### 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): January 14, 2015

### **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 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)).

Dere-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 January 14, 2015, ZIOPHARM Oncology, Inc., or the Company, will present the attached discussion of The Future of Cancer Therapy at the 33<sup>rd</sup> Annual J.P. Morgan Healthcare Conference in San Francisco, California, being held on January 12 - 15, 2015.

A copy of the above referenced presentation is furnished as Exhibit 99.1 to this Current Report on Form 8-K. This information, including the information contained in the press release furnished as Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not incorporated by reference into any of the Company's filings, whether made before or after the date hereof, regardless of any general incorporation language in any such filing.

#### Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Presentation of the Company dated January 14, 2015

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#### **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. Lafond

Name: Kevin G. Lafond

Title: Vice President, Chief Accounting Officer and Treasurer

Date: January 14, 2015

### **INDEX OF EXHIBITS**

#### Exhibit No. Description

99.1 Presentation of the Company dated January 14, 2015



# **ZIOPHARM Oncology**

# **The Future of Cancer Therapy**

JP Morgan 33<sup>rd</sup> Annual Healthcare Conference January 2015

www.ziopharm.com

Exhibit 99.1

## **Forward-Looking Statements**



#### **ZIOPHARM** Oncology

This presentation 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 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 for which 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 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 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 and Quarterly Report on Form 10-Q for the period ended September 30, 2014, and other filings with the SEC, which are available at www.sec.gov. Our audience is 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.







ZIOPHARM Oncology, Inc.



Making Cancer History®

## JP Morgan

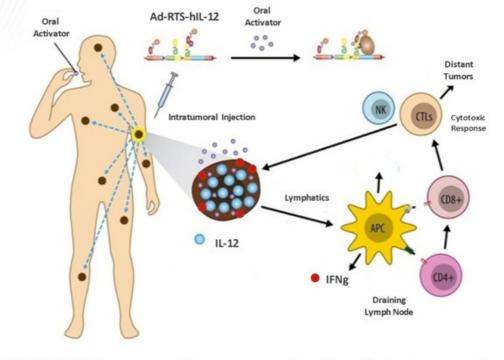
Jonathan Lewis, M.D., Ph.D., CEO, ZIOPHARM Oncology

www.ziopharm.com

## **Ad-RTS-IL-12 Overview**

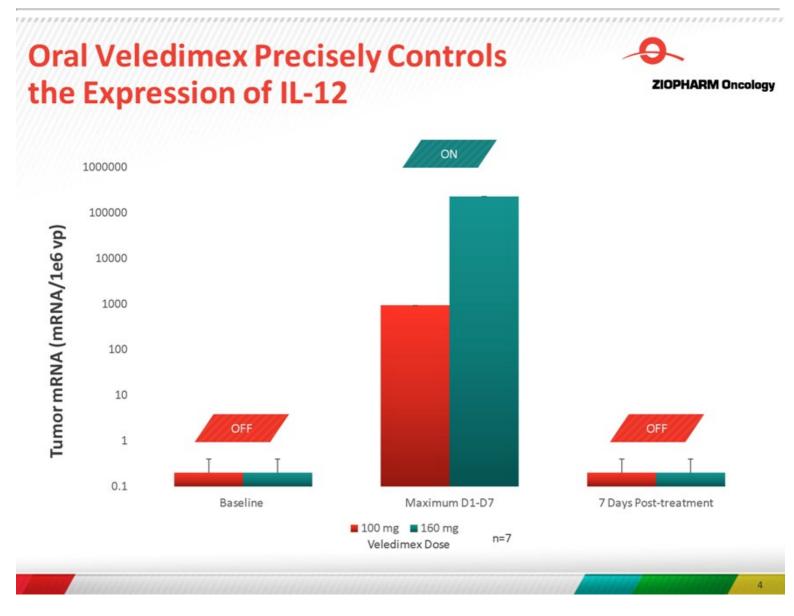
Adenoviral mediated controlled delivery of Interleukin-12

ZIOPHARM Oncology



## ZIOPHARM has leading expertise in clinical translation of designer cytokines







- ZIOPHARM has leading expertise in clinical translation of designer cytokines
- RheoSwitch Therapeutic System<sup>®</sup> platform for conditional expression of
  - Immunoreceptors
  - Cytokines
- ZIOPHARM is partnering with MDACC in Boston and Houston







ZIOPHARM Oncology, Inc.

