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): May 10, 2018

INTREXON CORPORATION
(Exact Name of Registrant as Specified in Charter)

Virginia	**001-36042**	**26-0084895**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(I.R.S. 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 change 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 2.02 Results of Operations and Financial Condition.

Attached as Exhibit 99.1 is a copy of a press release of Intrexon Corporation, dated May 10, 2018, reporting its financial results for the quarter ended March 31, 2018.

Such information, including the Exhibit attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, except as shall be expressly set forth by specific reference in such filing.

Item 7.01 Regulation FD Disclosure.

On May 10, 2018, Intrexon Corporation provided slides to accompany its earnings presentation. A copy of the slides is furnished as Exhibit 99.2 hereto.

Such information, including the Exhibit attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press release dated May 10, 2018.
99.2	Slide presentation of Intrexon Corporation dated May 10, 2018.

SIGNATURES

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

Intrexon Corporation

By: /s/ Rick L. Sterling
Rick L. Sterling
Chief Financial Officer

Dated: May 10, 2018

Exhibit 99.1

Intrexon Announces First Quarter 2018 Financial Results

– Quarterly GAAP revenues of $43.8 million and net loss attributable to Intrexon of $42.0 million including non-cash charges of $26.3 million –
– Adjusted EBITDA of $(19.7) million –

GERMANTOWN, MD, May 10, 2018 – Intrexon Corporation (NYSE: XON), a leader in the engineering and industrialization of biology to improve the quality of life and health of the planet, today announced its first quarter financial results for 2018.

First Quarter 2018 Business Highlights:

- Precigen, Inc., and ActoBio Therapeutics, Inc., began operating as standalone entities effective January 1, 2018 and are now wholly owned subsidiaries of Intrexon;
- Intrexon's Energy team demonstrated successful third party catalytic conversion of 2,3 BDO to 1,3 butadiene. The conversion efficiency exceeded both the Company's financial model and synthetic rubber industry product quality expectations;
- ActoBio Therapeutics and collaborator Intrexon T1D Partners, LLC, have been granted allowance by the U.S. Food & Drug Administration (FDA) for their Investigational New Drug (IND) application to initiate a Phase Ib/IIa study for the treatment of early onset type 1 diabetes with AG019, an innovative disease-modifying approach to induce immune tolerance;
- Exemplar Genetics, a wholly owned subsidiary of Intrexon, announced the FDA exercised enforcement discretion clearing for commercial use as a research model the ExeGen® ATM MiniSwine, which is genetically engineered to model ataxia telangiectasia (AT), a rare, inherited, predominantly neurological human disease. Following Exemplar's previous approval of its ExeGen® LDLR MiniSwine model for use in cardiovascular disease research, the ExeGen® ATM model is the second engineered MiniSwine model reviewed and cleared by the FDA;
- Okanagan Specialty Fruits (OSF), a wholly owned subsidiary of Intrexon, launched the sales of dried Arctic® Goldens – Arctic ApBitz™ apple snacks – via Amazon;
- Intrexon's Industrial Products Division has demonstrated microbial production of cannabinoids that has potential to provide >20-fold reduction in Cost Of Goods with reduced environmental impacts for THC and CBD versus current synthetic and extraction-based routes;
- Collaborator Fibrocell Science, Inc. (NASDAQ: FCSC) obtained allowance from the FDA to begin clinical trials for FCX-013, its gene therapy candidate for the treatment of moderate to severe localized scleroderma; and
- In January, Intrexon sold 6,900,000 shares of its common stock in an underwritten public offering at a public offering price of $12.50 per share, including the exercise in full by the underwriters of their option to purchase an additional 900,000 shares of common stock. Gross proceeds to Intrexon from the offering were approximately $86.3 million before deducting the underwriting discount and other offering expenses payable by Intrexon.

Recent Developments:

- 2,3 BDO yields are up 25% since last reported and the rate of yield improvement is in line with Intrexon's expectations and supports the Company's plans to break ground on a 40,000 ton/year facility by year end;

- Isobutanol yields are again improving and are up about 40% since last reported. This return to yield improvements for isobutanol was the result of the re-design of a promiscuous enzyme that was degrading product and making further optimization of the production pathway challenging;
- Partnering activity concerning Intrexon's methane bioconversion platform is robust with multiple parties engaged. Potential partners include both strategic and financial companies;
- Xogenex, a majority-owned subsidiary of Precigen, has opened and is actively recruiting patients its Phase 1 trial of the gene therapy INXN-4001, which the company believes is the world's first multigene cardiac therapeutic candidate expressing proteins from three effector genes for the treatment of heart disease;
- OSF has completed the planting of 520,000 of the 600,000 Arctic® apple trees planned for the year; and
- AquaBounty Technologies, Inc. (NASDAQ: AQB), a majority-owned subsidiary of Intrexon, received FDA approval of its recirculating aquaculture system (RAS) salmon production facility in Indiana and is ready to commence U.S. production, pending final adoption of the recently released labeling standards issued by the United States Department of Agriculture.

