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): October 22, 2013

ZIOPHARM Oncology, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware	**001-33038**	**84-1475672**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

One First Avenue, Parris Building 34, Navy Yard Plaza
Boston, Massachusetts **02129**
(Address of Principal Executive Offices) **(Zip Code)**

(617) 259-1970
(Registrant's telephone number, including area code)

Not applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ 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)).

Item 7.01 Regulation FD Disclosure

ZIOPHARM Oncology, Inc., or the Company, and Intrexon Corporation announced today the presentation of a preclinical study demonstrating the potential for using Intrexon's regulated gene expression system, the RheoSwitch Therapeutic System® in human mesenchymal stem cells at the 2013 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics.

A copy of the above referenced press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K. This information, including the information contained in the press release furnished as Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not incorporated by reference into any of the Company's filings, whether made before or after the date hereof, regardless of any general incorporation language in any such filing.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Press release of the Company dated October 22, 2013

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.

ZIOPHARM Oncology, Inc.

By: /s/ Caesar J. Belbel
Name: Caesar J. Belbel
Title: Executive Vice President and Chief Legal Officer

Date: October 22, 2013

INDEX OF EXHIBITS

Exhibit No.	Description
99.1	Press release of the Company dated October 22, 2013

Exhibit 99.1

ZIOPHARM and Intrexon Announce Presentation of Data Highlighting Regulated Gene Expression System in Tumor-Homing Mesenchymal Stem Cells

Results Presented at the 2013 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics

BOSTON, MA – Oct. 22, 2013 – ZIOPHARM Oncology, Inc. (NASDAQ: ZIOP), a biopharmaceutical company focused on the discovery and development of new cancer therapies, and Intrexon Corporation (NYSE: XON), a leader in synthetic biology, today announced the presentation of a preclinical study demonstrating the potential for using Intrexon's regulated gene expression system, the RheoSwitch Therapeutic System® (RTS®), in human mesenchymal stem cells (hMSCs). The study, "Regulated Immunomodulators Expression Using the RheoSwitch Therapeutic System® (RTS®) Platform in Human Mesenchymal Stem Cells," will be presented at the 2013 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics, which is taking place October 19-23, 2013 in Boston.

hMSCs possess an inherent ability to traffic to tumors and sites of inflammation, making them an attractive possibility as a cellular vehicle delivery system, while the RTS® platform is a novel regulated gene expression system which, when activated by an orally available activator ligand (AL), veledimex, can be used to express one or more anti-cancer effectors. Together, these technologies offer the potential to optimize the delivery, dose and schedule of one or more immunotherapies to achieve maximum therapeutic efficacy and tolerability.

"In the lab and clinic, the RTS® gene switch has been effectively combined with various methods of delivery, including dendritic cells, as well as viral and DNA plasmid vectors, to optimize our regulated therapeutic gene expression systems," said Jonathan Lewis, M.D., Ph.D., Chief Executive Officer of ZIOPHARM. "Mesenchymal stem cells, which naturally seek out cancer cells, offer an exciting new method for delivering gene systems to cancer cells. Together, these technologies give us unprecedented control over the delivery and expression of one or more anti-cancer effectors."

"The therapeutic use of hMSCs is a field of study with rapidly growing importance in a number of disease areas," said Samuel Broder, M.D., Senior Vice President of Intrexon's Health Sector and former Director of the National Cancer Institute. "For a cancer-directed gene expression system that relies on a cellular host, it may be the ideal delivery mechanism. This study brings to life the possibility of a self-guided cellular factory that can express multiple anti-cancer effectors, on demand, directly at the tumor site."

For the study, ZIOPHARM and Intrexon evaluated RTS® regulated expression of three immunomodulators, human IL-12, human IFNa, and a CTLA4 decoy, in single, dual or triple combinations, from adenovirally transduced hMSC. In a single immunomodulator system,

sustained cell levels of IL-12 expression were observed up to 53 days following transduction when maintained in the presence of veledimex. Furthermore, cycling of *in vitro* exposure periods between veledimex and excipient demonstrated the ability for on/off/on and off/on/off kinetics of IL-12 expression by transduced hMSCs.