# **INTREXON®**

## JP Morgan

Greg Frost, Ph.D., SVP Health Sector, Intrexon Corporation

www.ziopharm.com

# **Non-Viral Adoptive Cellular Therapies**



INTREXON and ZIOPHARM Announce Exclusive Licensing Agreement with MD Anderson Cancer Center for Chimeric Antigen Receptor (CAR) T-Cell and Associated Technologies for the Development of Non-Viral Adoptive Cellular Therapies

> MDAnderson Cancer Center

Making Cancer History®



ZIOPHARM Oncology, Inc.

INTREXON®

# Resulting in Point of Care and Off the Shelf Cellular Solutions



## Point of Care Product

- Integration with RheoSwitch<sup>®</sup> control of T cell propagation and specificity in patients
- Facilitates a no-culture solution to manufacturing

## **Off the Shelf Product**

- Genetically modify and edit T cells to express CAR and eliminate TCR
- AttSite<sup>®</sup> landing pads for precision genetic engineering
- iPSC processing technologies combined with LEAP<sup>®</sup> to engineer an HLA-matched product

**Recombinases and Transposases** 

# **Key Technology Synergies**



Technology	Intrexon / ZIOPHARM / MD Anderson
RheoSwitch Therapeutic System®	Most advanced family of ligands and switches available for dynamic range, safety, and spatial/temporal control
Non-Viral Integration Platform	First-in-human testing of <i>Sleeping Beauty</i> system in hematopoietic cells
UltraVector®	Industrialized assembly and screening of multigenic DNA modules for synthetic biology
Adoptive Cell Therapy	Expertise in development and implementation of novel immunotherapy trials

Established clinical pipeline for adoptive cellular therapies



## ...With Traditional Oncology **Reimbursement for Cellular Therapies** ZIOPHARM Oncology **Avoids Acute PBM Pressures Driven by Cost Density** Payments Schedule (\$) \$\$\$ Reimbursement \$\$ Failure Rate \$ Established 0 **Cell Reimbursement** Days Weeks Months **Cell and Ligand Reimbursement** Years



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ZIOPHARM Oncology, Inc.

