January 24, 2017

Intrexon to Acquire GenVec

GenVec's AdenoVerse™ to be Integrated into Intrexon's Proprietary Synthetic Biology Platform

GERMANTOWN, MD, and GAITHERSBURG, MD, Jan. 24, 2017-- 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 that it has entered into a definitive agreement to acquire GenVec, Inc. (NASDAQ: GNVC), a clinical-stage company and pioneer in the development of AdenoVerse™ gene delivery technology.

Intrexon intends to integrate and expand upon GenVec's expertise in adenoviral vectors and cGMP drug product manufacturing to enhance its broad gene transfer capabilities that encompass multiple viral and non-viral platforms. Notably, the combined technologies have the potential to yield the next generation of adenoviral (AdV) delivery through the creation of a scalable manufacturing platform utilizing helper-dependent adenovirus with significantly higher payload capacity of >30kb, as compared to current viral delivery methods ranging from 4.5kb – 9kb.

Thomas D. Reed, Ph.D., Intrexon's chief science officer commented, "Our acquisition of GenVec will mark our continuing commitment to add gene delivery platforms that complement our multigenic control systems. Intrexon's proficiency in using various viral as well as non-viral transfer techniques to integrate our gene programs affords us the capability to pursue an array of *in vivo* and *ex vivo* gene and cell therapy approaches, and the addition of a helper-dependent adenoviral system with a substantial payload capacity dramatically expands the types of *in vivo* therapeutic programs we can pursue."

"GenVec has contributed significantly to advancements in gene therapy through its AdenoVerse technology, and over 3,000 clinical trial subjects have received their therapeutics and vaccines across the globe. We are enthusiastic to begin working alongside their highly accomplished research and drug development team," added Dr. Reed.

"After a detailed and careful evaluation, our board of directors believes that this is the best alternative to maximize value for GenVec's shareholders," said Douglas Swirsky, GenVec's president and CEO. "We expect that the strong scientific synergies, coupled with Intrexon's extensive resources, will help unlock the true potential of the AdenoVerse platform."

Through an AdV-based vector, Intrexon has already delivered the first clinically validated transcriptional gene switch utilizing the RheoSwitch Therapeutic System® to regulate the expression and concentration of a powerful cytokine, interleukin-12, to treat cancer. Intrexon's gene control systems combined with the array of GenVec's AdV-based

technology is projected to accelerate its ability to develop cutting-edge gene therapies that regulate *in vivo* expression of multiple therapeutic effectors.

Additionally, GenVec's selection of vector origins and serotypes as well as know-how in specifying cellular and tissue targets is expected to expedite the design and production of vectors that complement Intrexon's multigene programming and focus on safety with limited off-target effect.

Douglas E. Brough, Ph.D., GenVec's chief scientific officer stated, "We are excited to be joining the talented team at Intrexon. Utilization of their advanced synthetic biology tools and expertise is expected to enable the development of a manufacturing approach that will greatly increase the capacity of our expression cassettes to over 30kb. This next-generation delivery platform is anticipated to vastly exceed other viral delivery methods and accommodate Intrexon's advanced gene programming to target complex multi-gene disorders."

Transaction Terms and Timing

Pursuant to the definitive agreement, upon the closing of the transaction GenVec stockholders will receive 0.297 of a share of Intrexon Common Stock in exchange for each share of GenVec common stock. This exchange ratio represents $7.00 per share of GenVec's common stock based on Intrexon's 5-day volume weighted average price as of January 23, 2017. GenVec stockholders will also receive a right to contingent consideration equal to 50% of any milestone or royalty payments received within 36 months after the closing of the transaction under GenVec's Research Collaboration and License Agreement with Novartis. Consummation of the acquisition is subject to customary closing conditions, including GenVec stockholder approval, and is expected to occur in the second quarter of 2017.

Roth Capital Partners provided advisory services to the Board of Directors of GenVec in connection with the transaction, and Hogan Lovells is serving as legal counsel to GenVec. Thompson Hine is serving as legal counsel to Intrexon.

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. The Company'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.

About GenVec

GenVec is a clinical-stage gene delivery company focused on developing a pipeline of cutting-edge therapeutics and vaccines using its proprietary AdenoVerse platform. The company is a pioneer in the design, testing and manufacture of adenoviral-based product candidates that can deliver on the promise of gene-based medicine. GenVec's lead

product candidate, CGF166, is licensed to Novartis and is currently in a Phase 1/2 clinical study for the treatment of hearing loss and balance disorders. In addition to its internal and partnered pipeline, the company is also focused on opportunities to license its proprietary technology platform, including vectors and production cell lines, for the development and manufacture of therapeutics and vaccines to the biopharmaceutical industry. Additional information about GenVec is available at www.genvec.com and in the company's various filings with the Securities and Exchange Commission.