First Quarter 2018 Financial Highlights:

- Total revenues of $43.8 million, a decrease of 18% from the first quarter of 2017;
- Net loss of $42.0 million attributable to Intrexon, or $(0.33) per basic share, including non-cash charges of $26.3 million;
- Adjusted EBITDA of $(19.7) million, or $(0.15) per basic share;
- The net change in deferred revenue related to upfront and milestone payments, which represents the cash and stock received from collaborators less the amount of revenue recognized during the period, was a decrease of $13.6 million compared to a decrease of $10.2 million in the first quarter of 2017; and
- Cash, cash equivalents, and short-term investments totaled $120.2 million, the value of preferred shares totaled $166.1 million, and the value of common equity securities totaled $14.0 million at March 31, 2018.

"It was a solid quarter of execution throughout our company," commented Randal J. Kirk, Chairman and Chief Executive Officer of Intrexon. "Our partnering activities, now focusing on larger transactions with major players on our more mature programs and platforms, are gaining traction and momentum so the balance of the year is coming into focus for us in a satisfying way. Simultaneously, we saw that the Arctic ApBitz™ snacks of Okanagan Specialty Fruits genuinely delight customers as we had hoped, while the future availability of AquaBounty's AquAdvantage® salmon in U.S. markets took a major step forward."

Mr. Kirk concluded, "While getting products from our mature programs and platforms into commerce remains a great focus of our senior team, I must say that my gratitude and respect goes out especially to our scientific teams, several of which recently have been responsible for a number of 'world first instance' matters of true significance. This is especially so for our Energy team who seem to have solved a tremendously baffling technical issue that had been impeding further progress on isobutanol for several months."

First Quarter 2018 Financial Results Compared to Prior Year Period

Total revenues decreased $9.9 million, or 18%, from the quarter ended March 31, 2017. Collaboration and licensing revenues decreased $9.0 million from the quarter ended March 31, 2017 primarily due to the decrease in research and development services for certain of the Company's exclusive channel collaborations, or ECCs, as the Company redeployed certain resources towards supporting prospective new platforms and partnering opportunities and began to focus more on the further development of relationships and structures that provide the Company with more control and ownership over the development process and commercialization path. This

decrease was partially offset by the accelerated recognition of the remaining balance of previously deferred revenue related to the Company's ECC with OvaScience, Inc., or OvaScience, which was mutually terminated in March 2018. Product revenues decreased $1.0 million, or 12%, primarily due to lower customer demand for cows and live calves combined with lower sales prices on cows. Gross margin on products declined in the current period as a result of increased operating costs associated with new product offerings.

Research and development expenses increased $3.1 million, or 9%, due primarily to increases in (i) salaries, benefits and other personnel costs for research and development employees and (ii) depreciation and amortization. Salaries, benefits and other personnel costs increased $1.5 million due to an increase in research and development headcount necessary to invest in current or expanding platforms and increased compensation expenses related to performance and retention incentives for research and development employees. Depreciation and amortization increased $1.2 million primarily as a result of (i) the amortization of developed technology acquired from GenVec, Inc., in June 2017, and (ii) additional research and development assets placed in service in 2017 at Oxitec. Selling, general and administrative (SG&A) expenses increased $4.6 million, or 13%. Salaries, benefits and other personnel costs increased $6.2 million primarily due to (i) increased headcount to support the Company's expanding operations, (ii) increased compensation expenses related to performance and retention incentives for SG&A employees, and (iii) higher stock-based compensation expense due to the inclusion in the quarter ended March 31, 2017, of the reversal of previously recognized stock-based compensation expense for stock options granted to the Company's former President who resigned in March 2017 as well as incremental stock-based compensation expenses associated with new equity grants issued in 2018. Legal and professional fees decreased $2.3 million primarily due to (i) decreased legal fees associated with ongoing litigation and (ii) decreased fees incurred for regulatory and other consultants.

The decrease in equity in net loss of affiliates of $2.5 million, or 50%, was directly related to the decrease in collaboration revenues from collaborators in which Intrexon owns an equity-method interest.

Conference Call and Webcast

The Company will host a conference call today Thursday, May 10th, at 5:30 PM ET to discuss the first quarter 2018 financial results and provide a general business update. The conference call may be accessed by dialing 1-888-317-6003 (Domestic US), 1-866-284-3684 (Canada), and 1-412-317-6061 (International) and providing the number 3130312 to join the Intrexon Corporation Call. Participants may also access the live webcast through Intrexon's website in the Investors section at http://investors.dna.com/events.

About Intrexon Corporation

Intrexon Corporation (NYSE: XON) is Powering the Bioindustrial Revolution with Better DNA™ to create biologically-based products that improve the quality of life and the health of the planet. Intrexon's integrated technology suite provides its partners across diverse markets with industrial-scale design and development of complex biological systems delivering unprecedented control, quality, function, and performance of living cells. We call our synthetic biology approach Better DNA®, and we invite you to discover more at www.dna.com or follow us on Twitter at @Intrexon, on Facebook, and LinkedIn.

