

Ziopharm and Precigen Redefine Relationships, Announce New License Agreement

October 9, 2018

Ziopharm to Host Conference Call at 8 a.m.

BOSTON and GERMANTOWN, Md., Oct. 09, 2018 (GLOBE NEWSWIRE) -- Ziopharm Oncology. Inc. (Nasdaq: ZIOP) and Precigen, Inc., a wholly-owned subsidiary of Intrexon Corporation (Nasdaq: XON), today announced a new definitive license agreement to replace all existing agreements between the companies that will provide Ziopharm with certain exclusive and non-exclusive rights to technology controlled by Precigen, Inc.

Through the new agreement, Ziopharm will primarily focus its resources on developing its Controlled IL-12 and *Sleeping Beauty* (SB) T-cell receptor (TCR) platform technologies which have the capability to treat solid tumors, while Intrexon further establishes Precigen as a therapeutics company concentrating on immuno-oncology, autoimmune and infectious disease therapies. Both companies will be better positioned to independently focus on their respective platforms and markets with full developmental and financial controls.

With this exclusive license, Ziopharm now has full developmental control and exclusivity utilizing SB for TCRs targeted towards neoantigens and public antigens. The existing Cooperative Research and Development Agreement (CRADA) with the National Cancer Institute related to SB-generated T cells expressing TCRs to target neoantigens buried within solid tumors will be transferred to Ziopharm, and Ziopharm will maintain this exclusive relationship with the NCI for this program. Ziopharm will build on its IL-12 platform utilizing Precigen's RheoSwitch [®] gene switch with both the existing human adenovirus program and now with rights to pursue next-generation viral technologies. Using the SB system, Ziopharm will continue to advance its CD19-specific chimeric antigen receptor (CAR) program, while retaining rights to a second, unnamed CAR target. Precigen gains exclusive rights for all other CAR-T therapies, including CD33-specific CAR-T therapies, subject to the agreement with Merck KGaA.

"This is a new day for Ziopharm, as we have the power and flexibility to advance IL-12 and *Sleeping Beauty-*generated TCRs," said Ziopharm Chief Executive Officer Laurence Cooper, M.D., Ph.D. "We now have focused the company on the two platforms to drive the most shareholder value and transitioned a significant portion of our CAR-T program to Precigen. The ability of both Ziopharm and Precigen to autonomously execute their respective operating plans on their independent platforms, while sharing in future economics, enables both parties to undertake more efficient 'divide and conquer' drug-development plans to the benefit of all constituents."

In partial consideration for the termination of the former agreements, in addition to the grant of the revised limited exclusive license, the companies agree that Ziopharm will retire all outstanding shares of its Series 1 Preferred Stock held by Intrexon, including any accrued dividends, valued at approximately \$156.9 million, as of Sept. 30, 2018. Additionally, the companies have terminated Intrexon's contractual right to a seat on Ziopharm's board. Randal J. Kirk, Chairman and Chief Executive Officer of Intrexon, who has served as a director on the board of Ziopharm since 2011, has stepped down from that position, effective immediately, and Ziopharm plans to fill all vacant seats in the near term.

"In 2011 with Ziopharm, we entered into our first exclusive collaboration and therewith granted a field that was far broader than any other. Today's announcement is about seeing Ziopharm's tighter focus and about our desire to invest in Precigen. We believe that Ziopharm will succeed under the license to develop and bring to market important new cancer therapeutics, and we look forward to enjoying benefits from these while we continue our investments in Precigen." commented Mr. Kirk.

Ziopharm will receive a low single digit, capped royalty on Precigen products in the field of point-of-care (P-O-C) CAR T-cell therapies. Precigen will receive milestone payments on late-stage regulatory events as well as commercial royalties in the low to high single-digit range for certain CAR and IL-12 targets that Ziopharm develops. Precigen will receive capped commercial royalties in low- to mid-single digits for the TCR products that Ziopharm develops. Further details on the terms of the transaction will be available within SEC filings respectively filed by Intrexon and Ziopharm.

Ziopharm Clinical Programs Update

Ziopharm today updated guidance on the timing of its response to the request for more information from the U.S. Food and Drug Administration (FDA) regarding the clinical hold placed on the investigational new drug (IND) application for its third-generation Phase 1 trial to evaluate CD19-specific CAR-T therapies under P-O-C technology. Ziopharm expects to respond to the FDA's request for information in the second half of 2019.

