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): **June 4, 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 8.01 **Other Events**

On June 4, 2009, ZIOPHARM Oncology, Inc. (the "Company") held its annual shareholder meeting where the Company provided shareholders with the presentation attached hereto as Exhibit 99.1, which is incorporated herein by reference. The presentation was also made available via real-time webcast on the Company's website, www.ziopharm.com, and will remain available on the Company's website for 90 days, until September 2, 2009.

Item 9.01 **Financial Statements and Exhibits**

(d) Exhibits

Exhibit No.	Description
99.1	ZIOPHARM Oncology, Inc. shareholder presentation dated June 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 4, 2009

Name: Richard Bagley

Title: President, Chief Operating Officer and Chief Financial Officer

INDEX OF EXHIBITS

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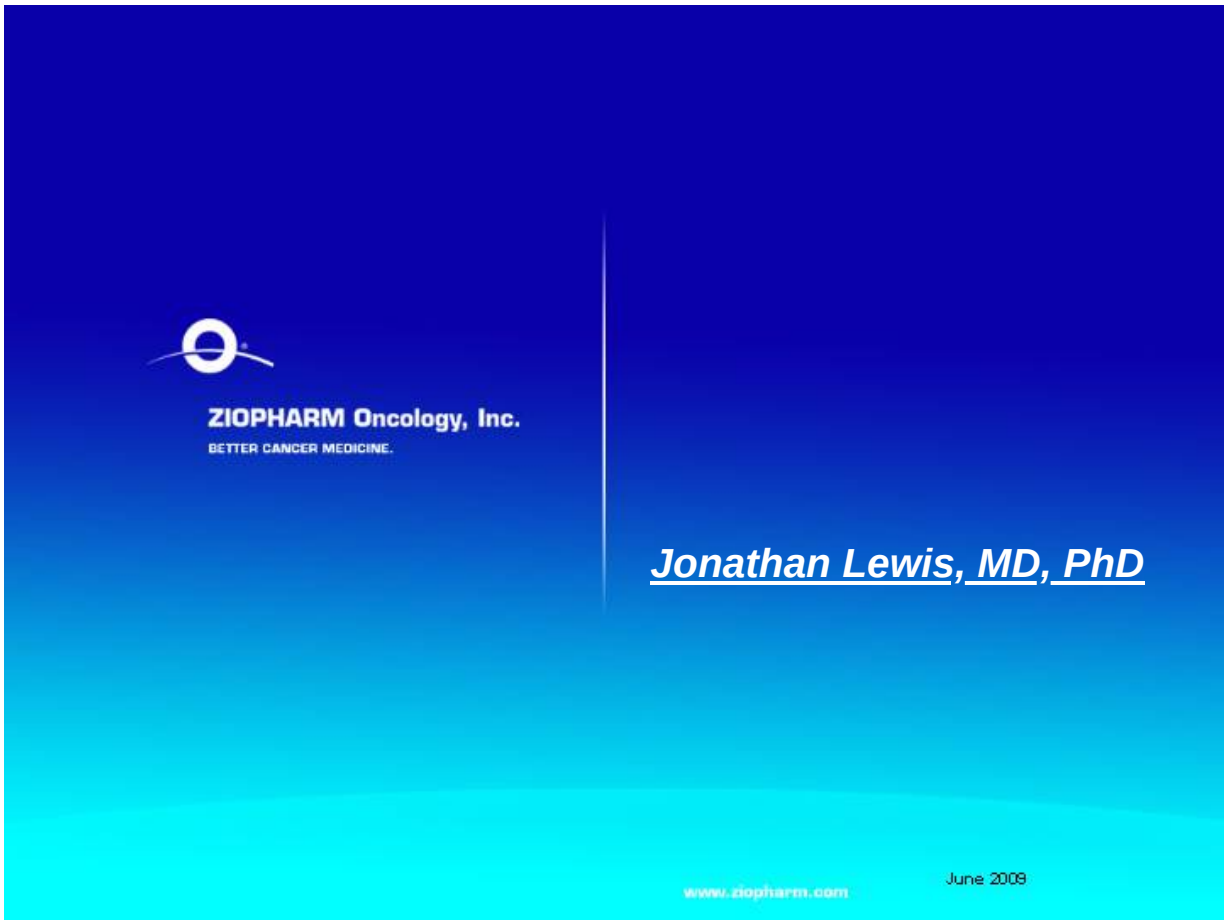
99.1	ZIOPHARM Oncology, Inc. shareholder presentation dated June 2009


