#### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

<b>FORM</b>	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): March 28, 2014

## 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.)

One First Avenue, Parris Building 34, Navy Yard Plaza Boston, Massachusetts (Address of Principal Executive Offices)

02129 (Zip Code)

(617) 259-1970 (Registrant's telephone number, including area code)

Not applicable (Former Name or Former Address, if Changed Since Last Report)

Check to 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)).

#### Item 8.01 Other Events

On March 28, 2014, ZIOPHARM Oncology, Inc., or the Company, will present the attached discussion of the Company's synthetic-biology development strategy and milestones at the 21st Annual Future Leaders in the Biotech Industry Conference in New York, New York being held on Friday March 28, 2014.

A copy of the above referenced presentation is filed as Exhibit 99.1 to this Current Report on Form 8-K.

#### Item 9.01 <u>Financial Statements and Exhibits</u>

(d) Exhibits

Exhibit No.

Description

99.1 Presentation of the Company dated March 28, 2014

**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/ Kevin G. Lafor Name: Kevin G. Lafond /s/ Kevin G. Lafond Date: March 28, 2014

Vice President Finance, Chief Accounting Officer and Treasurer Title:

INDEX OF EXHIBITS

Exhibit No.

Description

99.1

Presentation of the Company dated March 28, 2014





# **ZIOPHARM Oncology**

The Future of Cancer Therapy

March 2014

www.ziopharm.com



## Forward-Looking Statements

**ZIOPHARM** Oncology

This presentation contains certain forward-looking formation about ZIOPHAR Moncology 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)," "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 any of our therapeutic candidates 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 whoich indications; whether any of our therapeutic candidates 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 collaborationneements; the strength and enforceability of our intellectorationneements 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 inpostriodic and interim reports filed with the SEC including, but not limited to, our annual report on Form 10-K for the fiscal year ended December 31, 2013. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and wet 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 nonoccurrence of any events.

## **ZIOPHARM Today**



- Clinical-stage Immuno-Oncology company
- Focus on treatment through DNA expression and cell control
- Phase 1/2 progratargeting melanoma, breast cancer and glioma
- Intrexon partnership enabling potential paradigm shift
- New INDshrough 2015 exploring multigenic approxactancer treatment

## Why Focus on DNA-Based Medicine?



DNA synthesis and delivery enable:

- creation of new therapies which target cancer cells
- precise controf biologic concentration and dosing
- better therapeutic index through controlled protein delivery and cellular targeting
- economically feasible approach biologic therapies and Immuno-Oncology





## Intrexon Collaboration: Leveraging Our Assets ZIOPHARM Oncology

- ZIOP: translational medicine and oncology drug development
- XON: synthetic biology platform enabling DNA delivery and control
- Exclusive channel partner agreement for the treatment of all human cancer:

ZIOP responsible for product development and commercialization XON responsible for manufacturing, process-improvement R&D, patents 50:50 revenue/net-profit split

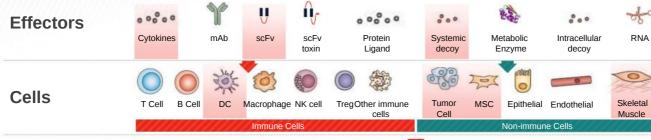
Current targets: melanoma, breast cancer, glioma, other cancers

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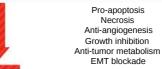
## We Have the Tools to Treat Cancer Better

#### **ZIOPHARM** Oncology

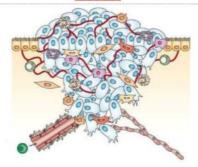


Anti-tumor function

Direct tumor lysis
ADCC
Complement cytotoxicity
Innate immunity stimulation
Adaptive immunity stimulation
Immune evasion inhibition



# Tumor and microenvironment



## The Power of RheoSwitchechnology

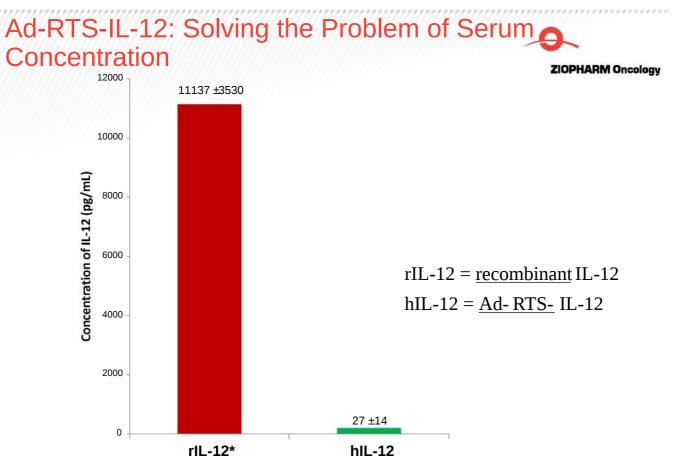
Monogenic/Multigenic



Orally activated biologic on/off switch

Controlled Expression and Delivery of Therapeutic Proteins with Intrexon's RheoSwitch®: This is the most advanced clinical method to turn genes on and off

