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): April 16, 2008

ZIOPHARM Oncology, Inc.

(Exact name of registrant as specified in its charter)

Delaware	0-32353	84-1475642
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

1180 Avenue of the Americas, 19th Floor
New York, NY 10036
(Address of principal executive offices) (Zip Code)

(646) 214-0700
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

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

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01. Other Events.

On April 16, 2008, ZIOPHARM Oncology, Inc. issued the press release attached hereto as Exhibit 99.1, which is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

99.1 Press Release dated April 16, 2008.

SIGNATURE

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.:
(Registrant)

Date: April 16, 2008

By: /s/ Richard E. Bagley

Richard E. Bagley
Title: *President, Chief Operating Officer and Chief Financial Officer*

Exhibit Index

Exhibit No.	Description
99.1	Press Release dated April 16, 2008.

ZIOPHARM Oncology, Inc.

ZIOPHARM Presents Positive Data from Phase II Study of Darinaparsin in Advanced Hematological Malignancies at AACR 2008 Annual Meeting

San Diego, CA, April 16, 2008 - ZIOPHARM Oncology, Inc. (NASDAQ:ZIOP) announced today that it presented positive data from a phase II study of darinaparsin, the Company's novel organic arsenic compound, in advanced hematological malignancies at the American Association for Cancer Research (AACR) Annual Meeting, April 12-16, 2008 in San Diego, CA.

A total of 40 patients with a variety of hematological malignancies, including leukemias and lymphomas, have been enrolled in the study, with 40 patients evaluable for safety and 21 evaluable for efficacy. In 3 of 7 lymphoma patients evaluable for efficacy, 1 patient (peripheral T-cell lymphoma) achieved a complete response, one patient (nodular sclerosis) is ongoing in cycle 3 with a PET scan interval response, and one patient (B-cell lymphoma) is ongoing with stable disease after 5 cycles of therapy. Of 14 leukemia patients evaluable for efficacy, 6 patients achieved stable disease (3 MDS and 3 CML) and 1 patient withdrew consent prior to efficacy evaluation. The study is ongoing and patient accrual continues. In these patients, therapy with darinaparsin was well tolerated with the most common serious adverse events being constitutional (pyrexia), pulmonary (dyspnea), cardiovascular (hypotension), and infection (sepsis) related.

"Administration of darinaparsin to patients diagnosed with advanced hematological malignancies has been well-tolerated, and tumor response, including a complete response in a highly refractory T-cell lymphoma patient, is very encouraging," commented Michael Craig, M.D., Assistant Professor and Interim Director of Blood and Marrow Transplantation of West Virginia University and a lead investigator of the study. "Because cure rates are low in advanced disease but progression can be slow, achieving stable disease or better could have a meaningful impact on patient outcome. Further study of darinaparsin in hematological malignancies, particularly in lymphomas, is highly warranted."

For more details on these trials please see www.clinicaltrials.gov.

About Darinaparsin

Darinaparsin is a proprietary small molecule organic arsenic licensed from The University of Texas M. D. Anderson Cancer Center and Texas A&M University. Darinaparsin induces cell cycle arrest and cell death by targeting several cellular pathways essential for cell survival. Exposure to darinaparsin has a direct as well as indirect effect on mitochondrial functions, resulting in depletion of energy supply to the cell and induction of apoptosis (programmed cell death). Increase in intra-cellular Reactive Oxygen Species enhances this effect on mitochondrial functions and consequently the activation of the signal transduction pathway leading to apoptosis. In addition, darinaparsin interrupts the cell cycle at the G2/M phase of tumor cells inducing cell death through this pathway.

About ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology, Inc. is a biopharmaceutical company engaged in the development and commercialization of a diverse, risk-sensitive portfolio of in-licensed cancer drugs to address unmet medical needs. The Company applies new insights from molecular and cancer biology to understand the efficacy and safety limitations of approved and developmental cancer therapies and identifies proprietary and related molecules for better patient treatment. For more information, visit www.ziopharm.com.

Forward-Looking Safe Harbor Statement:

This press release contains forward-looking statements for ZIOPHARM Oncology, Inc. that involve risks and uncertainties that could cause the Company's actual results to differ materially from the anticipated results and expectations expressed in these forward-looking statements. These statements are based on current expectations, forecasts and assumptions that are subject to risks and uncertainties, which could cause actual outcomes and results to differ materially from these statements. Among other things, there can be no assurance that any of the Company's development efforts relating to its product candidates will be successful, or such product candidates will be successfully commercialized. Other risks that affect forward-looking information contained in this press release include the possibility of being unable to obtain regulatory approval of the Company's product candidates, the risk that the results of clinical trials may not support the Company's claims, and risks related to the Company's ability to protect its intellectual property and its reliance on third parties to develop its product candidates. The Company assumes no obligation to update these forward-looking statements, except as required by law.

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