ZIOPHARM Oncology, Inc.
BETTER CANCER MEDICINE.
Jonathan Lewis, MD, PhD
www.ziopharm.com
June 2009

FORWARD-LOOKING STATEMENTS

Some of the statements made in this presentation are forward-looking statements. These forward-looking statements are based upon our current expectations and projections about future events and generally relate to our plans, objectives and expectations for the development of and commercialization of in-licensed cancer drugs. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this presentation.

ZIOPHARM Mission and Strategy

- *Better cancer medicine.*
- *Low cost small molecules.*
- *Oral and global.*
- *Improved quality of life.*

Portfolio of Mid-Stage Development Candidates

Focus of current resources:

- *Zymafos*™ *(palifosfamide)*, novel ***DNA-alkylating molecule*** in randomized phase II expected to define registration trial 1H 2010; oral form at IND stage

To follow:

- *Zybulin*™ *(indibulin)*, novel oral ***tubulin-binding molecule*** in phase I trials expected to enter phase I/II breast cancer trial 2H 2009 with mathematically-derived dosing schedule (Dr. Norton); nanoparticle formulation (for oral, IV) in preclinical evaluation
- *Zinapar*™ *(darinaparsin)*, novel IV ***mitochondrial-targeted molecule*** in phase II trials with the potential for registration trial in 1H 2010; oral form in phase I

ZYMAFOS™ (palifosfamide)

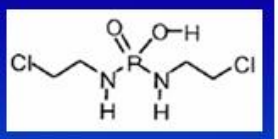
ZIOPHARM Oncology

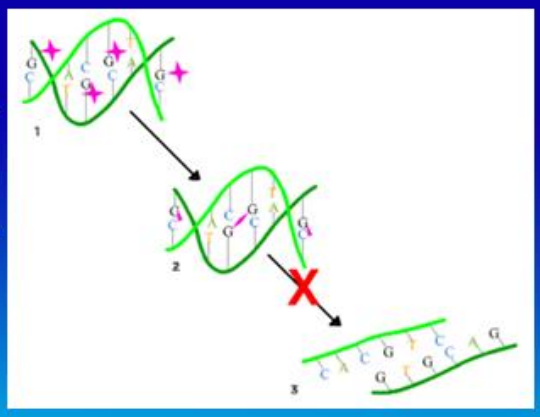
June 2009

Palifosfamide

- Novel alkylating molecule; patent applications U.S. and internationally
- Anticipated low cost to manufacture
- IV form in randomized phase II and oral developed for IND
- Target indication of soft-tissue sarcoma (front/second-line setting)

Orphan Drug Designation (soft-tissue sarcoma) in U.S. and Europe





Palifosfamide Opportunity

- Palifosfamide, *novel DNA alkylating agent*, related to ifosfamide and cyclophosphamide family
- Active preclinically in diverse cancers including *ifosfamide and cyclophosphamide resistant tumors*
- *Development premise*: less toxic, more efficacious, enhanced quality of life, easier to administer than related drugs, cost-effective
- Niche market development for *soft-tissue sarcoma* with estimated sales potential in the front- and second-line setting of *$250 MM*
- Replacing ifosfamide *in lymphoma $400 MM*, and with use in *other solid tumors* (for ifosfamide/cyclophosphamide) including breast, ovarian and prostate, *significant further potential*

