

**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 2, 2012**

**ZIOPHARM Oncology, Inc.**

(Exact Name of Registrant as Specified in Charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**001-33038**  
(Commission File Number)

**84-1475672**  
(IRS Employer  
Identification No.)

**1180 Avenue of the Americas**  
**19<sup>th</sup> Floor**  
**New York, NY**  
(Address of Principal Executive Offices)

**10036**  
(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:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425).
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12).
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).
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**Item 8.01**      **Other Events**

On April 2, 2012, ZIOPHARM Oncology, Inc. issued a press release announcing an update on its PICASSO 3 trial, a randomized, double-blinded, placebo-controlled Phase 3 trial of palifosfamide for the treatment of metastatic soft tissue sarcoma in the front-line setting.

A copy of the above referenced press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

**Item 9.01**      **Financial Statements and Exhibits.**

(d)      Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release dated April 2, 2012

**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: April 2, 2012

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**INDEX OF EXHIBITS**

<b><u>Exhibit No.</u></b>	<b><u>Description</u></b>
99.1	Press release dated April 2, 2012

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## ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology Provides Update on PICASSO 3 Trial

Highly Rigorous Progression-free Survival Trial Approaches 90% Completion

PFS Data Expected 2H 2012

NEW YORK – April 2, 2012 – ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a biopharmaceutical company with small molecule and synthetic biology approaches to new cancer therapies, today announced an update on its PICASSO 3 trial, a randomized, double-blinded, placebo-controlled Phase 3 trial of palifosfamide for the treatment of metastatic soft tissue sarcoma in the front-line setting.

Rigorous patient enrollment and evaluation is currently ongoing at over 150 centers worldwide, with target enrollment of 424 patients now approaching 90% completion. This includes central review of pathology and radiology prior to randomization, placebo-control and double blinding throughout the conduct of the study. Based on current projections, the Company expects data for progression-free survival (PFS), the study's primary endpoint for accelerated approval, in the second half of 2012. The outcome of the recent Oncologic Drugs Advisory Committee (ODAC) meeting, held on March 20, 2012 by the U.S. Food and Drug Administration to review the clinical benefit of two candidates for second-line treatment of sarcoma, supports the Company's belief that the PICASSO 3 study is well designed and positioned in the rapidly evolving therapeutic landscape for the treatment of soft tissue sarcoma.

“As the ODAC meeting highlights, progression-free survival, an outcome we expect from PICASSO 3 before year-end, is an important measurement of clinical benefit in the treatment of sarcoma,” said Hagop Youssoufian, M.Sc., M.D., President of Research and Development and Chief Medical Officer of ZIOPHARM. “This meeting also further illustrated that the need for new therapies in the front-line setting for sarcoma remains urgent.”

Dr. Youssoufian also stated: “Because of the challenges of this disease, sarcoma has seen no new therapies introduced in decades. Yet a new wave of therapies under development, including palifosfamide in the front-line setting, promises to transform sarcoma treatment, with an effect not unlike what occurred in Myeloma, where care has gone from palliative to curative. Progress in the clinic has made this goal now one step closer to reality for sarcoma.”

In a previously reported randomized, controlled Phase 2 trial of palifosfamide plus doxorubicin versus doxorubicin alone in patients with unresectable or metastatic soft tissue sarcoma (which trial was selected for the prestigious Best of ASCO designation in 2010) PFS showed a 3.4 month improvement over the control arm (or 7.8 months versus 4.4 months with a hazard ratio of 0.43 and a p-value of 0.02). These results correlated with positive preliminary overall survival data showing a hazard ratio of 0.78 as reported in February 2012.

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## About ZIOPHARM Oncology, Inc.:

ZIOPHARM Oncology is a biopharmaceutical company engaged in the development and commercialization of small molecule and synthetic biology approaches to new cancer therapies. The Company's clinical programs include:

Palifosfamide (Zymafos<sup>®</sup> or ZIO-201) is a novel DNA cross-linker that in preclinical study has been shown to bypass resistance mediated by aldehyde dehydrogenase (ALDH), in addition to conferring a favorable toxicity profile compared to other in-class agents. Palifosfamide, administered intravenously, is currently in a randomized, double-blinded, placebo-controlled Phase 3 trial for the treatment of metastatic soft tissue sarcoma in the front-line setting. A Phase 1 trial is also nearing completion with palifosfamide in combination with etoposide and carboplatin to determine appropriate safety for initiating a potentially pivotal, adaptive Phase 3 trial in front-line, extensive SCLC expected to initiate in the second half of 2012. Additionally, an investigational new drug application has been accepted for the oral form of palifosfamide.

DNA-based therapeutics (synthetic biology), in partnership with Intrexon Corporation, include two clinical-stage product candidates, both of which are DNA IL-12 using the RheoSwitch Therapeutic System<sup>®</sup> to be turned *on/off* by an oral activator ligand and are currently in Phase 1. Additionally, multiple INDs are expected in the next 12-24 months resulting from preclinical and discovery work underway to advance multiple antibody, immunotoxin, and protein decoy candidates, systemic delivery and a next generation RheoSwitch Therapeutic System<sup>®</sup>.

Indibulin (Zybulin<sup>™</sup> or ZIO-301) is a novel, oral tubulin binding agent that is expected to have several potential benefits including oral dosing, application in multi-drug resistant tumors, no neuropathy and a quite tolerable toxicity profile. It is currently being studied in Phase 1/2 in metastatic breast cancer.

Darinaparsin (Zinapar<sup>®</sup> or ZIO-101) is a novel mitochondrial- and hedgehog-targeted agent (organic arsenic) currently in a solid tumor Phase 1 study with oral administration and has been developed intravenously for the treatment of relapsed peripheral T-cell lymphoma.

ZIOPHARM's operations are located in Boston, MA, Germantown, MD and New York City. Further information about ZIOPHARM may be found at [www.ziopharm.com](http://www.ziopharm.com).

## Forward-Looking Safe Harbor Statement:

This press release contains certain forward-looking information about ZIOPHARM Oncology that is intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. Words such as "expect(s)," "feel(s)," "believe(s)," "will," "may," "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to, statements regarding our ability to successfully develop and commercialize our therapeutic products; our ability to expand our long-term business opportunities; financial projections and estimates and their underlying assumptions; and future performance. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: whether Palifosfamide, Darinaparsin, Indibulin, or any of our other therapeutic products will advance further in the clinical trials process and whether and when, if at all, they will receive final approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indications; whether Palifosfamide, Darinaparsin, Indibulin, and our other therapeutic products will be successfully marketed if approved; whether our DNA-based biotherapeutics discovery and development efforts will be successful; our ability to achieve the results contemplated by our collaboration agreements; the strength and enforceability of our intellectual property rights; competition from pharmaceutical and biotechnology companies; the development of and our ability to take advantage of the market for DNA-based biotherapeutics; our ability to raise additional capital to fund our operations on terms acceptable to us; general economic conditions; and the other risk factors contained in our periodic and interim SEC reports filed from time to time with the Securities and Exchange Commission, including but not limited to our Annual Report on Form 10-K for the fiscal year ended December 31, 2011. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

Zymafos and Zinapar are registered trademarks of ZIOPHARM Oncology, Inc.

Contacts:

### For ZIOPHARM:

Nicole P. Jones  
ZIOPHARM Oncology, Inc.  
617-778-2266  
[njones@ziopharm.com](mailto:njones@ziopharm.com)

Media:

David Pitts  
Argot Partners  
212-600-1902  
[david@argotpartners.com](mailto:david@argotpartners.com)

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