# INTREXON®

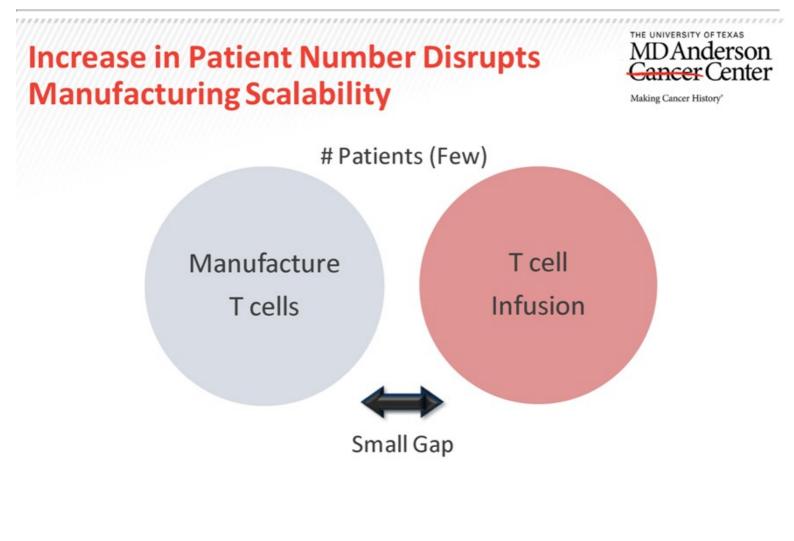
## JP Morgan

Laurence J.N. Cooper, M.D., Ph.D., Professor of Pediatrics at MD Anderson

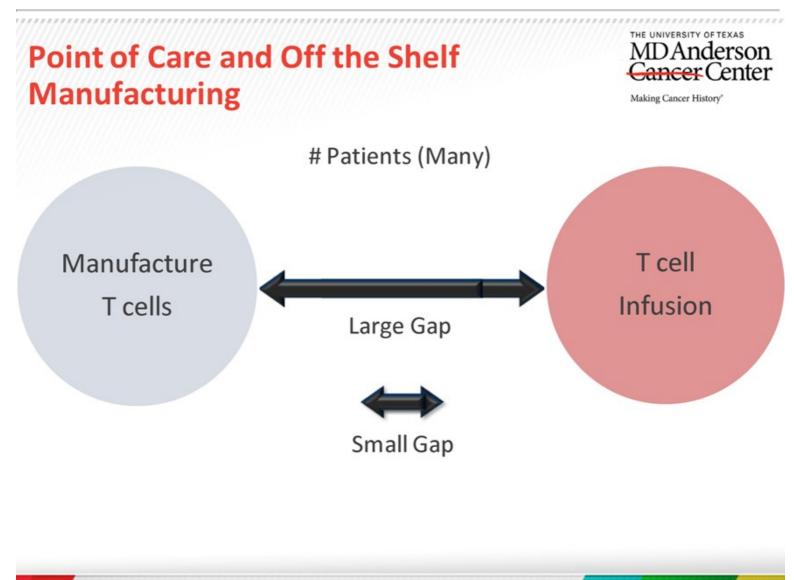


The technology being discussed has been licensed by MD Anderson to Ziopharm and Intrexon and MD Anderson, which is my employer, will have an equity interest in both companies as a result of the transaction. As an inventor of the licensed technology, I will share in the proceeds of the consideration received by MD Anderson under the license in accordance with UT System Rules and MD Anderson policies and to that extent, I have a financial interest in both companies.