Palifosfamide Development Leading to ASCO

- Active in Phase I with *anticipated toxicity profile*
- Active in *Phase II advanced sarcoma*
- *Synergistic with doxorubicin* in preclinical study
- US and EU experts recommend *randomized phase II* (front-/second-line setting, palifosfamide +/- doxorubicin) in *soft-tissue sarcoma* (PICASSO); trial *actively enrolling* with initial drug study safety monitoring committee meeting *concluding completing trial as planned, possibly enrolling less patients.*
- Phase I *palifosfamide/doxorubicin combination data* presented at ASCO 2009

Select ASCO data:

A Phase I Study of Palifosfamide in Combination with Doxorubicin: Safety and Preliminary Efficacy

Luis H. Camacho[1], Sant Chawla[2], Victoria Chua[2], Giovanni Abbadessa[3], Philip Komarnitsky [3], Barbara Wallner[3], Jan Stevens[3], Jonathan Lewis[3]

1Oncology Consultants; 2Sarcoma Oncology Center, Santa Monica, CA;
3ZIOPHARM Oncology, Inc., Boston, MA

ASCO Annual '09 Meeting

Preliminary Exposure and Efficacy

Exposure

- 13 treated; 0 ongoing

Best Response

- SD or better in 42% of 12 evaluated patients
  - 3 PR: STS (2) and SCLC (1)
- ***SD or better in 75% of STS patients***
- Patients age =65 (n=4): 2 SD (50%), 1 PR (25%)

Soft-Tissue Sarcomas:

Best Response (N=8)

	PR	SD	PD
LMS (2)	0	2	0
Rhabdomyosarcoma (2)	2	0	0
Angiosarcoma	0	0	1
MPNS Tumor	0	1	0
Endometrial Stromal Cell Sarcoma	0	1	0
Pleomorphic Sarcoma	0	0	1
% of STS patients:	25	50	25

75 % SD or better

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Adverse Events

- Adverse events primarily mild to moderate in severity
- No encephalopathy, no hemorrhagic cystitis, no renal toxicity
- Most common adverse events include:
  - Neutropenia 6 (46%)
  - Thrombocytopenia 6 (46%)
  - Micro Hematuria 5 (38%)
  - Anemia 5 (38%)
  - Nausea 4 (31%)
  - Vomiting 4 (31%)

Conclusions

- Palifosfamide 150 mg/m^2 , 3 times per week combined with doxorubicin 75 mg/m^2 once every 3 weeks is a *very well tolerated outpatient regimen.*
- There has been *no encephalopathy, no hemorrhagic cystitis, no renal toxicity*. Adverse events are primarily hematologic and easy to manage.
- Preliminary efficacy:
  - **3/12 PRs**
  - **2/8 PRs in STS 4/8 SD in STS**
- Ease of administration, favorable toxicity profile, and preliminary efficacy support further evaluation of this agent in sarcoma. A randomized, controlled Phase II study in STS comparing palifosfamide 150 mg/m^2 plus doxorubicin 75 mg/m^2 vs. doxorubicin 75 mg/m^2 alone is in full progress.

Palifosfamide Registration Strategy

Palifosfamide / doxorubicin vs. doxorubicin in front- and second-line patients with unresectable or metastatic soft-tissue sarcoma:

- Phase II randomized trial helps shape registration trial
- Single registration trial powered for PFS and survival

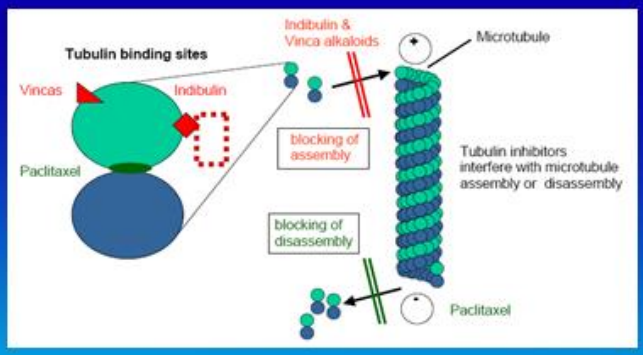
Zybulin™ (indibulin)

