing the same may approve (execution thereof to be conclusive evidence of such approval) and as are not inconsistent with the provisions of the Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any securities exchange or automated quotation system on which the Notes may be listed or designated for issuance, or to conform to usage or to indicate any special limitations or restrictions to which any particular Notes are subject.

Each Global Note shall represent such principal amount of the outstanding Notes as shall be specified therein and shall provide that it shall represent the aggregate principal amount of outstanding Notes from time to time endorsed thereon and that the aggregate principal amount of outstanding Notes represented thereby may from time to time be increased or reduced to reflect repurchases, cancellations, conversions, transfers or exchanges permitted hereby. Any endorsement of a Global Note to reflect the amount of any increase or decrease in the amount of outstanding Notes represented thereby shall be made by the Trustee or the Custodian, at the direction of the Trustee, in such manner and upon instructions given by the Holder of such Notes in accordance with the Indenture. Payment of principal (including the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, a Global Note shall be made to the Holder of such Note on the date of payment, unless a record date or other means of determining Holders eligible to receive payment is provided for herein.

Section 2.03. *Date and Denomination of Notes; Payments of Interest and Defaulted Amounts.* (a) Section 2.07 of the Base Indenture and the last sentence of Section 3.01 of the Base Indenture shall not apply to the Notes. The Notes shall be issuable in registered form without coupons in denominations of \$1,000 principal amount and integral multiples thereof. Each Note shall be dated the date of its authentication and shall bear interest from the date specified on the face of such Note. Accrued interest on the Notes shall be computed on the basis of a 360-day year composed of twelve 30-day months and, for partial months, on the basis of the number of days actually elapsed in a 30-day month.

(b) The Person in whose name any Note (or its Predecessor Note) is registered on the Note Register at the close of business on any Regular Record Date with respect to any Interest Payment Date shall be entitled to receive the interest payable on such Interest Payment Date. The principal amount of any Note (x) in the case of any Physical Note, shall be payable at the office or agency of the Issuer maintained by the Issuer for such purposes in Atlanta, Georgia, which shall initially be the Corporate Trust Office and (y) in the case of any Global Note, shall be payable by wire transfer of immediately available funds to the account of the Depository or its nominee. The Issuer shall pay interest (i) on any Physical Notes (A) to Holders holding Physical Notes having an aggregate principal amount of \$5,000,000 or less, by check mailed to the Holders of these Notes at their address as it appears in the Note Register and (B) to Holders holding Physical Notes having an aggregate principal amount of more than \$5,000,000, either by check mailed to each Holder or, upon application by such a Holder to the Note Registrar not later than the relevant Regular Record Date, by wire transfer in immediately available funds to that Holder's account within the United States, which application shall remain in effect until the Holder notifies, in writing, the Note Registrar to the contrary or (ii) on any Global Note by wire transfer of immediately available funds to the account of the Depository or its nominee.

(c) Any Defaulted Amounts shall forthwith cease to be payable to the Holder on the relevant payment date but shall accrue interest per annum at the rate borne by the Notes *plus* one percent, subject to the enforceability thereof under applicable law, from, and including, such relevant payment date, and such Defaulted Amounts together with such interest thereon shall be paid by the Issuer, at its election in each case, as provided in clause (i) or (ii) below:

(i) The Issuer may elect to make payment of any Defaulted Amounts to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered

at the close of business on a special record date for the payment of such Defaulted Amounts, which shall be fixed in the following manner. The Issuer shall notify the Trustee in writing of the amount of the Defaulted Amounts proposed to be paid on each Note and the date of the proposed payment (which shall be not less than 25 days after the receipt by the Trustee of such notice, unless the Trustee shall consent to an earlier date), and at the same time the Issuer shall deposit with the Trustee an amount of money equal to the aggregate amount to be paid in respect of such Defaulted Amounts or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Amounts as in this clause provided. Thereupon the Issuer shall fix a special record date for the payment of such Defaulted Amounts which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment, and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Issuer shall promptly notify the Trustee of such special record date and the Trustee, in the name and at the expense of the Issuer, shall cause notice of the proposed payment of such Defaulted Amounts and the special record date therefor to be delivered to each Holder not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Amounts and the special record date therefor having been so delivered, such Defaulted Amounts shall be paid to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered at the close of business on such special record date and shall no longer be payable pursuant to the following clause (ii) of this Section 2.03 (c).

(ii) The Issuer may make payment of any Defaulted Amounts in any other lawful manner not inconsistent with the requirements of any securities exchange or automated quotation system on which the Notes may be listed or designated for issuance, and upon such notice as may be required by such exchange or automated quotation system, if, after notice given by the Issuer to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Section 2.04. Exchange and Registration of Transfer of Notes; Restrictions on Transfer; Depositary. (a) Section 2.08 of the Base Indenture shall not apply to the Notes. The Issuer shall cause to be kept at the Corporate Trust Office a register (the register maintained in such office or in any other office or agency of the Issuer designated pursuant to Section 4.01, the “**Note Register**”) in which, subject to such reasonable regulations as it may prescribe, the Issuer shall provide for the registration of Notes and of transfers of Notes. Such register shall be in written form or in any form capable of being converted into written form within a reasonable period of time. The Trustee is hereby initially appointed the “**Note Registrar**” for the purpose of registering Notes and transfers of Notes as herein provided. The Issuer may appoint one or more co-Note Registrars in accordance with Section 4.01.

Upon surrender for registration of transfer of any Note to the Note Registrar or any co-Note Registrar, and satisfaction of the requirements for such transfer set forth in this Section 2.04, the Issuer shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Notes of any authorized denominations and of a like aggregate principal amount and bearing such restrictive legends as may be required by the Indenture.

Notes may be exchanged for other Notes of any authorized denominations and of a like aggregate principal amount, upon surrender of the Notes to be exchanged at any such office or agency maintained by the Issuer pursuant to Section 4.01. Whenever any Notes are so surrendered for exchange, the Issuer shall execute, and the Trustee shall authenticate and deliver, the Notes that the Holder making the exchange is entitled to receive, bearing registration numbers not contemporaneously outstanding.

All Notes presented or surrendered for registration of transfer or for exchange, repurchase or conversion shall (if so required by the Issuer, the Trustee, the Note Registrar or any co-Note Registrar) be duly endorsed, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Issuer and duly executed, by the Holder thereof or its attorney-in-fact duly authorized in writing.

No service charge shall be imposed by the Issuer, the Trustee, the Note Registrar, any co-Note Registrar or the Paying Agent for any exchange or registration of transfer of Notes, but the Issuer may require a Holder to pay a sum sufficient to cover any documentary, stamp or similar issue or transfer tax required in connection therewith as a result of the name of the Holder of new Notes issued upon such exchange or registration of transfer being different from the name of the Holder of the old Notes surrendered for exchange or registration of transfer.

None of the Issuer, the Trustee, the Note Registrar or any co-Note Registrar shall be required to exchange or register a transfer of (i) any Notes surrendered for conversion or, if a portion of any Note is surrendered for conversion, such portion thereof surrendered for conversion or (ii) any Notes, or a portion of any Note, surrendered for repurchase (and not withdrawn) in accordance with Article 10.

All Notes issued upon any registration of transfer or exchange of Notes in accordance with the Indenture shall be the valid obligations of the Issuer, evidencing the same debt, and entitled to the same benefits under the Indenture as the Notes surrendered upon such registration of transfer or exchange.

(b) So long as the Notes are eligible for book-entry settlement with the Depositary, unless otherwise required by law, subject to the fourth paragraph from the end of Section 2.04(c) all Notes shall be represented by one or more Notes in global form (each, a “**Global Note**”) registered in the name of the Depositary or the nominee of the Depositary. The transfer and exchange of beneficial interests in a Global Note that does not involve the issuance of a Physical Note shall be effected through the Depositary (but not the Trustee or the Custodian) in accordance with the Indenture and the procedures of the Depositary therefor.

(c) Notwithstanding any other provisions of the Indenture (other than the provisions set forth in this Section 2.04(c)), a Global Note may not be transferred as a whole or in part except (i) by the Depositary to a nominee of the Depositary or by a nominee of the Depositary to the Depositary or another nominee of the Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such successor Depositary and (ii) for exchange of a Global Note or a portion thereof for one or more Physical Notes in accordance with the second immediately succeeding paragraph.

The Depository shall be a clearing agency registered under the Exchange Act. The Issuer initially appoints The Depository Trust Company to act as Depository with respect to each Global Note. Initially, each Global Note shall be issued to the Depository, registered in the name of Cede & Co., as the nominee of the Depository, and deposited with the Trustee as custodian for Cede & Co.

If (i) the Depository notifies the Issuer at any time that the Depository is unwilling or unable to continue as depository for the Global Notes and a successor depository is not appointed within 90 days, (ii) the Depository ceases to be registered as a clearing agency under the Exchange Act and a successor depository is not appointed within 90 days or (iii) an Event of Default with respect to the Notes has occurred and is continuing and a beneficial owner of any Note requests that its beneficial interest therein be issued as a Physical Note, the Issuer shall execute, and the Trustee, upon receipt of an Officer's Certificate and an Issuer Order for the authentication and delivery of Notes, shall authenticate and deliver (x) in the case of clause (iii), a Physical Note to such beneficial owner in a principal amount equal to the principal amount of such Note corresponding to such beneficial owner's beneficial interest and (y) in the case of clause (i) or (ii), Physical Notes to each beneficial owner of the related Global Notes (or a portion thereof) in an aggregate principal amount equal to the aggregate principal amount of such Global Notes in exchange for such Global Notes, and upon delivery of the Global Notes to the Trustee such Global Notes shall be canceled.

Physical Notes issued in exchange for all or a part of the Global Note pursuant to this Section 2.04(c) shall be registered in such names and in such authorized denominations as the Depository, pursuant to instructions from its direct or indirect participants or otherwise, or, in the case of clause (iii) of the immediately preceding paragraph, the relevant beneficial owner, shall instruct the Trustee. Upon execution and authentication, the Trustee shall deliver such Physical Notes to the Persons in whose names such Physical Notes are so registered.

At such time as all interests in a Global Note have been converted, canceled, repurchased or transferred, such Global Note shall be, upon receipt thereof, canceled by the Trustee in accordance with standing procedures and existing instructions between the Depository and the Custodian. At any time prior to such cancellation, if any interest in a Global Note is exchanged for Physical Notes, converted, canceled, repurchased or transferred to a transferee who receives Physical Notes therefor or any Physical Note is exchanged or transferred for part of such Global Note, the principal amount of such Global Note shall, in accordance with the standing procedures and instructions existing between the Depository and the Custodian, be appropriately reduced or increased, as the case may be, and an endorsement shall be made on such Global Note, by the Trustee or the Custodian, at the direction of the Trustee, to reflect such reduction or increase.

None of the Issuer, the Trustee or any agent of the Issuer or the Trustee shall have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Note or maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

(d) Any Note or Common Stock issued upon the conversion or exchange of a Note that is repurchased or owned by any Affiliate of the Issuer (or any Person who was an Affiliate of the Issuer at any time during the three months immediately preceding) may not be resold by such Affiliate (or such Person, as the case may be) unless registered under the Securities Act or resold pursuant to an exemption from the registration requirements of the Securities Act in a transaction that results in such Note or Common Stock, as the case may be, no longer being a “restricted security” (as defined under Rule 144). The Issuer shall cause any Note that is repurchased or owned by it to be surrendered to the Trustee for cancellation in accordance with Section 2.06.

Section 2.05. *Mutilated, Destroyed, Lost or Stolen Notes.* Notwithstanding anything to the contrary in Section 2.09 of the Base Indenture, no service charge shall be imposed by the Issuer, the Trustee, the Note Registrar, any co-Note Registrar or the Paying Agent upon the issuance of any substitute Note pursuant to Section 2.09 of the Base Indenture, but the Issuer may require a Holder to pay a sum sufficient to cover any documentary, stamp or similar issue or transfer tax required in connection therewith as a result of the name of the Holder of the new substitute Note being different from the name of the Holder of the old Note that became mutilated or was destroyed, lost or stolen. In case any Note that has matured or is about to mature or has been surrendered for required repurchase or is about to be converted in accordance with Article 9 shall become mutilated or be destroyed, lost or stolen, the Issuer may, in its sole discretion, instead of issuing a substitute Note, pay or authorize the payment of or convert or authorize the conversion of the same (without surrender thereof except in the case of a mutilated Note), as the case may be, if the applicant for such payment or conversion shall furnish to the Issuer and to the Trustee such security or indemnity as may be required by them to save each of them harmless for any loss, liability, cost or expense caused by or connected with such substitution, and, in every case of destruction, loss or theft, evidence satisfactory to the Issuer, the Trustee and, if applicable, any Paying Agent or Conversion Agent evidence of their satisfaction of the destruction, loss or theft of such Note and of the ownership thereof.

Section 2.06. *Cancellation of Notes Paid, Converted, Etc.* Section 2.10 of the Base Indenture shall not apply with respect to the Notes. The Issuer shall cause all Notes surrendered for the purpose of payment, repurchase, registration of transfer or exchange or conversion, if surrendered to any Person other than the Trustee (including any of the Issuer’s agents, Subsidiaries or Affiliates), to be surrendered to the Trustee for cancellation. All Notes delivered to the Trustee shall be canceled by it in accordance with its normal procedures therefor. Except for any Notes surrendered for registration of transfer or exchange, or as otherwise expressly permitted by any of the provisions of the Indenture, no Notes shall be authenticated in exchange for any Notes surrendered to the Trustee for cancellation. The Trustee shall dispose of canceled Notes in accordance with its customary procedures and, after such disposition, shall deliver a certificate of such disposition to the Issuer, at the Issuer’s written request in an Issuer Order.

Section 2.07. *CUSIP Numbers.* The Issuer in issuing the Notes may use “CUSIP” numbers (if then generally in use), and, if so, the Trustee shall use “CUSIP” numbers in all notices issued to Holders as a convenience to such Holders; *provided* that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Notes or on such notice and that reliance may be placed only on the other identification numbers printed on the Notes. The Issuer shall promptly notify the Trustee in writing of any change in the “CUSIP” numbers.

Section 2.08. *Additional Notes; Repurchases.* The Issuer may, without the consent of the Holders and notwithstanding Section 2.01, reopen the Indenture and issue additional Notes hereunder with the same terms as the Notes initially issued hereunder (other than differences in the issue date, the issue price and interest accrued prior to the issue date of such additional Notes) in an unlimited aggregate principal amount; *provided* that if any such additional Notes are not fungible with the Notes initially issued hereunder for U.S. federal income tax purposes, such additional Notes shall have a separate CUSIP number. In addition, the Issuer may, to the extent permitted by law, and directly or indirectly (regardless of whether such Notes are surrendered to the Issuer), repurchase Notes in the open market or otherwise, whether by the Issuer or its Subsidiaries or through a private or public tender or exchange offer or through counterparties to private agreements, including by cash-settled swaps or other derivatives. The Issuer shall cause any Notes so repurchased (other than Notes repurchased pursuant to cash-settled swaps or other derivatives) to be surrendered to the Trustee for cancellation in accordance with Section 2.06 and such Notes shall no longer be considered outstanding under the Indenture upon their repurchase.

ARTICLE 3 SATISFACTION AND DISCHARGE

Section 3.01. *Applicability of Article 10 of the Base Indenture.* Article 10 of the Base Indenture shall not apply to the Notes. Instead, the satisfaction and discharge provisions set forth in this Article 3 shall, with respect to the Notes, supersede in their entirety such Article 10 of the Base Indenture, and all references in the Base Indenture to such Article 10 or any Sections thereof and satisfaction and discharge provisions therein, as the case may be, shall, with respect to the Notes, be deemed to be references to this Article 3 and Section 3.02 and the satisfaction and discharge provisions set forth in this Article 3 and Section 3.02.

Section 3.02. *Satisfaction and Discharge.* The Indenture shall upon request of the Issuer contained in an Officer's Certificate cease to be of further effect, and the Trustee, at the expense of the Issuer, shall execute proper instruments acknowledging satisfaction and discharge of the Indenture, when (a) (i) all Notes theretofore authenticated and delivered (other than Notes which have been destroyed, lost or stolen and which have been replaced, paid or converted as provided in Section 2.05) have been delivered to the Trustee for cancellation; or (ii) the Issuer has deposited with the Trustee or delivered to Holders, as applicable, after the Notes have become due and payable, whether on the Maturity Date, any Fundamental Change Repurchase Date, upon conversion or otherwise, cash or cash, shares of Common Stock or a combination thereof, as applicable, solely to satisfy the Issuer's Conversion Obligation, sufficient to pay all of the outstanding Notes and all other sums due and payable under the Indenture by the Issuer; and (b) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent in the Indenture provided for relating to the satisfaction and discharge of the Indenture have been complied with. Notwithstanding the satisfaction and discharge of the Indenture, the obligations of the Issuer to the Trustee under Section 6.06 of the Base Indenture shall survive such satisfaction and discharge.

ARTICLE 4
PARTICULAR COVENANTS OF THE ISSUER

Section 4.01. *Maintenance of Office or Agency.* The Issuer will maintain in the Borough of Manhattan, The City of New York, an office or agency where the Notes may be surrendered for registration of transfer or exchange or for presentation for payment or repurchase (“**Paying Agent**”) or for conversion (“**Conversion Agent**”) and where notices and demands to or upon the Issuer in respect of the Notes and the Indenture may be served. The Issuer will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Issuer shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office or the office or agency of the Trustee in the Borough of Manhattan, The City of New York.

The Issuer may also from time to time designate as co-Note Registrars one or more other offices or agencies where the Notes may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; *provided* that no such designation or rescission shall in any manner relieve the Issuer of its obligation to maintain an office or agency in the Borough of Manhattan, The City of New York, for such purposes. The Issuer will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency. The terms “**Paying Agent**” and “**Conversion Agent**” include any such additional or other offices or agencies, as applicable.

The Issuer hereby initially designates the Trustee as the Paying Agent, Note Registrar, Custodian and Conversion Agent and the Corporate Trust Office as the office or agency in the Borough of Manhattan, The City of New York, where Notes may be surrendered for registration of transfer or exchange or for presentation for payment or repurchase or for conversion and where notices and demands to or upon the Issuer in respect of the Notes and the Indenture may be served.

Section 4.02. *Provisions as to Paying Agent.* (a) Section 3.04 of the Base Indenture shall not apply to the Notes. If the Issuer shall appoint a Paying Agent other than the Trustee, the Issuer will cause such Paying Agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section 4.02:

- (i) that it will hold all sums held by it as such agent for the payment of the principal (including the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, the Notes in trust for the benefit of the Holders of the Notes;
- (ii) that it will give the Trustee prompt notice of any failure by the Issuer to make any payment of the principal (including the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, the Notes when the same shall be due and payable; and
- (iii) that at any time during the continuance of an Event of Default, upon request of the Trustee, it will forthwith pay to the Trustee all sums so held in trust.

The Issuer shall, on or before each due date of the principal (including the Fundamental Change Repurchase Price, if applicable) of, or accrued and unpaid interest on, the Notes, deposit with the Paying Agent a sum sufficient to pay such principal (including the Fundamental Change Repurchase Price, if applicable) or accrued and unpaid interest, and (unless such Paying Agent is the Trustee) the Issuer will promptly notify the Trustee of any failure to take such action; *provided* that if such deposit is made on the due date, such deposit must be received by the Paying Agent by 11:00 a.m., New York City time, on such date.

(b) If the Issuer shall act as its own Paying Agent, it will, on or before each due date of the principal (including the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, the Notes, set aside, segregate and hold in trust for the benefit of the Holders of the Notes a sum sufficient to pay such principal (including the Fundamental Change Repurchase Price, if applicable) and accrued and unpaid interest so becoming due and will promptly notify the Trustee in writing of any failure to take such action and of any failure by the Issuer to make any payment of the principal (including the Fundamental Change Repurchase Price, if applicable) of, or accrued and unpaid interest on, the Notes when the same shall become due and payable.

(c) Anything in this Section 4.02 to the contrary notwithstanding, the Issuer may, at any time, for the purpose of obtaining a satisfaction and discharge of the Indenture, or for any other reason, pay, cause to be paid or deliver to the Trustee all sums or amounts held in trust by the Issuer or any Paying Agent hereunder as required by this Section 4.02, such sums or amounts to be held by the Trustee upon the trusts herein contained and upon such payment or delivery by the Issuer or any Paying Agent to the Trustee, the Issuer or such Paying Agent shall be released from all further liability but only with respect to such sums or amounts.

(d) Any money and shares of Common Stock deposited with the Trustee or any Paying Agent, or then held by the Issuer, in trust for the payment of the principal (including the Fundamental Change Repurchase Price, if applicable) of, accrued and unpaid interest on and the consideration due upon conversion of any Note and remaining unclaimed for two years after such principal (including the Fundamental Change Repurchase Price, if applicable), interest or consideration due upon conversion has become due and payable shall be paid to the Issuer on request of the Issuer contained in an Officer's Certificate, or (if then held by the Issuer) shall be discharged from such trust; and the Holder of such Note shall thereafter, as an unsecured general creditor, look only to the Issuer for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money and shares of Common Stock, and all liability of the Issuer as trustee thereof, shall thereupon cease; *provided, however*, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Issuer cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in The Borough of Manhattan, The City of New York, notice that such money and shares of Common Stock remain unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money and shares of Common Stock then remaining will be repaid or delivered to the Issuer.

Section 4.03. *Existence*. Subject to Article 8, the Issuer shall do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence.

Section 4.04. *Reports.* (a) The Issuer shall file with the Trustee, within 15 days after the same are required to be filed with the Commission, copies of any documents or reports that the Issuer is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act). Any such document or report that the Issuer files with the Commission via the Commission's EDGAR system shall be deemed to be filed with the Trustee for purposes of this Section 4.04(a) at the time such documents are filed via the EDGAR system.

(b) Delivery of the reports and documents described in subsection (a) above to the Trustee is for informational purposes only, and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Issuer's compliance with any of its covenants hereunder (as to which the Trustee is entitled to conclusively rely on an Officer's Certificate).

Section 4.05. *Stay, Extension and Usury Laws.* The Issuer covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law or other law that would prohibit or forgive the Issuer from paying all or any portion of the principal of or interest on the Notes as contemplated herein, wherever enacted, now or at any time hereafter in force, or that may affect the covenants or the performance of the Indenture; and the Issuer (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

Section 4.06. *Statements as to Defaults.* The Issuer shall deliver to the Trustee, as soon as possible, and in any event within 30 days after the occurrence of any Event of Default or Default, an Officer's Certificate setting forth the details of such Event of Default or Default, its status and the action that the Issuer is taking or proposing to take in respect thereof.

Section 4.07. *Further Instruments and Acts.* The Issuer will execute and deliver such further instruments and do such further acts as may be reasonably necessary or proper to carry out more effectively the purposes of the Indenture.

ARTICLE 5 DEFAULTS AND REMEDIES

Section 5.01. *Applicability of Article 5 of the Base Indenture.* Section 5.01, Section 5.03, Section 5.06, Section 5.07, Section 5.10, Section 5.11 and Section 5.12 of the Base Indenture shall not apply to the Notes. Instead, the Event of Default provisions set forth in this Article 5 shall, with respect to the Notes, supersede in their entirety Section 5.01, Section 5.03, Section 5.06, Section 5.07, Section 5.10, Section 5.11 and Section 5.12 of the Base Indenture, and all references in the Base Indenture to such Sections and Event of Default provisions therein, as the case may be, shall, with respect to the Notes, be deemed to be references to the corresponding Sections of this Article 5 and the Event of Default provisions set forth therein.

