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): **September 27, 2010**

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.)

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)

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:

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 September 27, 2010, the Company issued a press release announcing that the Japanese Patent Office has issued a patent, Patent No. 4,571,408, with claims covering pharmaceutical compositions, including oral formulations, of various organic arsenic compounds, including darinaparsin (Zinapar™ or ZIO-101), and the use of these compositions and the organic arsenic compounds for the treatment of cancer, including as part of a combination therapy. A copy of the above referenced press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release dated September 27, 2010

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/ Richard Bagley

Name: Richard Bagley
Title: President, Chief Operating Officer and Chief Financial Officer

Date: September 27, 2010

INDEX OF EXHIBITS

Exhibit No.	Description
99.1	Press Release dated September 27, 2010

Exhibit 99.1

ZIOPHARM Oncology, Inc.

ZIOPHARM Granted Japanese Patent for Darinaparsin

New York, NY – September 27, 2010 – ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP) today announced that the Japanese Patent Office has issued a patent, Patent No. 4,571,408, with claims covering pharmaceutical compositions, including oral formulations, of various organic arsenic compounds, including darinaparsin (Zinapar™ or ZIO-101), and the use of these compositions and the organic arsenic compounds for the treatment of cancer, including as part of a combination therapy.

ZIOPHARM recently announced that it has received Orphan Drug Designation from the U.S. Food and Drug Administration (FDA) for darinaparsin in the treatment of peripheral T-cell Lymphoma (PTCL). Darinaparsin demonstrated favorable results in a Phase II trial in lymphoma, particularly PTCL. The Company expects to begin enrolling patients imminently in a Phase I study of darinaparsin in combination with CHOP (Cyclophosphamide, Doxorubicin, Vincristine, and Prednisone), the current standard of care for front-line PTCL, to confirm the tolerability of the combination. Subject to the outcome of this study and further dialogue with the FDA, the Company expects to move forward with a registration study of the darinaparsin and CHOP combination for the front-line treatment of PTCL in late 2011. ZIOPHARM has also recently reinitiated a Phase I study of oral darinaparsin in advanced solid tumors.

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 (Zymafos™ or ZIO-201) is a novel DNA cross-linker in class with bendamustine, ifosfamide, and cyclophosphamide. ZIOPHARM is currently enrolling patients in a randomized, double-blinded, placebo-controlled Phase III trial with palifosfamide administered intravenously for the treatment of metastatic soft tissue sarcoma in the front-line setting. The Company expects to initiate additional studies in the near-term, including a Phase I IV study of palifosfamide in combination with standard of care addressing small cell lung cancer and a Phase I study of oral palifosfamide.

Darinaparsin (Zinapar™ or ZIO-101) is a novel mitochondrial-targeted agent (organic arsenic) being developed intravenously for the treatment of peripheral T-cell lymphoma with a pivotal study expected to begin in late 2011, following the outcome of a supporting trial. An oral form is in a Phase I trial in solid tumors.

Indibulin (Zybulin™ or 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. It is currently being studied in Phase I/II in metastatic breast cancer.

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

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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, the risk that pre-clinical or clinical trials will proceed on schedules that are consistent with the Company's current expectations or at all, risks related to the Company's ability to protect its intellectual property and its reliance on third parties to develop its product candidates, risks related to the sufficiency of existing capital reserves to fund continued operations for a particular amount of time and uncertainties regarding the Company's ability to obtain additional financing to support its operations thereafter, as well as other risks regarding the Company that are discussed under the heading "Risk Factors" in the Company's filings with the United States Securities and Exchange Commission. Forward-looking statements can be identified by the use of words such as "may," "will," "intend," " should," "could," "can," "would," "expect," "believe," "estimate," " predict," "potential," "plan," "is designed to," "target" and similar expressions. The Company assumes no obligation to update these forward-looking statements, except as required by law.

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