ZIOPHARM Oncology

June 2009

Indibulin

- Novel oral tubulin binding agent; issued patents and applications
- Anticipated low cost to manufacture
- Targets cell mitosis and movement
- Expected low toxicity (no neurotoxicity)
- Target indication of subset of breast cancer



Indibulin Opportunity

- Taxanes widely used and a *more efficacious/less toxic oral treatment* expected to have billion dollar sales potential
- Distinct mechanism and
  - *Oral* dosing
  - Lack of *neurotoxicity*
  - Potential *efficacy* in *tumors with MDR*
- Treatment approaches, initially in *breast cancer*:
  - *Norton dose density*
  - Combination therapy

Indibulin Development Leading to ASCO

- Single agent *activity in phase I* in multiple tumor types; confirmatory activity in *phase I PET data*; DLT not reached, minimal toxicity and *no neurotoxicity*
- *Highly synergistic* in preclinical study
- Phase I *oral capecitabine with oral indibulin* presented at ASCO 2009
- Preclinical evaluation (Dr. Norton) evaluating *dose density schedule* presented at ASCO 2009

Select ASCO presented data:

Indibulin, a Novel Tubulin Targeting-agent, in Combination with Capecitabine, is Suitable for Mathematically-Optimized Dose-Scheduling

Jonathan J. Lewis [1], Matthew D. Galsky [2,6], Luis H. Camacho [3], David M. Loesch [4,6], Philip B. Komarnitsky [1], Barbara Wallner [1], Jan Stevens Larry Norton [5]

1 ZIOPHARM Oncology, New York, NY; 2 Comprehensive Cancer Centers of Nevada, Las Vegas, NV; 3 Oncology Consultants P.A., Houston, TX; 4 Central Indiana Cancer Centers, Indianapolis, IN; 5 Harmon Hill, New York, NY, 6 US Oncology, Translational Oncology Program, Houston, TX

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Preliminary Clinical Activity

Median SD 6 Cycles

- Breast and colon cancer SD for 6 Cycles
- Bladder cancer SD for 9 Cycles
- Prostate cancer SD for 9 Cycles

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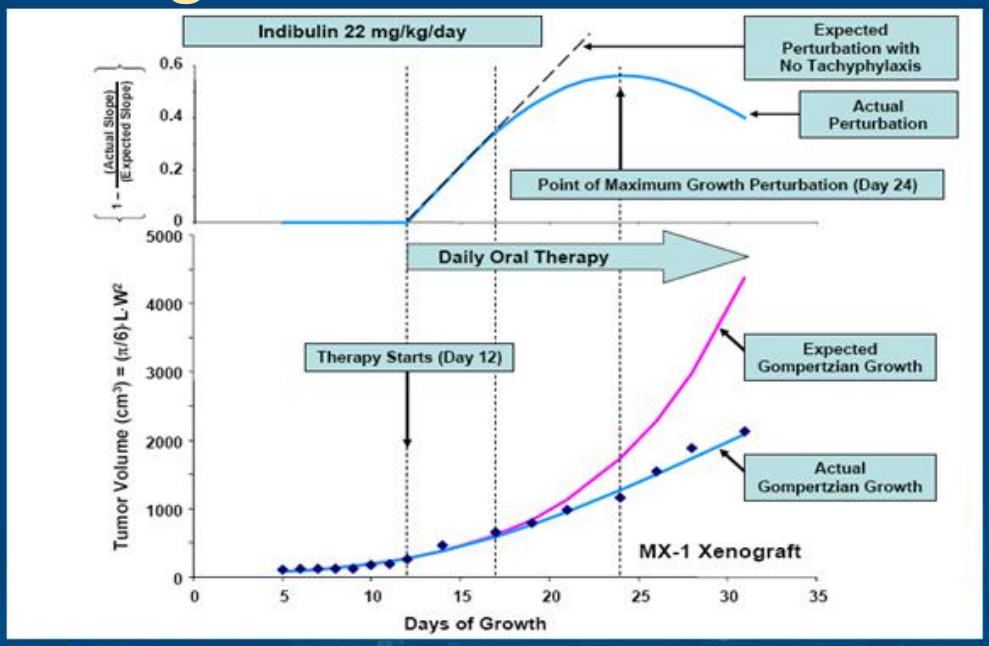
Preliminary Safety

