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 30, 2009**

ZIOPHARM Oncology, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware	**0-32353**	**84-1475672**
(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 7.01 Regulation FD Disclosure

On May 30, 2009, ZIOPHARM Oncology, Inc. (the "Company") issued a press release announcing that it presented positive data from both a Phase Ib clinical trial and preclinical dosing studies of orally administered indibulin (Zybulin™ or ZIO-301), the Company's novel tubulin binding agent, as part of the 45th Annual American Society of Clinical Oncology (ASCO) meeting held in Orlando, FL, May 29th to June 2nd (the "ASCO Meeting").

On May 31, 2009, the Company issued a press release announcing that it presented final data from a Phase I study of palifosfamide (Zymafos™ or ZIO-201) in combination with doxorubicin at the ASCO Meeting.

Copies of the above referenced press releases are furnished as Exhibit 99.1 and 99.2 to this Current Report of Form 8-K.

In accordance with General Instruction B.2 of Form 8-K, the information in this Report, including Exhibits 99.1 and 99.2 shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section, nor shall they be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such a filing.

Item 8.01 Other Events

On June 1, 2009, the Company issued a press release announcing that it presented positive data from both Phase II intravenous (IV) and Phase I oral studies of darinaparsin (Zinapar™ or ZIO-101), the novel organic arsenic molecule, at the ASCO Meeting.

A copy of the above referenced press release is filed as Exhibit 99.3 to this Current Report of Form 8-K.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Press Release of the Company dated May 30, 2009
99.2	Press Release of the Company dated May 31, 2009
99.3	Press Release of the Company dated June 1, 2009

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

Date: June 1, 2009

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

INDEX OF EXHIBITS

Exhibit No.	Description
99.1	Press Release of the Company dated May 30, 2009
99.2	Press Release of the Company dated May 31, 2009
99.3	Press Release of the Company dated June 1, 2009

Exhibit 99.1

— ZIOPHARM PRESENTS POSITIVE INDIBULIN TRANSLATIONAL AND DOSE SCHEDULING DATA AT ASCO —

Orlando, FL – May 30, 2009 - ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP) announced today that it presented positive data from both a Phase Ib clinical trial and preclinical dosing studies of orally administered indibulin (Zybulin™ or ZIO-301), the Company's novel tubulin binding agent, at the 45th Annual American Society of Clinical Oncology (ASCO) meeting held in Orlando, FL, May 29th to June 2nd.

In the Phase Ib study, oral indibulin was administered with oral capecitabine (Xeloda™) in patients with advanced solid tumors. Trial results presented are for 7 patients who had received a median of three prior therapies. All 7 patients were evaluable for safety, and 4 for efficacy. Three patients had stable disease for a minimum of 6 cycles with 1 patient ongoing in their 11th cycle of treatment. There were no dose limiting toxicities and therefore no maximum tolerated dose was established. Adverse events included hand-and-foot syndrome (capecitabine), fatigue, vomiting, loss of appetite and headaches, and were easily managed. There was no reported neurotoxicity, consistent with other Phase I and preclinical data with indibulin. There was early activity seen in breast, colon, bladder and prostate cancers with this sub-optimal dose level and schedule, which is encouraging with regard to further study using mathematically-optimized dose scheduling, the subject of the preclinical data also presented.

The preclinical results were derived from mathematical modeling applying Norton-Simon models in breast cancer xenografts. The work was conducted by the Company under the direction of Dr. Larry Norton (Harmon Hill). Formal analyses revealed that the major effect of therapy occurs in five days of exposure, which is not manifest on gross inspection until one week thereafter. Therefore an intermittent schedule based on five days of drug administration preserves full activity while minimizing the possibility of toxicity. A Phase I/II study in breast cancer using this highly novel scheduling strategy is in development under the direction of two leading breast cancer specialists, Dr. Clifford Hudis in the United States and Dr. Jose Baselga in Spain.

"Indibulin is not only an interesting drug because it is active against taxane-resistant cells without the neurotoxicity seen with all the other tubulin binding agents, but also because mathematical modeling has revealed a novel dose-schedule that promises to maximize efficacy and minimize toxicity in the clinic. Also, it is oral, so it is potentially of value to the entire world's population", commented Dr. Larry Norton, senior author on this presentation.