Non-GAAP Financial Measures

This press release presents Adjusted EBITDA and Adjusted EBITDA per share, which are non-GAAP financial measures within the meaning of applicable rules and regulations of the Securities and Exchange Commission (SEC). For a reconciliation of these measures to the most directly comparable financial measure calculated in accordance with generally accepted accounting principles and for a discussion of the reasons why the company believes that these non-GAAP financial measures provide information that is useful to investors see the tables below under "Reconciliation of GAAP to Non-GAAP Measures." Such information is provided as additional information, not as an alternative to Intrexon's consolidated financial statements presented in accordance with GAAP, and is intended to enhance an overall understanding of the Intrexon's current financial performance.

Trademarks

Intrexon, ActoBio Therapeutics, ExeGen, Arctic, ApBitz, Powering the Bioindustrial Revolution with Better DNA, and Better DNA are trademarks of Intrexon and/or its affiliates. Other names may be trademarks of their respective owners.

Safe Harbor Statement

Some of the statements made in this press release are forward-looking statements that involve a number of risks and uncertainties and are made pursuant to the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements made in this press release include, but are not limited to, statements regarding clinical and pre-clinical development activities by Intrexon and its collaborators, commercial and business development plans and the submission of regulatory filings. These forward-looking statements are based upon Intrexon's current expectations and projections about future events and generally relate to Intrexon's plans, objectives and expectations for the development of Intrexon's business. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this press release. These risks and uncertainties include, but are not limited to, (i) Intrexon's current and future collaborations and joint ventures; (ii) Intrexon's ability to successfully enter new markets or develop additional products, whether with its collaborators or independently; (iii) actual or anticipated variations in Intrexon's operating results; (iv) actual or anticipated fluctuations in Intrexon's competitors' or its collaborators' operating results or changes in their respective growth rates; (v) Intrexon's cash position; (vi) market conditions in Intrexon's industry; (vii) the volatility of Intrexon's stock price; (viii) Intrexon's ability, and the ability of its collaborators, to protect Intrexon's intellectual property and other proprietary rights and technologies; (ix) Intrexon's ability, and the ability of its collaborators, to adapt to changes in laws or regulations and policies; (x) the outcomes of pending or future litigation; (xi) the rate and degree of market acceptance of any products developed by a collaborator under an ECC or through a joint venture; (xii) Intrexon's ability to retain and recruit key personnel; (xiii) Intrexon's expectations related to the use of proceeds from its public offerings and other financing efforts; (xiv) Intrexon's estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and (xv) Intrexon's expectations relating to its subsidiaries and other affiliates. For a discussion of other risks and uncertainties, and other important factors, any of which could cause Intrexon's actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Intrexon's Annual Report on Form 10-K, as well as discussions of potential risks, uncertainties, and other important factors in Intrexon's subsequent filings with the Securities and Exchange Commission. All information in this press release is as of the date of the release, and Intrexon undertakes no duty to update this information unless required by law.

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Intrexon Corporation and Subsidiaries
Consolidated Balance Sheets
(Unaudited)

(Amounts in thousands)	March 31, 2018	December 31, 2017
Assets		
Current assets		
Cash and cash equivalents	$ 119,930	$ 68,111
Restricted cash	6,987	6,987
Short-term investments	275	6,273
Equity securities	3,298	5,285
Receivables		
Trade, net	17,697	19,775
Related parties	10,585	17,913
Other	2,437	2,153
Inventory	20,271	20,493
Prepaid expenses and other	6,065	7,057
Total current assets	187,545	154,047
Equity securities, noncurrent	10,745	9,815
Investments in preferred stock	166,069	161,225
Property, plant and equipment, net	119,244	112,674
Intangible assets, net	231,883	232,877
Goodwill	154,748	153,289
Investments in affiliates	21,406	18,870
Other assets	4,026	4,054
Total assets	$ 895,666	$ 846,851
Current liabilities		
Accounts payable	$ 7,842	$ 8,701
Accrued compensation and benefits	11,356	6,474
Other accrued liabilities	18,041	21,080
Deferred revenue	48,646	42,870
Lines of credit	321	233
Current portion of long term debt	501	502
Related party payables	147	313
Total current liabilities	86,854	80,173
Long term debt, net of current portion	7,425	7,535
Deferred revenue, net of current portion	214,744	193,527
Deferred tax liabilities, net	11,631	15,620
Other long term liabilities	3,586	3,451
Total liabilities	324,240	300,306
Commitments and contingencies		
Total equity		
Common stock	—	—
Additional paid-in capital	1,492,916	1,397,005
Accumulated deficit	(930,220)	(847,820)
Accumulated other comprehensive loss	(9,587)	(15,554)
Total Intrexon shareholders' equity	553,109	533,631
Noncontrolling interests	18,317	12,914
Total equity	571,426	546,545
Total liabilities and total equity	$ 895,666	$ 846,851

