

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): **June 27, 2016**

ZIOPHARM Oncology, Inc.

(Exact Name of Registrant as Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-33038
(Commission File Number)

84-1475642
(IRS Employer
Identification No.)

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

02129
(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

On June 27, 2016, ZIOPHARM Oncology, Inc., or the Company, issued a press release announcing the successful completion of enrollment in the first and second dosing cohorts as well as the initiation of enrollment in a third cohort in the Company’s ongoing multicenter Phase 1 study of Ad-RTS-hIL-12 + orally administered veledimex to treat recurrent or progressive glioblastoma (GBM) or grade III malignant glioma.

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

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated June 27, 2016

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.

Date: June 27, 2016

By: /s/ Kevin G. Lafond

Name: Kevin G. Lafond

Title: Vice President, Chief Accounting Officer and Treasurer

INDEX OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated June 27, 2016



ZIOPHARM Oncology, Inc.

ZIOPHARM Completes Enrollment in Second Patient Cohort and Initiates Enrollment in Third Cohort in Phase 1 Study of Gene Therapy Candidate Ad-RTS-hIL-12 in Brain Cancer

BOSTON, MA – June 27, 2016 – ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a biopharmaceutical company focused on new cancer immunotherapies, today announced the successful completion of enrollment in the first and second dosing cohorts as well as the initiation of enrollment in a third cohort in the Company's ongoing multi-center Phase 1 study of Ad-RTS-hIL-12 + orally administered veledimex to treat recurrent or progressive glioblastoma (GBM) or grade III malignant glioma. Ad-RTS-hIL-12 + veledimex is a novel viral gene therapy candidate for the controlled expression of interleukin 12 (IL-12), a critical protein for stimulating an anti-cancer immune response.

The primary objective of the study is to determine the safety and tolerability of a single intratumoral Ad-RTS-hIL-12 injection activated upon dosing with oral veledimex. Secondary objectives are to determine the maximum tolerated dose, the immune responses elicited, and assessment of biologic response. The first cohort of seven patients received 20 mg doses of veledimex, the second cohort of six patients received 40 mg doses of veledimex, and the third cohort will receive 30 mg doses of veledimex to refine the effect of activating the immune response within the tumor. The resultant immunologic activity that follows IL-12 expression in the brain suggests that no further dose escalation will be necessary and the optimal dosing may be reached sooner than initially anticipated.

Francois Lebel, M.D., Executive Vice President, Research and Development, Chief Medical Officer at ZIOPHARM, commented: "With the RheoSwitch® (RTS®) technology, the only switch currently in the clinic that operates on gene transcription, we have demonstrated the ability for veledimex to cross the human blood brain barrier and activate production of IL-12 in GBM tumors in a dose-dependent manner, giving us the potential to precisely tune the balance between activity and tolerability."

Data from 11 patients with recurrent high-grade gliomas were recently presented at the 2016 American Society of Clinical Oncology (ASCO) Annual Meeting. All of these patients failed at least two prior lines of therapy and underwent partial resection leaving residual tumors, in certain cases with significant tumor burden. Ad-RTS-hIL-12 was administered through direct injection into the brain tumor and veledimex was taken orally to activate the production of IL-12 from the tumor site and stimulate an immune response.

As of May 18th, the date of data collection for the ASCO presentation, overall median follow up was 6.2 months, with 10 of 11 recipients alive. IL-12 in the bloodstream was measured and was found to be proportional to the amount of veledimex administered, demonstrating that this orally-delivered activator crossed the blood brain barrier to turn on the RheoSwitch® technology in a dose-dependent manner.

To date, toxicities in both dose cohorts were consistent with those previously reported, with a higher incidence of grade 3 or greater adverse events in the 40 mg dose group. All related side effects were reversed upon cessation of veledimex. No subsequent deaths have been reported.

The Company expects to present updated results from the study at a scientific meeting later in the year.

“Overall survival remains the gold standard of therapeutic success in glioblastoma, particularly in high-grade, recurrent disease, where survival is too often measured by just a few months,” said Laurence Cooper, M.D., Ph.D., Chief Executive Officer of ZIOPHARM. “We remain encouraged by the outcomes of Ad-RTS-hIL-12 as a single agent tuning the immune system in this GBM study. We believe that these early results also have positive implications for our combination approach utilizing this novel gene therapy with immune check point inhibitors. We look forward to additional follow up as we work to fine-tune dosing levels using the RheoSwitch® technology.”

Ad-RTS-hIL-12 + veledimex has been granted Orphan Drug Designation by the U.S. Food and Drug Administration for the treatment of patients with malignant glioma.

About Glioblastoma

Glioblastoma is an aggressive primary brain tumor affecting approximately 74,000 people worldwide each year.ⁱ ii Recurrent glioblastoma is an aggressive cancer with one of the lowest 3-year survival rates, at 3%, among all cancers.ⁱⁱⁱ For patients who have experienced multiple recurrences the prognosis is particularly poor, with a median overall survival (OS) of 6-7 months, while OS in patients that have failed temozolomide and bevacizumab, or equivalent salvage chemotherapy, is approximately 3-5 months.^{iv} v

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, timing and results

of preclinical and clinical trials involving the Company's drug candidates, the progress of the Company's research and development programs, and the Company's expectations to present updated results from its Phase 1 study of Ad-RTShIL-12 in brain cancer at future scientific meetings. 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: whether chimeric antigen receptor T cell (CAR T) approaches, Ad-RTS-hIL-12, TCR and NK cell-based therapies, or any of our other therapeutic candidates will advance further in the pre-clinical or 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 chimeric antigen receptor T cell (CAR T) approaches, Ad-RTS-hIL-12, TCR and NK cell-based therapies, and our other therapeutic products will be successfully marketed if approved; the strength and enforceability of our intellectual property rights; competition from other pharmaceutical and biotechnology companies; and the other risk factors contained in our periodic and interim SEC reports filed from time to time with the Securities and Exchange Commission, including but not limited to, our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 and our Quarterly Report for the quarter ended March 31, 2016. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do 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®) technology is a registered trademark of Intrexon Corporation.

- i. Mrugala MM. Advances and challenges in the treatment of glioblastoma: a clinician's perspective. *Discov Med.* 2013;15:221-230. <http://www.discoverymedicine.com/Maciej-M-Mrugala/2013/04/25/advances-and-challenges-in-the-treatment-of-glioblastoma-a-clinicians-perspective/>. Accessed March 24, 2015.
- ii. McCubrey JA, LaHair MM, Franklin RA. OSU—0312 in the treatment of glioblastoma. *Mol Pharmacol.* 2006;70:437-439.
- iii. International Agency for Research on Cancer. *World Cancer Report.* 2003. <http://www.iarc.fr/en/publications/pdfs-online/wcr/2003/WorldCancerReport.pdf>.
- iv. Omuro, A. Glioblastoma and Other Malignant Gliomas. A Clinical Review *JAMA.* 2013 Nov 6;310(17):1842-50.
- v. Iwamoto et al. Patterns or relapse and prognosis after bevacizumab failure in recurrent glioblastoma. *Neurology* 2009; 73(15):1200-1206

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