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 21, 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 preclinical data from three studies that highlight the versatility of the novel gene expression and control technology used to develop ZIOPHARM's synthetic biology pipeline in oncology 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 21, 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 21, 2013

INDEX OF EXHIBITS

Exhibit No.	Description
99.1	Press release of the Company dated October 21, 2013

Exhibit 99.1

ZIOPHARM and Intrexon Announce Presentation of Data Highlighting Versatility of Novel Gene Expression and Control Technology

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

BOSTON, MA – Oct. 21, 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 preclinical data from three studies that highlight the versatility of the novel gene expression and control technology used to develop ZIOPHARM's synthetic biology pipeline in oncology. The results were 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.

"These are the first data to be presented that demonstrate the great breadth of Intrexon's gene expression and control technologies within cancer treatment," said Jonathan Lewis, M.D., Ph.D., Chief Executive Officer of ZIOPHARM. "These studies show, in both *in vitro* and *in vivo* models, the ability to express up to three immunotherapies in one system. This includes the potent anti-cancer effectors IL-12, INFa, and a CTLA-4 decoy, that either could not be delivered or would otherwise be too toxic to be given as intravenous recombinant proteins. We also demonstrate the ability to build simplified, high-affinity, high-specificity, single chain versions of widely used antibodies such as HERCEPTIN® and ERBITUX®, allowing their use in multi-effector gene systems for potentially greater anti-cancer effect at reduced cost."

Dr. Lewis concluded, "Most importantly, these data are translational, with near-term application in the clinic."

ZIOPHARM expects to launch a Phase 1/2 study of the Company's Ad-RTS-IL-12 therapeutic candidate in glioma in the first half of 2014, in addition to filing multiple Investigational New Drug applications for other new technologies in 2014 and 2015. ZIOPHARM is currently studying its Ad-RTS-IL-12 therapeutic candidate in Phase 2 studies in melanoma and lung cancer.

"Working together, ZIOPHARM and Intrexon are designing and developing an entirely new set of tools for treating cancer, with the goal of delivering better, safer treatments and, ultimately, cures," said Samuel Broder, M.D., Senior Vice President of Intrexon's Health Sector and former Director of the National Cancer Institute. "These data demonstrate the great reach of our technologies and the ability to dictate, with increasing precision, not just how, when and where we deliver anti-cancer therapeutics, but how many therapies we deliver. I look forward to seeing how this potential translates into outcome as these approaches enter the clinic."

All three studies presented today were 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.

The Controlled Local Expression of IL-12 as an Immunotherapeutic Treatment of Glioma Through the Use of the RheoSwitch Therapeutic System® (RTS®) Platform

For this study, ZIOPHARM and Intrexon sought to understand the viability of IL-12 expression-based therapeutic candidates in the treatment of glioma (brain cancer). Challenges of developing immunotherapies to treat glioma include the immune-privileged status of the central nervous system and the physiological processes that contribute to the suppression of immune responses in the brain. The paucity of dendritic cells in the brain, combined with lack of lymphatic drainage, the production of inflammatory mediators, and the physical blood-brain barrier (BBB), provide several challenges in eliciting tumor specific responses. Two different RTS®-controlled IL-12 expression-based therapeutic candidates were explored for the study, Ad-RTS-hIL-12 (AD) and DC-RTS-hIL-12 (DC), along with the orally-available small molecule activator ligand veledimex (AL).

Results demonstrated that AL brain penetration was achieved in normal mouse and monkey models. Further, treatment with both AD and DC demonstrated dose-related increase in survival in a mouse GL-261 glioma model with no adverse clinical signs. Animals treated with DC > 5000 MOI (multiplicity of infection) or AD 5 x 10^9 viral particles survived throughout the duration of the study (100% survival at 75 days) with no adverse clinical signs observed. In contrast, the mean survival in the control groups was 22 (±3) days. These findings support the utility of localized regulated IL-12 production as an approach for the treatment of malignant glioma. Additional studies in this model are ongoing to determine the optimal dose and schedule.

A copy of this poster presentation, by Barrett et al. (abstract #B298), can be found on ZIOPHARM's website.