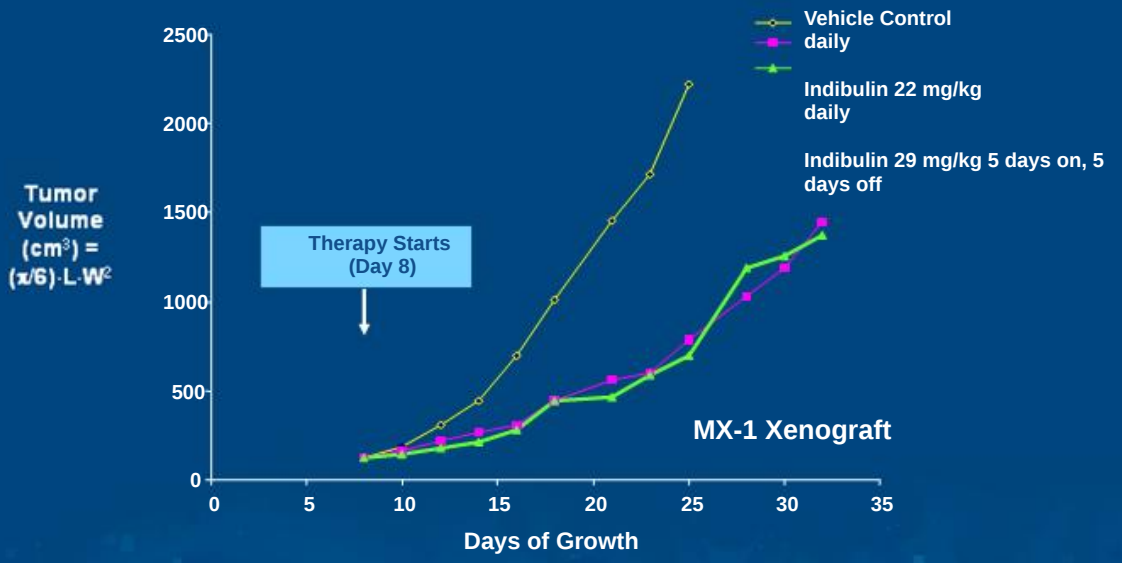
AEs that are Related and occurred in 2 or more pts (= 29%)

	Frequency, %
Grade 1/2 AEs that were related	
·Fatigue	4 (57)
·Anorexia	2 (29)
·Dyspnea	2 (29)
·Hand Foot Syndrome	2 (29)
·Mucositis	2 (29)
·Vomiting	2 (29)
Grade 3/4 AEs that were related	
·Hypophosphatemia	1 (14)

Indibulin: Optimization of Dosing Schedules



Indibulin: Optimization of Dosing Schedules



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Conclusions

- Oral indibulin in combination with capecitabine is very well tolerated with no neurotoxicity. Early activity in breast, colon, bladder, and prostate cancers.
- Formal analyses of preclinical data utilizing Norton-Simon Modeling reveals that the major effect of therapy ***occurs in five days of exposure***, which is not manifest on gross inspection until one week thereafter. Hence, an intermittent schedule based on five days of drug administration preserves full activity while minimizing toxicity. This may also minimize acquired resistance.
- A Phase I-II study in breast cancer using this novel scheduling strategy is in development.

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Zinapar™ (darinaparsin)

ZIOPHARM Oncology

June 2009

Darinaparsin

- Novel *mitochondrial-targeted* agent (organic arsenic); first in a new class of molecules
- *IV formulation* in multiple phase I/II studies with confirmed activity in lymphoma
- *Oral form* ongoing in Phase I
- Families of compounds covered by *issued patents* with further applications pending in U.S. and internationally
- Anticipated *low cost to manufacture*
- *Target indication* of refractory peripheral T-cell lymphoma / lymphoma, *potential sales* of $250 million, with other lymphoma use, $400 million; with oral form, significant additional potential

