ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology and Intrexon Announce Worldwide Partnership for Synthetic Biology DNA-based Oncology Therapeutics

RJ Kirk, CEO and Chairman of Intrexon, to Join ZIOPHARM Board of Directors

NEW YORK & GERMANTOWN, Md.--(BUSINESS WIRE)-- ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a small molecule late-stage oncology drug development company, and Intrexon Corporation, a next generation synthetic biology company, announced today a global exclusive channel partnership in oncology where ZIOPHARM will develop and commercialize DNA-based therapeutics using Intrexon's UltraVector® Technology. Under the partnership, ZIOPHARM will utilize Intrexon's advanced transgene engineering platform for the controlled and precise cellular production of anti-cancer effectors. ZIOPHARM will have rights to Intrexon's entire human *in vivo* effector platform within the field of oncology which includes two lead clinical-stage product candidates, one which is in an advanced Phase I study and another which will be the subject of an Investigational New Drug ("IND") filing during the first half of 2011. ZIOPHARM and Intrexon will host a conference call and audio webcast today, Thursday, January 6th at 5:00 p.m. ET to discuss the global exclusive channel partnership.

Intrexon employs its modular genetic engineering platform in the areas of therapeutics, protein production, industrial, and agriculture products. The exclusive channel partnership between Intrexon and ZIOPHARM has been established specifically for the field of human oncologic therapeutics. Under the partnership, Intrexon remains responsible for technology discovery efforts and managing the patent estate as well as for certain aspects of manufacturing. ZIOPHARM will be responsible for conducting preclinical and clinical development of candidates, as well as for other aspects of manufacturing and the commercialization of the candidates.

Intrexon's core synthetic biology technology is designed to create Better DNA™ at industrial scale, enabling unprecedented control over the function and output of living cells by providing external control over *in vivo* activation and regulation of potent effectors. This platform, called UltraVector®, provides speed, flexibility, consistency and precision to the design, production and testing of rationally designed complex transgenes and their encoded genetic circuits. These qualities allow an iterative and rational approach to transgene design, which can be continually engineered until their performance is optimized. Through this process, Intrexon is able to overcome the challenges inherent in current therapeutic strategies, including recombinant protein therapies and constitutive gene therapies, thereby enhancing capabilities, improving safety and lowering cost for human therapeutics. The lead oncology product candidate developed using Intrexon's technologies is currently in Phase Ib clinical study for metastatic melanoma. ZIOPHARM expects to submit an Investigational New Drug (IND) application with U.S. Food and Drug Administration for a second oncology product candidate in the first half of this year.

"Controllable, scalable synthetic biology, the tightly regulated delivery of therapeutic proteins from within the body, is an aspirational and disruptive technology which Intrexon has brought from scientific theory to medical application," said Jonathan Lewis, M.D., Ph.D., Chief Executive Officer and Chief Medical Officer of ZIOPHARM. "As the sole channel partner for *in* vivo therapeutic candidates for human oncology, ZIOPHARM plans to leverage this technology for next-generation products targeting key pathways used by cancers to grow and metastasize. Intrexon has developed a technology that is uniquely flexible, scalable and controllable, adding significantly to our small molecule drug development capabilities and our ability to translate science to the patient using our world-class global team."

"We are very pleased to collaborate with ZIOPHARM, which, under the leadership of Jonathan Lewis, is building an industry leading oncology company with a strategic vision regarding cancer medicine. ZIOPHARM's oncology expertise, development capabilities, as well as its excellent reputation within the oncology community make ZIOPHARM an exceptional investment for Intrexon and ideal partner to rapidly achieve the full therapeutic benefit and commercial potential of Intrexon's disruptive technologies," stated RJ Kirk, Intrexon's Chairman and CEO. "This collaboration leverages the capabilities and strengths of each partner and has the potential to create significant value for shareholders."

Under terms of the agreement:

- Intrexon will purchase 2,422,542 shares of ZIOPHARM's common stock (representing 5% of ZIOPHARM's currently outstanding shares) in a private placement for a total purchase price of $11,628,202, or $4.80 per share, which is the trailing 10-day volume-weighted average price per share of ZIOPHARM's common stock;
- ZIOPHARM will simultaneously issue to Intrexon for no additional consideration an additional 3,631,391 shares of its common stock, representing 7.495% of ZIOPHARM's currently outstanding shares; ZIOPHARM has agreed to issue to Intrexon additional shares of its common stock for no additional consideration, representing an additional 7.495% under

certain conditions upon dosing of the first patient in a ZIOPHARM-conducted U.S. Phase II clinical trial of a product candidate created, produced or developed by ZIOPHARM using Intrexon technology;

- Intrexon has agreed to purchase up to $50 million in conjunction with securities offerings that may be conducted by ZIOPHARM in the future, subject to certain conditions and limitations;
- Subject to certain expense allocations, ZIOPHARM will pay Intrexon 50% of the cumulative net quarterly profits derived from the sale of products developed from the channel partnership.