Section 5.02. *Events of Default*. Each of the following events shall be an “**Event of Default**” with respect to the Notes:

(a) default in any payment of interest on any Note when due and payable, and the default continues for a period of 30 days;

(b) default in the payment of principal of any Note when due and payable on the Maturity Date, upon any required repurchase, upon declaration of acceleration or otherwise;

(c) failure by the Issuer to comply with its obligation to convert the Notes in accordance with this First Supplemental Indenture upon exercise of a Holder’s conversion right;

(d) failure by the Issuer to issue a Fundamental Change Issuer Notice in accordance with Section 10.02(c), notice of a Make-Whole Fundamental Change in accordance with Section 9.03(b) or notice of a specified corporate event in accordance with Section 9.01(b)(ii) or 9.01(b)(iii), in each case when due;

(e) failure by the Issuer to comply with its obligations under Article 8;

(f) failure by the Issuer for 60 days after written notice from the Trustee or the Holders of at least 25% in principal amount of the Notes then outstanding has been received by the Issuer to comply with any of its other agreements contained in the Notes or the Indenture;

(g) default by the Issuer or any Subsidiary of the Issuer with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any indebtedness for money borrowed in excess of \$30,000,000 (or its foreign currency equivalent) in the aggregate of the Issuer and/or any such Subsidiary, whether such indebtedness now exists or shall hereafter be created (i) resulting in such indebtedness becoming or being declared due and payable or (ii) constituting a failure to pay the principal or interest of any such debt when due and payable at its stated maturity, upon required repurchase, upon declaration of acceleration or otherwise;

(h) a final judgment or judgments for the payment of \$30,000,000 (or its foreign currency equivalent) or more (excluding any amounts covered by insurance) in the aggregate rendered against the Issuer or any Subsidiary of the Issuer, which judgment is not discharged, bonded, paid, waived or stayed within 60 days after (i) the date on which the right to appeal thereof has expired if no such appeal has commenced, or (ii) the date on which all rights to appeal have been extinguished;

(i) the Issuer or any Significant Subsidiary shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to the Issuer or any such Significant Subsidiary or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Issuer or any such Significant Subsidiary or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due; or

(j) an involuntary case or other proceeding shall be commenced against the Issuer or any Significant Subsidiary seeking liquidation, reorganization or other relief with respect to the Issuer or such Significant Subsidiary or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Issuer or such Significant Subsidiary or any substantial part of its property, and such involuntary case or other proceeding shall remain undismissed and unstayed for a period of 30 consecutive days.

Section 5.03. *Acceleration; Rescission and Annulment.* If one or more Events of Default shall have occurred and be continuing (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body), then, and in each and every such case (other than an Event of Default specified in Section 5.02(i) or Section 5.02(j) with respect to the Issuer or any of its Significant Subsidiaries), unless the principal of all of the Notes shall have already become due and payable, either the Trustee or the Holders of at least 25% in aggregate principal amount of the Notes then outstanding determined in accordance with Section 7.04 of the Base Indenture, by notice in writing to the Issuer (and to the Trustee if given by Holders), may (and the Trustee, at the written request of such Holders, shall) declare 100% of the principal of, and accrued and unpaid interest on, all the Notes to be due and payable immediately, and upon any such declaration the same shall become and shall automatically be immediately due and payable, anything contained in the Indenture or in the Notes to the contrary notwithstanding. If an Event of Default specified in Section 5.02(i) or Section 5.02(j) with respect to the Issuer or any of its Significant Subsidiaries occurs and is continuing, 100% of the principal of, and accrued and unpaid interest, if any, on, all Notes shall become and shall automatically be immediately due and payable.

The immediately preceding paragraph, however, is subject to the conditions that if, at any time after the principal of the Notes shall have been so declared due and payable, and before any judgment or decree for the payment of the monies due shall have been obtained or entered as hereinafter provided, the Issuer shall pay or shall deposit with the Trustee a sum sufficient to pay installments of accrued and unpaid interest upon all Notes and the principal of any and all Notes that shall have become due otherwise than by acceleration (with interest on overdue installments of accrued and unpaid interest to the extent that payment of such interest is enforceable under applicable law, and on such principal at the rate borne by the Notes at such time, *plus* one percent) and amounts due to the Trustee pursuant to Section 6.06 of the Base Indenture, and if (1) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (2) any and all existing Events of Default under the Indenture, other than the nonpayment of the principal of and accrued and unpaid interest, if any, on Notes that shall have become due solely by such acceleration, shall have been cured or waived pursuant to Section 5.08, then and in every such case (except as provided in the immediately succeeding sentence) the Holders of a majority in aggregate principal amount of the Notes then outstanding, by written notice to the Issuer and to the Trustee, may waive all Defaults or Events of Default with respect to the Notes and rescind and annul such declaration and its consequences and such Default shall

cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of the Indenture; but no such waiver or rescission and annulment shall extend to or shall affect any subsequent Default or Event of Default, or shall impair any right consequent thereon. Notwithstanding anything to the contrary herein, no such waiver or rescission and annulment shall extend to or shall affect any Default or Event of Default resulting from (i) the nonpayment of the principal (including the Fundamental Change Repurchase Price, if applicable) of, or accrued and unpaid interest on, any Notes, (ii) a failure to repurchase any Notes when required or (iii) a failure to pay or deliver, as the case may be, the consideration due upon conversion of the Notes.

Section 5.04. *Additional Interest.* Notwithstanding anything in the Indenture or in the Notes to the contrary, to the extent the Issuer elects, the sole remedy for an Event of Default relating to (i) the Issuer's failure to file with the Trustee pursuant to Section 314(a)(1) of the Trust Indenture Act any documents or reports that it is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act or (ii) the Issuer's failure to comply with its obligations as set forth in Section 4.04 shall after the occurrence of such an Event of Default consist exclusively of the right to receive Additional Interest on the Notes at a rate equal to 0.25% per annum of the principal amount of the Notes outstanding for each day during the 60-day period on which such Event of Default is continuing beginning on, and including, the date on which such an Event of Default first occurs. If the Issuer so elects, such Additional Interest shall be payable in the same manner and on the same dates as the stated interest payable on the Notes. On the 61st day after such Event of Default (if the Event of Default relating to the Issuer's failure to file is not cured or waived prior to such 61st day), the Notes shall be immediately subject to acceleration as provided in Section 5.03. The provisions of this paragraph will not affect the rights of Holders of Notes in the event of the occurrence of any Event of Default other than the Issuer's failure to comply with its obligations as set forth in Section 4.04. In the event the Issuer does not elect to pay Additional Interest following an Event of Default in accordance with this Section 5.04 or the Issuer elected to make such payment but does not pay the Additional Interest when due, the Notes shall be immediately subject to acceleration as provided in Section 5.03.

In order to elect to pay Additional Interest as the sole remedy during the first 60 days after the occurrence of any Event of Default described in the immediately preceding paragraph, the Issuer must notify all Holders of the Notes, the Trustee and the Paying Agent of such election prior to the beginning of such 60-day period. Upon the failure to timely give such notice, the Notes shall be immediately subject to acceleration as provided in Section 5.03.

Section 5.05. *Payments of Notes on Default; Suit Therefor.* The first paragraph of Section 5.02 of the Base Indenture shall be replaced, with respect to the Notes, with the following provisions of this paragraph. If an Event of Default described in clause (a) or (b) of Section 5.02 shall have occurred, the Issuer shall, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders of the Notes, the whole amount then due and payable on the Notes for principal and interest, if any, with interest on any overdue principal and interest, if any, at the rate borne by the Notes at such time, *plus* one percent, and, in addition thereto, such further amount as shall be sufficient to cover any amounts due to the Trustee under Section 6.06 of the Base Indenture.

Section 5.06. *Application of Monies Collected by Trustee.* Any monies collected by the Trustee pursuant to this Article 5 with respect to the Notes shall be applied in the following order, at the date or dates fixed by the Trustee for the distribution of such monies, upon presentation of the several Notes, and stamping thereon the payment, if only partially paid, and upon surrender thereof, if fully paid:

First, to the payment of all amounts due the Trustee under Section 6.06 of the Base Indenture;

Second, in case the principal of the outstanding Notes shall not have become due and be unpaid, to the payment of interest on, and any cash due upon conversion of, the Notes in default in the order of the date due of the payments of such interest and cash due upon conversion, as the case may be, with interest (to the extent that such interest has been collected by the Trustee) upon such overdue payments at the rate borne by the Notes at such time, *plus* one percent, such payments to be made ratably to the Persons entitled thereto;

Third, in case the principal of the outstanding Notes shall have become due, by declaration or otherwise, and be unpaid to the payment of the whole amount (including, if applicable, the payment of the Fundamental Change Repurchase Price and any cash due upon conversion) then owing and unpaid upon the Notes for principal and interest, if any, with interest on the overdue principal and, to the extent that such interest has been collected by the Trustee, upon overdue installments of interest at the rate borne by the Notes at such time *plus* one percent, and in case such monies shall be insufficient to pay in full the whole amounts so due and unpaid upon the Notes, then to the payment of such principal (including, if applicable, the Fundamental Change Repurchase Price and any cash due upon conversion) and interest without preference or priority of principal over interest, or of interest over principal or of any installment of interest over any other installment of interest, or of any Note over any other Note, ratably to the aggregate of such principal (including, if applicable, the Fundamental Change Repurchase Price and any cash due upon conversion) and accrued and unpaid interest; and

Fourth, to the payment of the remainder, if any, to the Issuer or as a court of competent jurisdiction shall direct in writing.

Section 5.07. *Proceedings by Holders.* Except to enforce the right to receive payment of principal (including, if applicable, the Fundamental Change Repurchase Price) or interest when due, or the right to receive payment or delivery of the consideration due upon conversion, no Holder of any Note shall have any right by virtue of or by availing of any provision of the Indenture to institute any suit, action or proceeding in equity or at law upon or under or with respect to the Indenture, or for the appointment of a receiver, trustee, liquidator, custodian or other similar official, or for any other remedy hereunder, unless:

(a) such Holder previously shall have given to the Trustee written notice of an Event of Default and of the continuance thereof, as herein provided;

(b) Holders of at least 25% in aggregate principal amount of the Notes then outstanding shall have made written request upon the Trustee to institute such action, suit or proceeding in its own name as Trustee hereunder;

(c) such Holders shall have offered to the Trustee security and/or indemnity reasonably satisfactory to it against any loss, liability or expense to be incurred therein or thereby;

(d) the Trustee for 60 days after its receipt of such notice, request and offer of such security or indemnity, shall have neglected or refused to institute any such action, suit or proceeding; and

(e) no direction that, in the opinion of the Trustee, is inconsistent with such written request shall have been given to the Trustee by the Holders of a majority of the aggregate principal amount of the Notes then outstanding within such 60-day period pursuant to Section 5.09 of the Base Indenture,

it being understood and intended, and being expressly covenanted by the taker and Holder of every Note with every other taker and Holder and the Trustee that no one or more Holders shall have any right in any manner whatever by virtue of or by availing of any provision of the Indenture to affect, disturb or prejudice the rights of any other Holder, or to obtain or seek to obtain priority over or preference to any other such Holder, or to enforce any right under the Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all Holders (except as otherwise provided herein). For the protection and enforcement of this Section 5.07, each and every Holder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Notwithstanding any other provision of the Indenture and any provision of any Note, the right of any Holder to receive payment or delivery, as the case may be, of (x) the principal (including the Fundamental Change Repurchase Price, if applicable) of, (y) accrued and unpaid interest, if any, on, and (z) the consideration due upon conversion of, such Note, on or after the respective due dates expressed or provided for in such Note or in the Indenture, or to institute suit for the enforcement of any such payment or delivery, as the case may be, on or after such respective dates against the Issuer shall not be impaired or affected without the consent of such Holder.

Section 5.08. *Waiver of Defaults by Majority of Holders.* The Holders of a majority in aggregate principal amount of the Notes at the time outstanding determined in accordance with Section 7.04 of the Base Indenture may on behalf of the Holders of all of the Notes waive any past Default or Event of Default hereunder and its consequences except (i) a default in the payment of accrued and unpaid interest, if any, on, or the principal (including any Fundamental Change Repurchase Price) of, the Notes when due that has not been cured pursuant to the provisions of Section 5.02, (ii) a failure by the Issuer to pay or deliver, as the case may be, the consideration due upon conversion of the Notes or (iii) a default in respect of a covenant or provision hereof which under Article 7 cannot be modified or amended without the consent of each Holder of an outstanding Note affected. Upon any such waiver the Issuer, the Trustee and the Holders of the Notes shall be restored to their former positions and rights hereunder; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon. Whenever any Default or Event of Default hereunder shall have been waived as permitted by this Section 5.08, said Default or Event of Default shall for all purposes of the Notes and the Indenture be deemed to have been cured and to be not continuing; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon.

Section 5.09. *Notice of Defaults.* The Trustee shall, within 90 days after the occurrence and continuance of a Default of which the Trustee has received written notice, deliver to all Holders notice of all Defaults known to a Responsible Officer, unless such Defaults shall have been cured or waived before the giving of such notice; *provided* that, except in the case of a Default in the payment of the principal of (including the Fundamental Change Repurchase Price, if applicable), or accrued and unpaid interest on, any of the Notes or a Default in the payment or delivery of the consideration due upon conversion, the Trustee shall be protected in withholding such notice if and so long as a trust officer in good faith determines that the withholding of such notice is in the interests of the Holders.

Section 5.10. *Undertaking to Pay Costs.* All parties to the Indenture agree, and each Holder of any Note by its acceptance thereof shall be deemed to have agreed, that any court may, in its discretion, require, in any suit for the enforcement of any right or remedy under the Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; *provided* that the provisions of this Section 5.10 (to the extent permitted by law) shall not apply to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the Notes at the time outstanding determined in accordance with Section 7.04 of the Base Indenture, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or accrued and unpaid interest, if any, on any Note (including, but not limited to, the Fundamental Change Repurchase Price, if applicable) on or after the due date expressed or provided for in such Note or to any suit for the enforcement of the right to convert any Note, or receive the consideration due upon conversion, in accordance with the provisions of Article 9.

ARTICLE 6 CONCERNING THE TRUSTEE

Section 6.01. *Amendment to Article 6 of the Base Indenture.* Section 6.02(h) of the Base Indenture shall be amended with respect to the Notes by replacing the words "reasonable security or indemnity against the costs, expenses and liabilities" with the words "indemnity and/or security reasonably satisfactory to it against any loss, liability or expense".

ARTICLE 7 SUPPLEMENTAL INDENTURES

Section 7.01. *Applicability of Article 8 of the Base Indenture.* Section 8.01 and Section 8.02 of the Base Indenture shall not apply to the Notes. Instead, the supplemental indenture

provisions set forth in Section 7.02 and Section 7.03, respectively, shall, with respect to the Notes, supersede in their entirety Section 8.01 and Section 8.02 of the Base Indenture, and all references in the Base Indenture to such Sections and amendment and waiver provisions therein, as the case may be, shall, with respect to the Notes, be deemed to be references to Section 7.02 and Section 7.03, as applicable, and the supplemental indenture provisions set forth therein.

Section 7.02. *Supplemental Indentures Without Consent of Holders.* The Issuer, when authorized by the resolutions of the Board of Directors and the Trustee, at the Issuer's expense, may from time to time and at any time enter into an indenture or indentures supplemental hereto for one or more of the following purposes:

- (a) to cure any ambiguity, omission, defect or inconsistency;
- (b) to provide for the assumption by a Successor Issuer of the obligations of the Issuer under the Indenture pursuant to Article 8;
- (c) to add guarantees with respect to the Notes;
- (d) to secure the Notes;
- (e) to add to the covenants or Events of Default of the Issuer for the benefit of the Holders or surrender any right or power conferred upon the Issuer;
- (f) to make any change that does not adversely affect the rights of any Holder;
- (g) in connection with any Merger Event, to provide that the Notes are convertible into Reference Property, subject to the provisions of Section 9.02, and make such related changes to the terms of the Notes to the extent expressly required by Section 9.07;
- (h) to comply with any requirement of the Commission in connection with the qualification of the Indenture under the Trust Indenture Act; or
- (i) to conform the provisions of the Indenture or the Notes to the "Description of notes" section of the Prospectus Supplement.

Upon the written request of the Issuer, the Trustee is hereby authorized to join with the Issuer in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to, but may in its discretion, enter into any supplemental indenture that affects the Trustee's own rights, duties or immunities under the Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section 7.02 may be executed by the Issuer and the Trustee without the consent of the Holders of any of the Notes at the time outstanding, notwithstanding any of the provisions of Section 7.03.

Section 7.03. *Supplemental Indentures with Consent of Holders.* With the consent (evidenced as provided in Section 7.01 of the Base Indenture) of the Holders of at least a majority of the aggregate principal amount of the Notes then outstanding (determined in

accordance with Section 7.01 of the Base Indenture and including, without limitation, consents obtained in connection with a repurchase of, or tender or exchange offer for, Notes), the Issuer, when authorized by the resolutions of the Board of Directors and the Trustee, at the Issuer's expense, may from time to time and at any time enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of the Indenture or any supplemental indenture or of modifying in any manner the rights of the Holders; *provided, however*, that, without the consent of each Holder of an outstanding Note affected, no such supplemental indenture shall:

- (a) reduce the amount of Notes whose Holders must consent to an amendment;
- (b) reduce the rate of or extend the stated time for payment of interest on any Note;
- (c) reduce the principal of or extend the Maturity Date of any Note;
- (d) make any change that adversely affects the conversion rights of any Notes;
- (e) reduce the Fundamental Change Repurchase Price of any Note or amend or modify in any manner adverse to the Holders the Issuer's obligation to make such payments, whether through an amendment or waiver of provisions in the covenants, definitions or otherwise;
- (f) make any Note payable in a currency, or at a place of payment, other than that stated in the Note;
- (g) change the ranking of the Notes; or
- (h) make any change in this Article 7 that requires each Holder's consent or in the waiver provisions in Section 5.03 or Section 5.08.

Upon the written request of the Issuer, and upon the filing with the Trustee of evidence of the consent of Holders as aforesaid and subject to Section 7.01 of the Base Indenture, the Trustee shall join with the Issuer in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under the Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

Holders do not need under this Section 7.03 to approve the particular form of any proposed supplemental indenture. It shall be sufficient if such Holders approve the substance thereof. After any such supplemental indenture becomes effective, the Issuer shall deliver to the Holders a notice briefly describing such supplemental indenture. However, the failure to give such notice to all the Holders, or any defect in the notice, will not impair or affect the validity of the supplemental indenture.

ARTICLE 8
CONSOLIDATION, MERGER, SALE, CONVEYANCE AND LEASE

Section 8.01. *Applicability of Article 9 of the Base Indenture.* Article 9 of the Base Indenture shall not apply to the Notes. Instead, the consolidation, merger, sale, conveyance and lease provisions set forth in this Article 8 shall, with respect to the Notes, supersede in their entirety such Article 9 of the Base Indenture, and all references in the Base Indenture to such Article and the Company successor provisions therein, as the case may be, shall, with respect to the Notes, be deemed to be references to this Article 8 and the consolidation, merger, sale, conveyance and lease provisions set forth in this Article 8, respectively.

Section 8.02. *Issuer May Consolidate, Etc. on Certain Terms.* Subject to the provisions of Section 8.03, the Issuer shall not consolidate with, merge with or into, or sell, convey, transfer or lease all or substantially all of its properties and assets to another Person, unless:

(a) the resulting, surviving or transferee Person (the “**Successor Issuer**”), if not the Issuer, shall be a corporation organized and existing under the laws of the United States of America, any State thereof or the District of Columbia, and the Successor Issuer (if not the Issuer) shall expressly assume, by supplemental indenture all of the obligations of the Issuer under the Notes and the Indenture; and

(b) immediately after giving effect to such transaction, no Default or Event of Default shall have occurred and be continuing under the Indenture.

For purposes of this Section 8.02, the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of one or more Subsidiaries of the Issuer to another Person, which properties and assets, if held by the Issuer instead of such Subsidiaries, would constitute all or substantially all of the properties and assets of the Issuer on a consolidated basis, shall be deemed to be the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of the Issuer to another Person.

Section 8.03. *Successor Corporation to Be Substituted.* In case of any such consolidation, merger, sale, conveyance, transfer or lease and upon the assumption by the Successor Issuer, by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee, of the due and punctual payment of the principal of and accrued and unpaid interest on all of the Notes, the due and punctual delivery or payment, as the case may be, of any consideration due upon conversion of the Notes and the due and punctual performance of all of the covenants and conditions of the Indenture to be performed by the Issuer, such Successor Issuer (if not the Issuer) shall succeed to and, except in the case of a lease of all or substantially all of the Issuer’s properties and assets, shall be substituted for the Issuer, with the same effect as if it had been named herein as the party of the first part. Such Successor Issuer thereupon may cause to be signed, and may issue either in its own name or in the name of the Issuer any or all of the Notes issuable hereunder which theretofore shall not have been signed by the Issuer and delivered to the Trustee; and, upon the order of such Successor Issuer instead of the Issuer and subject to all the terms, conditions and limitations in the Indenture prescribed, the Trustee shall authenticate and shall deliver, or cause to be authenticated and delivered, any Notes that previously shall have been signed and delivered by the Officers of the Issuer to the

Trustee for authentication, and any Notes that such Successor Issuer thereafter shall cause to be signed and delivered to the Trustee for that purpose. All the Notes so issued shall in all respects have the same legal rank and benefit under the Indenture as the Notes theretofore or thereafter issued in accordance with the terms of the Indenture as though all of such Notes had been issued at the date of the execution hereof. In the event of any such consolidation, merger, sale, conveyance or transfer (but not in the case of a lease), upon compliance with this Article 8 the Person named as the "Issuer" in the first paragraph of this First Supplemental Indenture (or any successor that shall thereafter have become such in the manner prescribed in this Article 8) may be dissolved, wound up and liquidated at any time thereafter and, except in the case of a lease, such Person shall be released from its liabilities as obligor and maker of the Notes and from its obligations under the Indenture and the Notes.

In case of any such consolidation, merger, sale, conveyance, transfer or lease, such changes in phraseology and form (but not in substance) may be made in the Notes thereafter to be issued as may be appropriate.

Section 8.04. *Opinion of Counsel to Be Given to Trustee.* No such consolidation, merger, sale, conveyance, transfer or lease shall be effective unless the Trustee shall receive an Officer's Certificate and an Opinion of Counsel as conclusive evidence that any such consolidation, merger, sale, conveyance, transfer or lease and any such assumption and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, complies with the provisions of this Article 8.

ARTICLE 9 CONVERSION OF NOTES

Section 9.01. *Conversion Privilege.* (a) Subject to and upon compliance with the provisions of this Article 9, each Holder of a Note shall have the right, at such Holder's option, to convert all or any portion (if the portion to be converted is \$1,000 principal amount or an integral multiple thereof) of such Note (i) subject to satisfaction of the conditions described in Section 9.01(b), at any time prior to the close of business on the Business Day immediately preceding April 1, 2023, under the circumstances and during the periods set forth in Section 9.01(b), and (ii) regardless of the conditions described in Section 9.01(b), on or after April 1, 2023 and prior to the close of business on the Business Day immediately preceding the Maturity Date, in each case, at an initial conversion rate of 58.6622 shares of Common Stock (subject to adjustment as provided in this Article 9, the "**Conversion Rate**") per \$1,000 principal amount of Notes (subject to, and in accordance with, the settlement provisions of Section 9.02, the "**Conversion Obligation**").

(b) (i) Prior to the close of business on the Business Day immediately preceding April 1, 2023, a Holder may surrender all or any portion of its Notes for conversion at any time during the five Business Day period immediately after any five consecutive Trading Day period (the "**Measurement Period**") in which the Trading Price per \$1,000 principal amount of Notes, as determined following a request by a Holder of Notes in accordance with this subsection (b) (i), for each Trading Day of the Measurement Period was less than 98% of the product of the Last

Reported Sale Price of the Common Stock on each such Trading Day and the Conversion Rate on each such Trading Day. The Trading Prices shall be determined by the Bid Solicitation Agent pursuant to this subsection (b)(i) and the definition of Trading Price set forth in this First Supplemental Indenture. The Issuer shall provide written notice to the Bid Solicitation Agent (if other than the Issuer) of the three independent nationally recognized securities dealers selected by the Issuer pursuant to the definition of Trading Price, along with appropriate contact information for each. The Bid Solicitation Agent (if other than the Issuer) shall have no obligation to determine the Trading Price per \$1,000 principal amount of Notes unless the Issuer has requested such determination, and the Issuer shall have no obligation to make such request (or, if the Issuer is acting as Bid Solicitation Agent, the Issuer shall have no obligation to determine the Trading Price per \$1,000 principal amount of Notes) unless a Holder provides the Issuer with reasonable evidence that the Trading Price per \$1,000 principal amount of Notes on any Trading Day would be less than 98% of the product of the Last Reported Sale Price of the Common Stock on such Trading Day and the Conversion Rate on such Trading Day, at which time the Issuer shall instruct the Bid Solicitation Agent (if other than the Issuer) to determine, or if the Issuer is acting as Bid Solicitation Agent, the Issuer shall determine, the Trading Price per \$1,000 principal amount of Notes beginning on the next Trading Day and on each successive Trading Day until the Trading Price per \$1,000 principal amount of Notes is greater than or equal to 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate. If (x) the Issuer is not acting as Bid Solicitation Agent, and the Issuer does not instruct the Bid Solicitation Agent to determine the Trading Price per \$1,000 principal amount of Notes when obligated as provided in the preceding sentence, or if the Issuer instructs the Bid Solicitation Agent to obtain bids and the Bid Solicitation Agent fails to make such determination, or (y) the Issuer is acting as Bid Solicitation Agent and the Issuer fails to make such determination when obligated as provided in the preceding sentence, then, in either case, the Trading Price per \$1,000 principal amount of Notes shall be deemed to be less than 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate on each Trading Day of such failure. If the Trading Price condition set forth above has been met, the Issuer shall so notify the Holders, the Trustee and the Conversion Agent (if other than the Trustee). If, at any time after the Trading Price condition set forth above has been met, the Trading Price per \$1,000 principal amount of Notes is greater than or equal to 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate for such date, the Issuer shall so notify the Holders of the Notes, the Trustee and the Conversion Agent (if other than the Trustee).

