# 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): May 1, 2017**

# 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 of 1933 (17 CFR 230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (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 2.02 Results of Operations and Financial Condition**

On May 1, 2017, ZIOPHARM Oncology, Inc., or the Company, issued a press release announcing its financial condition and results of operations for the three months ended March 31, 2017. A copy of the press release is furnished as Exhibit 99.1 and is incorporated herein by reference.

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 ZIOPHARM Oncology, Inc. dated May 1, 2017 |

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: May 1, 2017

## INDEX OF EXHIBITS

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| --- | --- |
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**Exhibit 99.1**

ZIOPHARM Oncology, Inc.

**ZIOPHARM Oncology Reports First Quarter 2017 Financial Results and Provides Update on Recent Activities**

***– Advancing Plans to Initiate Pivotal Study for Ad-RTS-hIL-12 + Veledimex for Treatment of Recurrent Brain Cancer –***

***- Company to Host Conference Call Today at 4:30 p.m. ET -***

**BOSTON, May 1, 2017** – ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a biopharmaceutical company focused on new immunotherapies, today announced its financial results for the first quarter ended March 31, 2017, and provided an update on the company's recent activities.

"ZIOPHARM is making significant advances, including progress towards finalizing a registration path for Ad-RTS-hIL-12 + veledimex for recurrent glioblastoma and furthering development in our point-of-care approach with T-cell CAR-based therapies," said Laurence Cooper, M.D., Ph.D., Chief Executive Officer of ZIOPHARM Oncology. "ZIOPHARM is assessing several paths for the pivotal trial, including a single-arm study of Ad-RTS-hIL-12 + veledimex compared to historical controls. With a commercialization path in view, we are evaluating partnership opportunities for Ad-RTS-hIL-12 + veledimex to understand the breadth of options available to ZIOPHARM for bringing this important therapeutic candidate to patients."

"The IL-12 data from the brain cancer trial firmly establishes that the RheoSwitch Therapeutic System® works as a switch in humans," added Dr. Cooper. "By combining the most clinically advanced non-viral gene integration platform, *Sleeping Beauty*, and transcriptional switch system, RheoSwitch, we will use our point-of-care approach to significantly shorten the time to manufacture T cells and to tailor the expression of introduced genes after infusion using veledimex. This will address two major issues with CAR-based therapies, namely the cost of therapy and control of T cells to reduce toxicity."

**Recent Updates**

*Ad-RTS-hIL-12 + veledimex*

Ad-RTS-hIL-12 + veledimex is ZIOPHARM's gene therapy candidate for the controlled expression of interleukin-12 (IL-12), a critical protein for stimulating an anti-cancer immune response, using a RheoSwitch Therapeutic System® (RTS®) inducible gene-delivery system, or switch, that enables controlled *in vivo* expression of therapeutic proteins. ZIOPHARM is currently conducting a multi-center Phase 1 study of Ad-RTS-hIL-12 + orally administered veledimex in patients with recurrent or progressive glioblastoma multiforme (GBM), an aggressive form of brain cancer.

ZIOPHARM will be presenting updated results from its Phase 1, multicenter, dose-escalation study of Ad-RTS-hIL-12 + veledimex in patients with recurrent or progressive glioblastoma at the 2017 American Society of Clinical Oncology (ASCO) Annual Meeting on June 5, 2017.

“Our initial discussions with regulators have been encouraging, and we look forward to moving Ad-RTS-hIL-12 + veledimex into a pivotal study as quickly as possible this year. Details of the pivotal Phase 3 trial will be made available following completion of discussions with regulators and clinical advisors,” said Francois Lebel, M.D., Executive Vice President, Research and Development, Chief Medical Officer at ZIOPHARM. “We continue to see encouraging outcomes in our Phase 1, multi-center study of Ad-RTS-hIL-12 + veledimex in patients with recurrent high-grade gliomas and plan to share updated results from this study at ASCO.”

The Company also expects to initiate Phase 1 studies of Ad-RTS-hIL-12 + veledimex in pediatric brain cancer, as well as in combination with an anti-PD-1 checkpoint inhibitor in adult glioblastoma, as planned, in the first half of 2017.