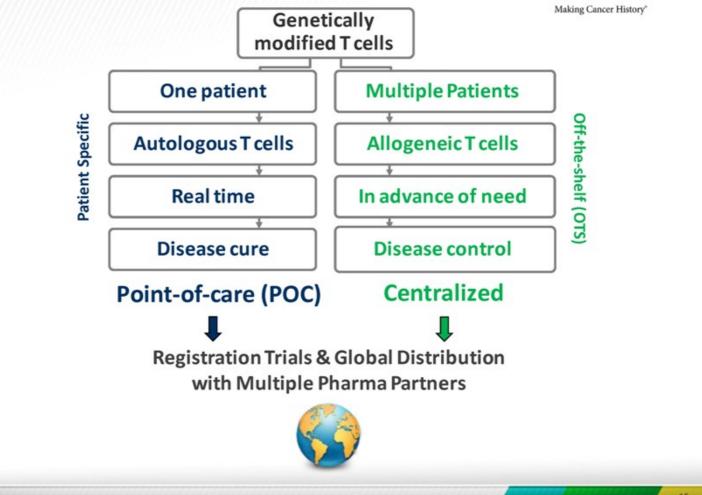






# **Dual Distribution Approaches for CAR-T**

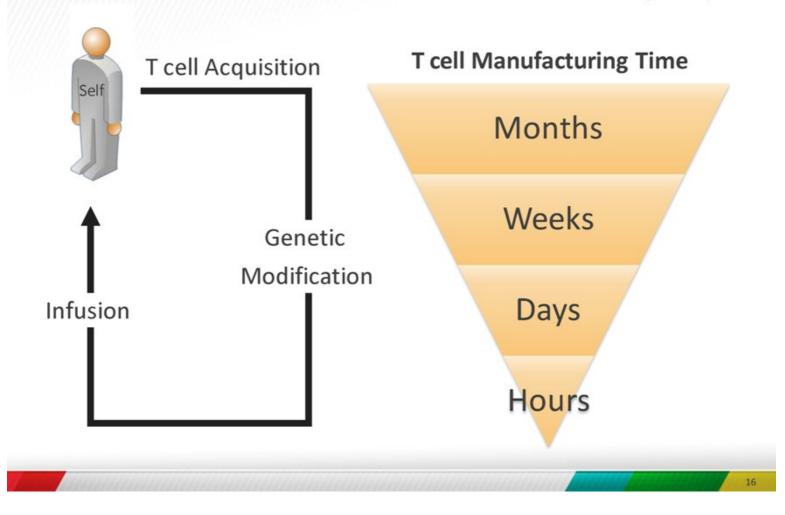




# **Steps Toward Point of Care Distribution**

THE UNIVERSITY OF TEXAS MDAnderson Cancer Center

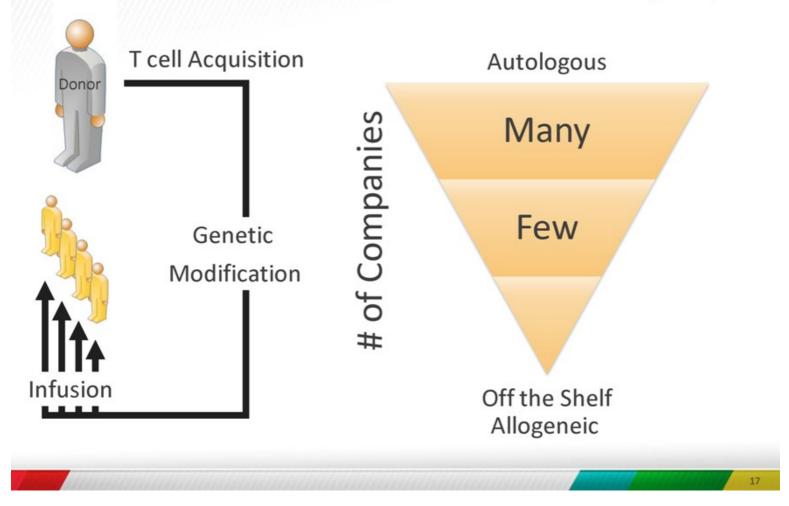
Making Cancer History\*



# **Steps Toward Off the Shelf Distribution**

MDAnderson Cancer Center

Making Cancer History\*



# **Portfolio of Effector Cells**



Making Cancer History"

1. Chimeric Antigen Receptor (CAR<sup>+</sup>) T cells:

Target cell surface tumor-associated antigens (TAAs) independent of HLA

- "Public" antigens

## 2. T Cell Receptor (TCR<sup>+</sup>) cells:

Target intracellular TAAs dependent on HLA - "Private" antigens

## 3. Natural Killer (NK) cells:

Target tumor with loss of HLA

- No "antigens"

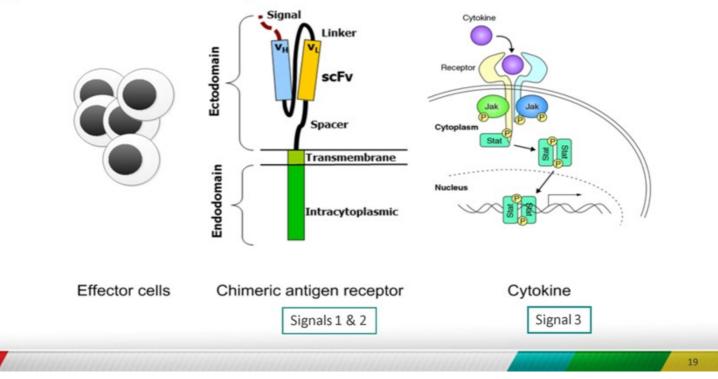
# Improving Therapeutic Potential of CAR T Cells



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### CAR T Cells for improved potency and persistence