(ii) If, prior to the close of business on the Business Day immediately preceding April 1, 2023, the Issuer elects to:

(A) issue to all or substantially all holders of the Common Stock any rights, options or warrants entitling them, for a period of not more than 45 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of the Common Stock at a price per share that is less than the average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such issuance; or

(B) distribute to all or substantially all holders of the Common Stock the Issuer's assets, securities or rights to purchase securities of the Issuer, which distribution has a per share value, as reasonably determined by the Board of Directors, exceeding 10% of the Last Reported Sale Price of the Common Stock on the Trading Day preceding the date of announcement for such distribution,

then, in either case, the Issuer shall notify all Holders of the Notes, the Trustee and the Conversion Agent (if other than the Trustee) at least 40 Scheduled Trading Days prior to the Ex-Dividend Date for such issuance or distribution. Once the Issuer has given such notice, a Holder may surrender all or any portion of its Notes for conversion at any time until the earlier of (1) the close of business on the Business Day immediately preceding the Ex-Dividend Date for such issuance or distribution and (2) the Issuer's announcement that such issuance or distribution will not take place, in each case, even if the Notes are not otherwise convertible at such time.

(iii) If a transaction or event that constitutes a Fundamental Change or a Make-Whole Fundamental Change occurs prior to the close of business on the Business Day immediately preceding April 1, 2023, regardless of whether a Holder has the right to require the Issuer to repurchase the Notes pursuant to Section 10.02, or if the Issuer is a party to a consolidation, merger, binding share exchange, or transfer or lease of all or substantially all of its assets that occurs prior to the close of business on the Business Day immediately preceding April 1, 2023, in each case, pursuant to which the Common Stock would be converted into cash, securities or other assets, all or any portion of a Holder's Notes may be surrendered for conversion at any time from or after the date that is 40 Scheduled Trading Days prior to the anticipated effective date of the transaction (or, if later, the earlier of (x) the Business Day after the Issuer gives notice of such transaction and (y) the actual effective date of such transaction) until 35 Trading Days after the actual effective date of such transaction or, if such transaction also constitutes a Fundamental Change, until the related Fundamental Change Repurchase Date. The Issuer shall notify Holders, the Trustee and the Conversion Agent (if other than the Trustee) (x) as promptly as practicable following the date the Issuer publicly announces such transaction but in no event less than 40 Scheduled Trading Days prior to the anticipated effective date of such transaction or (y) if the Issuer does not have knowledge of such transaction at least 40 Scheduled Trading Days prior to the anticipated effective date of such transaction, within one Business Day of the date upon which the Issuer receives notice, or otherwise becomes aware, of such transaction, but in no event later than the actual effective date of such transaction.

(iv) Prior to the close of business on the Business Day immediately preceding April 1, 2023, a Holder may surrender all or any portion of its Notes for conversion at any time during any calendar quarter commencing after the calendar quarter ending on September 30, 2018 (and only during such calendar quarter), if the Last Reported Sale Price of the Common Stock for at least 20 Trading Days (whether or not consecutive) during the period of 30 consecutive Trading Days ending on, and including, the last Trading Day of the immediately preceding calendar quarter is greater than or equal to 130% of the Conversion Price on each applicable Trading Day. The Issuer shall determine at the beginning of each calendar quarter commencing after September 30, 2018 whether the Notes may be surrendered for conversion in accordance with this clause (iv) and shall notify the Holders, the Trustee and the Conversion Agent (if other than the Trustee) if the Notes become convertible in accordance with this clause (iv).

Section 9.02. *Conversion Procedure; Settlement Upon Conversion.*

(a) Subject to this Section 9.02, Section 9.03(b) and Section 9.07(a), upon conversion of any Note, the Issuer shall pay or deliver, as the case may be, to the converting Holder, in respect of each \$1,000 principal amount of Notes being converted, cash (“**Cash Settlement**”), shares of Common Stock, together with cash, if applicable, in lieu of delivering any fractional share of Common Stock in accordance with subsection (j) of this Section 9.02 (“**Physical Settlement**”) or a combination of cash and shares of Common Stock, together with cash, if applicable, in lieu of delivering any fractional share of Common Stock in accordance with subsection (j) of this Section 9.02 (“**Combination Settlement**”), at its election, as set forth in this Section 9.02.

(i) All conversions for which the relevant Conversion Date occurs on or after April 1, 2023 shall be settled using the same Settlement Method.

(ii) Except for any conversions for which the relevant Conversion Date occurs on or after April 1, 2023, the Issuer shall use the same Settlement Method for all conversions with the same Conversion Date, but the Issuer shall not have any obligation to use the same Settlement Method with respect to conversions with different Conversion Dates.

(iii) If, in respect of any Conversion Date (or the period described in the third immediately succeeding set of parentheses, as the case may be), the Issuer elects to deliver a notice (the “**Settlement Notice**”) of the relevant Settlement Method in respect of such Conversion Date (or such period, as the case may be), the Issuer, through the Conversion Agent, shall deliver such Settlement Notice to converting Holders no later than the close of business on the Trading Day immediately following the relevant Conversion Date (or, in the case of any conversions for which the relevant Conversion Date occurs on or after April 1, 2023, no later than April 1, 2023). If the Issuer does not elect a Settlement Method prior to the deadline set forth in the immediately preceding sentence, the Issuer shall no longer have the right to elect Cash Settlement or Physical Settlement and the Issuer shall be deemed to have elected Combination Settlement in respect of its Conversion Obligation, and the Specified Dollar Amount per \$1,000 principal amount of Notes shall be equal to \$1,000. Such Settlement Notice shall specify the relevant Settlement Method and in the case of an election of Combination Settlement, the relevant Settlement Notice shall indicate the Specified Dollar Amount per \$1,000 principal amount of Notes. If the Issuer delivers a Settlement Notice electing Combination Settlement in respect of its Conversion Obligation but does not indicate a Specified Dollar Amount per \$1,000 principal amount of Notes in such Settlement Notice, the Specified Dollar Amount per \$1,000 principal amount of Notes shall be deemed to be \$1,000.

(iv) The cash, shares of Common Stock or combination of cash and shares of Common Stock in respect of any conversion of Notes (the “**Settlement Amount**”) shall be computed as follows:

(A) if the Issuer elects to satisfy its Conversion Obligation in respect of such conversion by Physical Settlement, the Issuer shall deliver to the converting Holder in respect of each \$1,000 principal amount of Notes being converted a number of shares of Common Stock equal to the Conversion Rate in effect on the Conversion Date;

(B) if the Issuer elects to satisfy its Conversion Obligation in respect of such conversion by Cash Settlement, the Issuer shall pay to the converting Holder in respect of each \$1,000 principal amount of Notes being converted cash in an amount equal to the sum of the Daily Conversion Values for each of the 30 consecutive Trading Days during the related Observation Period; and

(C) if the Issuer elects (or is deemed to have elected) to satisfy its Conversion Obligation in respect of such conversion by Combination Settlement, the Issuer shall pay or deliver, as the case may be, in respect of each \$1,000 principal amount of Notes being converted, a Settlement Amount equal to the sum of the Daily Settlement Amounts for each of the 30 consecutive Trading Days during the related Observation Period.

(v) The Daily Settlement Amounts (if applicable) and the Daily Conversion Values (if applicable) shall be determined by the Issuer promptly following the last day of the Observation Period. Promptly after such determination of the Daily Settlement Amounts or the Daily Conversion Values, as the case may be, and the amount of cash payable in lieu of delivering any fractional share of Common Stock, the Issuer shall notify the Trustee and the Conversion Agent (if other than the Trustee) of the Daily Settlement Amounts or the Daily Conversion Values, as the case may be, and the amount of cash payable in lieu of delivering fractional shares of Common Stock. The Trustee and the Conversion Agent (if other than the Trustee) shall have no responsibility for any such determination.

(b) Subject to Section 9.02(e), before any Holder of a Note shall be entitled to convert a Note as set forth above, such Holder shall (i) in the case of a Global Note, comply with the procedures of the Depositary in effect at that time and, if required, pay funds equal to interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in Section 9.02(h) and (ii) in the case of a Physical Note (1) complete, manually sign and deliver an irrevocable notice to the Conversion Agent as set forth in the Form of Notice of Conversion (or a facsimile thereof) (a “**Notice of Conversion**”) at the office of the Conversion Agent and state in writing therein the principal amount of Notes to be converted and the name or names (with addresses) in which such Holder wishes the certificate or certificates for any shares of Common Stock to be delivered upon settlement of the Conversion Obligation to be registered, (2) surrender such Notes, duly endorsed to the Issuer or in blank (and accompanied by appropriate endorsement and transfer documents), at the office of the Conversion Agent, (3) if required, furnish appropriate endorsements and transfer documents and (4) if required, pay funds equal to

interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in Section 9.02(h). The Trustee (and if different, the Conversion Agent) shall notify the Issuer of any conversion pursuant to this Article 9 on the Conversion Date for such conversion. No Notice of Conversion with respect to any Notes may be surrendered by a Holder thereof if such Holder has also delivered a Fundamental Change Repurchase Notice to the Issuer in respect of such Notes and has not validly withdrawn such Fundamental Change Repurchase Notice in accordance with Section 10.03.

If more than one Note shall be surrendered for conversion at one time by the same Holder, the Conversion Obligation with respect to such Notes shall be computed on the basis of the aggregate principal amount of the Notes (or specified portions thereof to the extent permitted thereby) so surrendered.

(c) A Note shall be deemed to have been converted immediately prior to the close of business on the date (the “**Conversion Date**”) that the Holder has complied with the requirements set forth in subsection (b) above. Except as set forth in Section 9.03(b) and Section 9.07(a), the Issuer shall pay or deliver, as the case may be, the consideration due in respect of the Conversion Obligation on the second Business Day immediately following the relevant Conversion Date, if the Issuer elects Physical Settlement, or on the second Business Day immediately following the last Trading Day of the Observation Period, in the case of any other Settlement Method. If any shares of Common Stock are due to a converting Holder, the Issuer shall issue or cause to be issued, and deliver (if applicable) to the Conversion Agent or to such Holder, or such Holder’s nominee or nominees, the full number of shares of Common Stock to which such Holder shall be entitled, in book-entry format through the Depository, in satisfaction of the Issuer’s Conversion Obligation.

(d) In case any Note shall be surrendered for partial conversion, the Issuer shall execute and the Trustee shall authenticate and deliver to or upon the written order of the Holder of the Note so surrendered a new Note or Notes in authorized denominations in an aggregate principal amount equal to the unconverted portion of the surrendered Note, without payment of any service charge by the converting Holder but, if required by the Issuer or Trustee, with payment of a sum sufficient to cover any documentary, stamp or similar issue or transfer tax or similar governmental charge required by law or that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such conversion being different from the name of the Holder of the old Notes surrendered for such conversion.

(e) If a Holder submits a Note for conversion, the Issuer shall pay any documentary, stamp or similar issue or transfer tax due on the issue of any shares of Common Stock upon conversion, unless the tax is due because the Holder requests such shares to be issued in a name other than the Holder’s name, in which case the Holder shall pay that tax. The Conversion Agent may refuse to deliver the certificates representing the shares of Common Stock being issued in a name other than the Holder’s name until the Trustee receives a sum sufficient to pay any tax that is due by such Holder in accordance with the immediately preceding sentence.

(f) Except as provided in Section 9.04, no adjustment shall be made for dividends on any shares of Common Stock issued upon the conversion of any Note as provided in this Article 9.

(g) Upon the conversion of an interest in a Global Note, the Trustee, or the Custodian at the direction of the Trustee, shall make a notation on such Global Note as to the reduction in the principal amount represented thereby. The Issuer shall notify the Trustee in writing of any conversion of Notes effected through any Conversion Agent other than the Trustee.

(h) Upon conversion, a Holder shall not receive any separate cash payment for accrued and unpaid interest, if any, except as set forth below. The Issuer's settlement of the full Conversion Obligation shall be deemed to satisfy in full its obligation to pay the principal amount of the Note and accrued and unpaid interest, if any, to, but not including, the relevant Conversion Date. As a result, accrued and unpaid interest, if any, to, but not including, the relevant Conversion Date shall be deemed to be paid in full rather than cancelled, extinguished or forfeited. Upon a conversion of Notes into a combination of cash and shares of Common Stock, accrued and unpaid interest will be deemed to be paid first out of the cash paid upon such conversion. Notwithstanding the foregoing, if Notes are converted after the close of business on a Regular Record Date, Holders of such Notes as of the close of business on such Regular Record Date will receive the full amount of interest payable on such Notes on the corresponding Interest Payment Date notwithstanding the conversion. Notes surrendered for conversion during the period from the close of business on any Regular Record Date to the open of business on the immediately following Interest Payment Date must be accompanied by funds equal to the amount of interest payable on the Notes so converted; *provided* that no such payment shall be required (1) for conversions following the Regular Record Date immediately preceding the Maturity Date; (2) if the Issuer has specified a Fundamental Change Repurchase Date that is after a Regular Record Date and on or prior to the Business Day immediately following the corresponding Interest Payment Date; or (3) to the extent of any Defaulted Amounts, if any Defaulted Amounts exists at the time of conversion with respect to such Note. Therefore, for the avoidance of doubt, all Holders of record on the Regular Record Date immediately preceding the Maturity Date shall receive the full interest payment due on the Maturity Date in cash regardless of whether their Notes have been converted following such Regular Record Date.

(i) The Person in whose name the shares of Common Stock shall be issuable upon conversion shall be treated as a stockholder of record as of the close of business on the relevant Conversion Date (if the Issuer elects to satisfy the related Conversion Obligation by Physical Settlement) or the last Trading Day of the relevant Observation Period (if the Issuer elects to satisfy the related Conversion Obligation by Combination Settlement), as the case may be. Upon a conversion of Notes, such Person shall no longer be a Holder of such Notes surrendered for conversion.

(j) The Issuer shall not issue any fractional share of Common Stock upon conversion of the Notes and shall instead pay cash in lieu of delivering any fractional share of Common Stock issuable upon conversion based on the Daily VWAP for the relevant Conversion Date (in the case of Physical Settlement) or based on the Daily VWAP for the last Trading Day of the relevant Observation Period (in the case of Combination Settlement). For each Note surrendered for conversion, if the Issuer has elected Combination Settlement, the full number of shares that shall be issued upon conversion thereof shall be computed on the basis of the aggregate Daily Settlement Amounts for the relevant Observation Period and any fractional shares remaining after such computation shall be paid in cash.

Section 9.03. *Increased Conversion Rate Applicable to Certain Notes Surrendered in Connection with Make-Whole Fundamental Changes.* (a) If the Effective Date of a Make-Whole Fundamental Change occurs prior to the Maturity Date and a Holder elects to convert its Notes in connection with such Make-Whole Fundamental Change, the Issuer shall, under the circumstances described below, increase the Conversion Rate for the Notes so surrendered for conversion by a number of additional shares of Common Stock (the “**Additional Shares**”), as described below. A conversion of Notes shall be deemed for these purposes to be “in connection with” such Make-Whole Fundamental Change if the relevant Notice of Conversion is received by the Conversion Agent from, and including, the Effective Date of the Make-Whole Fundamental Change up to, and including, the Business Day immediately prior to the related Fundamental Change Repurchase Date (or, in the case of a Make-Whole Fundamental Change that would have been a Fundamental Change but for the proviso in clause (b) of the definition thereof, the 35th Trading Day immediately following the Effective Date of such Make-Whole Fundamental Change) (such period, the “**Make-Whole Fundamental Change Period**”).

(b) Upon surrender of Notes for conversion in connection with a Make-Whole Fundamental Change pursuant to Section 9.01(b)(iii), the Issuer shall, at its option, satisfy the related Conversion Obligation by Physical Settlement, Cash Settlement or Combination Settlement in accordance with Section 9.02; *provided, however*, that if, at the effective time of a Make-Whole Fundamental Change described in clause (b) of the definition of Fundamental Change, the Reference Property following such Make-Whole Fundamental Change is composed entirely of cash, for any conversion of Notes following the Effective Date of such Make-Whole Fundamental Change, the Conversion Obligation shall be calculated based solely on the Stock Price for the transaction and shall be deemed to be an amount of cash per \$1,000 principal amount of converted Notes equal to the Conversion Rate (including any adjustment for Additional Shares), *multiplied by* such Stock Price. In such event, the Conversion Obligation shall be paid to Holders in cash on the second Business Day following the Conversion Date. The Issuer shall notify the Holders of Notes of the Effective Date of any Make-Whole Fundamental Change and issue a press release announcing such Effective Date no later than five Business Days after such Effective Date.

(c) The number of Additional Shares, if any, by which the Conversion Rate shall be increased shall be determined by reference to the table below, based on the date on which the Make-Whole Fundamental Change occurs or becomes effective (the “**Effective Date**”) and the price (the “**Stock Price**”) paid (or deemed to be paid) per share of the Common Stock in the Make-Whole Fundamental Change. If the holders of the Common Stock receive in exchange for their Common Stock only cash in a Make-Whole Fundamental Change described in clause (b) of the definition of Fundamental Change, the Stock Price shall be the cash amount paid per share. Otherwise, the Stock Price shall be the average of the Last Reported Sale Prices of the Common Stock over the five Trading Day period ending on, and including, the Trading Day immediately preceding the Effective Date of the Make-Whole Fundamental Change. The Board of Directors shall make appropriate adjustments to the Stock Price, in its good faith determination, to account for any adjustment to the Conversion Rate that becomes effective, or any event requiring an adjustment to the Conversion Rate where the Ex-Dividend Date, Effective Date (as such term is used in Section 9.04) or expiration date of the event occurs during such five consecutive Trading Day period.

(d) The Stock Prices set forth in the column headings of the table below shall be adjusted as of any date on which the Conversion Rate of the Notes is otherwise adjusted. The adjusted Stock Prices shall equal the Stock Prices applicable immediately prior to such adjustment, *multiplied by* a fraction, the numerator of which is the Conversion Rate immediately prior to such adjustment giving rise to the Stock Price adjustment and the denominator of which is the Conversion Rate as so adjusted. The number of Additional Shares set forth in the table below shall be adjusted in the same manner and at the same time as the Conversion Rate as set forth in Section 9.04.

(e) The following table sets forth the number of Additional Shares of Common Stock by which the Conversion Rate shall be increased per \$1,000 principal amount of Notes pursuant to this Section 9.03 for each Stock Price and Effective Date set forth below:

Effective Date	Stock Price											
	\$ 13.37	\$ 15.00	\$ 17.05	\$ 20.00	\$ 25.00	\$ 30.00	\$ 35.00	\$ 40.00	\$ 45.00	\$ 50.00	\$ 60.00	\$ 70.00
July 3, 2018	16.1321	13.0033	10.1685	7.4065	4.6576	3.1057	2.1406	1.4973	1.0451	0.7146	0.2748	0.0259
July 1, 2019	16.1321	12.8193	9.8341	6.9930	4.2616	2.7823	1.8920	1.3123	0.9113	0.6212	0.2383	0.0223
July 1, 2020	16.1321	12.5353	9.3372	6.3895	3.7036	2.3410	1.5629	1.0740	0.7438	0.5074	0.1963	0.0187
July 1, 2021	16.1321	11.9327	8.4368	5.3820	2.8460	1.7047	1.1109	0.7595	0.5282	0.3638	0.1443	0.0144
July 1, 2022	16.1321	10.6740	6.6916	3.5965	1.5444	0.8507	0.5511	0.3870	0.2793	0.2008	0.0893	0.0119
July 1, 2023	16.1321	8.0045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact Stock Price and Effective Date may not be set forth in the table above, in which case:

(i) if the Stock Price is between two Stock Prices in the table above or the Effective Date is between two Effective Dates in the table, the number of Additional Shares shall be determined by a straight-line interpolation between the number of Additional Shares set forth for the higher and lower Stock Prices and the earlier and later Effective Dates, as applicable, based on a 365-day year;

(ii) if the Stock Price is greater than \$70.00 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above pursuant to subsection (d) above), no Additional Shares shall be added to the Conversion Rate; and

(iii) if the Stock Price is less than \$13.37 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above pursuant to subsection (d) above), no Additional Shares shall be added to the Conversion Rate.

Notwithstanding the foregoing, in no event shall the Conversion Rate per \$1,000 principal amount of Notes exceed 74.7943 shares of Common Stock, subject to adjustment in the same manner as the Conversion Rate pursuant to Section 9.04.

(f) Nothing in this Section 9.03 shall prevent an adjustment to the Conversion Rate pursuant to Section 9.04 in respect of a Make-Whole Fundamental Change.

Section 9.04. *Adjustment of Conversion Rate.* The Conversion Rate shall be adjusted from time to time by the Issuer if any of the following events occurs, except that the Issuer shall not make any adjustments to the Conversion Rate if Holders of the Notes participate (other than in the case of (x) a share split or share combination or (y) a tender or exchange offer), at the same time and upon the same terms as holders of the Common Stock and solely as a result of holding the Notes, in any of the transactions described in this Section 9.04, without having to convert their Notes, as if they held a number of shares of Common Stock equal to the Conversion Rate, *multiplied* by the principal amount (expressed in thousands) of Notes held by such Holder.

(a) If the Issuer exclusively issues shares of Common Stock as a dividend or distribution on shares of the Common Stock, or if the Issuer effects a share split or share combination, the Conversion Rate shall be adjusted based on the following formula:

$$CR' = CR_0 \times \frac{OS'}{OS_0}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date of such dividend or distribution, or immediately prior to the open of business on the Effective Date of such share split or share combination, as applicable;

CR' = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date or Effective Date;

OS₀ = the number of shares of Common Stock outstanding immediately prior to the open of business on such Ex-Dividend Date or Effective Date (before giving effect to any such dividend, distribution, split or combination); and

OS' = the number of shares of Common Stock outstanding immediately after giving effect to such dividend, distribution, share split or share combination.

Any adjustment made under this Section 9.04(a) shall become effective immediately after the open of business on the Ex-Dividend Date for such dividend or distribution, or immediately after the open of business on the Effective Date for such share split or share combination, as applicable. If any dividend or distribution of the type described in this Section 9.04(a) is declared but not so paid or made, the Conversion Rate shall be immediately readjusted, effective as of the date the Board of Directors determines not to pay such dividend or distribution, to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

(b) If the Issuer issues to all or substantially all holders of the Common Stock any rights, options or warrants entitling them, for a period of not more than 45 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of the Common Stock at a price per share that is less than the average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading Day period ending on, and including, the Trading Day

immediately preceding the date of announcement of such issuance, the Conversion Rate shall be increased based on the following formula:

$$CR' = CR_0 \times \frac{OS_0 + X}{OS_0 + Y}$$

where,

- CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such issuance;
- CR' = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date;
- OS₀ = the number of shares of Common Stock outstanding immediately prior to the open of business on such Ex-Dividend Date;
- X = the total number of shares of Common Stock issuable pursuant to such rights, options or warrants; and
- Y = the number of shares of Common Stock equal to the aggregate price payable to exercise such rights, options or warrants, divided by the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of the issuance of such rights, options or warrants.

Any increase made under this Section 9.04(b) shall be made successively whenever any such rights, options or warrants are issued and shall become effective immediately after the open of business on the Ex-Dividend Date for such issuance. To the extent that shares of the Common Stock are not delivered after the expiration of such rights, options or warrants, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of shares of Common Stock actually delivered. If such rights, options or warrants are not so issued, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such Ex-Dividend Date for such issuance had not occurred.

For purposes of this Section 9.04(b) and for the purpose of Section 9.01(b)(ii)(A), in determining whether any rights, options or warrants entitle the holders to subscribe for or purchase shares of the Common Stock at less than such average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement for such issuance, and in determining the aggregate offering price of such shares of Common Stock, there shall be taken into account any consideration received by the Issuer for such rights, options or warrants and any amount payable on exercise or conversion thereof, the value of such consideration, if other than cash, to be determined by the Board of Directors.

(c) If the Issuer distributes shares of its Capital Stock, evidences of its indebtedness, other assets or property of the Issuer or rights, options or warrants to acquire its Capital Stock or other securities, to all or substantially all holders of the Common Stock, excluding (i) dividends, distributions or issuances as to which an adjustment was effected pursuant to Section 9.04(a) or Section 9.04(b), (ii) dividends or distributions paid exclusively in cash as to which the provisions set forth in Section 9.04(d) shall apply, and (iii) Spin-Offs as to which the provisions set forth below in this Section 9.04(c) shall apply (any of such shares of Capital Stock, evidences of indebtedness, other assets or property or rights, options or warrants to acquire Capital Stock or other securities, the “**Distributed Property**”), then the Conversion Rate shall be increased based on the following formula:

$$CR' = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such distribution;

CR' = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date;

SP₀ = the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution; and

FMV = the fair market value (as determined by the Board of Directors) of the Distributed Property with respect to each outstanding share of the Common Stock on the Ex-Dividend Date for such distribution.