Intrexon Corporation and Subsidiaries
Consolidated Statements of Operations
(Unaudited)

(Amounts in thousands, except share and per share data)	Three months ended March 31, 2018	2017
Revenues		
Collaboration and licensing revenues	$ 24,052	$ 33,065
Product revenues	7,152	8,130
Service revenues	12,247	12,031
Other revenues	419	521
Total revenues	43,843	53,747
Operating Expenses		
Cost of products	8,530	9,006
Cost of services	6,783	6,804
Research and development	37,267	34,180
Selling, general and administrative	39,737	35,138
Total operating expenses	92,317	85,128
Operating loss	(48,474)	(31,381)
Other Income, Net		
Unrealized depreciation in fair value of equity securities and preferred stock	(1,096)	(1,622)
Interest expense	(99)	(179)
Interest and dividend income	5,470	4,624
Other income (expense), net	(659)	595
Total other income, net	3,616	3,418
Equity in net loss of affiliates	(2,460)	(4,947)
Loss before income taxes	(47,318)	(32,910)
Income tax benefit	4,086	533
Net loss	$ (43,232)	$ (32,377)
Net loss attributable to the noncontrolling interests	1,244	978
Net loss attributable to Intrexon	$ (41,988)	$ (31,399)
Net loss per share, basic and diluted	$ (0.33)	$ (0.26)
Weighted average shares outstanding, basic and diluted	127,693,336	118,956,780

Intrexon Corporation and Subsidiaries
Reconciliation of GAAP to Non-GAAP Measures
(Unaudited)

Adjusted EBITDA and Adjusted EBITDA per share. To supplement Intrexon's financial information presented in accordance with U.S. generally accepted accounting principles ("GAAP"), Intrexon presents Adjusted EBITDA and Adjusted EBITDA per share. A reconciliation of Adjusted EBITDA to net income or loss attributable to Intrexon under GAAP appears below. Adjusted EBITDA is a non-GAAP financial measure that Intrexon calculates as net income or loss attributable to Intrexon adjusted for income tax expense or benefit, interest expense, depreciation and amortization, stock-based compensation, shares issued as compensation for services, impairment loss, bad debt expense, litigation expense, realized and unrealized appreciation or depreciation in the fair value of equity securities and preferred stock, and equity in net loss of affiliates. Adjusted EBITDA and Adjusted EBITDA per share are key metrics for Intrexon's management and Board of Directors for evaluating the Company's financial and operating performance, generating future operating plans and making strategic decisions about the allocation of capital. Intrexon's management and Board of Directors believe that Adjusted EBITDA and Adjusted EBITDA per share are useful to understand the long-term performance of Intrexon's core business and facilitate comparisons of the Company's operating results over multiple reporting periods. Intrexon is providing this information to investors and others to assist them in understanding and evaluating the Company's operating results in a manner similar to how its management and Board of Directors evaluate operating results (except for the impact of the change in deferred revenue related to upfront and milestone payments, which is adjusted in the measures evaluated by management and the Board of Directors as discussed below). While Intrexon believes that its non-GAAP financial measures are useful in evaluating its business, and may be of use to investors, this information should be considered supplemental in nature and not as a substitute for the related financial information prepared in accordance with GAAP. In addition, these non-GAAP financial measures may not be the same as non-GAAP financial measures presented by other companies. Adjusted EBITDA and Adjusted EBITDA per share are not measures of financial performance under GAAP, and are not intended to represent cash flows from operations nor earnings per share under GAAP and should not be used as an alternative to net income or loss as an indicator of operating performance or to represent cash flows from operating, investing or financing activities as a measure of liquidity. Intrexon compensates for the limitations of Adjusted EBITDA and Adjusted EBITDA per share by using them only to supplement the Company's GAAP results to provide a more complete understanding of the factors and trends affecting the Company's business. Adjusted EBITDA and Adjusted EBITDA per share have limitations as an analytical tool and you should not consider them in isolation or as a substitute for analysis of Intrexon's results as reported under GAAP.

In addition to the reasons stated above, which are generally applicable to each of the items Intrexon excludes from its non-GAAP financial measure, Intrexon believes it is appropriate to exclude certain items from the definition of Adjusted EBITDA for the following reasons:

- Interest expense may be subject to changes in interest rates which are beyond Intrexon's control;
- Depreciation of Intrexon's property and equipment and amortization of acquired identifiable intangibles can be affected by the timing and magnitude of business combinations and capital asset purchases;
- Stock-based compensation expense is a noncash expense and may vary significantly based on the timing, size and nature of awards granted and also because the value is determined using formulas which incorporate variables, such as market volatility;
- Shares issued as compensation for services and bad debt expense are noncash expenses which Intrexon excludes in evaluating its financial and operating performance;
- Impairment loss is a noncash expense which represents the write down of the book value of acquired goodwill and intangible assets when fair value is determined to be less than book value. These charges are nonrecurring and may vary significantly based on economic, regulatory, political and other circumstances;
- Unrealized and realized appreciation or depreciation in the fair value of securities which Intrexon holds in its collaborators may be significantly impacted by market volatility and other factors which are outside of the Company's control in the short term and Intrexon intends to hold these securities over the long term, except as otherwise disclosed; and
- Equity in net loss of affiliate reflects Intrexon's proportionate share of the income or loss of entities over which the Company has significant influence, but not control, and accounts for using the equity method of accounting. Intrexon believes excluding the impact of such losses or gains on these types of strategic investments from its operating results is important to facilitate comparisons between periods.

