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 31, 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 2.02. Results of Operations and Financial Condition.**

On October 31, 2008, ZIOPHARM Oncology, Inc. issued a press release announcing its financial results for the three and nine-month periods ended September 30, 2008. A copy of the press release is 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 October 31, 2008. |

**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.:
(Registrant)

Date: October 31, 2008

By: /s/ Richard E. Bagley

Name: Richard E. Bagley
Title: President and Chief Operating Officer

**Exhibit 99.1**

ZIOPHARM Oncology, Inc.

ZIOPHARM ONCOLOGY REPORTS THIRD QUARTER FINANCIAL RESULTS

**NEW YORK - OCTOBER 31, 2008 -** ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP) announced today its financial results for the three and nine-month period ending September 30, 2008.

The Company reported a lower net loss for the third quarter of 2008 of $5.5 million, or $(0.26) per share, compared with a net loss for the third quarter of 2007 of $7.3 million, or $(0.35) per share. Total operating expenses for the quarter were $5.6 million, compared with $7.9 million for the same quarter in the prior year. The decrease was primarily due to a reduction in product manufacturing for darinaparsin and palifosfamide, decreased enrollment numbers for the darinaparsin clinical trials, and a program to efficiently manage costs. Cash used in operations during the third quarter 2008 increased by $0.4 million to $5.9 million compared with $5.5 million used in the third quarter 2007 as a result of upfront payments to contract organizations responsible for the recently initiated Phase II randomized controlled trial for palifosfamide.

The Company reported a net loss in the nine-month period ended September 30, 2008 of $20.7 million, or $(0.97) per share, compared with a net loss of $18.9 million, or $(0.94) per share, in the same period of the prior year. Total operating expenses for the nine months ended September 30, 2008 were $21.1 million compared with total operating expenses of $20.5 million in the same period in the prior year. Cash used in operations was $19.7 million for the first nine months of 2008 compared with $15.8 million used in the same period of 2007.

The Company ended the nine-month period with approximately $15.2 million in cash and cash equivalents on hand. In order to preserve capital while maximizing opportunities from its product portfolio, the Company has reduced staff, most recently eight positions, and other project and personnel-related expenses and has focused its product priorities on (i) the palifosfamide Phase II randomized controlled trial with intravenous administration; (ii) the ongoing Phase I/II oral indibulin trials; (iii) the completion of preclinical studies regarding dose dense and metronomic dosing of indibulin; and (iv) the partnering for further development of darinaparsin with both the IV and oral forms. With expense management and focus on these priorities, the Company currently has sufficient capital to fund the development programs for palifosfamide and indibulin into the first quarter of 2010.

Highlights for the third quarter 2008 included:

- Publication of results from preclinical study of darinaparsin in the July 17, 2008 online advance publication issue of Leukemia, a Nature Publication. The study showed that darinaparsin is highly active *in vitro* against certain leukemia cells that are resistant to inorganic arsenic (arsenic trioxide - ATO) because they express a drug resistance protein (MRP1/ABCC1).

- Received further Notices of Allowance from European and U.S. Patents covering indibulin.

- Commenced international Phase II randomized controlled trial of palifosfamide in patients with soft-tissue sarcoma (STS). The Phase II trial will evaluate the clinical benefit of palifosfamide administered with doxorubicin compared with single-agent doxorubicin in subjects diagnosed with respectable or metastatic STS in the front- or second-line treatment setting. The primary endpoint is assessment of the difference in progression-free survival between subjects in the two arms of the trial.

**About ZIOPHARM Oncology, Inc.:**
ZIOPHARM Oncology is a biopharmaceutical company engaged in the development and commercialization of a diverse portfolio of cancer drugs. The Company is currently focused on three clinical programs.

Palifosfamide (ZIO-201) is a novel molecule that is the functional active metabolite of ifosfamide, a standard of care for treating sarcoma, testicular and other cancers. Palifosfamide delivers only the cancer fighting component of ifosfamide. It is expected to overcome the resistance of ifosfamide and cyclophosphamide in certain cancers. It does not have the toxic metabolites of ifosfamide that cause the debilitating side effects of “fuzzy brain” (encephalopathy) and severe bladder inflammation. Intravenous (IV) palifosfamide is currently in a Phase II randomized trial to treat soft tissue sarcoma. An oral form of palifosfamide has been developed preclinically and is expected to enter clinical study in 2009.

Indibulin (ZIO-301) is a novel, oral tubulin binding agent that targets both mitosis and cancer cell migration. Indibulin is expected to have several potential benefits, including oral dosing, application in multi-drug resistant tumors, no neuropathy and minimal overall toxicity. Indibulin has shown early activity in Phase I study as a single agent in many types of solid tumors. Indibulin is also currently in the Phase I portion of Phase I/II trials in combination with Tarceva® and Xeloda®. Preclinical study continues with both dose density and metronomic administration.

Darinaparsin (ZIO-101) is a novel organic arsenic being developed for the treatment of various hematologic and solid cancers. Preclinical and Phase I and II results to date demonstrate that darinaparsin is much less toxic than other forms of arsenic. Intravenous darinaparsin continues to be studied in a Phase II hematology trial with favorable treatment activity in certain lymphomas and in Phase I study with oral administration. Darinaparsin has been well tolerated in all trials to date.

ZIOPHARM’s operations are located in Boston, MA with an executive office in New York. Further information about ZIOPHARM may be found at www.ziopharm.com.

ZIOP-E

**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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