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): January 9, 2018

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

Delaware	**001-33038**	**84-1475642**
(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)).

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act (17 CFR 230.405) or Rule 12b-2 of the Exchange Act (17 CFR 240.12b-2).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 8.01 **Other Events.**

On January 9, 2018, ZIOPHARM Oncology, Inc., or the Company, issued a press release announcing an update on the Company's clinical programs and corporate development activities. A copy of the above referenced press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 **Financial Statements and Exhibits**

(d) Exhibits

Exhibit No.	Description
99.1	Press Release dated January 9, 2018.

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/ Kevin G. Lafond
Name: Kevin G. Lafond
Title: Senior Vice President Finance, Chief Accounting Officer and Treasurer

Date: January 9, 2018

Exhibit 99.1

Ziopharm Oncology Provides Update on Standout Technologies during the 36th Annual J.P. Morgan Healthcare Conference

- Controlled IL-12 advancing as drug platform as monotherapy and in combination with OPDIVO® (nivolumab) –
- Non-viral T-cell platform shows potential for efficacy, scalability and cost reduction for multiple oncology targets -

BOSTON, MA – January 9, 2018 – Ziopharm Oncology, Inc. (Nasdaq: ZIOP), a biopharmaceutical company developing gene- and cell-based immunotherapies for cancer, today provided an update on the Company's clinical programs and corporate development activities during the 36th Annual J.P. Morgan Healthcare Conference.

"Ziopharm's immunotherapies in clinical trials are based on two powerful platforms. First, we have shown that we can super-charge a patient's own immune system with controlled, local production of IL-12 and second, we can provide a new immune response where none existed, infusing genetically modified T cells with a unique and advantageous manufacturing process," said Laurence Cooper, M.D., Ph.D., Chief Executive Officer of Ziopharm. "Producing IL-12 in the tumor microenvironment under full control is a new drug platform for oncology, which we will further exploit by combining with checkpoint inhibitors. Likewise, we are implementing a new paradigm for production of genetically modified T cells with our *Sleeping Beauty* (SB) non-viral platform and proprietary membrane bound IL-15 which enables very rapid manufacture of CAR- and TCR-modified cells at low cost and scale."

The Company's corporate presentation at the J.P. Morgan conference is Thursday, Jan. 11, at 10 a.m. PST. To access a live audio webcast of the presentation, please visit the Investor Relations section at www.ziopharm.com. The webcast will be archived for 90 days.

Program Updates

Controlled IL-12 for Gliomas

Ziopharm, in partnership with Intrexon Corporation (NYSE:XON), is advancing Ad-RTS-hIL-12 plus veledimex, or controlled interleukin-12 (IL-12), as a gene therapy for recurrent glioblastoma (rGBM). Ad-RTS-hIL-12 is an adenoviral vector administered via a single injection into the brain tumor and engineered to conditionally express human interleukin-12 (hIL-12). The expression of hIL-12 is modulated with the RheoSwitch Therapeutic System® (RTS®) by the small molecule veledimex, an activator ligand which has been shown to cross the blood-brain barrier. A Phase

1 trial produced compelling data demonstrating the safety of controlled local expression of IL-12 and that IL-12 can turn previously cold tumors hot, which could have a profound impact for oncology in general.

Combination Trial with OPDIVO (nivolumab) Initiated - The Company announced the initiation of a Phase I clinical trial to evaluate Ad-RTS-hIL-12 plus veledimex in combination with OPDIVO® (nivolumab), an immune checkpoint, or PD-1, inhibitor, in adult patients with rGBM.

Pivotal Trial to Initiate in Second Half of 2018 - The Company updated guidance on its planned pivotal trial and announced that it will initiate in the second half of 2018. Ziopharm has designed the randomized control trial to evaluate controlled IL-12 for the treatment of patients with rGBM and following meetings with U.S. and European regulators is completing Chemistry Manufacturing and Control (CMC) technical requirements. The Company continues to engage in partnership discussions in this indication and this updated timeframe allows for accumulation of additional clinical data from the open Phase 1 trials, including the combination trial.

“As the Phase 1 survival data matured over the latter half of 2017, we saw compelling evidence from biopsies, taken more than four months after administration of Ad-hIL-12 plus veledimex, demonstrating that controlled IL-12 causes an influx of killer T cells into brain tumors, and upregulated expression of PD-1 biomarkers,” said Francois Lebel, M.D., Executive Vice President, Research and Development, Chief Medical Officer at Ziopharm. “The randomized control trial will allow us to confirm the activity of our drug as a monotherapy and combining with nivolumab allows us to advance a much needed therapeutic option by exploring a potentially synergistic mechanism of action.”

Adoptive Cell Therapies

Ziopharm is developing chimeric antigen receptor (CAR) T cell (CAR$^+$ T) and T-cell receptor (TCR) T cell (TCR$^+$ T) therapies. These programs are being advanced in collaboration with Intrexon and selectively with MD Anderson Cancer Center, the National Cancer Institute (NCI) and Merck KGaA, Darmstadt, Germany.