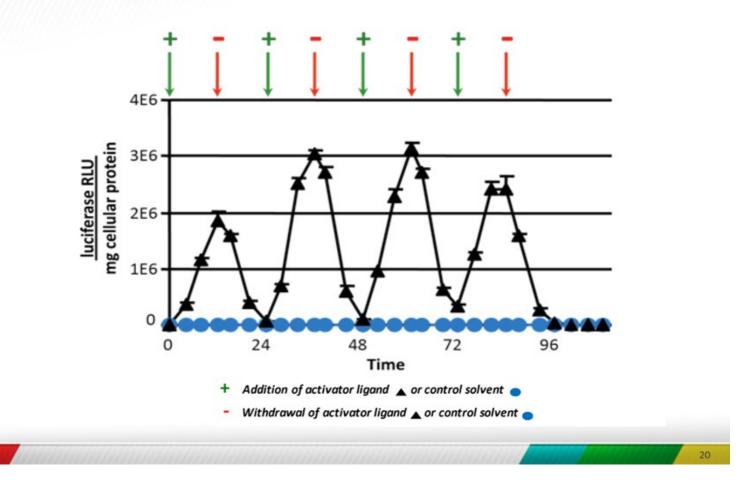
- Understanding of the effector cell biology
- Co-stimulation CAR with cytokine



# **RTS® for Gene and Cell-based Therapies**



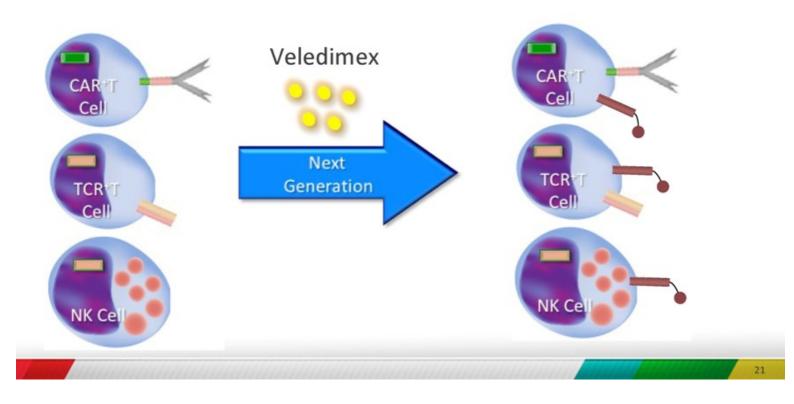
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# Building the Next-Generation of Inducible Cytokines

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Therapeutic potential of effector cells depends on recognition of tumor cells and recycling effector function in tumor microenvironment.



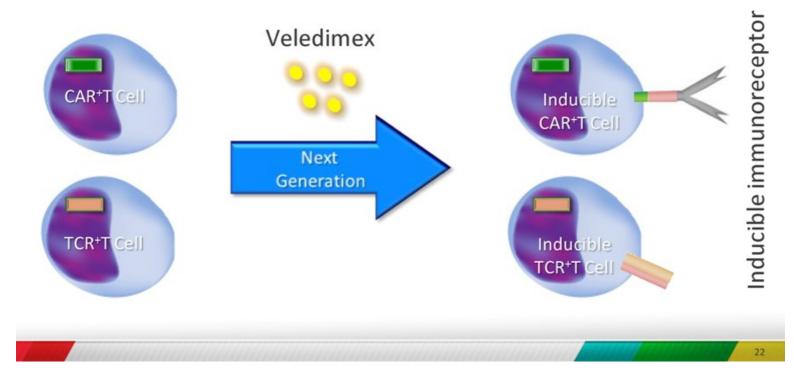
# Management of Potential Toxicity through Inducible Immunoreceptor Expression