Furthermore, supplemental information about the impact of the change in deferred revenue related to upfront and milestone payments is provided below. GAAP requires Intrexon to account for its collaborations as multiple-element arrangements. As a result, the Company initially defers certain collaboration revenues because certain of its performance obligations cannot be separated and must be accounted for as one unit of accounting. The collaboration revenues that Intrexon so defers arise from upfront and milestone payments received from the Company's collaborators, which Intrexon recognizes over the future performance period even though the Company's right to such consideration is neither contingent on the results of Intrexon's future performance nor refundable in the event of nonperformance. The supplemental information about the change in deferred revenue removes the noncash revenue recognized during the period and includes the cash and stock received from collaborators for upfront and milestone payments during the period. Management and the Board of Directors consider this information in evaluating Intrexon's operating performance as they believe it permits the quarterly and annual comparisons of the Company's ability to consummate new collaborations or to achieve significant milestones with existing collaborators.

The following table presents a reconciliation of net loss attributable to Intrexon to EBITDA and also to Adjusted EBITDA, as well as the calculation of Adjusted EBITDA per share, for each of the periods indicated:

	Three months ended March 31,	
	2018	2017
	(In thousands)	
Net loss attributable to Intrexon	$ (41,988)	$ (31,399)
Interest expense	87	164
Income tax benefit	(4,086)	(533)
Depreciation and amortization	8,236	7,270
EBITDA	$ (37,751)	$ (24,498)
Stock-based compensation	11,340	7,889
Shares issued as payment for services	2,941	2,915
Bad debt expense	218	9
Unrealized depreciation in fair value of equity securities and preferred stock	1,096	1,622
Equity in net loss of affiliates	2,460	4,947
Adjusted EBITDA	$ (19,696)	$ (7,116)
Weighted average shares outstanding, basic and diluted	127,693,336	118,956,780
Adjusted EBITDA per share, basic and diluted	$ (0.15)	$ (0.06)
Supplemental information:		
Impact of change in deferred revenue related to upfront and milestone payments	$ (13,647)	$ (10,190)

Exhibit 99.2

INTREXON®

1Q18 Call

May 10, 2018

Forward-Looking Statements

Safe Harbor Statement

Some of the statements made in this presentation are forward-looking statements that involve a number of risks and uncertainties and are made pursuant to the Safe harbor Provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based upon Intrexon's current expectations and projections about future events and generally relate to Intrexon's plans, objectives and expectations for the development of Intrexon's business and include target revenues, target EBITDA, and discussion of anticipated clinical trials and future collaborations. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this presentation. These risks and uncertainties include, but are not limited to, (i) Intrexon's current and future subsidiaries, collaborations and joint ventures; (ii) Intrexon's ability to successfully enter new markets or develop additional products, whether with its collaborators or independently; (iii) actual or anticipated variations in Intrexon's operating results; (iv) actual or anticipated fluctuations in Intrexon's competitors' or its collaborators' operating results or changes in their respective growth rates; (v) Intrexon's cash position; (vi) market conditions in Intrexon's industry; (vii) the volatility of Intrexon's stock price; (viii) Intrexon's ability, and the ability of its collaborators, to protect Intrexon's intellectual property and other proprietary rights and technologies; (ix) Intrexon's ability, and the ability of its collaborators, to adapt to changes in laws or regulations and policies; (x) the outcomes of pending and future litigation; (xi) the rate and degree of market acceptance of any products developed by Intrexon, its subsidiaries, collaborations or joint ventures; (xii) Intrexon's ability to retain and recruit key personnel; (xiii) Intrexon's expectations related to the use of proceeds from its public offerings and other financing efforts; and (xiv) Intrexon's estimates regarding expenses, future revenue, capital requirements and needs for additional financing. For a discussion of other risks and uncertainties, and other important factors, any of which could cause Intrexon's actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Intrexon's Annual Report on Form 10-K filed with the Securities and Exchange Commission. All information in this presentation is as of the date of the release, and Intrexon undertakes no duty to update this information unless required by law.