Initiation of First point-of-care (P-O-C) Clinical Trial Expected in 2018. The Company is advancing its non-viral Sleeping Beauty (SB) platform towards P-O-C for the very rapid manufacturing of genetically modified CAR$^+$ T cells, with the first clinical trial utilizing this approach expected to begin in 2018. Data supporting P-O-C were presented at the 59th American Society of Hematology Annual Meeting in December 2017, where first- and second-generation SB clinical trial data demonstrated safety, tolerability, disease response including long-term survival, and sustained persistence of infused CD19-specific CAR$^+$ T cells. The Company expects to initiate the third-generation P-O-C study, which leverages SB to manufacture CAR$^+$ T cells co-expressing a membrane-bound interleukin-15, or mbIL15, in less than two days. Manufacturing under P-O-C has the potential to reduce the costs of T-cell therapy and broaden application based on avoiding the need for centralized manufacturing.

Phase 1 Trial of SB-Modified TCRs to Treat Solid Tumors to Initiate in Second Half of 2018. The Company updated guidance on the anticipated start of the National Cancer Institute (NCI)-led Phase 1 trial to evaluate adoptive cell transfer (ACT)-based immunotherapies genetically modified using the SB transposon/transposase system to express TCRs for the treatment of solid tumors. Ziopharm, Intrexon, and the NCI last year entered into a Cooperative Research and Development Agreement to develop and evaluate ACT for patients with advanced cancers using autologous peripheral blood lymphocytes genetically modified using the non-viral SB system to express TCRs that recognize specific immunogenic mutations, or neoantigens, expressed within a patient’s cancer.

“We have used the *Sleeping Beauty* platform to generate neoantigen-specific T cells and look forward to initiating a clinical trial infusing these genetically modified T cells to target solid tumors,” said Steven A. Rosenberg, M.D., Ph.D., Chief of the Surgery Branch at the NCI’s Center for Cancer Research, who is leading this research. “The *Sleeping Beauty* system is able to target the unique mutations that give rise to a patient’s malignancy.”

Phase 1 Trial of CD33-specific CAR+ T Therapy for Acute Myeloid Leukemia (AML). Enrollment is underway in the Phase 1 adoptive cellular therapy clinical trial of CD33-specific CAR+ T cell therapy in patients with refractory/recurrent AML. This study infuses autologous T cells genetically modified with lentivirus to express a CD33-specific CAR and a cetuximab-activated (HER1t) kill switch for elimination of genetically modified cells in the case of unmanageable severe adverse events. The trial is enrolling at The University of Texas MD Anderson Cancer Center. The data are expected to serve as the basis for evaluating CD33 as a potential target for further development using very rapid non-viral manufacturing of T cells under P-O-C.

About ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology is a Boston, Massachusetts-based biotechnology company employing novel gene expression, control and cell technologies to deliver safe, effective and scalable cell- and viral-based therapies for the treatment of cancer. The Company’s immuno-oncology programs, in collaboration with Intrexon Corporation (NYSE:XON) and the MD Anderson Cancer Center, include chimeric antigen receptor T cell (CAR-T) and other adoptive cell-based approaches that use non-viral gene transfer methods for broad scalability. The Company is advancing programs in multiple stages of development together with Intrexon Corporation’s RheoSwitch Therapeutic System® technology, a switch to turn on and off, and precisely modulate, gene expression in order to improve therapeutic index. The Company’s pipeline includes a number of cell-based therapeutics in both clinical and preclinical testing which are focused on hematologic and solid tumor malignancies.

Forward-Looking Safe-Harbor Statement

This press release contains certain forward-looking information about ZIOPHARM Oncology, Inc. 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, 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 the progress and timing of the development of the Company’s research and development programs. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied by, the forward-looking statements. These risks and uncertainties include, but are not limited to: the Company’s ability to finance its operations and business initiatives and obtain funding for such activities; whether chimeric antigen receptor T cell (CAR-T) approaches, Ad-RTS-hIL-12, TCR and NK cell-based therapies, or any of other product candidates will advance further in the preclinical research or clinical trial 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 chimeric antigen receptor T cell (CAR-T) approaches, Ad-RTS-hIL-12, TCR and NK cell-based therapies, and the Company's other therapeutic products it develops will be successfully marketed if approved; the strength and enforceability of the Company's intellectual property rights; competition from other pharmaceutical and biotechnology companies; as well as other risk factors contained in the Company's periodic and interim reports filed from time to time with the Securities and Exchange Commission, including but not limited to, the risks and uncertainties set forth in the "Risk Factors" section of the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017 and subsequent reports that the Company may file with the Securities and Exchange Commission. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and the Company 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® and RTS® are registered trademarks of Intrexon Corporation.

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