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 7, 2016

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

Delaware	**001-33038**	**84-1475642**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

One First Avenue, Parris Building 34, Navy Yard Plaza Boston, Massachusetts	**02129**
(Address of Principal Executive Offices)	**(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)).

☐ 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 April 7, 2016, ZIOPHARM Oncology, Inc., or the Company, will present the attached presentation at the Jefferies 2nd Annual Immuno-Oncology Summit in Boston, Massachusetts.

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 presentation 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 April 7, 2016

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 Finance, Chief Accounting Officer and Treasurer

Date: April 7, 2016

INDEX OF EXHIBITS

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99.1	Presentation of the Company dated April 7, 2016

ZIOPHARM

Jefferies Immuno-Oncology Summit

April 2016

ZIOPHARM Oncology

Forward-looking statements

ZIOPHARM Oncology

This presentation contains certain ***forward-looking information about ZIOPHARM Oncology, Inc.*** *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, and in some cases can be identified by terms such as "may," "will," "could," "expects," "plans," "anticipates," and "believes." These statements include, but are not limited to, statements regarding the progress, timing and results of preclinical and clinical trials involving the Company's drug candidates, and the progress of the Company's research and development programs. 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 by, the forward-looking statements. These risks and uncertainties include, but are not limited to: whether chimeric antigen receptor T cell (CAR T) approaches, Ad-RTS-IL-12, TCR and NK cell-based therapies, or any of our other therapeutic candidates will advance further in the pre-clinical or 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 chimeric antigen receptor T cell (CAR T) approaches, Ad-RTS-IL-12, TCR and NK cell-based therapies, and our other therapeutic products will be successfully marketed if approved; the strength and enforceability of our intellectual property rights; competition from other pharmaceutical and biotechnology companies; 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, 2015. 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.*

Partnerships to implement multiple immunotherapies

ZIOPHARM Oncology

Rapid Clinical Development

THE UNIVERSITY OF TEXAS MD Anderson Cancer Center

DNA Engine & Research

INTREXON

ZIOPHARM Oncology, Inc.

PBL and IL-12
(via Intrexon)

National Cancer Institute

Clinical Collaborators

Dana-Farber/Brigham and Women's Cancer Center

Memorial Sloan Kettering Cancer Center

UCSF

The University of Chicago Pritzker School of Medicine

Cedars-Sinai

Northwestern Memorial Hospital

CAR-T Collaboration
(via Intrexon)

Biopharmaceutical business of Merck KGaA, Darmstadt, Germany

Laurence Cooper, MD, PhD

- Named CEO in May 2015
- Developed *Sleeping Beauty* technology in-licensed by ZIOP/XON in Jan 2015
- Previously professor pediatric oncology at MD Anderson Cancer Center: expertise in immunotherapy, led bone marrow transplant program

Technologies to execute tumor cells

ZIOPHARM Oncology

Technologies

- Cytokines
- Switches
- Cellular templates
- Safe targets
- Reduce burden on manufacturing
- Infuse T cells that maintain their replicative potential

Combinations

- Co-infuse T cells with multiple specificities
- Combine introduced immuno-receptor with cytokine
- Add conditional and induced expression
- Combine genetic insertion with genetic editing
- Combine cell therapy with other immunotherapies

Neoantigens

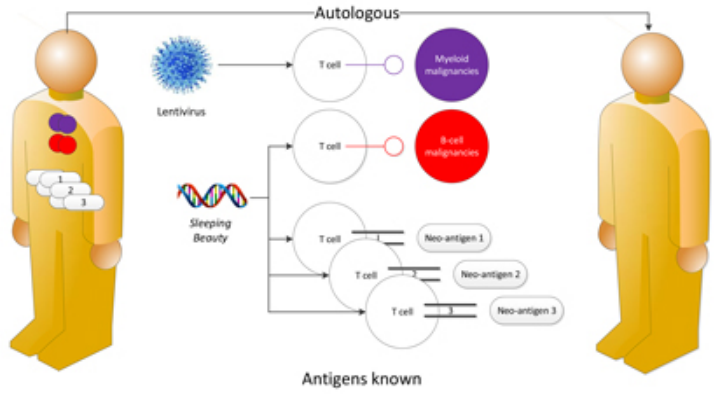
- Target driver mutations expressed exclusively within a patient's tumor
- Overcome the time to generate the T-cell products
- Overcome cost