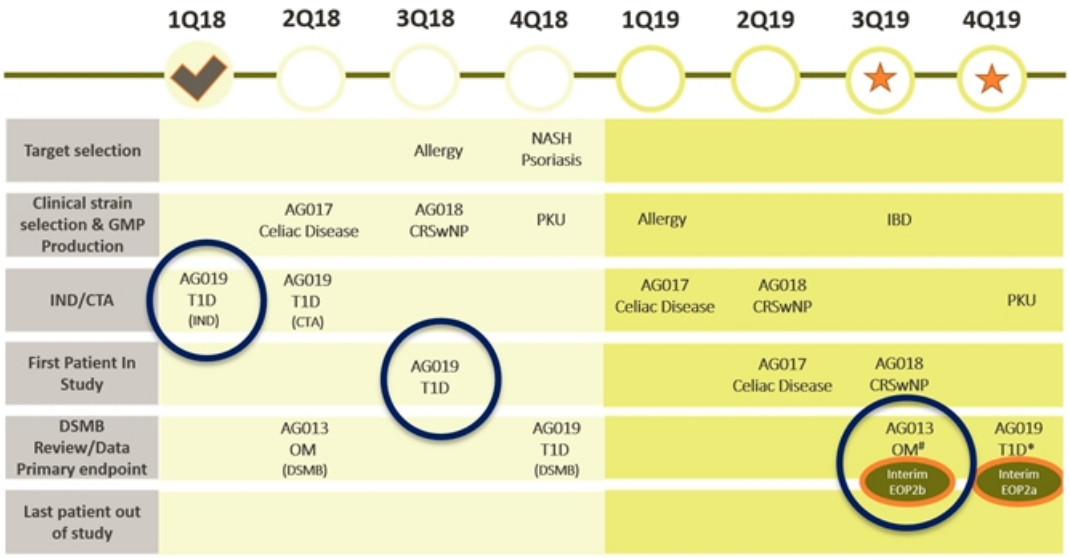
INTREXON®

Intrexon's Human Therapeutic Efforts are Now ActoBio Therapeutics & Precigen

Bigger payloads, better control improved delivery

ActoBio Therapeutics – Pipeline Update

ActoBiotics are correctly folded therapeutics synthesized in L. lactis and delivered directly to diseased tissues. Lead program in oral mucositis. Second IND in T1D approved in 1Q18.



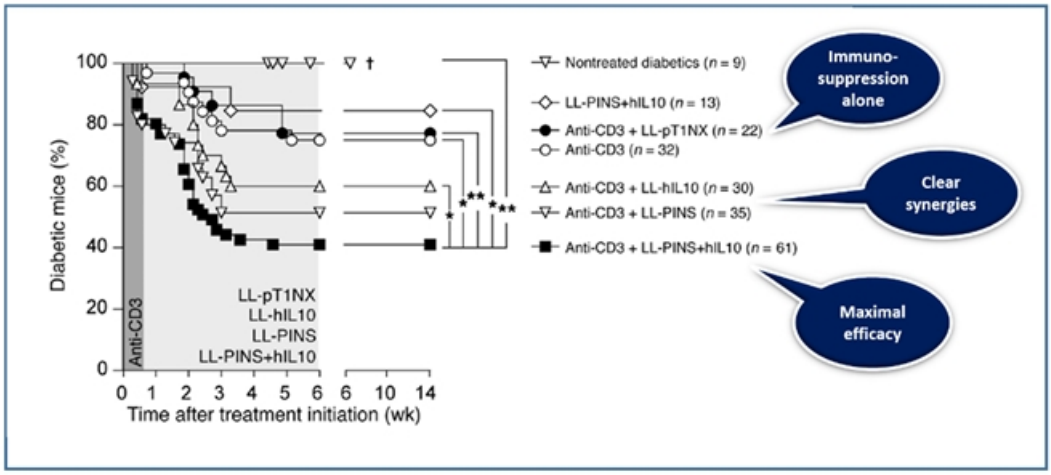
#1 month follow-up
*6 months follow-up

ACTOBIO THERAPEUTICS™

INTREXON®

ActoBio Therapeutics: Phase 1/2 Trial in T1D

Trial design based on well-behaved preclinical responses



Ph1 portion of the trial will deliver AG019 (LL-PINS + LL-hIL10) and, if supported by safety data, the Ph2a portion will add low dose anti-CD3 mAb. Each component is predicted to add to efficacy based on clinical and preclinical studies.

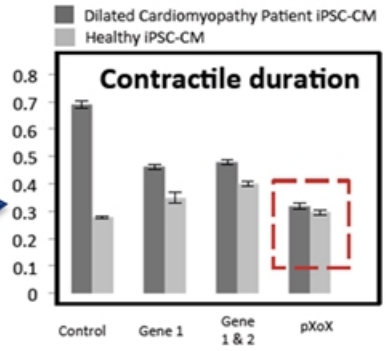
INTREXON®

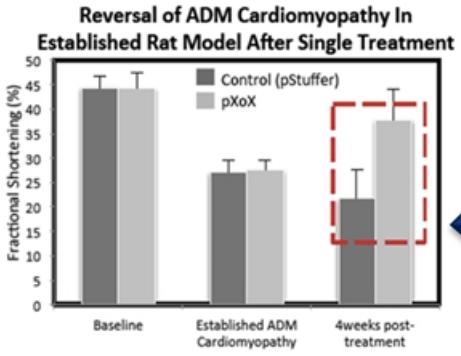
Precigen / Xogenex – Multigene Expression Solutions for Heart Failure

IND filed November 2017 – Trial Currently Enrolling

- Heart failure represents a significant unmet medical need - 610,000 annual U.S. deaths.
- Gene therapies focused on treating HF by increasing the number of cardiomyocytes, improved calcium handling and increased angiogenesis have all shown signs of efficacy in preclinical models and some clinical trials.
- Intrexon scientists have constructed non-viral gene therapy that drives expression of three key genes for meaningful durations.