Any increase made under the portion of this Section 9.04(c) above shall become effective immediately after the open of business on the Ex-Dividend Date for such distribution. If such distribution is not so paid or made, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such distribution had not been declared. Notwithstanding the foregoing, if “FMV” (as defined above) is equal to or greater than “SP₀” (as defined above), in lieu of the foregoing increase, each Holder of a Note shall receive, in respect of each \$1,000 principal amount thereof, at the same time and upon the same terms as holders of the Common Stock receive the Distributed Property, the amount and kind of Distributed Property such Holder would have received if such Holder owned a number of shares of Common Stock equal to the Conversion Rate in effect on the Ex-Dividend Date for the distribution. If the Board of Directors determines the “FMV” (as defined above) of any distribution for purposes of this Section 9.04(c) by reference to the actual or when-issued trading market for any securities, it shall in doing so consider the prices in such market over the same period used in computing the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution.

With respect to an adjustment pursuant to this Section 9.04(c) where there has been a payment of a dividend or other distribution on the Common Stock of shares of Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit of the Issuer, that are, or, when issued, will be, listed or admitted for trading on a U.S. national securities exchange (a “**Spin-Off**”), the Conversion Rate shall be increased based on the following formula:

$$CR' = CR_0 \times \frac{FMV_0 + MP_0}{MP_0}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the end of the Valuation Period;

CR' = the Conversion Rate in effect immediately after the end of the Valuation Period;

FMV₀ = the average of the Last Reported Sale Prices of the Capital Stock or similar equity interest distributed to holders of the Common Stock applicable to one share of the Common Stock (determined by reference to the definition of Last Reported Sale Price as set forth in Section 1.02 as if references therein to Common Stock were to such Capital Stock or similar equity interest) over the first 10 consecutive Trading Day period after, and including, the Ex-Dividend Date of the Spin-Off (the “**Valuation Period**”); and

MP₀ = the average of the Last Reported Sale Prices of the Common Stock over the Valuation Period.

The increase to the Conversion Rate under the preceding paragraph shall occur at the close of business on the last Trading Day of the Valuation Period; *provided* that (x) in respect of any conversion of Notes for which Physical Settlement is applicable, if the relevant Conversion Date occurs during the Valuation Period, references to “10” in the preceding paragraph shall be deemed to be replaced with such lesser number of Trading Days as have elapsed between the Ex-Dividend Date of such Spin-Off and the Conversion Date in determining the Conversion Rate and (y) in respect of any conversion of Notes for which Cash Settlement or Combination Settlement is applicable, for any Trading Day that falls within the relevant Observation Period for such conversion and within the Valuation Period, references to “10” in the preceding paragraph shall be deemed to be replaced with such lesser number of Trading Days as have elapsed between the Ex-Dividend Date of such Spin-Off and such Trading Day in determining the Conversion Rate as of such Trading Day.

For purposes of this Section 9.04(c) (and subject in all respect to Section 9.11), rights, options or warrants distributed by the Issuer to all holders of the Common Stock entitling them to subscribe for or purchase shares of the Issuer’s Capital Stock, including Common Stock (either initially or under certain circumstances), which rights, options or warrants, until the occurrence of a specified event or events (“**Trigger Event**”): (i) are deemed to be transferred with such shares of the Common Stock; (ii) are not exercisable; and (iii) are also issued in respect of future issuances of the Common Stock, shall be deemed not to have been distributed for purposes of

this Section 9.04(c) (and no adjustment to the Conversion Rate under this Section 9.04(c) will be required) until the occurrence of the earliest Trigger Event, whereupon such rights, options or warrants shall be deemed to have been distributed and an appropriate adjustment (if any is required) to the Conversion Rate shall be made under this Section 9.04(c). If any such right, option or warrant, including any such existing rights, options or warrants distributed prior to the date of this First Supplemental Indenture, are subject to events, upon the occurrence of which such rights, options or warrants become exercisable to purchase different securities, evidences of indebtedness or other assets, then the date of the occurrence of any and each such event shall be deemed to be the date of distribution and Ex-Dividend Date with respect to new rights, options or warrants with such rights (in which case the existing rights, options or warrants shall be deemed to terminate and expire on such date without exercise by any of the holders thereof). In addition, in the event of any distribution (or deemed distribution) of rights, options or warrants, or any Trigger Event or other event (of the type described in the immediately preceding sentence) with respect thereto that was counted for purposes of calculating a distribution amount for which an adjustment to the Conversion Rate under this Section 9.04(c) was made, (1) in the case of any such rights, options or warrants that shall all have been redeemed or purchased without exercise by any holders thereof, upon such final redemption or purchase (x) the Conversion Rate shall be readjusted as if such rights, options or warrants had not been issued and (y) the Conversion Rate shall then again be readjusted to give effect to such distribution, deemed distribution or Trigger Event, as the case may be, as though it were a cash distribution, equal to the per share redemption or purchase price received by a holder or holders of Common Stock with respect to such rights, options or warrants (assuming such holder had retained such rights, options or warrants), made to all holders of Common Stock as of the date of such redemption or purchase, and (2) in the case of such rights, options or warrants that shall have expired or been terminated without exercise by any holders thereof, the Conversion Rate shall be readjusted as if such rights, options and warrants had not been issued.

For purposes of Section 9.04(a), Section 9.04(b) and this Section 9.04(c), if any dividend or distribution to which this Section 9.04(c) is applicable also includes one or both of:

(A) a dividend or distribution of shares of Common Stock to which Section 9.04(a) is applicable (the “**Clause A Distribution**”); or

(B) a dividend or distribution of rights, options or warrants to which Section 9.04(b) is applicable (the “**Clause B Distribution**”),

then, in either case, (1) such dividend or distribution, other than the Clause A Distribution and the Clause B Distribution, shall be deemed to be a dividend or distribution to which this Section 9.04(c) is applicable (the “**Clause C Distribution**”) and any Conversion Rate adjustment required by this Section 9.04(c) with respect to such Clause C Distribution shall then be made, and (2) the Clause A Distribution and Clause B Distribution shall be deemed to immediately follow the Clause C Distribution and any Conversion Rate adjustment required by Section 9.04(a) and Section 9.04(b) with respect thereto shall then be made, except that, if determined by the Issuer (I) the “Ex-Dividend Date” of the Clause A Distribution and the Clause B Distribution shall be deemed to be the Ex-Dividend Date of the Clause C Distribution and (II) any shares of Common Stock included in the Clause A Distribution or Clause B Distribution shall be deemed not to be “outstanding immediately prior to the open of business on such Ex-Dividend Date or

Effective Date” within the meaning of Section 9.04(a) or “outstanding immediately prior to the open of business on such Ex-Dividend Date” within the meaning of Section 9.04(b).

(d) If any cash dividend or distribution is made to all or substantially all holders of the Common Stock, the Conversion Rate shall be adjusted based on the following formula:

$$CR' = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

- CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such dividend or distribution;
- CR' = the Conversion Rate in effect immediately after the open of business on the Ex-Dividend Date for such dividend or distribution;
- SP₀ = the Last Reported Sale Price of the Common Stock on the Trading Day immediately preceding the Ex-Dividend Date for such dividend or distribution; and
- C = the amount in cash per share the Issuer distributes to all or substantially all holders of the Common Stock.

Any increase pursuant to this Section 9.04(d) shall become effective immediately after the open of business on the Ex-Dividend Date for such dividend or distribution. If such dividend or distribution is not so paid, the Conversion Rate shall be decreased, effective as of the date the Board of Directors determines not to make or pay such dividend or distribution, to be the Conversion Rate that would then be in effect if such dividend or distribution had not been declared. Notwithstanding the foregoing, if “C” (as defined above) is equal to or greater than “SP₀” (as defined above), in lieu of the foregoing increase, each Holder of a Note shall receive, for each \$1,000 principal amount of Notes, at the same time and upon the same terms as holders of shares of the Common Stock, the amount of cash that such Holder would have received if such Holder owned a number of shares of Common Stock equal to the Conversion Rate on the Ex-Dividend Date for such cash dividend or distribution.

(e) If the Issuer or any of its Subsidiaries make a payment in respect of a tender or exchange offer for the Common Stock, to the extent that the cash and value of any other consideration included in the payment per share of the Common Stock exceeds the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer, the Conversion Rate shall be increased based on the following formula:

$$CR' = CR_0 \times \frac{AC + (SP' \times OS')}{OS_0 \times SP'}$$

where,

- CR₀ = the Conversion Rate in effect immediately prior to the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires;
- CR' = the Conversion Rate in effect immediately after the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires;
- AC = the aggregate value of all cash and any other consideration (as determined by the Board of Directors) paid or payable for shares of Common Stock purchased in such tender or exchange offer;
- OS₀ = the number of shares of Common Stock outstanding immediately prior to the date such tender or exchange offer expires (prior to giving effect to the purchase of all shares of Common Stock accepted for purchase or exchange in such tender or exchange offer);
- OS' = the number of shares of Common Stock outstanding immediately after the date such tender or exchange offer expires (after giving effect to the purchase of all shares of Common Stock accepted for purchase or exchange in such tender or exchange offer); and
- SP' = the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the date such tender or exchange offer expires.

The increase to the Conversion Rate under this Section 9.04(e) shall occur at the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires; *provided* that (x) in respect of any conversion of Notes for which Physical Settlement is applicable, if the relevant Conversion Date occurs during the 10 Trading Days immediately following, and including, the Trading Day next succeeding the expiration date of any tender or exchange offer, references to "10" or "10th" in the preceding paragraph shall be deemed replaced with such lesser number of Trading Days as have elapsed between the date that such tender or exchange offer expires and the Conversion Date in determining the Conversion Rate and (y) in respect of any conversion of Notes for which Cash Settlement or Combination Settlement is applicable, for any Trading Day that falls within the relevant Observation Period for such conversion and within the 10 Trading Days immediately following, and including, the Trading Day next succeeding the expiration date of any tender or exchange offer, references to "10" or "10th" in the preceding paragraph shall be deemed replaced with such lesser number of Trading Days as have elapsed between the expiration date of such tender or exchange offer and such Trading Day in determining the Conversion Rate as of such Trading Day.

(f) Notwithstanding this Section 9.04 or any other provision of the Indenture or the Notes, if a Conversion Rate adjustment becomes effective on any Ex-Dividend Date, and a Holder that has converted its Notes on or after such Ex-Dividend Date and on or prior to the related Record Date would be treated as the record holder of the shares of Common Stock as of

the related Conversion Date as described under Section 9.02(i) based on an adjusted Conversion Rate for such Ex-Dividend Date, then, notwithstanding the Conversion Rate adjustment provisions in this Section 9.04, the Conversion Rate adjustment relating to such Ex-Dividend Date shall not be made for such converting Holder. Instead, such Holder shall be treated as if such Holder were the record owner of the shares of Common Stock on an unadjusted basis and participate in the related dividend, distribution or other event giving rise to such adjustment.

(g) Except as stated herein, the Issuer shall not adjust the Conversion Rate for the issuance of shares of the Common Stock or any securities convertible into or exchangeable for shares of the Common Stock or the right to purchase shares of the Common Stock or such convertible or exchangeable securities.

(h) In addition to those adjustments required by clauses (a), (b), (c), (d) and (e) of this Section 9.04, and to the extent permitted by applicable law and subject to the applicable rules of any exchange on which any of the Issuer's securities are then listed, the Issuer from time to time may increase the Conversion Rate by any amount for a period of at least 20 Business Days if the Board of Directors determines that such increase would be in the Issuer's best interest. In addition, to the extent permitted by applicable law and subject to the applicable rules of any exchange on which any of the Issuer's securities are then listed, the Issuer may (but is not required to) increase the Conversion Rate to avoid or diminish any income tax to holders of Common Stock or rights to purchase Common Stock in connection with a dividend or distribution of shares of Common Stock (or rights to acquire shares of Common Stock) or similar event. Whenever the Conversion Rate is increased pursuant to either of the preceding two sentences, the Issuer shall deliver to the Holder of each Note a notice of the increase at least 15 days prior to the date the increased Conversion Rate takes effect, and such notice shall state the increased Conversion Rate and the period during which it will be in effect.

(i) Notwithstanding anything to the contrary in this Article 9, the Conversion Rate shall not be adjusted:

(i) upon the issuance of any shares of Common Stock pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on the Issuer's securities and the investment of additional optional amounts in shares of Common Stock under any plan;

(ii) upon the issuance of any shares of Common Stock or options or rights to purchase those shares pursuant to any present or future employee, director or consultant benefit plan or program of or assumed by the Issuer or any of the Issuer's Subsidiaries;

(iii) upon the issuance of any shares of the Common Stock pursuant to any option, warrant, right or exercisable, exchangeable or convertible security not described in clause (ii) of this subsection and outstanding as of the date the Notes were first issued;

(iv) solely for a change in the par value of the Common Stock; or

(v) for accrued and unpaid interest, if any.

(j) All calculations and other determinations under this Article 9 shall be made by the Issuer and shall be made to the nearest one-ten thousandth (1/10,000th) of a share.

(k) Whenever the Conversion Rate is adjusted as herein provided, the Issuer shall promptly file with the Trustee (and the Conversion Agent if not the Trustee) an Officer's Certificate setting forth the Conversion Rate after such adjustment and setting forth a brief statement of the facts requiring such adjustment. Unless and until a Responsible Officer of the Trustee shall have received such Officer's Certificate, the Trustee shall not be deemed to have knowledge of any adjustment of the Conversion Rate and may assume without inquiry that the last Conversion Rate of which it has knowledge is still in effect. Promptly after delivery of such certificate, the Issuer shall prepare a notice of such adjustment of the Conversion Rate setting forth the adjusted Conversion Rate and the date on which each adjustment becomes effective and shall deliver such notice of such adjustment of the Conversion Rate to each Holder. Failure to deliver such notice shall not affect the legality or validity of any such adjustment.

(l) For purposes of this Section 9.04, the number of shares of Common Stock at any time outstanding shall not include shares of Common Stock held in the treasury of the Issuer so long as the Issuer does not pay any dividend or make any distribution on shares of Common Stock held in the treasury of the Issuer, but shall include shares of Common Stock issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock.

Section 9.05. *Adjustments of Prices.* Whenever any provision of this First Supplemental Indenture requires the Issuer to calculate the Last Reported Sale Prices, the Daily VWAPs, the Daily Conversion Values or the Daily Settlement Amounts over a span of multiple days (including, without limitation, an Observation Period and the period for determining the Stock Price for purposes of a Make-Whole Fundamental Change), the Board of Directors shall make appropriate adjustments to each to account for any adjustment to the Conversion Rate that becomes effective, or any event requiring an adjustment to the Conversion Rate where the Ex-Dividend Date, Effective Date or expiration date, as the case may be, of the event occurs, at any time during the period when the Last Reported Sale Prices, the Daily VWAPs, the Daily Conversion Values or the Daily Settlement Amounts are to be calculated.

Section 9.06. *Shares to Be Fully Paid.* The Issuer shall provide, free from preemptive rights, out of its authorized but unissued shares or shares held in treasury, sufficient shares of Common Stock to provide for conversion of the Notes from time to time as such Notes are presented for conversion (assuming delivery of the maximum number of Additional Shares pursuant to Section 9.03 and that at the time of computation of such number of shares, all such Notes would be converted by a single Holder and that Physical Settlement were applicable).

Section 9.07. *Effect of Recapitalizations, Reclassifications and Changes of the Common Stock.*

(a) In the case of:

(i) any recapitalization, reclassification or change of the Common Stock (other than changes resulting from a subdivision or combination),

- (ii) any consolidation, merger, combination or similar transaction involving the Issuer,
- (iii) any sale, lease or other transfer to a third party of the consolidated assets of the Issuer and the Issuer's Subsidiaries substantially as an entirety or
- (iv) any statutory share exchange,

in each case, as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets (including cash or any combination thereof) (any such event, a "**Merger Event**"), then, at and after the effective time of such Merger Event, the right to convert each \$1,000 principal amount of Notes shall be changed into a right to convert such principal amount of Notes into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Common Stock equal to the Conversion Rate immediately prior to such Merger Event would have owned or been entitled to receive (the "**Reference Property**," with each "**unit of Reference Property**" meaning the kind and amount of Reference Property that a holder of one share of Common Stock is entitled to receive) upon such Merger Event and, prior to or at the effective time of such Merger Event, the Issuer or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture permitted under Section 7.02(g) providing for such change in the right to convert each \$1,000 principal amount of Notes; *provided, however*, that at and after the effective time of the Merger Event (A) the Issuer shall continue to have the right to determine the form of consideration to be paid or delivered, as the case may be, upon conversion of Notes in accordance with Section 9.02 and (B) (I) any amount payable in cash upon conversion of the Notes in accordance with Section 9.02 shall continue to be payable in cash, (II) any shares of Common Stock that the Issuer would have been required to deliver upon conversion of the Notes in accordance with Section 9.02 shall instead be deliverable in the amount and type of Reference Property that a holder of that number of shares of Common Stock would have been entitled to receive in such Merger Event and (III) the Daily VWAP shall be calculated based on the value of a unit of Reference Property.

If the Merger Event causes the Common Stock to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election), then (i) the Reference Property into which the Notes will be convertible shall be deemed to be the weighted average of the types and amounts of consideration actually received by the holders of Common Stock, and (ii) the unit of Reference Property for purposes of the immediately preceding paragraph shall refer to the consideration referred to in clause (i) attributable to one share of Common Stock. If the holders of the Common Stock receive only cash in such Merger Event, then for all conversions for which the relevant Conversion Date occurs after the effective date of such Merger Event (A) the consideration due upon conversion of each \$1,000 principal amount of Notes shall be solely cash in an amount equal to the Conversion Rate in effect on the Conversion Date (as may be increased by any Additional Shares pursuant to Section 9.03), *multiplied by* the price paid per share of Common Stock in such Merger Event and (B) the Issuer shall satisfy the Conversion Obligation by paying cash to converting Holders on the second Business Day immediately following the relevant Conversion Date. The Issuer shall notify Holders, the Trustee and the Conversion Agent (if other than the Trustee) of such weighted average as soon as practicable after such determination is made.

Such supplemental indenture described in the second immediately preceding paragraph shall provide for anti-dilution and other adjustments that shall be as nearly equivalent as is possible to the adjustments provided for in this Article 9. If, in the case of any Merger Event, the Reference Property includes shares of stock, securities or other property or assets (including cash or any combination thereof) of a Person other than the successor or purchasing corporation, as the case may be, in such Merger Event, then such supplemental indenture shall also be executed by such other Person and shall contain such additional provisions to protect the interests of the Holders of the Notes as the Board of Directors shall reasonably consider necessary by reason of the foregoing, including the provisions providing for the purchase rights set forth in Article 10.

(b) When the Issuer executes a supplemental indenture pursuant to subsection (a) of this Section 9.07, the Issuer shall promptly file with the Trustee an Officer's Certificate briefly stating the reasons therefor, the kind or amount of cash, securities or property or asset that will comprise a unit of Reference Property after any such Merger Event, any adjustment to be made with respect thereto and that all conditions precedent have been complied with, and shall promptly deliver notice thereof to all Holders. The Issuer shall cause notice of the execution of such supplemental indenture to be delivered to each Holder within 20 days after execution thereof. Failure to deliver such notice shall not affect the legality or validity of such supplemental indenture.

(c) The Issuer shall not become a party to any Merger Event unless its terms are consistent with this Section 9.07. None of the foregoing provisions shall affect the right of a holder of Notes to convert its Notes into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, as set forth in Section 9.01 and Section 9.02 prior to the effective date of such Merger Event.

(d) The above provisions of this Section shall similarly apply to successive Merger Events.

Section 9.08. *Certain Covenants.* (a) The Issuer covenants that all shares of Common Stock issued upon conversion of Notes will be fully paid and non-assessable by the Issuer and free from all taxes, liens and charges with respect to the issue thereof.

(b) The Issuer covenants that, if any shares of Common Stock to be provided for the purpose of conversion of Notes hereunder require registration with or approval of any governmental authority under any federal or state law before such shares of Common Stock may be validly issued upon conversion, the Issuer will, to the extent then permitted by the rules and interpretations of the Commission, secure such registration or approval, as the case may be.

(c) The Issuer further covenants that if at any time the Common Stock shall be listed on any national securities exchange or automated quotation system the Issuer will list and keep listed, so long as the Common Stock shall be so listed on such exchange or automated quotation system, any Common Stock issuable upon conversion of the Notes.

Section 9.09. *Responsibility of Trustee.* The Trustee and any other Conversion Agent shall not at any time be under any duty or responsibility to any Holder to determine the Conversion Rate (or any adjustment thereto) or whether any facts exist that may require any

adjustment (including any increase) of the Conversion Rate, or with respect to the nature or extent or calculation of any such adjustment when made, or with respect to the method employed, or herein or in any supplemental indenture provided to be employed, in making the same. The Trustee and any other Conversion Agent shall not be accountable with respect to the validity or value (or the kind or amount) of any shares of Common Stock, or of any securities, property or cash that may at any time be issued or delivered upon the conversion of any Note; and the Trustee and any other Conversion Agent make no representations with respect thereto. Neither the Trustee nor any Conversion Agent shall be responsible for any failure of the Issuer to issue, transfer or deliver any shares of Common Stock or stock certificates or other securities or property or cash upon the surrender of any Note for the purpose of conversion or to comply with any of the duties, responsibilities or covenants of the Issuer contained in this Article. Without limiting the generality of the foregoing, neither the Trustee nor any Conversion Agent shall be under any responsibility to determine the correctness of any provisions contained in any supplemental indenture entered into pursuant to Section 9.07 relating either to the kind or amount of shares of stock or securities or property (including cash) receivable by Holders upon the conversion of their Notes after any event referred to in such Section 9.07 or to any adjustment to be made with respect thereto, but, subject to the provisions of Section 6.01 of the Base Indenture, may accept (without any independent investigation) as conclusive evidence of the correctness of any such provisions, and shall be protected in relying upon, the Officer's Certificate (which the Issuer shall be obligated to file with the Trustee prior to the execution of any such supplemental indenture) with respect thereto. Neither the Trustee nor the Conversion Agent shall be responsible for determining whether any event contemplated by Section 9.01(b) has occurred that makes the Notes eligible for conversion or no longer eligible therefor until the Issuer has delivered to the Trustee and the Conversion Agent the notices referred to in Section 9.01(b) with respect to the commencement or termination of such conversion rights, on which notices the Trustee and the Conversion Agent may conclusively rely, and the Issuer agrees to deliver such notices to the Trustee and the Conversion Agent immediately after the occurrence of any such event or at such other times as shall be provided for in Section 9.01(b).

Section 9.10. *Notice to Holders Prior to Certain Actions.* In case of any:

- (a) action by the Issuer or one of its Subsidiaries that would require an adjustment in the Conversion Rate pursuant to Section 9.04 or Section 9.11;
- (b) Merger Event; or
- (c) voluntary or involuntary dissolution, liquidation or winding-up of the Issuer or any of its Subsidiaries;

then, in each case (unless notice of such event is otherwise required pursuant to another provision of the Indenture), the Issuer shall cause to be filed with the Trustee and the Conversion Agent (if other than the Trustee) and to be delivered to each Holder, as promptly as possible but in any event at least 20 days prior to the applicable date hereinafter specified, a notice stating (i) the date on which a record is to be taken for the purpose of such action by the Issuer or one of its Subsidiaries or, if a record is not to be taken, the date as of which the holders of Common Stock of record are to be determined for the purposes of such action by the Issuer or one of its Subsidiaries, or (ii) the date on which such Merger Event, dissolution, liquidation or winding-up

is expected to become effective or occur, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their Common Stock for securities or other property deliverable upon such Merger Event, dissolution, liquidation or winding-up. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such action by the Issuer or one of its Subsidiaries, Merger Event, dissolution, liquidation or winding-up.

Section 9.11. *Stockholder Rights Plans*. If the Issuer has a stockholder rights plan in effect upon conversion of the Notes, each share of Common Stock, if any, issued upon such conversion shall be entitled to receive the appropriate number of rights, if any, and the certificates representing the Common Stock issued upon such conversion shall bear such legends, if any, in each case as may be provided by the terms of any such stockholder rights plan, as the same may be amended from time to time. However, if, prior to any conversion of Notes, the rights have separated from the shares of Common Stock in accordance with the provisions of the applicable stockholder rights plan, the Conversion Rate shall be adjusted at the time of separation as if the Issuer distributed to all or substantially all holders of the Common Stock Distributed Property as provided in Section 9.04(c), subject to readjustment in the event of the expiration, termination or redemption of such rights.