MDAnderson

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**Cancer** Center

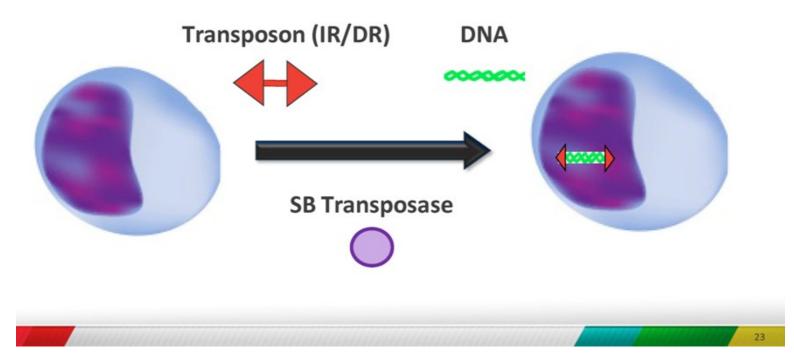


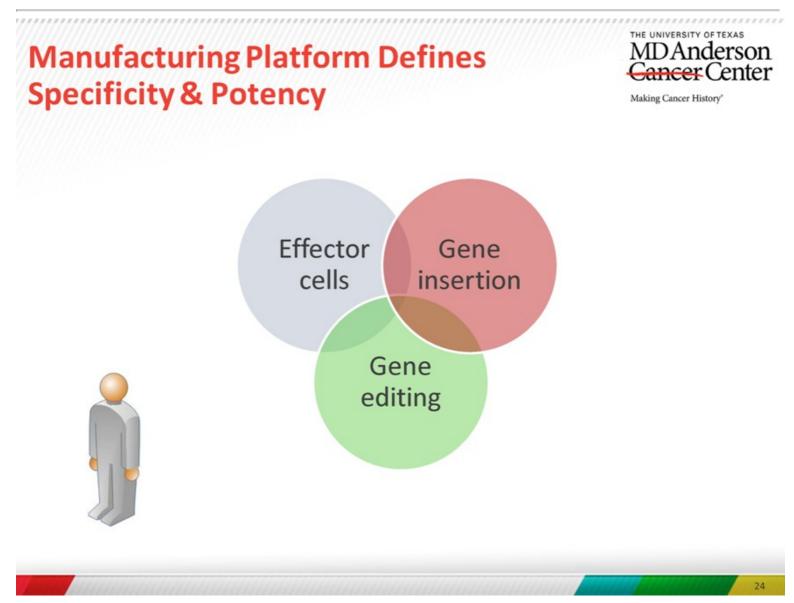
Advantages of Non-Viral Gene Integration MDAnderson Cancer Center