Ziopharm also affirmed its guidance on the planned Phase 1 trial to evaluate SB-modified TCRs to treat solid tumors. As disclosed in Ziopharm's second quarter business update, the IND application for this Phase 1 trial, which is being led by and conducted at the National Cancer Institute, remains on track to be submitted in the fourth quarter of 2018 followed by enrollment of patients beginning in 2019, pending regulatory clearance.

Conference Call and Slide Webcast

Ziopharm will host a webcast and conference call today, October 9 at 8 a.m. ET. The call can be accessed by dialing 1-844-309-0618 (U.S. and Canada) or 1-661-378-9465 (international). The passcode for the conference call is 9789556. To access the slides and live webcast or the subsequent archived recording, visit the "Investors Events and Presentations" section of the Ziopharm website at www.ziopharm.com. The webcast will be recorded and available for replay on the Company's website for two weeks.

About Ziopharm Oncology, Inc.

Ziopharm Oncology is a Boston-based biotechnology company focused on the development of next-generation immunotherapies utilizing gene- and cell-based therapies to treat patients with cancer. Ziopharm is focused on the development of two platform technologies designed to deliver safe, effective and scalable cell- and viral-based therapies for the treatment of multiple cancer types: Controlled IL-12 and *Sleeping Beauty* for genetically modifying cells. These programs are being advanced in collaboration with MD Anderson Cancer Center and the National Cancer Institute.

About Precigen: Advancing Medicine with Precision ™

Founded in 2017, Precigen is a dedicated discovery and clinical stage biopharmaceutical company advancing the next generation of gene and cellular therapies using precision technology to target the most urgent and intractable diseases in oncology, autoimmune disorders, and emerging specialty therapy areas. Our technologies enable us to find innovative solutions for affordable biotherapeutics in a controlled manner. Precigen operates as an innovation engine progressing a preclinical and clinical pipeline of well-differentiated unique therapies toward clinical proof-of-confidence and commercialization. Precigen was founded as a wholly-owned subsidiary of Intrexon Corporation (Nasdaq: XON) and leverages Intrexon's proprietary technology platforms to advance human health. Learn more about Precigen at www.precigentherapeutics.com.

About Intrexon Corporation

Intrexon Corporation (Nasdaq: 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.

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Forward-Looking Statements Disclaimer

This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forwardlooking statements are statements that are not historical facts, and in some cases can be identified by terms such as "may," "will," "could," "expects," "plans," "anticipates," and "believes." These statements include, but are not limited to, statements regarding Ziopharm's and Intrexon's goals, expectations, financial or other projections, intentions or beliefs, including statements regarding Ziopharm's and Intrexon's business and strategic plans; the expected benefits of the strategic transaction, such as creating shareholder value, growth potential, market profile, enhanced competitive position and flexibility; the progress and timing of the development of Ziopharm's research and development programs, including the expected timing for its response to the U.S. FDA and of the filing of its IND applications; the timing for the initiation and readouts of Ziopharm's upcoming clinical trials; expected additions to Ziopharm's board of directors; and statements regarding future performance. Although Ziopharm's and Intrexon's management teams believe that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of Ziopharm and Intrexon, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, the uncertainties inherent in research and development, future clinical data and analysis, including whether any of Ziopharm's and Intrexon' product candidates will advance further in the preclinical research or clinical trial process, including receiving clearance from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies to conduct clinical trials and whether and when, if at all, they will receive final approval from the U.S. FDA or equivalent foreign regulatory agencies and for which indication; the strength and enforceability of Ziopharm's and Intrexon's intellectual property rights; Ziopharm's ability to attract qualified board candidates; competition from other pharmaceutical and biotechnology companies as well as risk factors discussed or identified in the public filings with the Securities and Exchange Commission made by Ziopharm and Intrexon, including those risks and uncertainties listed in Ziopharm's and Intrexon's annual reports on Form 10-K for the year ended December 31, 2017 and subsequent Quarterly Reports on Form 10-Q filed by Ziopharm and Intrexon with the Securities and Exchange Commission. We are providing this information as of October 9, 2018, and neither Ziopharm nor Intrexon undertake any obligation to update or revise the information contained in this press release whether as a result of new information, future events or any other reason.

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