ARTICLE 10
REPURCHASE OF NOTES AT OPTION OF HOLDERS

Section 10.01. *[Intentionally Omitted]*

Section 10.02. *Repurchase at Option of Holders Upon a Fundamental Change*. (a) If a Fundamental Change occurs at any time, each Holder shall have the right, at such Holder's option, to require the Issuer to repurchase for cash all of such Holder's Notes, or any portion thereof that is equal to \$1,000 or an integral multiple of \$1,000, on the date (the "**Fundamental Change Repurchase Date**") specified by the Issuer that is not less than 20 calendar days or more than 35 calendar days following the date of the Fundamental Change Issuer Notice at a repurchase price equal to 100% of the principal amount thereof, plus accrued and unpaid interest thereon to, but excluding, the Fundamental Change Repurchase Date (the "**Fundamental Change Repurchase Price**"), unless the Fundamental Change Repurchase Date falls after a Regular Record Date but on or prior to the Interest Payment Date to which such Regular Record Date relates, in which case the Issuer shall instead pay the full amount of accrued and unpaid interest to Holders of record as of such Regular Record Date, and the Fundamental Change Repurchase Price shall be equal to 100% of the principal amount of Notes to be repurchased pursuant to this Article 10.

(b) Repurchases of Notes under this Section 10.02 shall be made, at the option of the Holder thereof, upon:

(i) delivery to the Trustee by a Holder of a duly completed notice (the "**Fundamental Change Repurchase Notice**") in the form set forth in Attachment 2 to the Form of Note attached hereto as Exhibit A, if the Notes are Physical Notes, or in compliance with the Depositary's procedures for surrendering interests in Global Notes, if the Notes are Global Notes, in each case on or before the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date; and

(ii) delivery of the Notes, if the Notes are Physical Notes, to the Trustee at any time after delivery of the Fundamental Change Repurchase Notice (together with all necessary endorsements for transfer) at the Corporate Trust Office of the Trustee, or book-entry transfer of the Notes, if the Notes are Global Notes, in compliance with the procedures of the Depository, in each case such delivery being a condition to receipt by the Holder of the Fundamental Change Repurchase Price therefor.

The Fundamental Change Repurchase Notice in respect of any Notes to be repurchased shall state:

- (i) in the case of Physical Notes, the certificate numbers of the Notes to be delivered for repurchase;
- (ii) the portion of the principal amount of Notes to be repurchased, which must be \$1,000 or an integral multiple thereof; and
- (iii) that the Notes are to be repurchased by the Issuer pursuant to the applicable provisions of the Notes and this First Supplemental Indenture;

provided, however, that if the Notes are Global Notes, the Fundamental Change Repurchase Notice must comply with appropriate Depository procedures.

Notwithstanding anything herein to the contrary, any Holder delivering to the Paying Agent the Fundamental Change Repurchase Notice contemplated by this Section 10.02 shall have the right to withdraw, in whole or in part, such Fundamental Change Repurchase Notice at any time prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date by delivery of a written notice of withdrawal to the Paying Agent in accordance with Section 10.03.

The Paying Agent shall promptly notify the Issuer of the receipt by it of any Fundamental Change Repurchase Notice or written notice of withdrawal thereof.

(c) On or before the 20th calendar day after the occurrence of the effective date of a Fundamental Change, the Issuer shall provide to all Holders of Notes and the Trustee and the Paying Agent (in the case of a Paying Agent other than the Trustee) a notice (the “**Fundamental Change Issuer Notice**”) of the occurrence of the effective date of the Fundamental Change and of the repurchase right at the option of the Holders arising as a result thereof. In the case of Physical Notes, such notice shall be by first class mail or, in the case of Global Notes, such notice shall be delivered in accordance with the applicable procedures of the Depository. Simultaneously with providing such notice, the Issuer shall publish a notice containing the information set forth in the Fundamental Change Issuer Notice in a newspaper of general circulation in The City of New York or publish such information on the Issuer’s website or through such other public medium as the Issuer may use at that time. Each Fundamental Change Issuer Notice shall specify:

- (i) the events causing the Fundamental Change;
- (ii) the date of the Fundamental Change;

(iii) the last date on which a Holder may exercise the repurchase right pursuant to this Article 10;

(iv) the Fundamental Change Repurchase Price;

(v) the Fundamental Change Repurchase Date;

(vi) the name and address of the Paying Agent and the Conversion Agent, if applicable;

(vii) if applicable, the Conversion Rate and any adjustments to the Conversion Rate;

(viii) that the Notes with respect to which a Fundamental Change Repurchase Notice has been delivered by a Holder may be converted only if the Holder withdraws the Fundamental Change Repurchase Notice in accordance with the terms of this First Supplemental Indenture; and

(ix) the procedures that Holders must follow to require the Issuer to repurchase their Notes.

No failure of the Issuer to give the foregoing notices and no defect therein shall limit the Holders' repurchase rights or affect the validity of the proceedings for the repurchase of the Notes pursuant to this Section 10.02.

At the Issuer's request, the Trustee shall give such notice in the Issuer's name and at the Issuer's expense; *provided, however*, that, in all cases, the text of such Fundamental Change Issuer Notice shall be prepared by the Issuer.

(d) Notwithstanding the foregoing, no Notes may be repurchased by the Issuer on any date at the option of the Holders upon a Fundamental Change if the principal amount of the Notes has been accelerated, and such acceleration has not been rescinded, on or prior to such date (except in the case of an acceleration resulting from a Default by the Issuer in the payment of the Fundamental Change Repurchase Price with respect to such Notes). The Paying Agent will promptly return to the respective Holders thereof any Physical Notes held by it during the acceleration of the Notes (except in the case of an acceleration resulting from a Default by the Issuer in the payment of the Fundamental Change Repurchase Price with respect to such Notes), or any instructions for book-entry transfer of the Notes in compliance with the procedures of the Depositary shall be deemed to have been cancelled, and, upon such return or cancellation, as the case may be, the Fundamental Change Repurchase Notice with respect thereto shall be deemed to have been withdrawn.

Section 10.03. *Withdrawal of Fundamental Change Repurchase Notice.* (a) A Fundamental Change Repurchase Notice may be withdrawn (in whole or in part) by means of a written notice of withdrawal delivered to the Corporate Trust Office of the Paying Agent in accordance with this Section 10.03 at any time prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date, specifying:

- (i) the principal amount of the Notes with respect to which such notice of withdrawal is being submitted,
- (ii) if Physical Notes have been issued, the certificate number of the Note in respect of which such notice of withdrawal is being submitted, and
- (iii) the principal amount, if any, of such Note that remains subject to the original Fundamental Change Repurchase Notice, which portion must be in principal amounts of \$1,000 or an integral multiple of \$1,000;

provided, however, that if the Notes are Global Notes, the notice must comply with appropriate procedures of the Depositary.

Section 10.04. *Deposit of Fundamental Change Repurchase Price.* (a) The Issuer will deposit with the Trustee (or other Paying Agent appointed by the Issuer, or if the Issuer is acting as its own Paying Agent, set aside, segregate and hold in trust as provided in Section 4.02) on or prior to 11:00 a.m., New York City time, on the Fundamental Change Repurchase Date an amount of money sufficient to repurchase all of the Notes to be repurchased at the appropriate Fundamental Change Repurchase Price. Subject to receipt of funds and/or Notes by the Trustee (or other Paying Agent appointed by the Issuer), payment for Notes surrendered for repurchase (and not withdrawn prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date) will be made on the later of (i) the Fundamental Change Repurchase Date (*provided* the Holder has satisfied the conditions in Section 10.02) and (ii) the time of book-entry transfer or the delivery of such Note to the Trustee (or other Paying Agent appointed by the Issuer) by the Holder thereof in the manner required by Section 10.02 by mailing checks for the amount payable to the Holders of such Notes entitled thereto as they shall appear in the Note Register; *provided, however,* that payments to the Depositary shall be made by wire transfer of immediately available funds to the account of the Depositary or its nominee. The Trustee shall, promptly after such payment and upon written demand by the Issuer, return to the Issuer any funds in excess of the Fundamental Change Repurchase Price.

(b) If by 11:00 a.m. New York City time, on the Fundamental Change Repurchase Date, the Trustee (or other Paying Agent appointed by the Issuer) holds money sufficient to make payment on all the Notes or portions thereof that are to be repurchased on such Fundamental Change Repurchase Date, then, with respect to the Notes that have been properly surrendered for repurchase and have not been validly withdrawn, (i) such Notes will cease to be outstanding, (ii) interest will cease to accrue on such Notes (whether or not book-entry transfer of the Notes has been made or the Notes have been delivered to the Trustee or Paying Agent) and (iii) all other rights of the Holders of such Notes will terminate (other than the right to receive the Fundamental Change Repurchase Price and, if applicable, accrued and unpaid interest).

(c) Upon surrender of a Note that is to be repurchased in part pursuant to Section 10.02, the Issuer shall execute and the Trustee shall authenticate and deliver to the Holder a new Note in an authorized denomination equal in principal amount to the unredeemed portion of the Note surrendered.

Section 10.05. *Covenant to Comply with Applicable Laws Upon Repurchase of Notes.* In connection with any repurchase offer, the Issuer will, if required:

- (a) comply with the provisions of Rule 13e-4, Rule 14e-1 and any other tender offer rules under the Exchange Act;
- (b) file a Schedule TO or any other required schedule under the Exchange Act; and
- (c) otherwise comply with all federal and state securities laws in connection with any offer by the Issuer to repurchase the Notes;

in each case, so as to permit the rights and obligations under this Article 10 to be exercised in the time and in the manner specified in this Article 10.

ARTICLE 11 NO REDEMPTION

Section 11.01. *No Redemption.* The Notes shall not be redeemable by the Issuer prior to the Maturity Date, and no sinking fund is provided for the Notes.

ARTICLE 12 MISCELLANEOUS PROVISIONS

Section 12.01. *Provisions Binding on Issuer's Successors.* All the covenants, stipulations, promises and agreements of the Issuer contained in the Indenture shall bind its successors and assigns whether so expressed or not.

Section 12.02. *Official Acts by Successor Corporation.* Any act or proceeding by any provision of the Indenture authorized or required to be done or performed by any board, committee or Officer of the Issuer shall and may be done and performed with like force and effect by the like board, committee or officer of any corporation or other entity that shall at the time be the lawful sole successor of the Issuer.

Section 12.03. *Governing Law; Jurisdiction.* THE INDENTURE AND EACH NOTE, AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THE INDENTURE AND EACH NOTE, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK (WITHOUT REGARD TO THE CONFLICTS OF LAWS PROVISIONS THEREOF).

The Issuer irrevocably consents and agrees, for the benefit of the Holders from time to time of the Notes and the Trustee, that any legal action, suit or proceeding against it with respect to obligations, liabilities or any other matter arising out of or in connection with the Indenture or

the Notes may be brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and, until amounts due and to become due in respect of the Notes have been paid, hereby irrevocably consents and submits to the non-exclusive jurisdiction of each such court *in personam*, generally and unconditionally with respect to any action, suit or proceeding for itself in respect of its properties, assets and revenues.

The Issuer irrevocably and unconditionally waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of venue of any of the aforesaid actions, suits or proceedings arising out of or in connection with the Indenture brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum.

Section 12.04. *Legal Holidays*. In any case where any Interest Payment Date, any Fundamental Change Repurchase Date or the Maturity Date is not a Business Day, then any action to be taken on such date need not be taken on such date, but may be taken on the next succeeding Business Day with the same force and effect as if taken on such date, and no interest shall accrue in respect of the delay.

Section 12.05. *No Security Interest Created*. Nothing in the Indenture or in the Notes, expressed or implied, shall be construed to constitute a security interest under the Uniform Commercial Code or similar legislation, as now or hereafter enacted and in effect, in any jurisdiction.

Section 12.06. *Benefits of Indenture*. Nothing in the Indenture or in the Notes, expressed or implied, shall give to any Person, other than the Holders, the parties hereto, any Paying Agent, any Conversion Agent, any Note Registrar and their successors hereunder, any benefit or any legal or equitable right, remedy or claim under the Indenture.

Section 12.07. *Table of Contents, Headings, Etc*. The table of contents and the titles and headings of the articles and sections of this First Supplemental Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

Section 12.08. *Execution in Counterparts*. This First Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument. The exchange of copies of this First Supplemental Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this First Supplemental Indenture as to the parties hereto and may be used in lieu of the original First Supplemental Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

Section 12.09. *Severability*. In the event any provision of the Indenture or in the Notes shall be invalid, illegal or unenforceable, then (to the extent permitted by law) the validity, legality or enforceability of the remaining provisions shall not in any way be affected or impaired.

Section 12.10. *Waiver of Jury Trial.* EACH OF THE COMPANY, THE HOLDERS AND THE TRUSTEE HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THE INDENTURE, THE NOTES OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 12.11. *Force Majeure.* In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 12.12. *Calculations.* Except as otherwise provided herein, the Issuer shall be responsible for making all calculations called for under the Notes. These calculations include, but are not limited to, determinations of the Last Reported Sale Prices of the Common Stock, the Daily VWAPs, the Daily Conversion Values, the Daily Settlement Amounts, accrued interest payable on the Notes and the Conversion Rate of the Notes. The Issuer shall make all these calculations in good faith and, absent manifest error, the Issuer's calculations shall be final and binding on Holders of Notes. The Issuer shall provide a schedule of its calculations to each of the Trustee and the Conversion Agent, and each of the Trustee and Conversion Agent is entitled to rely conclusively upon the accuracy of the Issuer's calculations without independent verification. The Trustee will forward the Issuer's calculations to any Holder of Notes upon the request of that Holder at the sole cost and expense of the Issuer.

Section 12.13. *Delivery of Notices.* Any notice or communication delivered or to be delivered to a Holder of Physical Notes shall be mailed to it by first-class mail, postage prepaid, at its address as it appears on the Note Register and shall be sufficiently given to it if so mailed within the time prescribed. Any notice or communication delivered or to be delivered to a Holder of Global Notes shall be delivered in accordance with the applicable procedures of the Depository and shall be sufficiently given to it if so delivered within the time prescribed.

Failure to send a notice or communication to a Holder or any defect in it shall not affect its sufficiency with respect to other Holders. If a notice or communication is sent in the manner provided above, it is duly given, whether or not the addressee receives it.

Section 12.14. *USA PATRIOT Act.* The parties hereto acknowledge that in accordance with Section 326 of the USA PATRIOT Act, the Trustee, like all financial institutions and in order to help fight the funding of terrorism and money laundering, is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens an account with the Trustee. The parties to this First Supplemental Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the USA PATRIOT Act.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have caused this First Supplemental Indenture to be duly executed as of the date first written above.

INTREXON CORPORATION

By: /s/ Donald P. Lehr

Name: Donald P. Lehr

Title: Chief Legal Officer

[Signature page to First Supplemental Indenture]

THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A., as Trustee

By: /s/ Karen Yu

Name: Karen Yu

Title: Vice President

[Signature page to First Supplemental Indenture]

[FORM OF FACE OF NOTE]

[INCLUDE FOLLOWING LEGEND IF A GLOBAL NOTE]

[UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE REGISTERED FORM, THIS SECURITY MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITORY TRUST COMPANY (THE "DEPOSITARY") TO THE NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.]

INTREXON CORPORATION

3.50% Convertible Senior Note due 2023

No. []

[Initially]¹ \$[]

CUSIP No. []

Intrexon Corporation, a corporation duly organized and validly existing under the laws of the State of Virginia (the “**Issuer**,” which term includes any successor corporation or other entity under the Indenture referred to on the reverse hereof), for value received hereby promises to pay to [CEDE & CO.]² []³, or registered assigns, the principal sum [as set forth in the “Schedule of Exchanges of Notes” attached hereto]⁴ [of \$[]]⁵, which amount, taken together with the principal amounts of all other outstanding Notes, shall not, unless permitted by the Indenture, exceed \$200,000,000, in accordance with the rules and procedures of the Depository, on July 1, 2023, and interest thereon as set forth below.

This Note shall bear interest at the rate of 3.50% per year from July 3, 2018, or from the most recent date to which interest had been paid or provided for to, but excluding, the next scheduled Interest Payment Date until July 1, 2023. Interest is payable semi-annually in arrears on each January 1 and July 1, commencing on January 1, 2019, to Holders of record at the close of business on the preceding December 15 and June 15 (whether or not such day is a Business Day), respectively. Additional Interest will be payable as set forth in Section 5.04 of the within-mentioned First Supplemental Indenture, and any reference to interest on, or in respect of, any Note therein shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to Section 5.04, and any express mention of the payment of Additional Interest in any provision therein shall not be construed as excluding Additional Interest in those provisions thereof where such express mention is not made.

Any Defaulted Amounts shall accrue interest per annum at the rate borne by the Notes *plus* one percent, subject to the enforceability thereof under applicable law, from, and including, the relevant payment date to, but excluding, the date on which such Defaulted Amounts shall have been paid by the Issuer, at its election, in accordance with Section 2.03(c) of the First Supplemental Indenture.

The Issuer shall pay the principal of and interest on this Note, if and so long as such Note is a Global Note, in immediately available funds to the Depository or its nominee, as the case may be, as the registered Holder of such Note. As provided in and subject to the provisions of the Indenture, the Issuer shall pay the principal of any Notes (other than Notes that are Global Notes) at the office or agency designated by the Issuer for that purpose. The Issuer has initially designated the Trustee as its Paying Agent and Note Registrar in respect of the Notes and its agency in the Borough of Manhattan, The City of New York, as a place where Notes may be presented for payment or for registration of transfer and exchange.

¹ Include if a global note.

² Include if a global note.

³ Include if a physical note.

⁴ Include if a global note.

⁵ Include if a physical note.

Reference is made to the further provisions of this Note set forth on the reverse hereof, including, without limitation, provisions giving the Holder of this Note the right to convert this Note into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, on the terms and subject to the limitations set forth in the First Supplemental Indenture. Such further provisions shall for all purposes have the same effect as though fully set forth at this place.

This Note, and any claim, controversy or dispute arising under or related to this Note, shall be construed in accordance with and governed by the laws of the State of New York (without regard to the conflicts of laws provisions thereof).

In the case of any conflict between this Note and the Indenture, the provisions of the Indenture shall control and govern.

This Note shall not be valid or become obligatory for any purpose until the certificate of authentication hereon shall have been signed manually or by facsimile by the Trustee.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Issuer has caused this Note to be duly executed.

INTREXON CORPORATION

By: _____
Name:
Title:

Dated:

This is one of the Securities of the series designated herein and referred to in the within-mentioned Indenture.

THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A., as Trustee

By: _____
Authorized Officer

INTREXON CORPORATION
3.50% Convertible Senior Note due 2023

This Note is one of a duly authorized issue of Notes of the Issuer, designated as its 3.50% Convertible Senior Notes due 2023 (the “**Notes**”), limited to the aggregate principal amount of \$200,000,000, all issued or to be issued under and pursuant to the First Supplemental Indenture dated as of July 3, 2018 (the “**First Supplemental Indenture**”) between the Issuer and The Bank of New York Mellon Trust Company, N.A. (the “**Trustee**”), which amends and supplements the Indenture dated as of July 3, 2018 between the Issuer and the Trustee (the “**Base Indenture**” and, as amended and supplemented by the First Supplemental Indenture and from time to time with respect to the Notes, the “**Indenture**”), to which Indenture and all indentures supplemental thereto reference is hereby made for a description of the rights, limitations of rights, obligations, duties and immunities thereunder of the Trustee, the Issuer and the Holders of the Notes. Additional Notes may be issued in an unlimited aggregate principal amount, subject to certain conditions specified in the Indenture. Capitalized terms used in this Note and not defined in this Note shall have the respective meanings set forth in the Indenture.

In case certain Events of Default shall have occurred and be continuing, the principal of, and interest on, all Notes may be declared, by either the Trustee or Holders of at least 25% in aggregate principal amount of Notes then outstanding, and upon said declaration shall become, due and payable, in the manner, with the effect and subject to the conditions and certain exceptions set forth in the Indenture.

Subject to the terms and conditions of the Indenture, the Issuer will make all payments and deliveries in respect of the Fundamental Change Repurchase Price on the Fundamental Change Repurchase Date and the principal amount on the Maturity Date, as the case may be, to the Holder who surrenders a Note to a Paying Agent to collect such payments in respect of the Note. The Issuer will pay cash amounts in money of the United States that at the time of payment is legal tender for payment of public and private debts.

The Indenture contains provisions permitting the Issuer and the Trustee in certain circumstances, without the consent of the Holders of the Notes, and in certain other circumstances, with the consent of the Holders of not less than a majority in aggregate principal amount of the Notes at the time outstanding, evidenced as in the Indenture provided, to execute supplemental indentures modifying the terms of the Indenture and the Notes as described therein. It is also provided in the Indenture that, subject to certain exceptions, the Holders of a majority in aggregate principal amount of the Notes at the time outstanding may on behalf of the Holders of all of the Notes waive any past Default or Event of Default under the Indenture and its consequences.

Each Holder shall have the right to receive payment or delivery, as the case may be, of (x) the principal (including the Fundamental Change Repurchase Price, if applicable) of, (y) accrued and unpaid interest, if any, on, and (z) the consideration due upon conversion of, this Note at the place, at the respective times, at the rate and in the lawful money or shares of Common Stock, as the case may be, herein prescribed.

The Notes are issuable in registered form without coupons in denominations of \$1,000 principal amount and integral multiples thereof. At the office or agency of the Issuer referred to on the face hereof, and in the manner and subject to the limitations provided in the Indenture, Notes may be exchanged for a like aggregate principal amount of Notes of other authorized denominations, without payment of any service charge but, if required by the Issuer or Trustee, with payment of a sum sufficient to cover any transfer or similar tax that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such exchange of Notes being different from the name of the Holder of the old Notes surrendered for such exchange.

The Notes are not subject to redemption at the option of the Issuer or through the operation of any sinking fund or otherwise.

Upon the occurrence of a Fundamental Change, the Holder has the right, at such Holder's option, to require the Issuer to repurchase for cash all of such Holder's Notes or any portion thereof (in principal amounts of \$1,000 or integral multiples thereof) on the Fundamental Change Repurchase Date at a price equal to the Fundamental Change Repurchase Price.

Subject to the provisions of the Indenture, the Holder hereof has the right, at its option, during certain periods and upon the occurrence of certain conditions specified in the Indenture, prior to the close of business on the Business Day immediately preceding the Maturity Date, to convert any Notes or portion thereof that is \$1,000 or an integral multiple thereof, into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, at the Conversion Rate specified in the Indenture, as adjusted from time to time as provided in the Indenture.

ABBREVIATIONS

The following abbreviations, when used in the inscription of the face of this Note, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM = as tenants in common

UNIF GIFT MIN ACT = Uniform Gifts to Minors Act

CUST = Custodian

TEN ENT = as tenants by the entireties

JT TEN = joint tenants with right of survivorship and not as tenants in common

Additional abbreviations may also be used though not in the above list.

[FORM OF NOTICE OF CONVERSION]

To: The Bank of New York Mellon Trust Company, N.A.
200 Ashford Center North, Suite 550
Atlanta, Georgia 30338
Attention : Corporate Trust Administration

The undersigned registered owner of this Note hereby exercises the option to convert this Note, or the portion hereof (that is \$1,000 principal amount or an integral multiple thereof) below designated, into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, in accordance with the terms of the Indenture referred to in this Note, and directs that any cash payable and any shares of Common Stock issuable and deliverable upon such conversion, together with any cash for any fractional share, and any Notes representing any unconverted principal amount hereof, be issued and delivered to the registered Holder hereof unless a different name has been indicated below. If any shares of Common Stock or any portion of this Note not converted are to be issued in the name of a Person other than the undersigned, the undersigned will pay all documentary, stamp or similar issue or transfer taxes, if any in accordance with Section 9.02(d) and Section 9.02(e) of the First Supplemental Indenture. Any amount required to be paid to the undersigned on account of interest accompanies this Note. Capitalized terms used herein but not defined shall have the meanings ascribed to such terms in the Indenture.

Dated: _____

Signature(s)

Signature Guarantee

Signature(s) must be guaranteed by an eligible Guarantor Institution (banks, stock brokers, savings and loan associations and credit unions) with membership in an approved signature guarantee medallion program pursuant to Securities and Exchange Commission Rule 17Ad-15 if shares of Common Stock are to be issued, or

Notes are to be delivered, other than to and in the name of the registered holder.