Darinaparsin Opportunity

- *Inorganic arsenic* use limited by cardiotoxcity ("Black Box" warning)
- IV darinaparsin (organic arsenic) in several phase I/II studies with *no cardiotoxicity*, well tolerated; MTD not yet reached with oral form
- IV phase II data in *hematological malignancies* presented at ASCO 2009 -- advisors believe data can support *potential registration trial*

Select ASCO Symposium Data:

Novel Organic Arsenic Molecule *Darinaparsin:* Development of IV and Oral Forms

I. S. Lossos[1], M. D. Craig[2], M. S. Tallman[3], R. V. Boccia[4], P. R. Conkling[5], C. Becerra[6], P. B. Komarnitsky[7], B. Wallner[7], J.J.Lewis[7], W. H. Miller[8]

1 Miller School Of Medicine, University of Miami, Miami, FL; 2 West Virginia University Hospitals, Morgantown, WV; 3 Northwestern University Medical School, Chicago, IL; 4 Associates In Oncology/Hematology, Bethesda, MD; 5 Virginia Oncology Associates, Norfolk, VA; 6 Baylor University Medical Center, Dallas, TX; 7 ZIOPHARM Oncology, Inc., Boston, MA; 8 McGill University Jewish General Hospital, Montreal, QC

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IV Darinaparsin Efficacy

Complete Responses: 3

- 66 year old female, PTCL (3 + months*)
  - 3 prior treatment regimens: CHOP x 6, ICE and EPOCH x 2
  - Patient taken off study for autologous BMT
- 73 year old female, PTCL + senile EBV-associated, B-cell lymphoproliferative disorder (5 + months)
  - 6 prior regimens: ABVD x 3, ICE, autologous bone marrow transplant, gemzar and radiation
- 65 year old male, DLBCL (6 months)
  - 4 prior regimens: RCHOP, EPOCH, transplant, gemzar

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IV Darinaparsin Efficacy

Partial Responses: 4

- 1 Marginal Zone Non-Hodgkin Lymphoma transformed to DLBCL *(14 + months)**
  - 5 prior treatment regimens: chlorambucil, RCHOPx5, RICEx3, RT and BMT
- 1 Marginal Zone Non-Hodgkin Lymphoma *(3 months)*
  - Rituximab x 8, RCVP x 1, and gemcitabine x 1
- 1 PTCL *(4 months)*
  - EPOCH x 2, dox, cytoxan
- 1 Hodgkin's Nodular Sclerosis *(8 months)*
  - ICE x 1, CBV x 1, gemcitabine + MDX x 6

Prolonged Stable Disease: 4

- 1 PTCL, 2 Hodgkin's, 1 B-cell (3 – 9+ months)

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IV Darinaparsin Related Adverse Events

Events that were ≥grade 3

	N	%
Fatigue	1	3
Alk. Phos Increased	1	3

Events that were considered SAEs

	N	%
Fall	1	3
Neutropenic Fever	1	3

No	*QT prolongation*

Oral Efficacy

- MTD not reached
- 1 PR (H&N) duration 5+ months
- 15 prolonged SD (H&N, lymphoma, colon, pancreas)
  - Duration 3 – 6+ months

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Summary

- ***IV Lymphoma***
  - 7 / 19 objective responses (3 CRs, 4 PRs)
  - 3 / 5 objective responses *PTCL* (2 CRs, 1 PR)
  - 4 prolonged SD
- ***PO All comers***
  - not yet at MTD
  - 1 PR, 15 prolonged SD

Portfolio Highlights

- ***Palifosfamide*** pivotal trial design expected from IV phase II randomized study to initiate as early as 1H 2010 and *focus of current resources*
- ***Indibulin*** phase I and dose scheduling oral data highlight potential benefit over widely used tubulin targeted agents with phase I/II novel dose schedule in breast expected 2H 2009
- ***Darinaparsin*** phase II lymphoma data highly encouraging for possible registration trial 1H 2010

ZIOPHARM Oncology, Inc.

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NASDAQ:ZIOP

www.ziopharm.com

June 2009