Multigene approach suggested





Benefit confirmed in rat model

*Xogenex LLC is a majority-owned subsidiary of Precigen; Stats: https://www.cdc.gov/heartdisease/facts.htm, Ambrosy PA et al.; J Am Coll Cardiol. 2014;63:1123–1133

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Updated Scorecard – Human Therapeutics

- The AG019 IND has cleared and we expect dosing this summer. The trial will initially treat patients with AG019 and expand to Ph2 dosing of AG019 + anti-CD3 if safety allows.
- The Xogenex Heart Failure trial has started. Plasmid based delivery of the three major effector classes believed to improve function of the damaged heart.
- The CD19 POC IND was filed as scheduled. Trial will treat CD19-expressing tumors with a CAR-T cell produced with non-viral methods that does not require *ex vivo* amplification.

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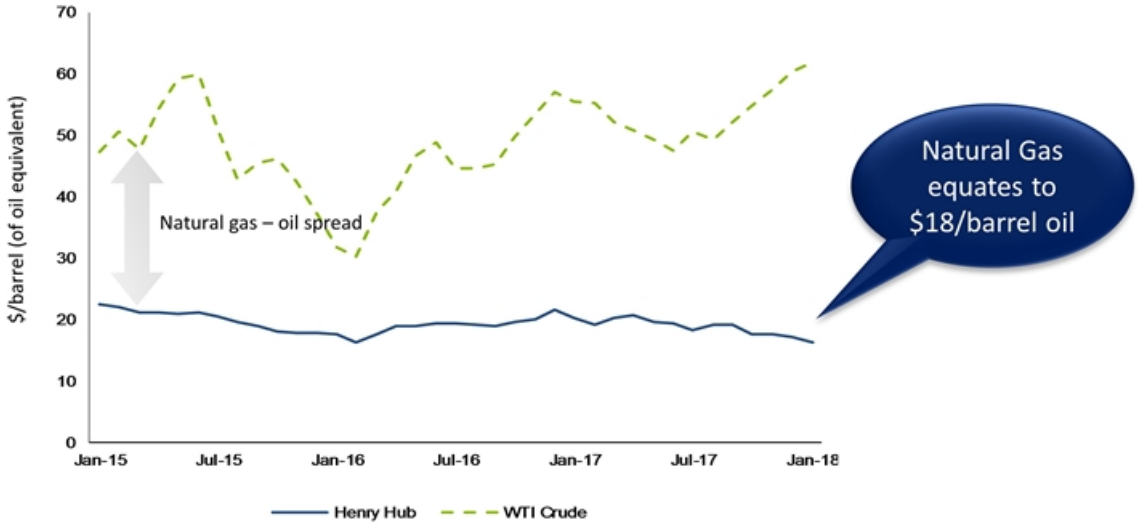
Intrexon's Methane Bioconversion Platform (MBP)

Engineering Microbes for Industrial Applications

Methane Upgrading – A 90 Year Effort

Natural gas is an attractive “feedstock” for the production of liquid fuel and industrial starting materials. Natural gas is the cheapest readily available source of carbon and North America has 100+ years of reserves



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Large Markets for Relatively Simple Products

Sequential synthesis in vivo with many overlapping steps – successes have broad implications across platform

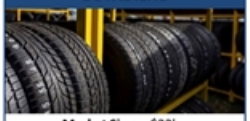
ISOBUTANOL

Market Size[1]: c.$500bn

FARNESENE

Market Size[2]: c.$700bn

BUTADIENE



Market Size: c.$22bn

1,4 BDO

Market Size: c.$3bn

MMA

Market Size: c.$7bn

ISOPRENE

Market Size: c.$2bn

Lead Program via 2,3 BDO

- Demand growing at or above GDP
- 20+ suppliers, easy entry
- Long term off-take agreements
- Catalytic conversion to 1,3 butadiene proven

- ✓ **Targeting C_4 or C_5 products was viewed as on optimized point in the product-value vs. synthesis complexity landscape**
- ✓ **Isobutanol is attractive as a less corrosive gasoline additive relative to 2-carbon ethanol**
- ✓ **Expansion into specialty chemicals relatively straightforward once major carbon flux pathways are optimized**

Source: IHS Chemical, ICIS, Markets and Markets, MicroMarket Monitor, Grandview Research, Transparency Market Research