Trademarks

Intrexon, Powering the Bioindustrial Revolution with Better DNA, and Better DNA are trademarks of Intrexon and/or its affiliates. AdenoVerse™ is a trademark of GenVec, Inc. Other names may be trademarks of their respective owners.

Safe Harbor Statement

This communication contains “forward-looking” statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, known as the PSLRA. These statements, as they relate to Intrexon Corporation (“Intrexon”) or GenVec, Inc (“GenVec”), the management of either such company, the proposed transaction between Intrexon and GenVec, or the future development of gene delivery technology and gene therapies as a result of the transaction, involve risks and uncertainties that may cause results to differ materially from those set forth in the statements. These statements are based on current plans, estimates and projections, and therefore, you are cautioned not to place undue reliance on them. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. Intrexon and GenVec undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise, except to the extent required by law. Forward-looking statements are not historical facts, but rather are based on current expectations, estimates, assumptions and projections about the business and future financial results of the biotechnology industry, and other legal, regulatory and economic developments. We use words such as “anticipates,” “believes,” “plans,” “expects,” “projects,” “future,” “intends,” “may,” “will,” “should,” “could,” “estimates,” “predicts,” “potential,” “continue,” “guidance,” and similar expressions to identify these forward-looking statements that are intended to be covered by the safe harbor provisions of the PSLRA. Actual results could differ materially from the results contemplated by these forward-looking statements due to a number of factors, including, but not limited to, those described in the documents Intrexon and GenVec have filed with the U.S. Securities and Exchange Commission (the “SEC”), risks related to the development of gene delivery technology and gene therapies, as well as the possibility that (1) Intrexon and GenVec may be unable to obtain stockholder or regulatory approvals required for the proposed transaction or may be required to accept conditions that could reduce the anticipated benefits of the merger as a condition to obtaining regulatory approvals; (2) the length of time necessary to consummate the proposed transaction may be longer than anticipated; (3) problems may arise in successfully integrating the business and technologies of Intrexon and GenVec; (4) the proposed transaction may involve unexpected costs; (5) the businesses may suffer as a result of uncertainty surrounding the proposed transaction, including difficulties in maintaining relationships with third parties or

retaining key employees; (6) the parties may be unable to meet expectations regarding the timing, completion and accounting and tax treatments of the transaction; or (7) the industry may be subject to future risks that are described in the “Risk Factors” section of the Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and other documents filed from time to time with the SEC by Intrexon and GenVec. Neither Intrexon nor GenVec gives any assurance that either Intrexon or GenVec will achieve its expectations.

The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties that affect the businesses of Intrexon and GenVec described in the “Risk Factors” section of their respective Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and other documents filed by either of them from time to time with the SEC. All forward-looking statements included in this document are based upon information available to Intrexon and GenVec on the date hereof, and neither Intrexon nor GenVec assumes any obligation to update or revise any such forward-looking statements.

Additional Information and Where to Find It

This document relates to a proposed transaction between GenVec and Intrexon, which will become the subject of a registration statement and joint proxy statement/prospectus forming a part thereof to be filed with the SEC by Intrexon. This document is not a substitute for the registration statement and joint proxy statement/prospectus that Intrexon will file with the SEC or any other documents that GenVec or Intrexon may file with the SEC or send to stockholders in connection with the proposed transaction. Before making any voting decision, investors and security holders are urged to read the registration statement, joint proxy statement/prospectus and all other relevant documents filed or that will be filed with the SEC in connection with the proposed transaction as they become available because they will contain important information about the proposed transaction and related matters.

Investors and security holders will be able to obtain free copies of the registration statement, joint proxy statement/prospectus and all other relevant documents filed or that will be filed with the SEC by GenVec or Intrexon through the website maintained by the SEC at www.sec.gov.

In addition, investors and security holders will be able to obtain free copies of the joint proxy statement/prospectus, once it is filed, from GenVec by accessing GenVec’s website at ir.genvec.com/all-sec-filings or upon written request to ir@genvec.com.

Participants in Solicitation

Intrexon, GenVec and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from GenVec’s stockholders in connection with the proposed transaction. Information regarding GenVec’s directors and executive officers is contained in the proxy statement for GenVec’s 2016 Annual Meeting of Stockholders, which was filed with the SEC on September 12, 2016. You can obtain a free copy of this document at the SEC’s website at www.sec.gov or by accessing GenVec’s website at ir.genvec.com/all-sec-filings. Information regarding Intrexon’s executive officers and directors is contained in the proxy statement for Intrexon’s 2016 Annual Meeting of

Stockholders filed with the SEC on April 29, 2016. You can obtain a free copy of this document at the SEC's website at www.sec.gov or by accessing Intrexon's website at www.dna.com. Additional information regarding the interests of those persons and other persons who may be deemed participants in the proposed transaction may be obtained by reading the joint proxy statement/prospectus regarding the proposed transaction when it becomes available. You may obtain free copies of this document as described in the preceding paragraph.

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