Fill in for registration of shares if to be issued, and Notes if to be delivered, other than to and in the name of the registered holder:

(Name)

(Street Address)

(City, State and Zip Code)
Please print name and address

Principal amount to be converted (if less than all): \$ _____,000

NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

Social Security or Other Taxpayer Identification
Number

[FORM OF FUNDAMENTAL CHANGE REPURCHASE NOTICE]

To: The Bank of New York Mellon Trust Company, N.A.
200 Ashford Center North, Suite 550
Atlanta, Georgia 30338
Attention : Corporate Trust Administration

The undersigned registered owner of this Note hereby acknowledges receipt of a notice from Intrexon Corporation (the “**Issuer**”) as to the occurrence of a Fundamental Change with respect to the Issuer and specifying the Fundamental Change Repurchase Date and requests and instructs the Issuer to pay to the registered holder hereof in accordance with Section 10.02 of the First Supplemental Indenture referred to in this Note (1) the entire principal amount of this Note, or the portion thereof (that is \$1,000 principal amount or an integral multiple thereof) below designated, and (2) if such Fundamental Change Repurchase Date does not fall during the period after a Regular Record Date and on or prior to the corresponding Interest Payment Date, accrued and unpaid interest, if any, thereon to, but excluding, such Fundamental Change Repurchase Date. Capitalized terms used herein but not defined shall have the meanings ascribed to such terms in the Indenture.

In the case of Physical Notes, the certificate numbers of the Notes to be repurchased are as set forth below:

Dated: _____

Signature(s)

Social Security or Other Taxpayer Identification
Number

Principal amount to be repaid (if less than all): \$ _____,000

NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

Troutman Sanders LLP
600 Peachtree Street NE, Suite 3000
Atlanta, GA 30308-2216



troutman.com

July 3, 2018

Intrexon Corporation
20374 Seneca Meadows Parkway
Germantown, Maryland 20876

Re: Prospectus Supplement dated June 28, 2018

Ladies and Gentlemen:

We have acted as counsel to Intrexon Corporation, a Virginia corporation (the "Company"), in connection with the preparation of a prospectus supplement (the "Prospectus Supplement") dated June 28, 2018 (together with the Prospectus (as herein defined), the "Final Prospectus") filed with the Securities and Exchange Commission (the "Commission") pursuant to Rule 424(b) promulgated under the Securities Act of 1933, as amended (the "Act") and the accompanying prospectus dated September 1, 2017 (the "Prospectus") that form a part of the registration statement on Form S-3ASR (the "Registration Statement") filed with the Commission on September 1, 2017 (File No. 333-220326), and relating to the issuance, offer and sale by the Company of \$200 million aggregate principal amount of the Company's 3.50% Convertible Senior Notes due 2023 (the "Notes") convertible into a maximum of up to 14,958,860 shares of the Company's common stock, no par value per share (the "Conversion Shares"), to J.P. Morgan Securities LLC (the "Underwriter"), pursuant to an Underwriting Agreement, dated June 28, 2018, between the Company and the Underwriter (the "Underwriting Agreement"). We understand that the Notes are to be offered and sold in the manner described in the Prospectus Supplement. The Notes will be issued pursuant to the Indenture, dated July 3, 2018, by and between the Company and The Bank of New York Mellon Trust Company, NA, as Trustee (the "Trustee") (the "Base Indenture"), as supplemented by a Supplemental Indenture, dated July 3, 2018, by and between the Company and the Trustee (the "Supplemental Indenture"), and, together with the Base Indenture, the "Indenture"). Reference is made to our opinion letter dated September 1, 2017 and included as Exhibit 5.1 to the Registration Statement.

This opinion is being furnished to you at your request in accordance with the requirements of Item 601(b)(5)(i) of Regulation S-K.

We have examined originals or copies, certified or otherwise identified to our satisfaction, of such corporate records, agreements, and other instruments, certificates, orders, opinions, correspondence with public officials, certificates provided by the Company's officers and representatives, and other documents as we have deemed necessary or advisable for the purposes of rendering the opinion set forth herein, including (i) the corporate and organizational documents of the Company, including the Amended and Restated Articles of Incorporation, as amended to date (the "Articles"), and the Bylaws of the Company, as amended to date (the "Bylaws"), (ii) the resolutions of the Board of Directors of the Company with respect to the Registration Statement, the Final Prospectus, the Underwriting Agreement, the Indenture and the issuance of the Notes to the Underwriter pursuant to the Underwriting Agreement and the Indenture and certain related matters, (iii) the form of the Notes contained in the Supplemental Indenture (with the maturity, interest rate and other terms inserted therein), (iv) the Registration Statement and exhibits thereto, (v) the Underwriting Agreement, (vi) the Final Prospectus and (vii) the Indenture.

For purposes of the opinions expressed below, we have assumed (i) the authenticity of all documents submitted to us as originals, (ii) the conformity to the originals of all documents submitted as certified, photostatic or electronic copies and the authenticity of the originals thereof, (iii) the legal capacity of natural persons, (iv) the genuineness of signatures not witnessed by us, (v) the due authorization, execution and delivery of all documents by all parties, other than the Company, and the validity, binding effect and enforceability thereof and (vi) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed.

As to any facts material to the opinions expressed herein which were not independently established or verified, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others and of public officials. In making our examination of documents executed or to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents, and the validity and binding effect thereof on such parties.

We are members of the bars of the Commonwealth of Virginia and the State of New York and are not purporting to be experts on, or generally familiar with, or qualified to express legal conclusions based upon, laws of any state or jurisdiction other than the federal laws of the United States of America, the Commonwealth of Virginia and the State of New York and we express no opinion as to the effect of the laws of any other jurisdiction or as to the securities or blue sky laws of any state (including, without limitation, Virginia or New York), municipal law or the laws of any local agencies within any state (including, without limitation, Virginia or New York). This opinion is limited to the matters stated herein, and no opinion is implied or may be inferred beyond the matters expressly stated herein.

Based on the foregoing and in reliance thereon, and subject to the limitations, qualifications, assumptions, exceptions and other matters set forth herein, we are of the opinion that:

1. The Company is a validly existing corporation and is in good standing under the laws of the Commonwealth of Virginia.
2. The Company has the corporate power and authority to issue the Notes and the Conversion Shares and has taken all necessary corporate action to authorize the issuance of the Notes and the Conversion Shares.
3. When the Notes have been duly issued and sold in the manner contemplated by the Registration Statement, the Final Prospectus and the Underwriting Agreement, the Company has received the consideration provided for in the Final Prospectus and the Underwriting Agreement, and assuming due authentication thereof by the Trustee or the Authenticating Agent in accordance with the provisions of the Indenture and the Supplemental Indenture, the Notes will constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, except to the extent that enforcement thereof may be limited by (a) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws now or

hereafter in effect relating to creditors' rights generally, (b) general principles of equity (regardless of whether enforceability is considered in a proceeding at law or in equity), (c) public policy considerations which may limit the rights of parties to obtain remedies, and (d) the waivers of any usury defense contained in the Indenture, Supplemental Indenture or Notes which may be unenforceable.

4. Assuming a sufficient number of authorized but unissued shares of Common Stock are available for issuance when the Notes are converted, the Conversion Shares, when issued and delivered upon conversion of the Notes and in accordance with the Indenture, will be validly issued, fully paid and nonassessable.

Our opinion is as of the date hereof and we have no responsibility to update this opinion for events and circumstances occurring after the date hereof or as to facts relating to prior events that are subsequently brought to our attention and we disavow any undertaking to advise you of any changes in law.

We hereby consent to the filing of this opinion as an exhibit to the Current Report on Form 8-K and to the use of our name under the caption "Legal Matters" in the Final Prospectus and Registration Statement. In giving this consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules or regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Troutman Sanders LLP

Troutman Sanders LLP
600 Peachtree Street NE, Suite 3000
Atlanta, GA 30308-2216



troutman.com

July 3, 2018

Intrexon Corporation
20374 Seneca Meadows Parkway
Germantown, Maryland 20876

Re: Prospectus Supplement dated June 28, 2018

Ladies and Gentlemen:

We have acted as counsel to Intrexon Corporation, a Virginia corporation (the "Company"), in connection with the preparation of a prospectus supplement (the "Prospectus Supplement") dated June 28, 2018 (together with the Prospectus (as herein defined), the "Final Prospectus") filed with the Securities and Exchange Commission (the "Commission") pursuant to Rule 424(b) promulgated under the Securities Act of 1933, as amended (the "Act") and the accompanying prospectus dated September 1, 2017 (the "Prospectus") that form a part of the registration statement on Form S-3ASR (the "Registration Statement") filed with the Commission on September 1, 2017 (File No. 333-220326), in connection with the execution and delivery of the Underwriting Agreement, dated June 28, 2018 (the "Underwriting Agreement"), between J.P. Morgan Securities LLC, the underwriter, and the Company. The Company proposes to issue and lend to J.P. Morgan Securities LLC (in such capacity, the "Borrower") as a share loan, pursuant to and upon the terms set forth in the share lending agreement (the "Share Lending Agreement"), dated as of the June 28, 2018, among the Company, the Borrower and JPMorgan Chase Bank, National Association, New York Branch, as Collateral Agent, 7,479,431 shares of Common Stock, no par value per share, of the Company (the "Shares"). The Underwriting Agreement provides for, among other things, the sale by the Underwriter of the Shares in a public offering of the Shares. Reference is made to our opinion letter dated September 1, 2017 and included as Exhibit 5.1 to the Registration Statement.

This opinion is being furnished to you at your request in accordance with the requirements of Item 601(b)(5)(i) of Regulation S-K.

We have examined originals or copies, certified or otherwise identified to our satisfaction, of such corporate records, agreements, and other instruments, certificates, orders, opinions, correspondence with public officials, certificates provided by the Company's officers and representatives, and other documents as we have deemed necessary or advisable for the purposes of rendering the opinion set forth herein, including (i) the corporate and organizational documents of the Company, including the Amended and Restated Articles of Incorporation, as amended to date (the "Articles"), and the Bylaws of the Company, as amended to date (the "Bylaws"), (ii) the resolutions of the Board of Directors of the Company with respect to the Registration Statement, the Final Prospectus, the Share Lending Agreement and the issuance of the Shares to the Underwriter pursuant to the Share Lending Agreement and certain other matters, (iii) a specimen certificate representing the Common Stock, (iv) the Registration Statement and exhibits thereto, (v) the Share Lending Agreement and (vi) the Final Prospectus.

For purposes of the opinions expressed below, we have assumed (i) the authenticity of all documents submitted to us as originals, (ii) the conformity to the originals of all documents submitted as certified, photostatic or electronic copies and the authenticity of the originals

thereof, (iii) the legal capacity of natural persons, (iv) the genuineness of signatures not witnessed by us, (v) the due authorization, execution and delivery of all documents by all parties, other than the Company, and the validity, binding effect and enforceability thereof and (vi) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed.

As to any facts material to the opinions expressed herein which were not independently established or verified, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others and of public officials. In making our examination of documents executed or to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents, and the validity and binding effect thereof on such parties.

We are members of the bar of the Commonwealth of Virginia and are not purporting to be experts on, or generally familiar with, or qualified to express legal conclusions based upon, laws of any state or jurisdiction other than the federal laws of the United States of America and the Commonwealth of Virginia and we express no opinion as to the effect of the laws of any other jurisdiction or as to the securities or blue sky laws of any state (including, without limitation, Virginia), municipal law or the laws of any local agencies within any state (including, without limitation, Virginia). This opinion is limited to the matters stated herein, and no opinion is implied or may be inferred beyond the matters expressly stated herein.

Based on the foregoing and in reliance thereon, and subject to the limitations, qualifications, assumptions, exceptions and other matters set forth herein, we are of the opinion that the Shares have been duly authorized and, when issued, delivered and paid for in accordance with the terms of the Share Lending Agreement and the Prospectus Supplement, will be validly issued, fully paid and non-assessable.

Our opinion is as of the date hereof and we have no responsibility to update this opinion for events and circumstances occurring after the date hereof or as to facts relating to prior events that are subsequently brought to our attention and we disavow any undertaking to advise you of any changes in law.

We hereby consent to the filing of this opinion as an exhibit to the Current Report on Form 8-K and to the use of our name under the caption "Legal Matters" in the Final Prospectus and Registration Statement. In giving this consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules or regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Troutman Sanders LLP

SHARE LENDING AGREEMENT

Dated as of June 28, 2018

Among

INTREXON CORPORATION ("**Lender**"),J.P. MORGAN SECURITIES LLC ("**Borrower**")

And

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION, NEW YORK BRANCH
("**Collateral Agent**")

This AGREEMENT sets forth the terms and conditions under which Borrower may borrow from Lender shares of Common Stock (as defined below).

The parties hereto agree as follows:

Section 1. *Certain Definitions.* The following capitalized terms shall have the following meanings:

"**Business Day**" means a day on which regular trading occurs in the principal trading market for the Common Stock and on which banking institutions in New York City are generally open for business.

"**Cash**" means any coin or currency of the United States as at the time shall be legal tender for payment of public and private debts.

"**Clearing Organization**" means The Depository Trust Company, or, if agreed to by Borrower and Lender, such other securities intermediary at which Borrower and Lender maintain accounts.

"**Closing Price**" means, on any day and with respect to the Common Stock, (i) if the Common Stock is listed on a national or regional U.S. securities exchange or is included in the OTC Bulletin Board Service (operated by the Financial Industry Regulatory Authority, Inc.) or any successor thereto, the last reported sale price, regular way, in the principal trading session on such day on such market or service on which the Common Stock is then listed or is included, as the case may be (or, if the day of determination is not a Business Day, the immediately preceding Business Day), and (ii) if the Common Stock is not so listed or included or if the last reported sale price is not obtainable (even if the Common Stock is listed on such market or included in such service), the average of the bid prices for the Common Stock obtained from as many dealers in the Common Stock (which may include Borrower or its affiliates), but not exceeding three, as shall furnish bid prices available to Lender.

"**Collateral**" means Eligible Collateral held in the Collateral Account.

“Collateral Account” means the account of the Collateral Agent maintained on the books of JPMorgan Chase Bank, National Association, New York Branch, as custodian, and designated “JPMorgan Chase Bank, National Association, New York Branch, as Collateral Agent of Intrexon Corporation, as pledgee of J.P. Morgan Securities LLC, as Borrower of Loaned Shares”. Any Eligible Collateral deposited in the Collateral Account shall be segregated from all other assets and property of the Collateral Agent, which segregation may be accomplished by appropriate identification on the books and records of the Collateral Agent.

“Collateral Agent” means JPMorgan Chase Bank, National Association, New York Branch, in its capacity as collateral agent for Lender hereunder, or any successor thereto under Section 20.

“Common Stock” means the shares of common stock, no par value, of Lender; *provided* that, if the Common Stock shall be exchanged for or converted into any other security, assets and/or other consideration (including cash) as the result of any merger, consolidation, other business combination, reorganization, reclassification, recapitalization or other corporate action (including, without limitation, a reorganization in bankruptcy), then, effective upon such exchange or conversion, the amount of such other security, assets and/or other consideration received in exchange for one share of Common Stock shall be deemed to become one share of Common Stock. For purposes of the foregoing, where a share of Common Stock may be converted into or exchanged for more than a single type of consideration based upon any form of shareholder election, such consideration will be deemed to be the weighted average of the types and amounts of consideration actually received by the holders of the Common Stock.

“Convertible Notes” means the \$200,000,000 aggregate principal amount of 3.50% Convertible Senior Notes due 2023 issued by Lender.

“Cutoff Time” means 10:00 a.m. in the jurisdiction of the Clearing Organization, or such other time on a Business Day by which a transfer of Loaned Shares must be made by Borrower or Lender to the other, as shall be determined in accordance with market practice, in which case such other time will be the **“Cutoff Time.”**

“Eligible Collateral” means any Cash and Eligible Non-Cash Collateral. Each of the parties to this Agreement hereby agrees that Cash and each item within the definition of Eligible Non-Cash Collateral shall be treated as a “financial asset” as defined by Section 8-102(a)(9) of the UCC.

“Eligible Non-Cash Collateral” means U.S. Treasury bills and notes, any irrevocable letter of credit issued by a bank as defined in Section 3(a)(6)(A)-(C) of the Exchange Act and any other property permitted to serve as collateral securing a loan of securities under Rule 15c3-3 under the Exchange Act pursuant to exemptive, interpretive or no-action relief or otherwise.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Facility Termination Date” means the earliest to occur of (i) October 1, 2023 and (ii) the date, if any, on which this Agreement is terminated pursuant to Section 15.

“Loaned Shares” means shares of Common Stock transferred in a Loan hereunder until such Common Stock (or identical Common Stock) is transferred back to Lender hereunder; *provided* that, to the extent Borrower subsequently transfers to another transferee shares of Common Stock initially transferred to Borrower hereunder, **“Loaned Shares”** means an equivalent number of identical shares of Common Stock. If, as the result of a stock dividend, stock split or reverse stock split, the number of outstanding shares of Common Stock is increased or decreased, then the number of outstanding Loaned Shares shall, effective as of the payment or delivery date of any such event, be proportionately increased or decreased, as the case may be. If the outstanding shares of Common Stock shall be exchanged for or converted into any new or different security or securities, assets and/or other consideration, as described in the definition of “Common Stock,” such new or different security or securities, assets and/or other consideration shall, effective upon such exchange or conversion, as the case may be, be deemed to become a Loaned Share in substitution for the former Loaned Share for which such exchange is made and in the same proportions as described in the definition of “Common Stock.” For purposes of return of Loaned Shares by Borrower or purchase or sale of securities pursuant to Section 5 or 11, Borrower may return securities of the same issuer, class and quantity as the Loaned Shares as adjusted pursuant to the two preceding sentences.

“Market Value” means, on any day, (i) with respect to Common Stock, the most recent Closing Price of the Common Stock prior to such day and (ii) with respect to any Collateral that is (a) Cash, the face amount thereof, (b) a letter of credit, the undrawn amount thereof and (c) any other security or property, the market value thereof, as determined by the Collateral Agent in accordance with market practice for such securities or property, based on the price for such security or property as of the most recent close of trading obtained from a generally recognized source or the closing bid quotation at the most recent close of trading obtained from such source, plus accrued interest to the extent not included therein, unless market practice with respect to the valuation of such securities or property in connection is to the contrary.

“Securities Act” means the Securities Act of 1933, as amended.

“Supplemental Indenture” means the supplemental indenture to be dated as of July 3, 2018 between Lender and The Bank of New York Mellon Trust Company, N.A., as trustee (the **“Trustee”**), to provide for the form, terms and other provisions of the Convertible Notes and which shall supplement the base indenture to be dated as of the same date between Lender and the Trustee.

“UCC” means the Uniform Commercial Code as in effect in the State of New York on the date hereof and as it may be amended from time to time.

Section 2. Loan of Shares; Transfer of Loaned Shares.

(a) Subject to the terms and conditions of this Agreement, in consideration of Borrower’s agreements hereunder and other good and valuable consideration (the receipt of which is hereby acknowledged), Lender hereby agrees to lend to Borrower, on the closing date of the initial issuance of the Convertible Notes (the **“Closing Date”**), 7,479,431 shares of Common Stock through the issuance by Lender of such Loaned Shares upon the terms, and subject to the conditions, set forth in this Agreement (such issuance and loan, the **“Loan”**); *provided* that

Lender shall have no obligation to make the Loan unless the closing of the initial issuance of the Convertible Notes shall have occurred or shall occur substantially contemporaneously therewith. The Loan shall be confirmed through the book-entry settlement system of the Clearing Organization. The records maintained by the Clearing Organization shall constitute conclusive evidence with respect to the Loan, including the number of shares of Common Stock that are the subject of the Loan.

(b) Notwithstanding anything to the contrary in this Agreement, Borrower shall not be permitted to borrow or have any right to take delivery of, or otherwise receive or be deemed to have received, any shares of Common Stock hereunder to the extent (but only to the extent) that after receipt of such shares (i) the Section 16 Percentage would exceed 7.5% or (ii) the Share Amount would exceed the Applicable Share Limit. The “**Section 16 Percentage**” as of any day is the fraction, expressed as a percentage, (A) the numerator of which is the number of shares of Common Stock that Borrower and any of its affiliates or any other person subject to aggregation with Borrower for purposes of the “beneficial ownership” test under Section 13 of the Exchange Act, or any “group” (within the meaning of Section 13 of the Exchange Act) of which Borrower is or may be deemed to be a part beneficially owns (within the meaning of Section 13 of the Exchange Act), without duplication, on such day (or, to the extent that for any reason the equivalent calculation under Section 16 of the Exchange Act and the rules and regulations thereunder results in a higher number, such higher number) and (B) the denominator of which is the number of shares of Common Stock outstanding on such day. The “**Share Amount**” as of any day is the number of shares of Common Stock that Borrower and any person whose ownership position would be aggregated with that of Borrower (Borrower or any such person, a “**Borrower Person**”) under any law, rule, regulation, regulatory order or organizational documents or contracts of Lender that are, in each case, applicable to ownership of shares of Common Stock (“**Applicable Restrictions**”), owns, beneficially owns, constructively owns, controls, holds the power to vote or otherwise meets a relevant definition of ownership under any Applicable Restriction, as determined by Borrower in its reasonable discretion. The “**Applicable Share Limit**” means a number of shares of Common Stock equal to (A) the minimum number of shares of Common Stock that could give rise to reporting or registration obligations or other requirements (including obtaining prior approval from any person or entity) of a Borrower Person, or could result in an adverse effect on a Borrower Person, under any Applicable Restriction, as determined by Borrower in its reasonable discretion, *minus* (B) 1% of the number of shares of Common Stock outstanding. If any delivery owed to Borrower hereunder is not made, in whole or in part, as a result of a limitation set forth in this paragraph, Lender’s obligation to make such delivery shall not be extinguished and Lender shall make such delivery as promptly as practicable after, but in no event later than one Business Day after, Borrower gives notice to Lender that such delivery would not result in any such limitation being breached. If, notwithstanding the foregoing, any delivery of Common Stock is erroneously made to Borrower or Borrower otherwise receives or is deemed to have received Common Stock in excess of the foregoing limitation contrary to the first sentence of this paragraph, such Common Stock shall remain the property of Lender and Borrower shall be deemed to hold the same as bailee of Lender and shall have no voting, dispositive control or pecuniary interest with respect thereto.

(c) Lender shall transfer Loaned Shares to Borrower on or before the Cutoff Time on the Closing Date. Delivery of the Loaned Shares to Borrower shall be made in the manner set forth under Section 13 below.

Section 3. *Collateral.*

(a) Borrower shall, no later than the close of business on the Closing Date, transfer to Collateral Agent, for deposit to the Collateral Account, Eligible Collateral with a Market Value at least equal to the Market Value of the Loaned Shares as of the Closing Date.

(b) Any Eligible Collateral deposited into the Collateral Account shall be security for Borrower's obligations in respect of the Loaned Shares and for any other obligations of Borrower to Lender hereunder. Borrower hereby pledges, collaterally assigns and grants to Collateral Agent for the benefit of Lender a continuing first priority security interest in, and a lien upon, the Collateral, which shall attach upon transfer of the Loaned Shares by Lender to Borrower and which shall cease upon the transfer of any such Collateral to Borrower in accordance with the terms of this Agreement. In addition to the rights and remedies given to Lender hereunder, Lender shall have all the rights and remedies of a secured party under the UCC. Notwithstanding anything to the contrary herein, Lender may not use or invest the Collateral and Collateral Agent shall take no instruction from Lender regarding the use or investment of Collateral, except as set forth in Section 11.

(c) Following the transfer to Lender of Loaned Shares pursuant to Section 5, Collateral Agent shall release to Borrower Collateral with a Market Value equal to the Market Value of the Loaned Shares so transferred but only to the extent that immediately following such transfer of Collateral, no Collateral Deficit would exist; *provided* that in the case of (x) a transfer to Lender of all outstanding Loaned Shares, (y) payment in full of Replacement Cash to Lender pursuant to Section 11(b) or (z) satisfaction of all Borrower's obligations hereunder as a result of the purchase of Replacement Shares pursuant to Section 11(d), Collateral Agent shall release all of the Collateral to Borrower. Such transfer of Collateral shall be made no later than the Cutoff Time on the day the Loaned Shares are transferred, or if such day is not a day on which a transfer of such Collateral may be effected under Section 13, or if the transfer of Loaned Shares by Lender to Borrower occurs after the Cutoff Time on such day, then in each case the next day on which such a transfer may be effected.

(d) If Borrower transfers Collateral to Collateral Agent, as provided in this Section 3, and Lender does not transfer the Loaned Shares to Borrower, Borrower shall have the absolute right to the return of the Collateral; and if Lender transfers Loaned Shares to Borrower and Borrower does not transfer Collateral to Collateral Agent as provided in this Section 3, Lender shall have the absolute right to the return of the Loaned Shares.

