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): **July 19, 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 July 19, 2010, the registrant issued a press release announcing initiation of its pivotal Phase III clinical trial for palifosfamide (ZymafosTM) in patients with front-line metastatic soft tissue sarcoma. A copy of the press release is filed as Exhibit 99.1 to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release, dated July 19, 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: July 20, 2010

INDEX OF EXHIBITS

Exhibit No.	Description
99.1	Press Release, dated July 19, 2010

Exhibit 99.1

ZIOPHARM Announces Initiation of Palifosfamide Pivotal Study
-- Front-Line Therapy Trial for Patients with Metastatic Soft Tissue Sarcoma - --

Company to Host Conference Call and Webcast with Outside Experts
on Tuesday, July 20th at 8:00 a.m. EST

NEW YORK, NY (July 19, 2010) – ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP) today announced the initiation of the pivotal Phase III clinical trial for palifosfamide (Zymafos™) in patients with front-line metastatic soft tissue sarcoma. The study, called PICASSO 3, is an international, randomized, double-blinded, placebo-controlled trial designed to enroll approximately 424 patients with metastatic soft tissue sarcoma who have never been treated with chemotherapy for metastatic disease. The study is designed to evaluate the safety and efficacy of palifosfamide administered with doxorubicin compared with doxorubicin administered with placebo, with no crossover between arms. Progression-free survival (PFS) is the primary endpoint for accelerated approval, with overall survival (OS) as the primary endpoint for full approval. Palifosfamide has Orphan Drug status in both Europe and the United States.

The pivotal trial protocol was developed in a process with the U.S. Food and Drug Administration (FDA) that included discussion at an End of Phase II meeting and a subsequent dialogue for Special Protocol Assessment (SPA). FDA advised that PFS could be used as a primary endpoint outside of formal SPA with the study outcome subject to review. Regulatory acceptability will depend on the magnitude of the difference between the trial study arms as well as a risk and benefit analysis. Having reached consensus with FDA, including on the methodology of radiologic evaluation of PFS, and based upon external expert opinion, the Company elected to initiate the pivotal Phase III trial without formal SPA and retaining PFS as a primary endpoint.

The PICASSO 3 trial has 85% power to detect a 0.60 hazard ratio (HR) advantage for the palifosfamide combination arm for PFS. Following a pre-determined number of PFS events and Independent Data Monitoring Committee (IDMC) review and recommendation, coupled with review of the then available survival data by the IDMC (to which the Company and Investigators will remain blinded), the Company could file for accelerated approval based on PFS. The Company and its external advisors estimate that a median increase in PFS of 3 months or greater over the control arm (control arm median PFS estimated to be 4.3 months) could achieve a targeted hazard ratio (HR=0.60; p=0.0005, one-tailed) and also predict a demonstrable improvement in overall survival. Sarcoma and oncology experts consulted by the Company believe that this would represent a clinically meaningful improvement in PFS in this disease setting and that this study design is a statistically reliable evaluation regarding whether the experimental intervention is safe and provides clinically meaningful benefit. The PICASSO 3 study is designed as a close follow-on study to the publicly-reported PICASSO trial, which demonstrated a statistically significant improvement in PFS (HR=0.39; median PFS improvement of 3.4 months, p=0.023) for the combination over doxorubicin alone.

PICASSO 3 will be conducted at approximately 150 centers in North America, Europe, South America, Australia, Israel and Korea.

The Steering Committee for the pivotal trial includes:

- Prof. Jean-Yves Blay, President of the EORTC (European Organization for Research and Treatment of Cancer), Professor of Medicine at the Universite Claude Bernard and Scientific Director of the Canceropole, Lyon, France
- Prof. Xavier Garcia del Muro, President of the Spanish Group for Research in Sarcoma (GEIS) and Member of Medical Oncology Service of the Institut Catala d'Oncologia, Barcelona, Spain
- Dr. George Demetri, Director of the Center for Sarcoma and Bone Oncology at Dana Farber Cancer Institute and the Ludwig Center at the Dana-Farber/Harvard Cancer Center, Boston, USA and a member of the ZIOPHARM Scientific Advisory Board (non-equity holding)
- Dr. Jayesh Desai, member of the Board of Directors of the Australasian Sarcoma Study Group, the Royal Melbourne Hospital and Peter MacCallum Cancer Centre in Melbourne, Australia, and Director for Cancer Trials Australia
- Prof. Peter Hohenberger, Chairman EORTC Soft Tissue and Bone Sarcoma Group and Member Division of Surgical Oncology and Thoracic Surgery at Mannheim University Medical Center, Mannheim, Germany
- Prof. Ian Judson, past president of CTOS (Connective Tissue Oncology Society) and EORTC Sarcoma Group, Co-Team Leader of the Clinical Pharmacology and Trials Team of the UK Institute of Cancer Research and Head of Sarcoma at the Royal Marsden, London
- Dr. Robert Maki, immediate past president of CTOS (Connective Tissue Oncology Society) and Co-leader of Adult Sarcoma Disease Management Team at Memorial Sloan-Kettering Cancer Center, New York, USA

Dr. Maki stated: "Metastatic soft-tissue sarcoma is a disease for which we have seen few advances in treatment and no U.S. regulatory approvals in over two decades. Palifosfamide has demonstrated promising activity and tolerability in Phase II, including a clinically meaningful improvement in PFS."

"PICASSO 3 is powered to show a significant improvement in disease control, as assessed by PFS," added Dr. Demetri. "This design allows for the possibility of accelerated approval using a PFS endpoint, an outcome which leaders in the sarcoma community believe could provide patients in vital need of more treatment options with earlier access to a new therapy."

About Soft Tissue Sarcoma

Soft tissue sarcomas are cancers of the body soft tissues, including cartilage, muscle, fat, nerves, blood vessels and other connective tissue. They may develop in any part of the body, but are most common in the trunk, arms, and legs. According to the American Cancer Society, 10,520 new cases of adult soft tissue sarcomas will be diagnosed in the United States in 2010. No new therapies have been approved for use in sarcoma in the U.S. in over 20 years.

Conference Call and Webcast Tuesday, July 20th at 8:00 a.m. EST

The Company will host a conference call and live audio webcast Tuesday, July 20th at 8:00 a.m. EST. Dr. Maki will be joining the ZIOPHARM management team in a discussion regarding the initiation of the pivotal Phase III clinical trial for palifosfamide (Zymafos™) in patients with front-line metastatic soft tissue sarcoma. Also participating in the call will be Josephine Torrente, attorney with Hyman, Phelps & McNamara, Washington, DC, as outside regulatory strategic advisor and counsel to ZIOPHARM. The call can be accessed by calling (877) 375-9144 (U.S. and Canada) or +1 253 237-1150 (international). To access the live audio webcast, or the subsequent archived recording, visit the "Investors – Events & Presentations" 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 (2) weeks.

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) references a novel composition (tris formulation) that comprises the functional active metabolite of ifosfamide, a standard of care for treating sarcoma, lymphoma, testicular, and other cancers. Palifosfamide delivers only the cancer fighting component of ifosfamide. It is expected to overcome the resistance seen with ifosfamide and cyclophosphamide, two of the most commonly used DNA-alkylating drugs used to treat cancers.

Darinaparsin (Zinapar™ or ZIO-101) is a novel mitochondrial-targeted agent (organic arsenic) being developed for the treatment of various hematologic and solid cancers.

Indibulin (Zybulin™ or ZIO-301) is a novel, oral tubulin binding agent that targets both mitosis and cancer cell migration. In addition, indibulin is expected to have several potential benefits, including oral dosing, application in multi-drug resistant tumors, no neuropathy and minimal overall toxicity

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 the PICASSO 3 trial will complete enrollment within the time period currently anticipated, that results of the Company's PICASSO 3 trial will support the Company's claims, that the Company will obtain regulatory approval for palifosfamide on an accelerated basis or at all, or that palifosfamide will be successfully commercialized. Similar risks apply to the development of the Company's other product candidates. Other risks that may affect forward-looking information contained in this press release include 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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