Pursuant to the agreement, Mr. Kirk has agreed to join the ZIOPHARM Board of Directors. In addition to his responsibilities at Intrexon, Mr. Kirk has served, since March 1999, as Senior Managing Director and Chief Executive Officer of Third Security, LLC, an investment management firm founded by Mr. Kirk. Additionally, Mr. Kirk founded and became Chairman of the Board of New River Pharmaceuticals Inc. in 1996, and was President and Chief Executive Officer between October 2001 and April 2007. New River was acquired by Shire plc in 2007. Mr. Kirk also currently serves as a member of the Board of Directors of Halozyme Therapeutics, Inc. (Nasdaq: HALO), and as Chairman of the Board for Clinical Data, Inc. (Nasdaq: CLDA). Previously, Mr. Kirk served as a member of the Board of Directors of Scios, Inc. (acquired by Johnson & Johnson) between February 2000 and May 2002. Mr. Kirk served on the Board of Visitors of Radford University from July 2003 to June 2009, was Rector of the Board from September 2006 to September 2008, and has served on the Board of Directors of the Radford University Foundation, Inc. since September 1998. He has served on the Board of Visitors of the University of Virginia and Affiliated Schools since July 2009, on the Virginia Advisory Council on Revenue Estimates since July 2006, on the Governor's Economic Development and Jobs Creation Commission since April 2010, and served as a member of the Board of Directors of the Virginia University Research Partnership from July 2007 to November 2010. Mr. Kirk received a B.A. in Business from Radford University and a J.D. from the University of Virginia.

Regarding Mr. Kirk's appointment, Dr. Lewis added: "RJ is a visionary and a winner with a long record of success and value creation in the life sciences. His addition to the ZIOPHARM Board of Directors will be invaluable, and we look forward to his many contributions in this role."

Griffin Securities, Inc. acted as an advisor to Intrexon on this transaction.

Conference Call and Webcast January 6, 2011 at 5:00pm ET

ZIOPHARM and Intrexon will host a conference call and live audio webcast on January 6, 2011 at 5:00pm ET to discuss their global exclusive channel partnership. The call can be accessed by dialing (877) 375-9144 (U.S. and Canada) or (253) 237-1150 (international). The passcode for the conference call is ‘ZIOPHARM.' To access the live audio webcast, or the subsequent archived recording, visit the "Investors - Events & 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 (2) weeks.

About ZIOPHARM Oncology, Inc.:

ZIOPHARM Oncology is a biopharmaceutical company engaged in the development and commercialization of a diverse portfolio of cancer drugs. The Company is currently focused on three clinical programs.

Palifosfamide (Zymafos™ or ZIO-201) is a novel DNA cross-linker in class with bendamustine, ifosfamide, and cyclophosphamide. ZIOPHARM is currently enrolling patients in a randomized, double-blinded, placebo-controlled Phase III trial with palifosfamide administered intravenously for the treatment of metastatic soft tissue sarcoma in the front-line setting. The Company is also currently conducting a Phase I intravenous study of palifosfamide in combination with standard of care addressing small cell lung cancer and expects to initiate an additional study with drug in the oral form treating solid tumors.

Darinaparsin (Zinapar™ or ZIO-101) is a novel mitochondrial-targeted agent (organic arsenic) being developed intravenously for the treatment of peripheral T-cell lymphoma with a pivotal study expected to begin in late 2011. An oral form is in a Phase I trial in solid tumors.

Indibulin (Zybulin™ or ZIO-301) is a novel, oral tubulin binding agent that is expected to have several potential benefits including oral dosing, application in multi-drug resistant tumors, no neuropathy and minimal overall toxicity. It is currently being studied in Phase I/II in metastatic breast cancer.

ZIOPHARM's operations are located in Boston, MA with an executive office in New York City. Further information about ZIOPHARM may be found at www.ziopharm.com.

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About Intrexon Corporation:

Intrexon Corporation is a privately held synthetic biology company that employs modular DNA control systems to enhance capabilities, improve safety and lower cost in human therapeutics, protein production, industrial products and agricultural biotechnology. The company's advanced transgene engineering platform enables Better DNA™ by combining breakthroughs DNA control systems with corresponding advancements in modular transgene design, assembly and optimization. The company is currently using these advanced capabilities to undertake foremost challenges across the spectrum for biological applications. More information about the company is available at www.DNA.com.

Forward-Looking Safe Harbor Statement:

This press release contains forward-looking statements for ZIOPHARM Oncology, Inc. that involve risks and uncertainties that could cause ZIOPHARM Oncology's actual results to differ materially from the anticipated results and expectations expressed in these forward-looking statements. These statements are based on current expectations, forecasts and assumptions that are subject to risks and uncertainties, which could cause actual outcomes and results to differ materially from these statements. Among other things, there can be no assurance that any of ZIOPHARM Oncology's development efforts relating to its product candidates will be successful, or such product candidates will be successfully commercialized. Other risks that affect forward-looking information contained in this press release include the possibility of being unable to obtain regulatory approval of ZIOPHARM Oncology's product candidates, the risk that the results of clinical trials may not support ZIOPHARM Oncology's claims, the risk that pre-clinical or clinical trials will proceed on schedules that are consistent with ZIOPHARM Oncology's current expectations or at all, risks related to ZIOPHARM Oncology's ability to protect its intellectual property and its reliance on third parties to develop its product candidates, risks related to the sufficiency of existing capital reserves to fund continued operations for a particular amount of time and uncertainties regarding ZIOPHARM Oncology's ability to obtain additional financing to support its operations thereafter, as well as other risks regarding ZIOPHARM Oncology's that are discussed under the heading "Risk Factors" in ZIOPHARM Oncology's filings with the United States Securities and Exchange Commission. Forward-looking statements can be identified by the use of words such as "may," "will," "intend," " should," "could," "can," "would," "expect," "believe," "estimate," " predict," "potential," "plan," "is designed to," "target" and similar expressions. ZIOPHARM Oncology assumes no obligation to update these forward-looking statements, except as required by law.

Photos/Multimedia Gallery Available: http://www.businesswire.com/cgi-bin/mmg.cgi?eid=6564715&lang=en

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