(e) Borrower may, upon notice to Lender and Collateral Agent, substitute Eligible Collateral for Collateral securing the Loan; *provided* that such substituted Eligible Collateral shall have a Market Value such that the aggregate Market Value of such substituted Eligible Collateral, together with all other Collateral, shall equal or exceed the Market Value of the Loaned Shares as of the date of such substitution.

(f) Lender hereby appoints Collateral Agent to act as its agent for purposes of holding Collateral hereunder and otherwise complying with the terms hereof. Collateral Agent accepts such appointment; *provided* that Collateral Agent shall have no duties or obligations except those expressly set forth herein. Without limiting the generality of the foregoing, Collateral Agent shall not be subject to any fiduciary or other implied duties. Collateral Agent shall have no liability for any action taken or omitted to be taken in accordance with the terms of this Agreement.

Section 4. *Mark to Market.*

(a) Borrower shall daily mark to market the Loan hereunder, and if at the close of trading on any Business Day the aggregate Market Value of all Collateral shall be less than the Market Value of all the outstanding Loaned Shares (a “**Collateral Deficit**”), Borrower shall transfer to Collateral Agent, for deposit to the Collateral Account, no later than the following Business Day, additional Collateral so that the Market Value of such additional Collateral, when added to the Market Value of all other Collateral, shall equal or exceed the Market Value of the Loaned Shares on such Business Day of determination.

(b) If at the close of trading on any Business Day the aggregate Market Value of all Collateral shall be greater than the Market Value of all the outstanding Loaned Shares (a “**Collateral Excess**”), Borrower may, by notice to Collateral Agent, demand that Collateral Agent transfer to Borrower such amount of the Collateral selected by Borrower so that the Market Value of the Collateral, after deduction of such amounts, shall thereupon be at least equal to the Market Value of the Loaned Shares on such Business Day of determination; *provided* that no Collateral Excess shall be returned to Borrower if at the time of transfer a Borrower Default has occurred and is continuing.

Section 5. *Loan Terminations.*

(a) Borrower may terminate all or any portion of the Loan on any Business Day by giving written notice thereof to Lender and transferring the corresponding number of Loaned Shares to Lender no later than the fifth Business Day following the date of such notice, without any consideration being payable in respect thereof by Lender to Borrower; *provided* that such termination shall not relieve Borrower from the obligation to make such other payments and/or deliveries required to be made by it to Lender hereunder, including any such payments and/or deliveries pursuant to Section 6 hereof. Any such Loan termination shall be effective immediately upon delivery of the applicable Loaned Shares in accordance with the terms hereof.

(b) Subject to Section 11 below, the Loan shall terminate on the Facility Termination Date, and all Loaned Shares, if any, then outstanding shall be delivered by Borrower to Lender, without any consideration being payable in respect thereof by Lender to Borrower, no later than the fifth Business Day following the Facility Termination Date; *provided* that such termination shall not relieve Borrower from the obligation to make such other payments and/or deliveries required to be made by it to Lender hereunder, including any such payments and/or deliveries pursuant to Section 6 hereof.

(c) Subject to Section 11 below, if the Loan is terminated upon the occurrence of a Default as set forth in Section 10, the Loaned Shares shall be delivered by Borrower to Lender, without any consideration being payable in respect thereof by Lender to Borrower, no later than the fifth Business Day following the termination date of the Loan as provided in Section 10; *provided* that such termination shall not relieve Borrower from the obligation to make such other payments and/or deliveries required to be made by it to Lender hereunder, including any such payments and/or deliveries pursuant to Section 6 hereof.

Section 6. *Distributions.*

(a) If, at any time when there are Loaned Shares outstanding under this Agreement, Lender pays a cash dividend or makes a cash distribution in respect of all its outstanding shares of Common Stock, Borrower shall pay to Lender (whether or not Borrower is a holder of any or all of the outstanding Loaned Shares), within five Business Days after the payment of such dividend or distribution, an amount in cash equal to the product of (i) the amount per share of Common Stock of such dividend or distribution, as the case may be, and (ii) the number of Loaned Shares outstanding at such time; *provided* that if Borrower returns any Loaned Shares to Lender following a record date for such a dividend or distribution on such Loaned Shares but prior to the payment of such dividend or distribution on such Loaned Shares, Borrower shall nonetheless pay to Lender the amount of such dividend or distribution, as the case may be, within five Business Days after the payment of such dividend or distribution.

(b) If, at any time when there are Loaned Shares outstanding under this Agreement, Lender makes a distribution in respect of its outstanding Common Stock (other than a distribution upon liquidation or a reorganization in bankruptcy) in property or securities, other than a distribution of Common Stock, including any options, warrants, rights or privileges in respect of securities (including any options, warrants, rights or privileges exercisable for, convertible into or exchangeable for Common Stock) to the then holder or holders of such Loaned Shares (a "**Non-Cash Distribution**"), Borrower shall, at its option, either (i) deliver to Lender (whether or not Borrower is a holder of any or all of the outstanding Loaned Shares) in kind, within five Business Days after the date of such Non-Cash Distribution, the property or securities distributed in an amount equal to the product of (x) the amount per share of Common Stock of such Non-Cash Distribution and (y) the number of Loaned Shares on the record date for such Non-Cash Distribution or (ii) elect that the number of Loaned Shares then outstanding under this Agreement shall be deemed adjusted in the same manner as the conversion rate of the Convertible Notes is required to be adjusted in respect of such Non-Cash Distribution; *provided* that if Borrower returns any Loaned Shares to Lender following a record date for such a distribution on such Loaned Shares but prior to the payment of such distribution on such Loaned Shares, Borrower shall nonetheless comply with the provisions of this subsection (b) as if such Loaned Shares were outstanding on the date of such distribution.

(c) Any interest or other cash payment made on or in respect of any Collateral hereunder shall, subject to subsection (e) below, be delivered by the Collateral Agent to Borrower on the date such interest or other cash payment is received by the Collateral Agent.

(d) Any non-cash distribution made on or in respect of any Collateral hereunder shall, subject to subsection (e) below, be delivered by the Collateral Agent to Borrower on the date such non-cash distribution is received by the Collateral Agent.

(e) If the cash or other property received by the Collateral Agent under the provisions of subsection (c) or (d) of this Section 6 qualifies as Collateral, to the extent that a transfer of such cash or other property to Borrower by the Collateral Agent would give rise to a Collateral Deficit, the Collateral Agent shall (only to the extent of any such Collateral Deficit) not make such transfer of cash or other property in accordance with this Section 6, but shall in lieu of such transfer immediately credit the amounts that would have been transferable under this Section 6 to the Collateral Account.

Section 7. Rights in Respect of Loaned Shares.

Subject to the terms of this Agreement, including Borrower's obligation to return the Loaned Shares in accordance with the terms of this Agreement, and except as otherwise agreed by Borrower and Lender or Borrower and any subsequent transferee of Loaned Shares, insofar as such person is the owner of any such Loaned Shares, such person shall have all of the incidents of ownership in respect of any such Loaned Shares, including the right to transfer the Loaned Shares to others.

Section 8. Representations and Warranties.

(a) Each of Borrower and Lender represent and warrant to the other that:

(i) it has full power to execute and deliver this Agreement, to enter into the Loan contemplated hereby and to perform its obligations hereunder;

(ii) it has taken all necessary action to authorize such execution, delivery, entry and performance;

(iii) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and similar laws affecting creditors' rights and remedies generally, and subject, as to enforceability, to general principles of equity, including principles of commercial reasonableness, good faith and fair dealing (regardless of whether enforcement is sought in a proceeding at law or in equity) and except that rights to indemnification and contribution hereunder may be limited by federal or state securities laws or public policy relating thereto; and

(iv) the execution, delivery and performance of this Agreement does not and will not violate, contravene, or constitute a default under, (A) its certificate or articles of incorporation, bylaws or other governing documents, (B) any laws, rules or regulations of any governmental authority to which it is subject, (C) any material contracts, agreements or instrument to which it is a party or (D) any judgment, injunction, order or decree by which it is bound.

(b) Lender represents and warrants to Borrower, as of the date hereof, and as of the date the Loaned Shares are transferred to Borrower in respect of the Loan hereunder, that the Loaned Shares and all other outstanding shares of Common Stock of Lender have been duly authorized and, upon the issuance and delivery of such Loaned Shares to Borrower in accordance with the terms and conditions hereof, will be duly authorized, validly issued, fully paid non-assessable shares of Common Stock, and the shareholders of Lender have no preemptive rights with respect to such Loaned Shares.

(c) Lender represents and warrants to Borrower, as of the date hereof, and as of the date the Loaned Shares are transferred to Borrower in respect of the Loan hereunder, that all of the Loaned Shares have been approved for listing on The New York Stock Exchange, subject to official notice of issuance.

(d) Borrower represents to Lender that it has, or at the time of transfer to the Collateral Agent shall have, the right to grant to Lender, and Lender shall acquire a continuing first priority security interest in the Collateral.

(e) Lender acknowledges that Borrower is not making any representations or warranties or taking any position or expressing any view with respect to the treatment of this Agreement or the Loan under any accounting standards.

(f) Lender acknowledges that it has received the disclosures attached hereto as Annex A.

(g) Lender represents and warrants that no state or local (including non-U.S. jurisdictions) law, rule, regulation or regulatory order applicable to the Common Stock due to the nature of Lender's or any of its subsidiaries' business (excluding banking laws, rules, regulations or regulatory orders and any other law, rule, regulation or regulatory order that is applicable to Borrower due to the nature of Borrower's business) in any jurisdiction in which Lender or any subsidiary thereof is organized, conducts business, operates or is licensed on the date hereof would give rise to any reporting, consent, registration or other requirement (including without limitation a requirement to obtain prior approval from any person or entity) solely as a result of Borrower or its affiliates owning or holding (however defined) shares of Common Stock due to the nature of Lender's or any of its subsidiaries' business.

(h) Lender represents and warrants that it is entering into this Agreement in good faith and not as part of a plan or scheme to evade compliance with federal securities laws including, without limitation, Rule 10b-5 under the Exchange Act or any other antifraud or anti-manipulation provisions of the federal or applicable state securities laws.

(i) Lender represents and warrants to Borrower, as of the date the Loaned Shares are transferred to Borrower in respect of the Loan hereunder, that Lender is not "insolvent" (as such term is defined under Section 101(32) of Title 11 of the United States Code (the "**Bankruptcy Code**") and Lender would be able to purchase the number of shares of Common Stock lent hereunder in compliance with the corporate law of Lender's jurisdiction of incorporation.

(j) Lender represents and warrants to Borrower that, as of the date hereof, and as of the date the Loaned Shares are transferred to Borrower in respect of the Loan hereunder, Lender is not, and will not be required to register as, an "investment company" as such term is defined in the Investment Company Act of 1940, as amended.

(k) Lender represents and warrants to Borrower that Lender (A) is capable of evaluating investment risks independently, both in general and with regard to all transactions and investment strategies involving a security or securities; (B) will exercise independent judgment in evaluating the recommendations of any broker-dealer or its associated persons, unless it has otherwise notified the broker-dealer in writing; and (C) has total assets of at least \$50 million as of the date hereof.

(l) Lender represents and warrants that it (and any successor entity) is, and at any time during which a Loan made pursuant to this Agreement is outstanding will be, a United States person within the meaning of Section 7701(a)(30) of the U.S. Internal Revenue Code of 1986, as amended (the “**Code**”).

(m) Borrower represents and warrants that it (and any successor entity) is, and at any time during which a Loan made pursuant to this Agreement is outstanding will be, a United States person within the meaning of Section 7701(a)(30) of the Code.

(n) Borrower represents and warrants to Lender that any shares of Common Stock that Borrower transfers to Lender in respect of any Loan termination, and any property or securities comprising any Non-Cash Distribution that Borrower transfers to Lender, in each case, shall be made free from any lien, charge, claim or other encumbrance or restrictions (other than (x) a lien, charge, claim or other encumbrance or restriction routinely imposed on all securities by the relevant Clearance System and (y) any lien, charge, claim or other encumbrance or restriction (i) in the case of any shares of Common Stock, that exists in respect to all outstanding shares of Common Stock and (ii) in the case of any property or securities comprising any Non-Cash Distribution, that exists in respect of all such property or securities so distributed).

(o) The representations and warranties of Borrower and Lender under this Section 8 shall remain in full force and effect at all times during the term of this Agreement and shall survive the termination for any reason of this Agreement.

Section 9. *Covenants.*

(a) The parties hereto acknowledge that Borrower has informed Lender that Borrower is a “financial participant” within the meaning of Section 101(22A) of the Bankruptcy Code. The parties hereto further acknowledge and agree that (i) the Loan hereunder is intended to be a “securities contract,” as such term is defined in Section 741(7) of the Bankruptcy Code; (ii) each and every transfer of funds, securities and other property under this Agreement is intended to be a “transfer” and a “settlement payment” or a “margin payment,” as such terms are used in Section 546(e) of the Bankruptcy Code; and (iii) Borrower is intended to be entitled to the protections afforded by, among other sections, Sections 362(b)(6), 546(e), 555 and 561 of the Bankruptcy Code.

(b) Lender shall, no later than five Business Days prior to any repurchase of Common Stock, give Borrower a written notice of such repurchase (a “**Repurchase Notice**”) if, following such repurchase, the Outstanding Borrow Percentage as determined on such day after giving

effect to such repurchase would be greater than 5.0% or, after the first such Repurchase Notice, greater by 0.5% than the Outstanding Borrow Percentage included in the immediately preceding Repurchase Notice. The “**Outstanding Borrow Percentage**” as of any day is the fraction (A) the numerator of which is the aggregate number of Loaned Shares outstanding on such day and (B) the denominator of which is the number of shares of Common Stock outstanding on such day, including such Loaned Shares.

(c) Lender covenants and agrees that, unless otherwise agreed to by Borrower in writing, Lender shall not, and shall not permit any of its direct or indirect subsidiaries, or any entity or person controlled by Lender, to, directly or indirectly, purchase shares of Common Stock if, after giving effect to such purchase, the Outstanding Borrow Percentage shall be greater than 7.5%.

(d) Borrower covenants and agrees with Lender that, insofar as Borrower or any of its affiliates is the record owner of any Loaned Shares, Borrower shall use good faith efforts to use such Loaned Shares solely for the purpose of directly or indirectly facilitating the sale of the Convertible Notes and hedging activities (including short sales of such Loaned Shares) relating to the Convertible Notes by the holders thereof.

(e) Lender covenants and agrees that upon the occurrence of any event described in the definition of “Common Stock” that results in the right of holders of Common Stock to receive more than one type of consideration based upon any form of shareholder election, Lender shall notify Borrower promptly (but in any case prior to the effective date of such event) of the weighted average of the types and amounts of consideration actually received by the holders of the Common Stock.

(f) Borrower and Lender agree to deliver the following documents, as applicable:

<u>Party required to deliver document</u>	<u>Form/Document/Certificate</u>	<u>Date by which to be delivered</u>
Borrower	A complete and accurate U.S. Internal Revenue Service Form W-9 (or successor thereto).	(A) Prior to becoming a party to this Agreement and (B) promptly upon learning that any form or other document previously provided to Collateral Agent or Lender has become obsolete or incorrect.
Lender	A complete and accurate U.S. Internal Revenue Service Form W-9 (or successor thereto).	(A) Prior to becoming a party to this Agreement and (B) promptly upon learning that any form or other document previously provided to Borrower has become obsolete or incorrect.

Section 10. *Events of Default*. The Loan may, at the option of Lender (in the case of a Default by Borrower) or Borrower (in the case of a Default by Lender) by a written notice to the other parties (which option shall be deemed exercised, even if no notice is given, immediately on the occurrence of an event specified in Section 10(e) or 10(f) below), be terminated (1) immediately on the occurrence of any of the events set forth in Section 10(e) or 10(f) below or (2) two Business Days following such notice on the occurrence of any of the other events set forth below (each, a “**Default**”):

(a) Borrower fails to deliver Loaned Shares to Lender as required by Section 5;

(b) Borrower or Lender fails to deliver or pay to Lender or Borrower, respectively, when due any cash, securities or other property as required by Section 6 or otherwise;

(c) Borrower or Lender fails to transfer or return Collateral when due as required by Section 3 and Section 4 or otherwise;

(d) Borrower or Lender fails to pay Lender or Borrower, respectively, any amount when due as required by Section 11;

(e) the filing by or on behalf of Lender or Borrower of a voluntary petition or an answer seeking reorganization, arrangement, readjustment of its debts or for any other relief under any bankruptcy, reorganization, compromise, arrangement, insolvency, readjustment of debt, dissolution, moratorium, delinquency, winding-up or liquidation or similar act or law, of any state, federal or other applicable foreign jurisdictions, now or hereafter existing (“**Bankruptcy Law**”), or any action by such party for, or consent or acquiescence to, the appointment of a receiver, trustee, conservator, custodian or similar official of such party, or of all or a substantial part of its property; or the making by such party of a general assignment for the benefit of creditors; or the admission by such party in writing of its inability to pay its debts as they become due;

(f) the filing of any involuntary petition against Lender or Borrower in bankruptcy or seeking reorganization, arrangement, readjustment of its debts or for any other relief under any Bankruptcy Law and an order for relief by a court having jurisdiction in the premises shall have been issued or entered therein; or any other similar relief shall be granted under any applicable federal or state law or law of any other applicable foreign jurisdictions; or a decree or order of a court having jurisdiction in the premises for the appointment of a receiver, liquidator, sequestrator, trustee or other officer having similar powers over such party or over all or a part of its property shall have been entered; or the involuntary appointment of an interim receiver, trustee or other custodian of such party or of all or a substantial part of its property or the issuance of a warrant of attachment, execution or similar process against any substantial part of

the property of such party; and continuance of any such event for 15 consecutive calendar days unless dismissed, bonded to the satisfaction of the court having jurisdiction in the premises or discharged;

(g) Lender fails to provide any indemnity as required by Section 14; *provided* that Borrower may waive such Default by Lender in its sole discretion;

(h) Borrower or Lender notifies Lender or Borrower, respectively, of its inability to or intention not to perform its obligations hereunder or otherwise disaffirms, fails to perform, rejects or repudiates any of its obligations hereunder; or

(i) any representation made by Borrower or Lender under this Agreement shall be incorrect or untrue in any material respect when made or Borrower or Lender fails to comply in any material respect with any of its covenants under this Agreement.

Section 11. *Right to Extend; Lender's Remedies.*

(a) Except to the extent the Loan is terminated pursuant to Section 5(c) as a result of a Default by Borrower, Borrower may, following the termination of all or any portion of the Loan pursuant to Section 5, delay the date on which the related Loaned Shares are due to Lender for up to an additional 75 Business Days (the "**Settlement Due Date**", as so delayed to the extent applicable), with respect to some or all (as the case may be) of such Loaned Shares, if Borrower reasonably determines in good faith based on the advice of counsel that such extension with respect to some or all (as the case may be) of such Loaned Shares is reasonably necessary to enable Borrower (or any of its affiliates) to effect purchases of Common Stock related to the delivery of Loaned Shares due to Lender in connection with this Agreement in a manner that (x) would be in compliance with (i) legal and regulatory requirements or related policies and procedures applicable to Borrower or such affiliates in purchasing such shares of Common Stock or (ii) legal and regulatory requirements that would be applicable if Borrower were deemed to be Lender or an affiliated purchaser of Lender in purchasing such shares of Common Stock and (y) shall not be commercially impracticable, in the reasonable judgment of Borrower, in the time period required by Section 5.

(b) Upon the termination of the Loan by Lender or Borrower under Section 10, Borrower may, with the prior written consent of Lender (solely in the case of a termination of the Loan by Lender), in lieu of the delivery of Loaned Shares to Lender in accordance with Section 5(c), pay to Lender, no later than five Business Days following notice of such Default, an amount in immediately available funds (the "**Replacement Cash**") equal to the Market Value of the Loaned Shares otherwise required to be delivered as of the date of such notice of Default; *provided* that Borrower may direct the Collateral Agent to deliver to Lender any Collateral held by the Collateral Agent in respect of the Loan so terminated and, to the extent the Market Value of any such Collateral delivered to Lender is less than the required amount of Replacement Cash, pay to Lender such difference in immediately available funds. Any Collateral in respect of the Loan so terminated that is not so delivered to Lender pursuant to this subsection shall, upon payment in full of the Replacement Cash to Lender, be immediately delivered by Collateral Agent to Borrower.

(c) If, upon the termination of the Loan as a result of a Default by Borrower under Section 5(c), the purchase of Common Stock in an amount equal to all or any portion of the Loaned Shares to be delivered to Lender by Borrower in accordance with Section 5(c) of this Agreement (i) shall be prohibited by any law, rules or regulation of any governmental authority to which it is or would be subject or any related policies and procedures, (ii) shall violate, or would upon such purchase reasonably likely violate, any order or prohibition of any court, tribunal or other governmental authority, (iii) shall require the prior consent of any court, tribunal or governmental authority prior to any such repurchase, (iv) would subject Borrower, based on the advice of counsel to the Borrower, to any liability or potential liability under any applicable federal securities laws (including, without limitation, Section 16 of the Exchange Act) or (v) shall be commercially impracticable in the time period required by Section 5(c), in the commercially reasonable judgment of Borrower as a result of a demonstrable legal or regulatory impediment (including regulations of self-regulatory organizations) to such purchases (each of (i), (ii), (iii), (iv) and (v), a “**Legal Obstacle**”), then, in each case, Borrower shall immediately notify Lender of the Legal Obstacle and the basis therefor, whereupon Borrower’s obligations under Section 5(c) shall be suspended until such time as no Legal Obstacle with respect to such obligations shall exist (a “**Repayment Suspension**”). Following the occurrence of and during the continuation of any Repayment Suspension, Borrower shall use commercially reasonable efforts to remove or cure the Legal Obstacle as promptly as reasonably practicable; *provided* that (except in circumstances where the Legal Obstacle resulted from the failure by Borrower to comply with applicable securities laws or regulations) Lender shall promptly reimburse all reasonable actual out-of-pocket costs and expenses (including of legal counsel to Borrower) incurred or, at Borrower’s election, provide reasonably adequate surety or guarantee for any such costs and expenses that may be incurred by Borrower, in each case, in removing or curing such Legal Obstacle; and *provided further* that, if Borrower cannot remove or cure the Legal Obstacle within ten Business Days, then Lender shall have the right, exercisable in its sole discretion, to (x) notify Borrower of its election that Borrower pay to Lender, in lieu of the Loaned Shares otherwise due in accordance with Section 5(c), Replacement Cash in an amount equal to the Market Value as of the date of such notice of the Loaned Shares otherwise due and (y) direct the Collateral Agent to, and the Collateral Agent upon receipt of the written request of Lender (with a copy to Borrower but without any further consent of Borrower) shall, release to Lender an amount of Collateral with a Market Value as of the date of such notice to Borrower equal to the amount of such Replacement Cash, whereupon the Borrower’s obligation to return the specified number of Loaned Shares to the Lender or to pay such Replacement Cash shall be automatically extinguished.

(d) If Borrower shall fail to deliver Loaned Shares to Lender pursuant to Section 5(c) when due or shall fail to pay the Replacement Cash to Lender when due in accordance with Section 11(b) or (c) above, then, in either case, in addition to any other remedies available to Lender under this Agreement or under applicable law, Lender shall have the right (upon prior written notice to Borrower) to purchase a like amount of Loaned Shares (“**Replacement Shares**”) in the principal market for such securities in a commercially reasonable manner. To the extent Lender shall exercise such right, (i) Borrower’s obligation to return a like amount of Loaned Shares or to pay the Replacement Cash, as applicable, shall terminate and Borrower shall be liable to Lender for the purchase price of Replacement Shares, (ii) Lender shall have the right to direct the Collateral Agent to, and the Collateral Agent upon receipt of the written request of Lender (which request shall identify the failure giving rise to such right with specificity, contain

a certification that such failure has occurred and state that Lender is exercising its rights under this Section 11(d)) and without any further consent of Borrower shall, sell any Collateral in the principal market for such Collateral in a commercially reasonable manner and (iii) Lender shall have the right to apply and set off the Collateral and any proceeds thereof (including any amounts drawn under a letter of credit supporting the Loan) against the payment of the purchase price for such Replacement Shares (*plus* all other amounts, if any, due to Lender hereunder). In the event that (x) the purchase price of Replacement Shares (*plus* all other amounts, if any, due to Lender hereunder) exceeds (y) the Market Value of the Collateral, Borrower shall be liable to Lender for the amount of such excess. The purchase price of Replacement Shares purchased under this Section 11 shall include, and the proceeds of any sale of Collateral shall be determined after deduction of, brokers' fees and commissions and all other reasonable costs, fees and expenses related to such purchase and sale. In the event Lender exercises its rights under this Section 11, Lender may elect in its sole discretion, in lieu of purchasing all or a portion of the Replacement Shares or selling all or a portion of the Collateral, to be deemed to have made, respectively, such purchase of Replacement Shares or sale of Collateral for an amount equal to the Closing Price of the Common Stock on the date Lender elects to exercise this remedy. Upon the satisfaction of all Borrower's obligations hereunder, any remaining Collateral shall be returned to Borrower.