To view the presentation please visit:

http://www.ziopharm.com/docs/Indibulin_Poster_ASCO_2009.pdf

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, 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.

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**.** Indibulin has shown early activity in Phase I study as a single agent in many types of solid tumors. Indibulin is also completing Phase I trials in combination with Tarceva® and Xeloda®. Oral indibulin preclinical “dose density” and “metronomic” dose administration studies with our consultant Dr. Larry Norton have progressed to the point of translation with the intention of further pursuit in clinical study.

Darinaparsin (Zinapar™ or 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-G

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, 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. The Company assumes no obligation to update these forward-looking statements, except as required by law.

# # #

Contacts:
Tyler Cook
ZIOPHARM Oncology, Inc.
(617) 259-1982
tcook@ziopharm.com
or
Dennis Dobson
International Investor Relations Inc.
(203) 258-0159
dsdobson@optonline.net

Exhibit 99.2

ZIOPHARM PRESENTS POSITIVE DATA FROM PHASE I STUDY OF PALIFOSFAMIDE IN COMBINATION WITH DOXORUBICIN AT ASCO

— Continued Safety and Activity Strongly Support Ongoing Phase II Randomized Trial —

Orlando, FL – May 31, 2009 - ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP) announced today that it presented final data from a Phase I study of palifosfamide (Zymafos™) in combination with doxorubicin at the 45th Annual American Society of Clinical Oncology (ASCO) meeting held in Orlando, FL, May 29th to June 2nd.

The Phase I trial of palifosfamide in combination with doxorubicin was fully enrolled with 13 patients, predominantly with soft tissue sarcoma and non-small cell lung cancer, and who had received a median of two prior therapies. Of 12 evaluable patients, there were 3 partial responses. Of the 8 patients with soft tissue sarcoma (STS) 75 percent had stable disease or better, with 2 having partial responses and 4 having prolonged stable disease. The median progression free survival (PFS) was 19 weeks.

The combination has proven to be easily administered and was well tolerated with no dose-limiting toxicities during a total of 73 cycles of treatment. Importantly, there were no reported events of encephalopathy, hemorrhagic cystitis or renal toxicity often associated with some current treatments for STS. Adverse events were primarily hematologic, including neutropenia and thrombocytopenia, and were managed easily. The pharmacokinetic evaluation in this trial indicates that palifosfamide exposure is comparable to that seen in murine models that resulted in marked synergy with doxorubicin.

The Company is now enrolling into a Phase II randomized controlled trial comparing palifosfamide plus doxorubicin vs. doxorubicin in the front- and second-line treatment setting of STS. This is a multicenter, multinational trial in the United States and Europe. The objective of the randomized Phase II trial is to validate certain hypotheses that would form the basis for a registration trial to be initiated as early as the first half of next year.

“These highly favorable Phase I data of palifosfamide in combination with doxorubicin established the foundation for the now ongoing Phase II randomized trial in the front and second-line setting”, commented Sant Chawla, MD, co-principal investigator. “Data has previously been reported on the activity of palifosfamide as a single agent in advanced sarcoma as well as the established synergy of palifosfamide with doxorubicin preclinically. With so few treatment options, I look forward to ZIOPHARM initiating the final phase of the drug development program that could establish the first new front-line sarcoma therapy in decades and as well to advancing into the clinic an oral form for much expanded patient access.”

To view the presentation please visit:

http://www.ziopharm.com/docs/Palifosfamide_Poster_ASCO_2009.pdf

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, 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.

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**.** Indibulin has shown early activity in Phase I study as a single agent in many types of solid tumors. Indibulin is also completing Phase I trials in combination with Tarceva® and Xeloda®. Oral indibulin preclinical "dose density" and "metronomic" dose administration studies with our consultant Dr. Larry Norton have progressed to the point of translation with the intention of further pursuit in clinical study.

Darinaparsin (Zinapar™ or 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-G

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, 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. The Company assumes no obligation to update these forward-looking statements, except as required by law.