Platforms to products

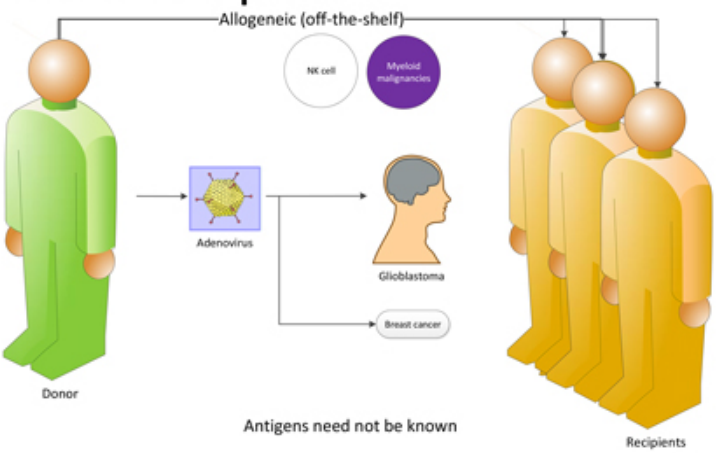
ZIOPHARM Oncology

Understanding targets and delivering immunotherapies

Patient-derived platforms



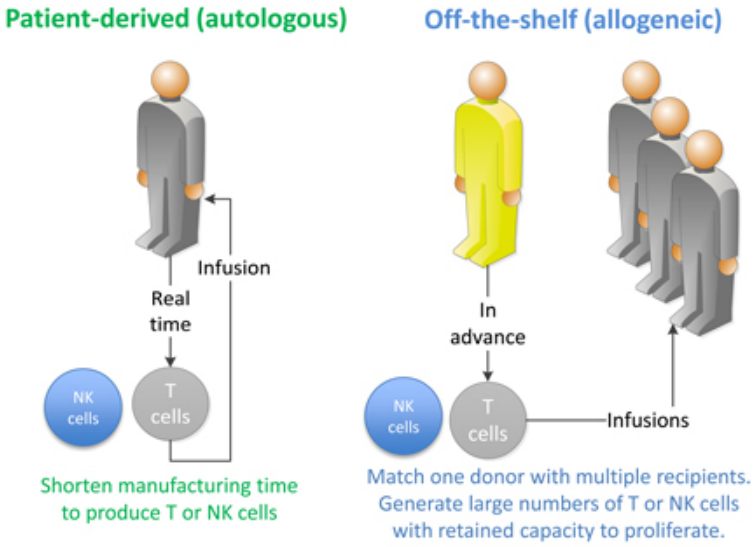
Off-the-shelf platforms



Bio-engineering and bio-processing

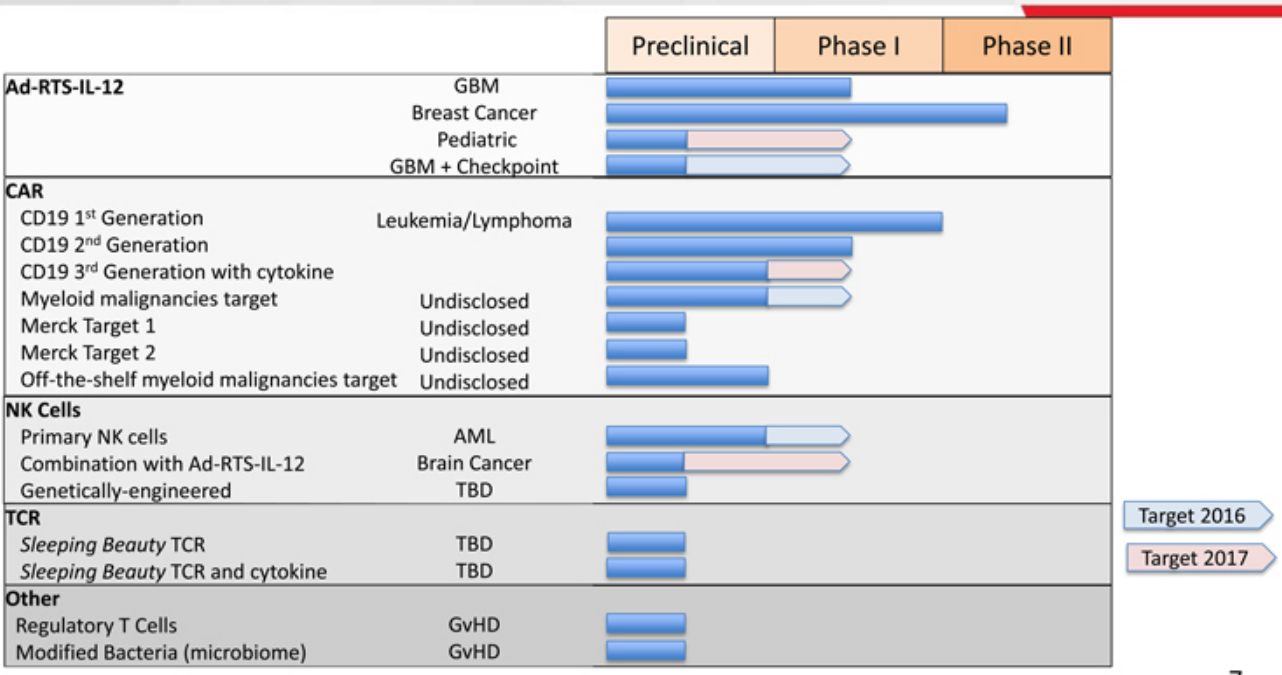
ZIOPHARM Oncology

- Implementing manufacturing processes for both autologous and allogeneic settings
- RTS® and switches will address off-target effects, especially in solid tumors
- Continued optimization of manufacturing process to improve performance
  - Shortened manufacturing of CAR T cells shows superior *in vivo* activity
- Leveraging manufacturing through
  - MDACC
  - CMOs



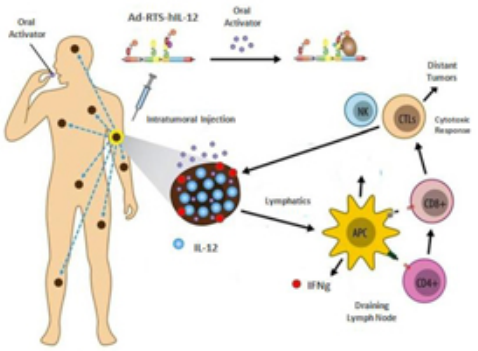
Addressing unmet medical needs: pipeline

ZIOPHARM Oncology



Ad-RTS-IL-12 + veledimex

ZIOPHARM Oncology



Next Steps

- Combination therapy with checkpoint inhibitors
  - Pre-clinical data demonstrates improved anti-tumor response in mice with glioma
  - Abstract at ASGCT May 2016

Early brain tumor data encouraging (N=7)*

- Patients enrolled at multiple centers
- Biomarkers supportive of activity
- Neurotoxicity minimal and manageable
- "On-target toxicities" as expected and promptly reversible upon stopping veledimex

Early breast cancer data encouraging (N=6)*

- First patient achieved 12 week PFS endpoint
- Patient accrual accelerating with 5 patients enrolled during 4th quarter
- Looking for confirmation of increased memory T cells as seen in previous trials
- "On-target toxicities" as expected and promptly reversible upon stopping veledimex