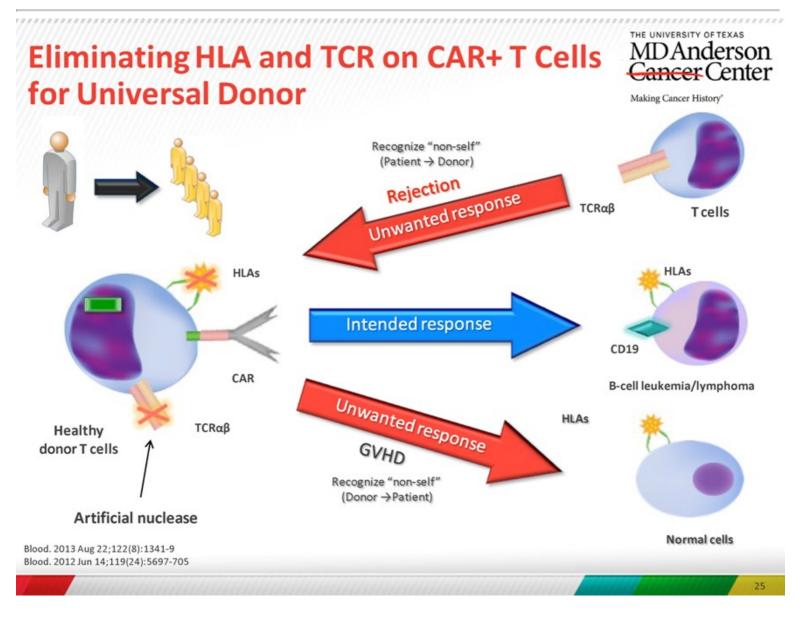
Making Cancer History\*

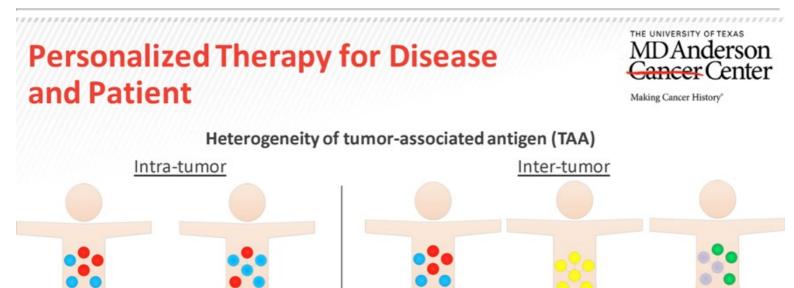
### Sleeping Beauty transposon/transposase system

- Efficient and nimble gene transfer method
- Supprises the cost, time, and complexity of viral-based delivery vectors









Infuse T cells with more than one specificity Personalized for the disease Infuse T cells with one or more specificity **Personalized for the patient** "N=1" trial paradigm

TCR'T cells

CAR\*

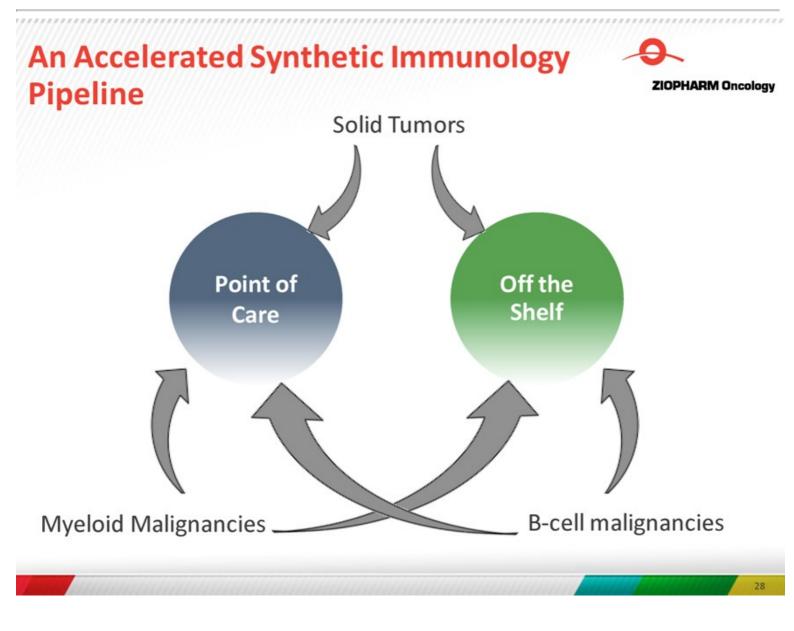
TCR'T cells

CAR'T cells



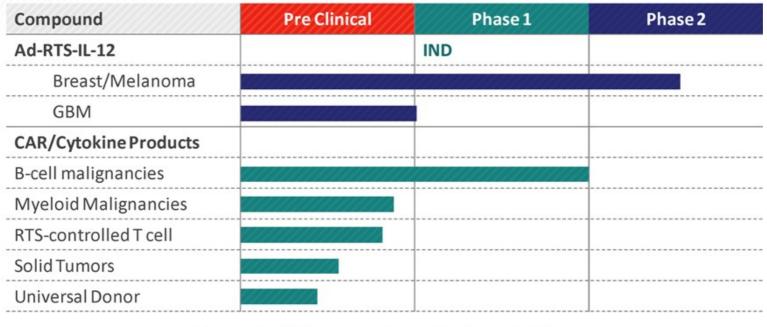
# **ZIOPHARM Oncology**

www.ziopharm.com



# An Accelerated Synthetic Immunology Pipeline

ZIOPHARM Oncology



### Up to 5 CARs entering clinic in 2015





# **ZIOPHARM Oncology**

# **The Future of Cancer Therapy**

JP Morgan 33<sup>rd</sup> Annual Healthcare Conference January 2015

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