For the multi-effector systems, hIL-12 and hIFNa were found to be fully biofunctional in their respective cell based functional assays: hIL-12 increased IFNγ secretion from NK92 cells and hIFNa enhanced STAT1 reporter activity. Further, the CTLA4 decoy demonstrated ability to inhibit protein interaction in a cross-competitive assay. Taken together, these *in vitro* studies highlight the potential use of MSCs for tumor-targeted delivery of single or multiple RTS® regulated cancer immunotherapies. The use of these novel regulated immunotherapeutic approaches could potentially be translated into an effective clinical regimen for a variety of cancers.

The study was conducted jointly between ZIOPHARM and Intrexon Corporation as part of an Exclusive Channel Collaboration to research, develop and commercialize novel *in vivo* DNA- and cell-based oncology therapeutics using different approaches, all regulated by Intrexon's proprietary RheoSwitch Therapeutic System® (RTS®) platform.

A copy of this poster presentation, by Chan et. al (abstract # C234), can be found on ZIOPHARM's website.

About ZIOPHARM Oncology, Inc.:

ZIOPHARM Oncology is a Boston, Massachusetts-based biotechnology company employing novel gene expression and control technology to deliver DNA for the treatment of cancer. ZIOPHARM's technology platform employs Intrexon's RheoSwitch Therapeutic System® technology to turn on and off, and precisely modulate, gene expression at the cancer site in order to improve the therapeutic index. This technology is currently being evaluated in Phase 2 clinical studies of the immune system cytokine interleukin-12 for the treatment of breast cancer and advanced melanoma. Multiple new Investigational New Drug applications (INDs) for new targets using similar technology are expected in 2014 and 2015. ZIOPHARM is also developing novel small molecules as potential cancer therapeutics.

About Intrexon Corporation

Intrexon Corporation (NYSE: XON) is a leader in synthetic biology focused on collaborating with companies in Health, Food, Energy and the Environment to create biologically-based products that improve the quality of life and the health of the planet. Through the company's proprietary UltraVector® platform, Intrexon provides its partners with industrial-scale design and development of complex biological systems. The UltraVector® platform delivers unprecedented control over the quality, function, and performance of living cells. Intrexon calls its synthetic biology approach and integrated technologies **Better DNA®**, and Intrexon invites you to discover more at www.dna.com.

Forward-Looking Safe Harbor Statement:

This press release contains certain forward-looking information about ZIOPHARM Oncology, Inc. and Intrexon that is intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995, as amended.

Forward-looking statements are statements that are not historical facts. Words such as “expect(s),” “feel(s),” “believe(s),” “will,” “may,” “anticipate(s)” and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to, statements regarding Ziopharm’s ability to successfully develop and commercialize its therapeutic products; its ability to expand its long-term business opportunities; financial projections and estimates and their underlying assumptions; and future performance. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of Ziopharm and Intrexon, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: whether Ad-RTS-IL-12, DC-RTS-IL-12, palifosfamide, darinaparsin, indibulin, or any of Ziopharm’s other therapeutic products will advance further in the clinical trials process and whether and when, if at all, they will receive final approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indications; whether, Ad-RTS-IL-12, DC-RTS-IL-12, palifosfamide, darinaparsin, indibulin, and Ziopharm’s other therapeutic products will be successfully marketed if approved; whether any of Ziopharm’s other therapeutic product discovery and development efforts will be successful; Ziopharm’s ability to achieve the results contemplated by its collaboration agreements; the strength and enforceability of Ziopharm’s intellectual property rights; competition from other pharmaceutical and biotechnology companies; the development of, and our ability to take advantage of, the market for Ziopharm’s therapeutic products; Ziopharm’s ability to raise additional capital to fund our operations on terms acceptable to it; general economic conditions; and the other risk factors contained in Ziopharm’s periodic and interim SEC reports filed from time to time with the Securities and Exchange Commission, including but not limited to, its Annual Report on Form 10-K for the fiscal year ended December 31, 2012, and its Quarterly Report on Form 10-Q for the quarter ended June 30, 2013. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and Ziopharm does not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

Trademarks

RheoSwitch Therapeutic System® (RTS®), UltraVector®, and Better DNA® are registered trademarks of Intrexon Corporation.

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