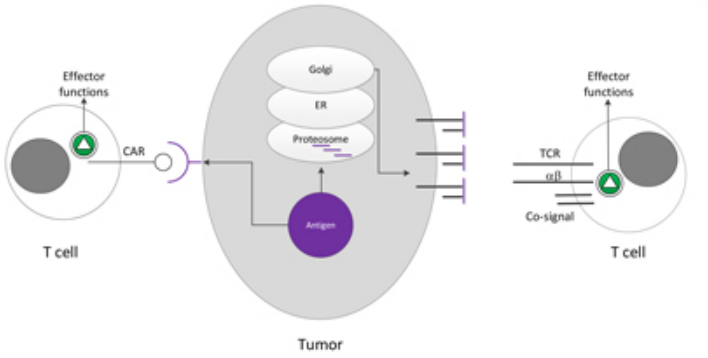
*As of Dec 15, 2015

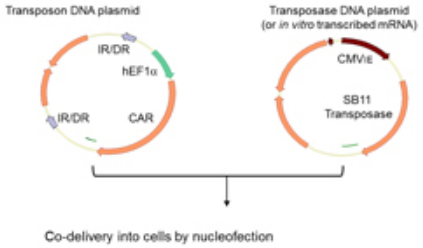
Updated data at ASGCT 2016

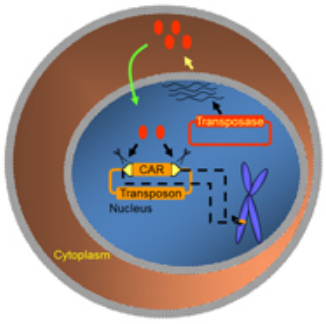
Updated data for both studies at ASCO 2016

T cells genetically modified with tumor-specific CAR or TCRs

ZIOPHARM Oncology







Advantages of *Sleeping Beauty* non-viral platform:

- Provides conduit to targeting solid tumor neo-antigens using T-cell receptors
- Lowers the cost of generating genetically modified T cells
- Has the potential to generate T cells with minimal *ex vivo* processing

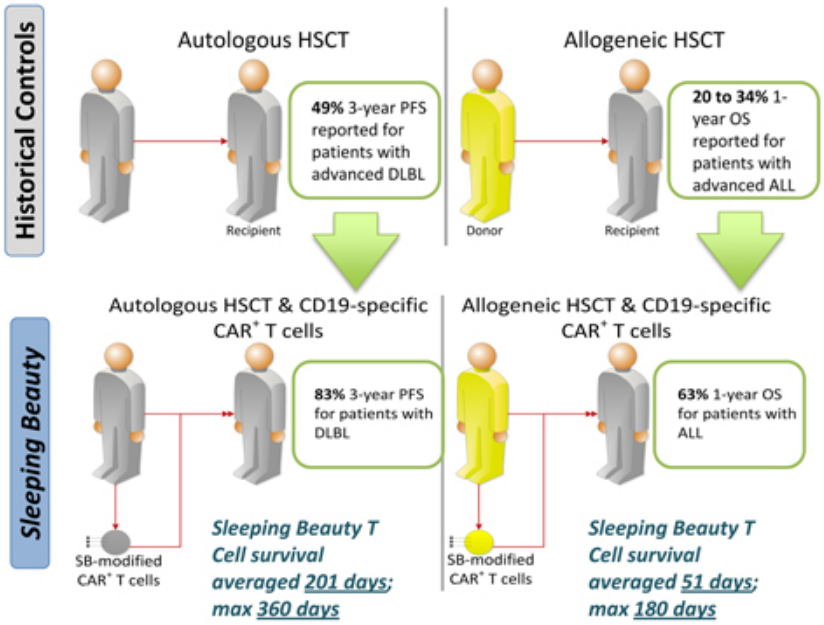
"The Sleeping Beauty transposon-transposase system represents a unique non-viral system for introducing genes encoding T-cell receptors and chimeric antigen receptors into lymphocytes that can be of great value in the development of personalized immunotherapies for patients with cancer."