1. Currently limited to $80bn by regulations, IEA World Outlook 2016 data ; IEA World Energy Outlook 2016 data ; Market size for 1-butene and isobutene, the main applications for butylene

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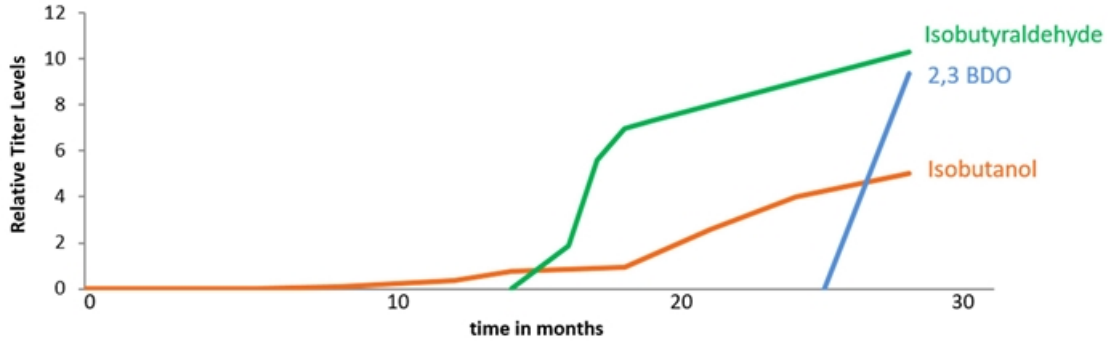
Scorecard – Advancing Along a Learning Curve

Development of methanotroph genetic toolbox has accelerated yield improvement



- 2,3 BDO yields **increased over 25%** in Q1
- Catalytic **conversion of butanediol to butadiene** was highly successful
- Significant progress was made in redesigning the **isobutanol "bottleneck"** enzyme
- Construction of methanotrophs that productively **metabolize ethane** (5-10% of pipeline Natural Gas)

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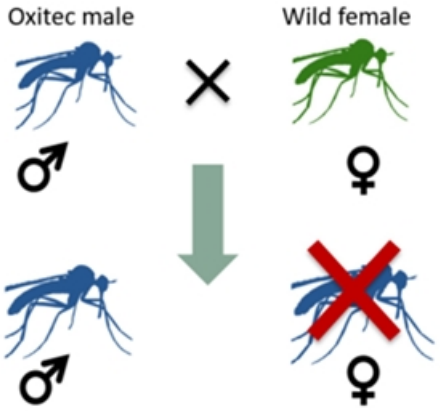
Oxitec: OX5034 Mosquito
Exemplar and Trans Ova: MiniSwine and Elite Bovine Embryos
Okanagan and AquaBounty: Apple and Salmon

OX5034 – 2nd Generation Mosquito Offers Advantages for Performance, Pricing

- **OX5034 is Oxitec's 2nd Generation self-limiting mosquito**
- OX5034 matings with wild-type females yield only viable male offspring
- This results in **no viable biting females** but **non-biting males survive,** passing on the female-lethal gene
- These male offspring allow the self-limiting gene to persists for up to 10 generations in the wild, offering **continued vector suppression**



More efficient manufacturing | Longer suppression impact | Disappears from environment

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Friendly Scorecard – Improving Technology, Operations and Focus

- **OX5034: First field releases** for Oxitec's 2nd generation mosquito are scheduled to launch in Brazil in late May; regulatory approval for field trial granted.
- **Caymans**: Preparing to launch **"combination" project** at request of Cayman government; awaiting signatures on final contract.
- **EPA progress**: **2nd 30-day open comment period** to begin May 7th. Anticipating an approval date in late July, 2018.

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Novel MiniSwine Model and Elite Bovine Embryos

Exemplar Genetics – during the quarter, the FDA exercised enforcement discretion clearing for commercial use as a research model the ExeGen® ATM MiniSwine. The ATM MiniSwine is genetically engineered to more closely model ataxia telangiectasia (AT), a rare human neurological disease.

During the first quarter **Trans Ova Genetics** launched a new subsidiary called ProGentus. ProGentus will focus on providing products to Dairy and Beef farmers by delivering embryos for the production of replacement females for the farmers' herd.

Arctic® Apple – New Product Launch and Orchard Build-out

Arctic® apples

2017
Planted
266,000 Trees

2018
Anticipate planting
600,000+ Trees

520,000 planted

- ApBitz™ snacks launched on Amazon in 1Q18 and quickly became #1 New Release in Dried Fruit within first 24-hrs of sales.
- Consumer feedback very positive - a promising sign for the acceptance in the much larger market of sliced fresh apples.

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AquaBounty Salmon – First U.S. Site Approved

Sustainable, domestically produced alternative to imported ocean cage reared salmon

- November 19, 2015 – FDA approval for production, sale, and consumption in the U.S.
- **April 27, 2018 – FDA approval to raise AquAdvantage® Salmon at its land-based Indiana facility.**
- AquAdvantage® Salmon awaits only official labeling guidelines by the FDA. Draft guidelines were recently published.

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