(e) If upon Lender's instruction the Collateral Agent fails to transfer Collateral, if any, to Borrower when due as required by Section 3 and Section 4, or if a Default shall occur with respect to Lender, then Borrower shall have the right (without further notice to Lender) to (i) purchase a like amount of Collateral (which amount may be all of the Collateral in the case of a Default with respect to Lender) ("**Replacement Collateral**") in the principal market for such Collateral in a commercially reasonable manner, (ii) sell a like amount of Loaned Shares in the principal market for such Loaned Shares in a commercially reasonable manner and (iii) apply and set off Borrower's obligation to return such Loaned Shares and any proceeds thereof against the payment of the purchase price for such Replacement Collateral, Lender's obligation to return any cash or other Collateral to Borrower and any amounts due to Borrower under this Agreement. To the extent Borrower shall exercise such right, Lender's obligation to return a like amount of Collateral shall terminate. In the event that (i) the purchase price of Replacement Collateral (plus all other amounts, if any, due to Lender hereunder) exceeds (ii) the sale price of the Loaned Shares, Lender shall be liable to Borrower for the amount of such excess. The purchase price of Replacement Collateral purchased under this Section 11 shall include, and the proceeds of any sale of Loaned Shares shall be determined after deduction of, broker's fees and commissions and all other reasonable costs, fees and expenses related to such purchase and sale. In the event Borrower exercises its rights under this Section 11, Borrower may elect in its sole discretion, in lieu of selling all or a portion of the Loaned Shares or purchasing all or a portion of the Replacement Collateral, to be deemed to have made, respectively, such sale of Loaned Shares or such purchase of the Replacement Collateral for an amount equal to the Closing Price of the Loaned Shares or the Market Value of the Collateral, respectively, on the date Borrower elects to exercise this remedy. Upon the satisfaction of all Lender's obligations hereunder, any remaining Loaned Shares shall be returned to Lender.

(f) Notwithstanding anything to the contrary, the parties hereto agree that no special, indirect or consequential damages shall be due in connection with, arising out of, or in relation to this Agreement.

Section 12. *Transfer Taxes.*

All transfer taxes with respect to the transfer of the Loaned Shares by Lender to Borrower and by Borrower to Lender upon termination of the Loan and with respect to the transfer of Collateral by Borrower to Collateral Agent and by Collateral Agent to Borrower upon termination of the Loan or pursuant to Section 3(e) or Section 4 shall be paid by Lender.

Section 13. *Transfers.*

(a) All transfers of Loaned Shares to Borrower hereunder shall be made by the crediting by a Clearing Organization of such Loaned Shares to Borrower's "securities account" (within the meaning of Section 8-501 of the UCC) designated by Borrower and maintained with such Clearing Organization. All transfers of Loaned Shares to Lender hereunder shall be made by the crediting by a Clearing Organization of such Loaned Shares to Lender's "securities account" (within the meaning of Section 8-501 of the UCC) designated by Lender and maintained with such Clearing Organization; *provided* that, if Lender does not provide all relevant details with respect to such "securities account" to Borrower promptly upon request, Borrower shall be deemed to have satisfied its obligation to transfer Loaned Shares to Lender under Section 5 upon its notice to Lender that such Loaned Shares are available for transfer, and thereafter Borrower shall be deemed to hold the same as bailee of Lender. In every transfer of Loaned Shares hereunder, the transferor shall take all steps necessary (a) to effect a delivery to the transferee under Section 8-301 of the UCC, or to cause the creation of a security entitlement in favor of the transferee under Section 8-501 of the UCC, (b) to enable the transferee to obtain "control" (within the meaning of Section 8-106 of the UCC), and (c) to provide the transferee with comparable rights under any applicable foreign law or regulation that is applicable to such transfer.

(b) All transfers of cash hereunder to Borrower or Lender shall be by wire transfer in immediately available, freely transferable funds.

(c) A transfer of securities or cash may be effected under this Section 13 on any day except (i) a day on which the transferee is closed for business at its address set forth in Section 16 or (ii) a day on which a Clearing Organization or wire transfer system is closed, if the facilities of such Clearing Organization or wire transfer system are required to effect such transfer, in which case under clause (i) or (ii), such transfer shall be made on the immediately following day on which such exceptions are not in effect.

(d) To the extent permitted by law, neither this Agreement nor any interest or obligation in or under this Agreement may be transferred (whether by way of security or otherwise) by any party without the prior written consent of the other parties; *provided* that Borrower may, without the consent of Lender, transfer or assign all or any part of its rights or obligations under this Agreement to any of Borrower's affiliates (i) if Borrower determines that such transfer is required or advisable in light of legal and regulatory requirements or related policies and procedures applicable to Borrower or its affiliates or (ii) if, absent such transfer, Borrower or any of its affiliates would incur a materially increased cost or other increased expense (compared to such cost of expenses as of the date hereof) or would experience any other material adverse effect so long as such transfer or assignment would not reasonably be expected to result in

materially adverse tax consequences for Lender and (x) such affiliate has a long-term issuer rating that is equal to or better than Borrower's credit rating at the time of such transfer or assignment, (y) such affiliate's obligations hereunder will be guaranteed, pursuant to the terms of a customary guarantee in a form used by Borrower generally for similar transactions, by Borrower or JPMorgan Chase & Co. or (z) such affiliate has a long-term issuer rating equal to or better than A- by Standard and Poor's Rating Group, Inc. or its successor ("**S&P**") or A3 by Moody's Investor Service, Inc. or its successor ("**Moody's**") or, if either S&P or Moody's ceases to rate such debt, at least an equivalent rating or better by a substitute rating agency mutually agreed by Borrower and Lender. Subject to the foregoing, this Agreement shall be binding upon and shall inure to the benefit of Borrower, Lender and their respective successors and permitted assigns. Any purported transfer that is not in compliance with this Section 13(d) shall be null and void

Section 14. *Indemnification.*

(a) Lender hereby agrees to indemnify and hold harmless Borrower and its affiliates and its former, present and future directors, officers and employees from and against any and all liabilities, judgments, claims, settlements, losses, damages and other expenses (including, without limitation, direct losses relating to Borrower's market activities as a consequence of becoming subject to Section 16(b) under the Exchange Act, and including, without limitation, any forbearance from market activities or cessation of market activities and any losses in connection therewith or with respect to this Agreement) (collectively, "**Losses**") incurred or suffered by any such person or entity directly arising from (i) any material breach by Lender of any of its representations or warranties contained in Section 8 or (ii) any material breach by Lender of any of its covenants or agreements in this Agreement; *provided, however*, that Lender shall not be liable for any Losses arising from (A) any material breach by Borrower of any of its representations or warranties contained in Section 8 or (B) any material breach by Borrower of any of its covenants or agreements in this Agreement.

(b) In case any claim or litigation which might give rise to any obligation of Lender under this Section 14 (each an "**Indemnifying Party**") shall come to the attention of the party seeking indemnification hereunder (the "**Indemnified Party**"), the Indemnified Party shall within five Business Days notify the Indemnifying Party in writing of the existence and amount thereof; *provided* that the failure of the Indemnified Party to give such notice shall not adversely affect the right of the Indemnified Party to indemnification under this Agreement, except to the extent the Indemnifying Party is materially prejudiced thereby. The Indemnifying Party shall promptly notify the Indemnified Party in writing if it accepts such claim or litigation as being within its indemnification obligations under this Section 14. Such response shall be delivered no later than 45 days after the initial notification from the Indemnified Party; *provided* that, if the Indemnifying Party reasonably cannot respond to such notice within 45 days, the Indemnifying Party shall respond to the Indemnified Party as soon thereafter as reasonably possible.

(c) An Indemnifying Party shall be entitled to participate in and, if (i) in the good faith judgment of the Indemnified Party such claim can properly be resolved by money damages alone and the Indemnifying Party has the financial resources to pay such damages and (ii) the Indemnifying Party admits that this indemnity fully covers the claim or litigation, the Indemnifying Party shall be entitled to direct the defense of any claim at its expense, but such

defense shall be conducted by legal counsel reasonably satisfactory to the Indemnified Party. An Indemnified Party shall not make any settlement of any claim or litigation under this Section 14 without the written consent of the Indemnifying Party (such consent not to be unreasonably withheld or delayed). Nothing in this subsection (c) shall be deemed to limit, or be a waiver of either party in respect of, this Section 14.

Section 15. *Termination of Agreement.*

(a) This Agreement may be terminated (i) at any time by the written agreement of Lender and Borrower or (ii) by Lender (upon the occurrence of a Default with respect to Borrower) or Borrower (upon the occurrence of a Default with respect to Lender).

(b) Unless otherwise agreed by Borrower and Lender, the provisions of this Agreement shall survive the termination of this Agreement.

Section 16. *Amendments.* No amendment or modification in respect of this Agreement shall be effective unless it shall be in writing and signed by the parties hereto.

Section 17. *Notices.*

(a) All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given when received.

(b) All such notices and other communications shall be directed to the following address:

(i) If to Borrower to:

J.P. Morgan Securities LLC
EDG Marketing Support
Email: edg_notices@jpmorgan.com
edg.us.flow.corporates.mo@jpmorgan.com
Facsimile No: 1-866-886-4506

With a copy to:

Attention: Santosh Sreenivasan
Title: Managing Director
Telephone No: (212) 622-5604
Email: santosh.sreenivasan@jpmorgan.com

(ii) If to Lender to:

Intrexon Corporation
20374 Seneca Meadows Parkway
Germantown, MD 20876
Attn: Donald P. Lehr
Telephone: (301) 556-9809
Email: dlehr@intrexon.com

(iii) If to Collateral Agent to:

JPMorgan Chase Bank, National Association, New York Branch
EDG Marketing Support
Email: edg_notices@jpmorgan.com
edg.us.flow.corporates.mo@jpmorgan.com
Facsimile No: 1-866-886-4506

With a copy to:

Attention: Santosh Sreenivasan
Title: Managing Director
Telephone No: (212) 622-5604
Email: santosh.sreenivasan@jpmorgan.com

or, in the case of any party, at such other address as may be designated by written notice to the other parties.

Section 18. Governing Law; Submission To Jurisdiction; Severability.

(a) This Agreement shall be governed by and construed in accordance with the laws of the State of New York, but excluding any choice of law provisions that would require the application of the laws of a jurisdiction other than New York.

(b) EACH PARTY HERETO IRREVOCABLY AND UNCONDITIONALLY (A) SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF ANY UNITED STATES FEDERAL OR NEW YORK STATE COURT SITTING IN NEW YORK CITY, AND ANY APPELLATE COURT FROM ANY SUCH COURT, SOLELY FOR THE PURPOSE OF ANY SUIT, ACTION OR PROCEEDING BROUGHT TO ENFORCE ITS OBLIGATIONS HEREUNDER OR RELATING IN ANY WAY TO THIS AGREEMENT OR THE LOAN HEREUNDER AND (B) WAIVES, TO THE FULLEST EXTENT IT MAY EFFECTIVELY DO SO, ANY DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT AND ANY RIGHT OF JURISDICTION ON ACCOUNT OF ITS PLACE OF RESIDENCE OR DOMICILE.

(c) EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES ANY RIGHT THAT IT MAY HAVE TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

(d) To the extent permitted by law, the unenforceability or invalidity of any provision or provisions of this Agreement shall not render any other provision or provisions herein contained unenforceable or invalid.

(e) For purposes of the UCC, New York is the jurisdiction of the Collateral Agent in its capacity as securities intermediary with respect to the Collateral and the Collateral Account.

Section 19. *Counterparts*. This Agreement may be executed in any number of counterparts, and all such counterparts taken together shall be deemed to constitute one and the same agreement.

Section 20. *Designation of Replacement Collateral Agent*. If at any time while this Agreement is in effect the Collateral Agent provides notice of its intention to resign as Collateral Agent hereunder, Lender shall be entitled to designate a bank or trust company reasonably satisfactory to Borrower as a successor Collateral Agent. In the event of a designation of a successor Collateral Agent, each of the parties to this Agreement agrees to take all such actions as are reasonably necessary to effect the transfer of rights and obligations of the departing Collateral Agent to such successor Collateral Agent, including the execution and delivery of amendments to this Agreement as shall be necessary to effect such designation and transfer.

IN WITNESS WHEREOF, the parties hereto have executed this Share Lending Agreement as of the date and year first above written.

INTREXON CORPORATION,
as Lender

By: /s/ Donald P. Lehr
Donald P. Lehr
Chief Legal Officer

[Signature Page to Share Lending Agreement]

J.P. MORGAN SECURITIES LLC,
as Borrower

By: /s/ Kevin Cheng
Name: Kevin Cheng
Title: Vice President

[Signature Page to Share Lending Agreement]

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION,
NEW YORK BRANCH,
as Collateral Agent

By: /s/ Kevin Cheng
Name: Kevin Cheng
Title: Vice President

[Signature Page to Share Lending Agreement]

ANNEX A
IMPORTANT RISK DISCLOSURES
WITH RESPECT TO FULLY PAID OR
EXCESS MARGIN SECURITIES
LENDING TRANSACTIONS¹

Please read these important disclosures carefully before agreeing to lend any of your fully paid securities or excess margin securities (the “Loaned Securities”) to J.P. Morgan Securities LLC (“we” or “JPMS”) pursuant to the Share Lending Agreement (the “SLA”) to which this Annex A is attached. These disclosures are intended to be read in conjunction with the SLA between you and JPMS, which must be executed prior to entering into, and which governs, any loans of Loaned Securities to JPMS. These disclosures describe important characteristics of, and risks associated with engaging in, securities lending transactions:

1. **THE PROVISIONS OF THE SECURITIES INVESTOR PROTECTION ACT OF 1970 (“SIPA”) MAY NOT PROTECT YOU WITH RESPECT TO LOANED SECURITIES AND, THEREFORE, THE COLLATERAL DELIVERED TO YOU MAY CONSTITUTE THE ONLY SOURCE OF SATISFACTION OF JPMS’S OBLIGATIONS IN THE EVENT JPMS FAILS TO RETURN THE LOANED SECURITIES.**
2. Loss of Rights with Respect to Loaned Securities. While a securities loan is outstanding, and until Loaned Securities are credited back to your account upon termination of a loan, you will cease to own the Loaned Securities and will not have the right to sell the Loaned Securities. However, you retain a contractual right to the return of the Loaned Securities and, accordingly, continue to have market exposure with respect to the Loaned Securities.
3. JPMS Compensation with Respect to Loaned Securities. JPMS and its associated persons will receive compensation in connection with the use of your Loaned Securities, including in connection with facilitating settlement of short sales by JPMS, its affiliates and/or its customers.
The key factor in determining the amount of such compensation JPMS and its associated persons will receive from using your Loaned Securities is the availability of the securities for lending in the marketplace relative to the demand to borrow such securities. JPMS has an opportunity to earn more compensation when the securities become limited in supply relative to demand (i.e., become “hard to borrow” securities)
4. Your Compensation with Respect to Loaned Securities. JPMS will not pay you any fee for the borrowing of the Loaned Securities. You have agreed to loan the Loaned Securities to JPMS in consideration of the benefits you will receive in connection with the offer and sale of convertible notes for which JPMS is acting as underwriter.

¹ These disclosures are designed to satisfy the requirements of FINRA Rule 4330(b)(2)(B).

5. Collateral for Loaned Securities. Pursuant to the SLA, in exchange for the Loaned Securities, JPMS will provide you (or, in the alternative, pledge to you in an account maintained by a custodian) with either cash collateral or a form of non-cash collateral permissible under Rule 15c3-3(b)(3)(iii)(B) of the Securities Exchange Act of 1934 and related SEC guidance.

Pursuant to the SLA and applicable regulations, JPMS will mark the Loaned Securities to market at the close of trading on each business day and, if necessary, will transfer additional collateral no later than the close of business on the next business day so that the market value of the collateral is equal to the market value of the Loaned Securities. If JPMS defaults and the market value of the Loaned Securities increases in value on the day JPMS defaults, the cash collateral provided by JPMS may be insufficient to fully collateralize the Loaned Securities. If JPMS collateralizes the Loaned Securities with securities collateral, the securities collateral will be subject to market risk, and therefore may not be sufficient to replace the full value of Loaned Securities should JPMS default.

SHOULD JPMS POST SECURITIES COLLATERAL AS PERMITTED BY APPLICABLE LAW, SOME SECURITIES PROVIDED BY JPMS AS COLLATERAL UNDER THE SLA MAY NOT BE GUARANTEED BY THE UNITED STATES.

6. Permitted Purpose to Borrow Loaned Securities. JPMS may borrow the Loaned Securities for any purpose permitted under Regulation T, including to make and facilitate short sales. Use of the Loaned Securities to make or facilitate short sales could put downward pressure on the price of the Loaned Securities.
7. “Hard to Borrow” Determination. Loaned Securities may be, or may become, “hard to borrow” because of short selling or scarcity of available lending supply or corporate events that may impact liquidity in a security.
8. Loaned Securities / Short Sales. You are under no obligation to enter into a securities loan with JPMS and may elect not to allow your Loaned Securities to be used in connection with short sales or any other permitted purpose by not agreeing to enter into the SLA.
9. Potential Tax Implication with Respect to Loaned Securities. During the term of any securities loan, you are entitled to receive the amount of all dividends and distributions made on or in respect of the Loaned Securities. However, you will receive manufactured payments (*e.g.*, cash substitute payments) in lieu of receiving dividends or distributions directly from the issuer (or in some cases involving non-cash distributions, we may adjust the number of Loaned Shares to account for the value of the relevant distribution). Certain unique distributions may not be capable of being exactly replicated as a manufactured payment by JPMS.

(a) Cash payments, and the fair value of non-cash payments, in lieu of dividends may be taxable to you, and you may not be entitled to any exemption or preference with respect to these amounts. Adjustments to the number of Loaned Shares in lieu of non-cash dividends could also be taxable to you.

(b) You should consult a tax advisor regarding the tax implications of entering into a securities loan with JPMS, including, but not limited to: treatment of cash-in-lieu payments and adjustments to the number of Loaned Shares under U.S. state tax laws and the Internal Revenue Code, as well as any foreign tax regulations and the treatment of interest received on cash collateral.

10. JPMS Right to Terminate. JPMS shall have the right to terminate all or any portion of the securities loan at any time. In addition, JPMS shall have the right to liquidate the securities loan if a default, as defined in the SLA, occurs with respect to you. A default includes, but is not limited to, if you:

- (a) are subject to certain voluntary or involuntary bankruptcy- or insolvency-related events; or
- (b) fail to comply with your obligation under the SLA to return collateral to JPMS when due;
- (c) fail to provide any indemnity as required by the SLA;
- (d) notify JPMS of your inability or intention not to perform your obligations under the SLA; or
- (e) breach your representations and warranties or covenants in the SLA.

**TERMINATION OF
PREFERRED STOCK EQUITY FACILITY AGREEMENT**

This **TERMINATION OF PREFERRED STOCK EQUITY FACILITY AGREEMENT** (the “**Termination Agreement**”) is made and entered into as of the 28th day of June 2018 by and between Kapital Joe, LLC (the “**Investor**”) and Intrexon Corporation, a Virginia corporation (the “**Company**”).

WHEREAS, pursuant to a Preferred Stock Equity Facility, dated as of October 16, 2017, between the Investor and the Company (the “**Agreement**”), the Company agreed to issue, and the Investor agreed to purchase, from time to time up to \$100 million of the Company’s Series A Redeemable Preferred Stock (the “**Series A Preferred Stock**”);

WHEREAS, no shares of Series A Preferred Stock have been issued and no shares of Series Preferred Stock are currently outstanding;

WHEREAS, the Company has announced its intention to sell \$200 million of the Company’s convertible senior notes due 2023, and up to \$230 million if the underwriters’ exercise their over-allotment option (the “**Notes Offering**”); and

WHEREAS, the Company and the Investor desire to terminate the Agreement upon closing of the Notes Offering.

NOW, THEREFORE, the parties hereto agree as follows:

1. **Termination**. The Company and the Investor hereby agree that conditioned upon and effective immediately following the closing of the Notes Offering with net proceeds to the Company of not less than \$175 million (the “**Effective Time**”), the Agreement shall terminate and be of no further legal force and effect and neither party shall have any further liability or obligations to the other party after the Effective Time.

2. **Governing Law**. This Termination Agreement shall be governed by, and construed and interpreted in accordance with, the internal laws of the Commonwealth of Virginia without regard to any conflicts of law provisions thereof.

3. **Binding Effect**. This Termination Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal and legal representatives, successors and assigns. This Agreement shall be effective only upon the execution by all parties.

4. **Counterparts**. This Termination Agreement may be executed in any number of counterparts (including by facsimile), each of which when so executed shall be deemed to be an original and all of which counterparts together shall constitute one and the same instrument.

5. **Continuing Obligations**. Prior to the Effective Time and subject to the closing of the Notes Offering, the Agreement shall be and remain in full force and effect and shall constitute the legal, valid, binding and enforceable obligations of the Company and the Investor.

In the event that the Effective Time does not occur on or before July 13, 2018, then this Termination Agreement shall terminate and be of no further force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed and delivered on their behalf as of the date first above written.

INVESTOR:

KAPITAL JOE, LLC

By: Third Security, LLC, its Manager

By: /s/ Randal J. Kirk

Randal J. Kirk

Manager

INTREXON CORPORATION

By: /s/ Donald P. Lehr

Donald P. Lehr

Chief Legal Officer

Intrexon Corporation
Computation of Ratio of Earnings to Fixed Charges
(in thousands)

	Three Months Ended March 31,	Year Ended December 31,				
	2018	2017	2016	2015	2014	2013
Calculation of earnings (loss):						
Pre-tax loss from continuing operations before adjustments for noncontrolling interests and losses from equity method investees	(44,858)	(115,417)	(173,031)	(78,034)	(80,459)	(40,302)
Add: Fixed charges (see below)	1,185	4,296	3,723	4,112	3,501	2,030
Total loss	(43,673)	(111,121)	(169,308)	(73,922)	(76,958)	(38,272)
Fixed charges:						
Interest expense	(99)	(611)	(861)	(1,244)	(666)	(141)
Interest expense on portion of rent expense representative of interest	(1,086)	(3,685)	(2,862)	(2,868)	(2,835)	(1,889)
Total fixed charges	(1,185)	(4,296)	(3,723)	(4,112)	(3,501)	(2,030)
Ratio of earnings(loss) to fixed charges(1)	—	—	—	—	—	—

- (1) Earnings for the three months ended March 31, 2018, and for the years ended December 31, 2017, 2016, 2015, 2014, and 2013 were less than zero. As a result the coverage ratio was less than 1:1. The amounts of deficiencies, or the additional earnings we would need to generate to achieve a coverage ratio of 1:1, were approximately \$44,858, \$115,417, \$173,031, \$78,034, \$80,459, and \$40,302, respectively, for the three months ended March 31, 2018, and for the years ended December 31, 2017, 2016, 2015, 2014, and 2013.

Convertible Notes

Item 14.

The registrant is filing this Exhibit 99.1 for the purpose of incorporating the information set forth herein by reference into the automatic shelf registration statement on Form S-3ASR (File No. 333-220326) that was filed by the registrant with the Securities and Exchange Commission on September 1, 2017.

The following table sets forth the estimated costs and expenses, other than underwriting discounts and commissions, payable by the registrant in connection with the sale of the securities being registered:

SEC Registration Fees	\$ 30,000
Printing and Engraving Expenses	\$ 20,000
Legal Fees and Expenses	\$125,000
Accounting Fees and Expenses	\$ 50,000
Trustee, Transfer Agent and Registrar Fees	\$ 15,000
NYSE Listing Fee	\$ 80,000
Miscellaneous Expenses	\$ 30,000
Total	\$350,000

Borrowed Shares**Item 14.**

The registrant is filing this Exhibit 99.2 for the purpose of incorporating the information set forth herein by reference into the automatic shelf registration statement on Form S-3ASR (File No. 333-220326) that was filed by the registrant with the Securities and Exchange Commission on September 1, 2017.

The following table sets forth the estimated costs and expenses, other than underwriting discounts and commissions, payable by the registrant in connection with the sale of the securities being registered:

SEC Registration Fees	\$ 13,000
Printing and Engraving Expenses	\$ 20,000
Legal Fees and Expenses	\$125,000
Accounting Fees and Expenses	\$ 50,000
Transfer Agent and Registrar Fees	\$ 10,000
NYSE Listing Fee	\$ 35,000
Miscellaneous Expenses	\$ 22,000
Total	\$275,000