# # #

Contacts:
Tyler Cook
ZIOPHARM Oncology, Inc.
(617) 259-1982
tcook@ziopharm.com
or
Dennis Dobson
International Investor Relations Inc.
(203) 258-0159
dsdobson@optonline.net

Exhibit 99.3

ZIOPHARM PRESENTS POSITIVE DARINAPARSIN CLINICAL DATA AT ASCO'S PRESTIGIOUS CLINICAL SCIENCE SYMPOSIUM

— Phase II Results Possible Basis for FDA Dialogue Regarding Registration Trial —

Orlando, FL – June 1, 2009 - ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP) announced today that it presented positive data from both Phase II intravenous (IV) and Phase I oral studies of darinaparsin (Zinapar™ or ZIO-101), the novel organic arsenic molecule, as part of the prestigious Clinical Cancer Symposia at the 45th Annual American Society of Clinical Oncology (ASCO) meeting held in Orlando, FL, May 29th to June 2nd.

The study results were presented at the Clinical Science Symposium, New Agents for Lymphoma, by Izidore S. Lossos, M.D, Chief of the Lymphoma Program, and Professor of Medicine at the University of Miami Miller School Of Medicine. Darinaparsin was one of three new drugs selected at this high profile ASCO session.

"This drug is active in highly-refractory lymphoma patients and well tolerated," commented Dr. Lossos, lead investigator for the Phase II trial. "Interestingly a lot of patients I and others have treated with this drug report feeling the best they have felt since first getting lymphoma, having been on many different treatments. The oral data are also promising and darinaparsin could well be effective in treating other cancers as well."

The Phase II intravenous (IV) study is fully enrolled with 29 heavily pretreated lymphoma patients. Of 19 evaluable patients, initial findings are 7 objective responses, for an overall response rate of 37 percent, with 3 complete responses (CRs) and 4 partial responses (PRs). Four additional patients had prolonged stable disease (SD). There are 5 peripheral T-cell lymphoma (PTCL) patients included in the 19 patients and in this group there were 3 objective responses, for an overall response rate of 60 percent, of which there were 2 CRs and 1 PR. Of the 4 patients with stable disease, 1 patient had PTCL. Darinaparsin was very well tolerated with neutropenic fever as a severe adverse event in 1 patient.

On the advice of multiple experts, the Company intends, on complete review of the final data, to open dialogue with the U.S. Food and Drug Administration with a view of entering into a formal registration trial, likely for peripheral T-cell lymphoma where, even with other agents under evaluation, there remains a very high unmet medical need.

The two Phase I oral dose escalation studies included patients with all types of cancers. Darinaparsin was dosed with various schedules. The study included 36 patients. The study has not yet reached MTD. Of 27 evaluable patients, 1 had a partial response (head and neck cancer) and 15 had prolonged stable disease, including head and neck, lymphoma, colon, and pancreatic cancers. Oral darinaparsin was well tolerated with atrial fibrillation, congestive heart failure and dyspnea as severe adverse events.

Treatment with darinaparsin has not evidenced any QT prolongation in either the IV or oral studies. QT prolongation has been problematic with inorganic arsenic and is a "black box" side effect warning in the labeling. The Company continues dialogue regarding partnering and other initiatives regarding the further clinical development of darinaparsin.

To view the presentation please visit:

http://www.ziopharm.com/docs/Darinaparsin_2009_ASCO_Symposium_Presentation.ppt

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, 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.

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**.** Indibulin has shown early activity in Phase I study as a single agent in many types of solid tumors. Indibulin is also completing Phase I trials in combination with Tarceva® and Xeloda®. Oral indibulin preclinical "dose density" and "metronomic" dose administration studies with our consultant Dr. Larry Norton have progressed to the point of translation with the intention of further pursuit in clinical study.

Darinaparsin (Zinapar™ or 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-G

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, 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. The Company assumes no obligation to update these forward-looking statements, except as required by law.

# # #

Contacts:
Tyler Cook
ZIOPHARM Oncology, Inc.
(617) 259-1982
tcook@ziopharm.com
or
Dennis Dobson
International Investor Relations Inc.
(203) 258-0159
dsdobson@optonline.net