*Adoptive Cell Therapies*

ZIOPHARM is developing chimeric antigen receptor (CAR) T cell (CAR+ T), T-cell receptor (TCR) T cell (TCR+ T), and natural killer (NK) adoptive cell-based therapies. These programs are being advanced in collaboration with Intrexon Corporation, MD Anderson Cancer Center, the National Cancer Institute and Merck Serono, the biopharmaceutical business of Merck KGaA (CAR+ T only).

**Announced Advancement of Next-Generation Non-Viral CAR+ T Platform Empowered by Membrane-Bound IL-15 Under RTS® Gene Switch Control.** In April 2017, ZIOPHARM and its partners, Intrexon and Merck KGaA, Darmstadt, Germany, announced the advancement of a unique approach to develop therapeutic candidates for two CAR+ T targets expressed on a wide range of tumor types, including hematologic malignancies and solid tumors. The distinctive methodology centers on the proprietary RTS® platform to regulate production of membrane-bound interleukin-15 (mbIL15) co-expressed with CARs and *Sleeping Beauty*, a non-viral genetic modification system to genetically modify clinical-grade T cells. The companies expect to advance this innovative approach towards the clinic in 2018.

The IL-15 cytokine is increasingly recognized as a key driver of therapeutic effect in CAR+ T therapy, including in a recent Journal of Clinical Oncology publication which correlated lymphoma remissions in patients whose IL-15 levels were elevated after lymphodepleting chemotherapy. Through the RTS® gene switch, the expression of mbIL15 can be regulated to help CARs target cancers in a controlled manner, thus providing a new paradigm in T-cell therapy.

**Announced Advances in Point-of-Care Approach for Rapidly Producing CAR-Expressing T Cells Utilizing the *Sleeping Beauty* System.** In January 2017, ZIOPHARM announced improved production times utilizing its non-viral platform to engineer T cells in an ongoing Phase 1 study of second-generation *Sleeping Beauty*-modified CD19-specific CAR+ T cells. ZIOPHARM continues to refine its *Sleeping Beauty* system to further reduce time to manufacture genetically modified T cells. Preclinical studies of third-generation *Sleeping Beauty*-modified CAR+ T cells co-expressing mbIL15 demonstrated reduced time to administration (less than two days) through elimination of the need for *in vitro* T-cell activation and propagation. Plans to

progress this point-of-care approach with infusion of CAR+ T cells in less than two days are underway. The combination of *Sleeping Beauty* and RTS-mbIL15, has the potential to solve the dual problems of cost and toxicities as genetically modified T cells can be rapidly produced for preclinical testing, and the RTS is a clinically validated switch, which may be used with veledimex to control T-cell persistence via conditional expression of mbIL15. The Company expects to advance towards a Phase 1 study evaluating the point-of-care in 2017.

**Announced Cooperative Research and Development Agreement (CRADA) With the National Cancer Institute Utilizing *Sleeping Beauty* System to Generate T Cells Targeting Neoantigens.** In January 2017, ZIOPHARM and its partner, Intrexon, announced the signing of a CRADA with the National Cancer Institute (NCI) for the development of adoptive cell transfer-based immunotherapies genetically modified using the *Sleeping Beauty* system to express TCRs targeting neoantigens for the treatment of solid tumors. Research conducted under the CRADA will be at the direction of Steven A. Rosenberg, M.D., Ph.D., Chief of the Surgery Branch at the NCI's Center for Cancer Research. The Company anticipates that this program will advance to Phase 1 during the second half of 2017.

**Anticipated and Achieved 2017 Milestones**

- Intra-tumoral IL-12 RheoSwitch® programs:
    - Updated clinical data from Phase 1 of Ad-RTS-hIL-12 + veledimex for recurrent GBM to be presented at ASCO
    - Initiate pivotal clinical trial for recurrent GBM
    - Initiate combination study of Ad-RTS-hIL-12 + veledimex with iCPI (anti-PD-1) for recurrent GBM during the first half
    - Initiate Phase 1 study in the treatment of brain tumors in children during the first half
- CAR+ T programs:
    - Continue CD19-specific CAR+ T second-generation clinical study, enrolling patients under shortened manufacturing
    - Advance CD19 third-generation mbIL15 towards a Phase 1 clinical study evaluating point-of-care
    - Initiate a CD33-specific CAR+ T clinical study in adults and children for relapsed or refractory acute myeloid leukemia
    - Advance CAR+ T-cell preclinical studies for at least one hematological malignancy under a shortened manufacturing process towards point-of-care
- TCR programs
    - Execute CRADA with NCI utilizing *Sleeping Beauty* to generate T cells targeting neoantigens for treatment of patients with solid tumor malignancies
    - Advance development of process for delivering personalized gene-modified T-cell products against neoantigens
- NK cell programs
    - Initiate a Phase 1 study of off-the-shelf (OTS) NK cells for elderly patients with acute myeloid leukemia not eligible for standard intensive chemotherapy
- GvHD (graft-versus-host disease) programs
    - Advance preclinical studies