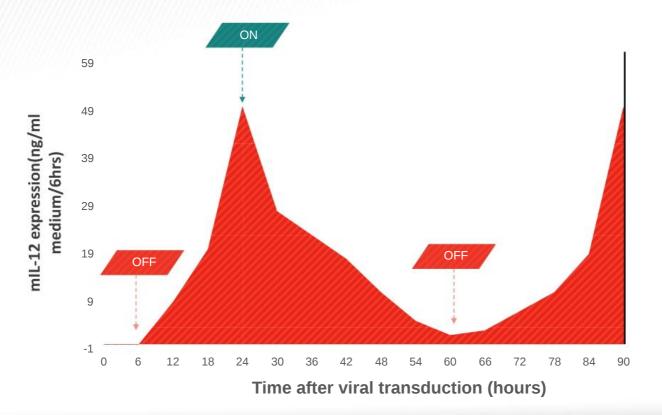
# RheoSwitch® Gene off RheoSwitch\* Gald-Erd Gard RheoSwitch Components Target Gene on (+ oral activator ligand) High Potency Dose-control



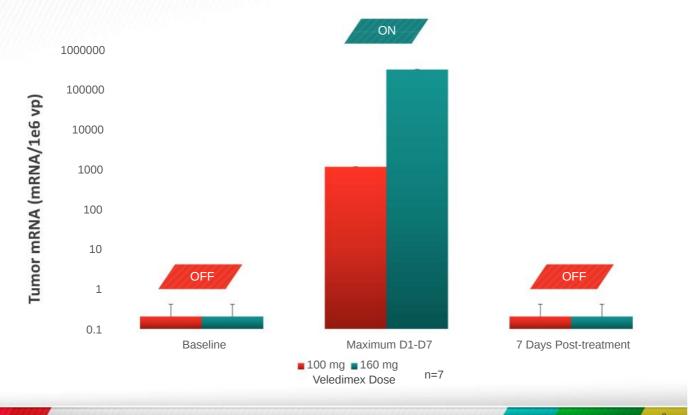
\*Atkins, MB et al Clin Cancer Res 1997;3:409-417

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# IL-12 Production is Modulated by Veledimex (Activator Ligand) in HT 1080 Cells

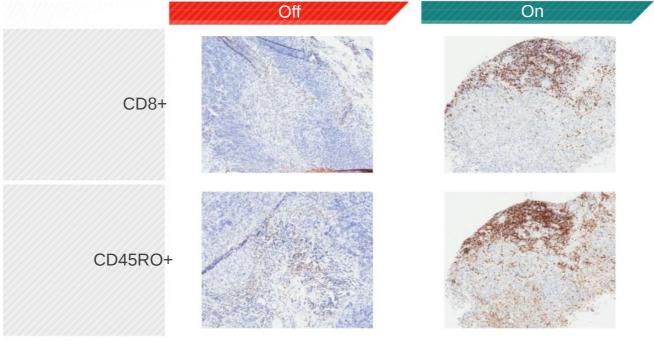


# Oral Veledimex Tightly and Precisely Controls the Expression of IL-1213RNA in the Tumor

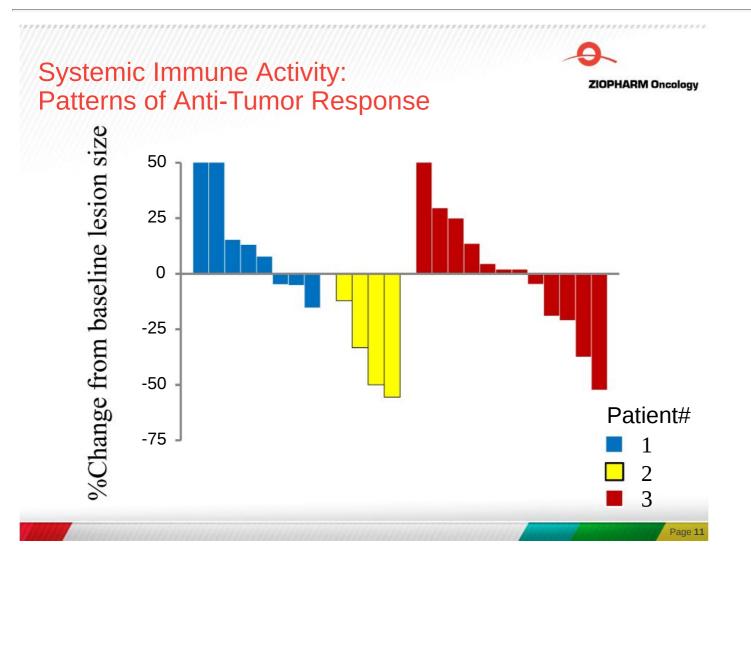


## Cytotoxic T Cells & Memory T Cells (TILs) Significantly Increase in Tumors Following Ad-RTS-IL-12 Treatment





Images were obtained using an Aperio ScanScope XT whole-slide imager and digitized at 20x.