Pharmacodynamics and Functionality of RTS® Regulated Immunomodulatory Proteins, Expressed from a Multigenic Embedded Cellular Bioreactor Following Intramuscular Electroporation in Mice

For this study, ZIOPHARM and Intrexon sought to understand the feasibility and expression potency of multigenic plasmid constructs that simultaneously expressed three immunomodulators. Over the past decade, immunotherapies have emerged as prominent means to fight cancer, and it is currently well accepted that combining multiple immunomodulatory therapeutic modalities will likely have a deeper impact in promoting cancer remission than monotherapies. Three immunomodulators were selected for evaluation, human IL-12, human IFNa, and a CTLA4 decoy (CTLA-4 DCY), in single, dual or triple combinations. While recombinant IL-12, IFNa, and anti-CTLA4 antibodies (ipilimumab) have been demonstrated to be effective, the success of these therapies has been limited by systemic toxicity. In all constructs, the three effectors were expressed using an embedded bioreactor and under the control of the RTS® activated by veledimex (activator ligand), a combination which permits the controlled localized production of the target of interest for markedly reducing systemic toxicity.

Results showed that the RTS® platform technology successfully delivered distinct immune effectors from a single RTS® regulated multigenic construct. This activity was confirmed *in vivo* through various assays. These data also highlight the potential use of a skeletal muscle as an embedded controllable bioreactor to generate therapeutics for tumor-targeted delivery of single or multiple RTS® regulated cancer immunotherapies. These novel regulated immunotherapeutic approaches could potentially be translated into an effective clinical regimen in the treatment of cancer.

A copy of this poster presentation, by Agarwal et al. (abstract #B127), can be found on ZIOPHARM's website.

Integration of a Modularized Protein Engineering Technology and the RTS® Platform to Develop High Affinity Trastuzumab Single Chain Variable Fragment-Fc Proteins for Gene Therapy Applications

For this study, ZIOPHARM and Intrexon sought to test the viability of single chain variable fragment-Fc fusion proteins (scFv-Fc) as alternatives to antibodies for therapies based on gene transfer. While monoclonal antibodies remain highly effective anticancer agents, their complex post-translational processing precludes their use in single- or multi-effector gene therapy platforms, an approach that may have the potential to increase efficacy, reduce side effects and save cost. Using a platform for rapid conversion and assay of monoclonal antibodies into functional scFv-Fc proteins, single and dual expressing scFv-Fc constructs with binding specificities based on trastuzumab and cetuximab, which target HER2 and EGFR, respectively, were tested. The ability to target multiple HER (human epidermal growth factor receptor) family receptors in HER-driven tumors is emerging as a powerful concept in both research and clinical treatment. The study utilized the RTS® inducible controlled expression platform, activated by veledimex (activator ligand), to express the scFv-Fc constructs in a muscle cell model.

The study results demonstrated that trastuzumab- and cetuximab-based scFv-Fc constructs showed high affinity and specificity binding in both cell- and plate-based assays. A positive antibody-dependent cell-mediated cytotoxicity (ADCC) effect against HER2+ breast cancer cells was also observed with trastuzumab scFv-Fc, and successful dual expression of functional trastuzumab and cetuximab scFv-Fc constructs from a single vector was demonstrated. The results suggest that RTS® driven expression of trastuzumab- and cetuximab-based scFv-Fc constructs from an embedded controllable bioreactor have potential utility as DNA-based anticancer therapeutics.

A copy of this poster presentation, by Reed et al. (abstract #B247), 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 Corporation's RheoSwitch Therapeutic System® platform 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 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

HERCEPTIN® is a registered trademark of Genentech, Inc., a member of the Roche Group. ERBITUX® is a registered trademark of ImClone LLC, a wholly-owned subsidiary of Eli Lilly and Company (NYSE: LLY), licensed to Bristol-Myers Squibb Company (NYSE: BMY) for commercialization in the U.S. and Canada and to Merck KGaA, Darmstadt, Germany, for commercialization outside the US and Canada. In Japan, ImClone Systems, Bristol-Myers Squibb and Merck KGaA jointly develop and commercialize ERBITUX. RheoSwitch Therapeutic System® (RTS®), UltraVector®, and Better DNA® are registered trademarks of Intrexon Corporation.

Contact:

For ZIOPHARM Investor Relations:

David Pitts
Argot Partners
212-600-1902
david@argotpartners.com

Media Contacts:

David Schull or Lena Evans
Russo Partners, LLC
858-717-2310
212-845-4262
david.schull@russopartnersllc.com
lena.evans@russopartnersllc.com

For Intrexon Corporation

Marie L. Rossi, Ph.D.
Manager, Technical Communications
Tel: +1 301-556-9944
PublicRelations@intrexon.com