**First-Quarter 2017 Financial Results**

- Net loss applicable to the common shareholders for the first quarter of 2017 was $19.7 million, or $(0.15) per share, compared to a net loss of $12.0 million, or $(0.09) per share, for the first quarter of 2016. The increase in net loss for the three months ended March 31, 2017 is primarily due to decreased collaboration revenue of $0.4 million, an increase in operating expenses of $1.5 million, an increase in the charge for the change in derivative liabilities of $1.6 million and income attributable to preferred shareholders of $4.2 million.
- Research and development expenses were $12.0 million for the first quarter of 2017, compared to $10.2 million for the first quarter of 2016. The increase in research and development expenses for the three months ended March 31, 2017 is primarily due to our gene therapy and cell therapy programs, along with increased headcount.
- General and administrative expenses were $3.6 million for the first quarter of 2017, compared to $3.8 million for the first quarter of 2016. The decrease in general and administrative expenses is primarily due to decreased employee-related expenses.
- The Company ended the quarter with cash and cash equivalents of approximately $66.4 million, which the Company believes will be sufficient to fund its currently planned activities through the fourth quarter of 2017, including initiating a pivotal trial for Ad-RTS-hIL-12 + veledimex.

**Conference Call and Slide Webcast**

ZIOPHARM will host a conference call and webcast slide presentation today, Monday, May 1, 2017, at 4:30 p.m. ET. The call can be accessed by dialing (844) 309-0618 (U.S. and Canada) or (661) 378-9465 (international). The passcode for the conference call is 8375689. To access the slides and live audio webcast, or the subsequent archived recording, visit the “Investors & Media” 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 weeks.

**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 and graft-versus-host-disease. 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 Company’s plans and

expectations regarding its securities offerings, fundraising activities and financial strategy, the progress, timing and results of preclinical and clinical trials involving the Company's drug candidates, and the progress 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: our ability to finance our 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 our other therapeutic candidates will advance further in the preclinical 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, 2016 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017. 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® and RTS® are registered trademarks of Intrexon Corporation.

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(tables follow)

**ZIOPHARM Oncology, Inc.**
**Statements of Operations**
**(in thousands except share and per share data)**
**(unaudited)**

| | Three Months Ended March 31, | |
|---|---|---|
| | **2017** | **2016** |
| Collaboration revenue | $ 1,597 | $ 1,969 |
| Operating expenses: | | |
| Research and development, including cost of contracts | 11,967 | 10,199 |
| General and administrative | 3,595 | 3,810 |
| Total operating expenses | 15,562 | 14,009 |
| Loss from operations | (13,965) | (12,040) |
| Other income (expense), net | 38 | 21 |
| Change in derivative liabilities | (1,560) | — |
| Net loss | (15,487) | (12,019) |
| Preferred stock dividends | (4,171) | — |
| Net loss applicable to common stockholders | $ (19,658) | $ (12,019) |
| Basic and diluted net loss per share | $ (0.15) | $ (0.09) |
| Weighted average common shares outstanding used to compute basic and diluted net loss per share | 130,696,400 | 130,157,927 |

**ZIOPHARM Oncology, Inc.**
**Balance Sheet Data**
**(in thousands)**
**(unaudited)**

| | March 31, 2017 | December 31, 2016 |
|---|---|---|
| Cash and cash equivalents | 66,447 | 81,053 |
| Working capital | 77,030 | 89,075 |
| Total assets | 94,494 | 106,348 |
| Total stockholders' equity (deficit) | (94,903) | (77,298) |