## Clinical Observations to Date

## We can control gene expression to achieve a desirable immune response

- A High expression of IL-12 mRNA in tumors, tightly controlled by veledimex dose
- Increased tumor infiltrating lymphocytes observed in the tumor microenvironmentsuggestingnultiple favorablebiologiceffects of IL-12 expression

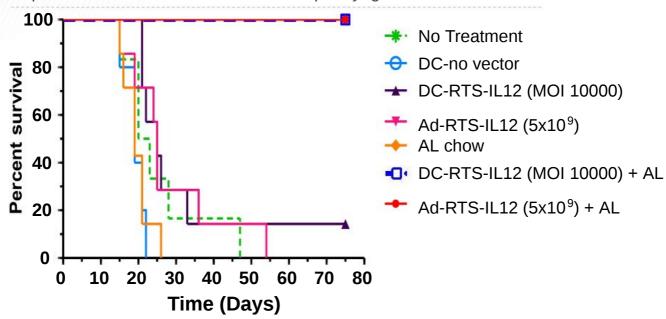
### We have seen potent systemic biologic activity and reversible toxicity

- Melanoma: potent biologic activity in injected and non-injected lesions
- Breast: on-mechanism and on-target toxicity demonstrates powerful immune response controlled by dose-dependent expression of IL-12
- Adverse events consistent with immunotherapy use and immune response; serious adverse events reversed after veledimex dosing stopped

## Glioblastoma Multiforme: IL-12 Preclinical Activity Measuring Survival

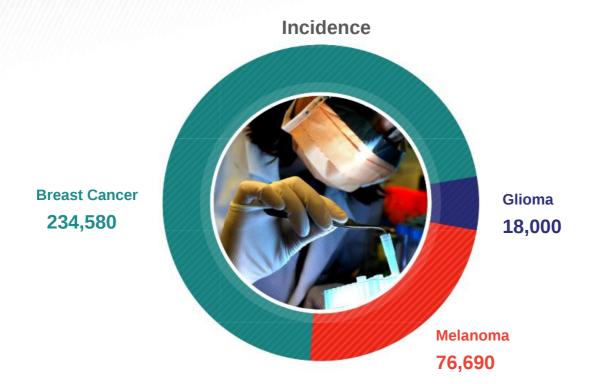


Kaplan Meier Survival in GL261 Orthotopic Syngeneic Mouse Glilordel



Veledimex (AL) dosing Day 4 to EOS at ~ 675 mg/m2/day in chow; DC-RTS-IL-12 or Ad-RTS-IL-12 on Day 5 100% survival observed with Ad-RTS-IL-12 + AL or DC-RTS-IL-12 + veledimex

## Significant Market Potential for Ad-RTS-IL-12 ZIOPHARM Oncology







Compound	Pre Clinical	Phase 1	Phase 2
Ad-RTS-IL-12		IND	
Melanoma Breast GBM			
	1		
Cell-based programs Immuno-Oncology programs			
Immuno-Oncology			



#### ZIOPHARM Oncology

# DNA Combination Therapies: Potential Future INDs

- Human allogeneic mesenchymal stem cells genetically modified with genes that activate the immune system to destroy cancer
- Multigenic therapeutic antibodies such as single chain versions of Herceptim®d Erbitux®
- Embedded cellular bioreactors to deliver multiple proteins systemically using RheoSwitphæform



\* AACR-NCI-EORTC 2013



# **Upcoming Clinical Milestones**

Program	Milestone	Timing	
Breast cancer	Initiate Phase 2 combination study with SOC	1H 2014	
	- Report preliminary data	1H 2015	
	Report results from ongoing Phase 2 study	2014	
Melanoma	Initiate Phase 2 combination study with SOC	1H 2014	
	- Report preliminary data	YE 2014	
	Report results from ongoing Phase 2 advanced2014 melanoma study		
Glioblastoma	Initiate Phase 1/2 dose escalation study	1H 2014	
	- Report preliminary data	YE 2014	



## Why Invest in ZIOPHARM?



- We understand the biologic basis of careed-how to engineernew products
- We have the ability to **deliver DNA** and stimulate a controlled **therapeutic**mmune response
- Clinical testing is validating our vision
- Intrexonpartnership is enabling expansion of our pipeline
- Big pharmas veryinterestedn our approach
- We have the potential to **radically change** the **economics** cancer treatment
- Our financial successis be driven by multiple products and collaborations one or two

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# **ZIOPHARM Oncology**

The Future of Cancer Therapy

NASDAQ: ZIOP

www.ziopharm.com