Steven A. Rosenberg M.D., Ph.D.
December 2015

Sleeping Beauty: First-in-human study

Long term follow-up data from 1st generation *Sleeping Beauty* platform in two trials infusing CAR+ T cells *after* hematopoietic stem-cell transplantation (HSCT)

- Showed favorable PFS and OS trends in both autologous and allogeneic cohorts
- Non-viral *Sleeping Beauty* T-cell survival compared favorably versus viral approaches



Intrexon/Merck KGaA, Darmstadt, Germany in CAR-T

ZIOPHARM Oncology

- Exclusive agreement to develop and commercialize CAR-T cancer therapies
- 2 novel CAR T targets nominated
- Merck KGaA, Darmstadt, Germany to lead IND filing and pre-IND interactions, clinical development and commercialization
- Intrexon and ZIOPHARM retain ability to explore targets independently, granting Merck KGaA opt-in rights during clinical development
- Economics divided evenly between ZIOPHARM and Intrexon
  - $413 million per product in milestones
  - Tiered royalties up to lower-double digits on net sales

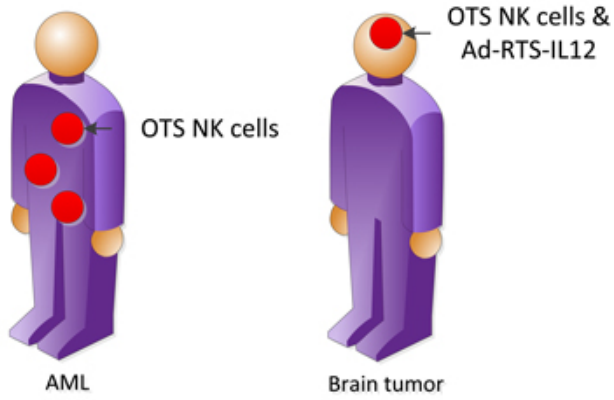
Natural Killer Cells: Beyond CAR+ T cells

ZIOPHARM Oncology

Natural killer (NK) cells

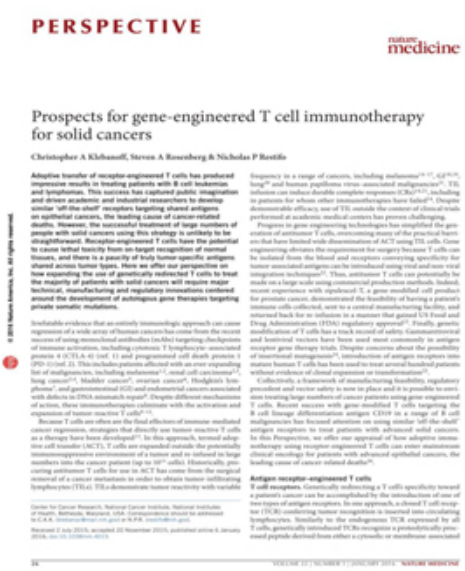
- Target tumors, *e.g.*, with loss or mismatch of HLA
- Killing is independent of a specific (known) target antigen
- Cytokines, *e.g.,* IL-12 are "fuel" for NK cells
- Build on promising proof-of-principle trials ongoing at MDACC infusing autologous and allogeneic NK cells manufactured using feeder cells

Launching Phase 1 trials of off-the-shelf NK cells for AML and brain tumors in 2016 & 2017



TCR: Targeting private somatic mutations (neo-antigens)

ZIOPHARM Oncology

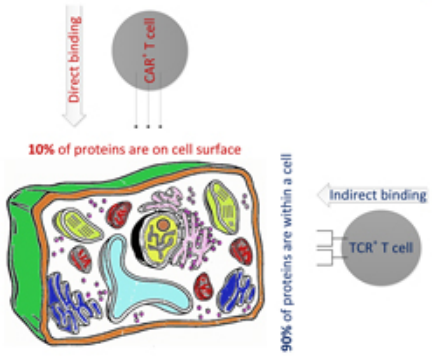


PERSPECTIVE

nature medicine

Prospects for gene-engineered T cell immunotherapy for solid cancers

Christopher A Klebanoff, Steven A Rosenberg & Nicholas P Restifo

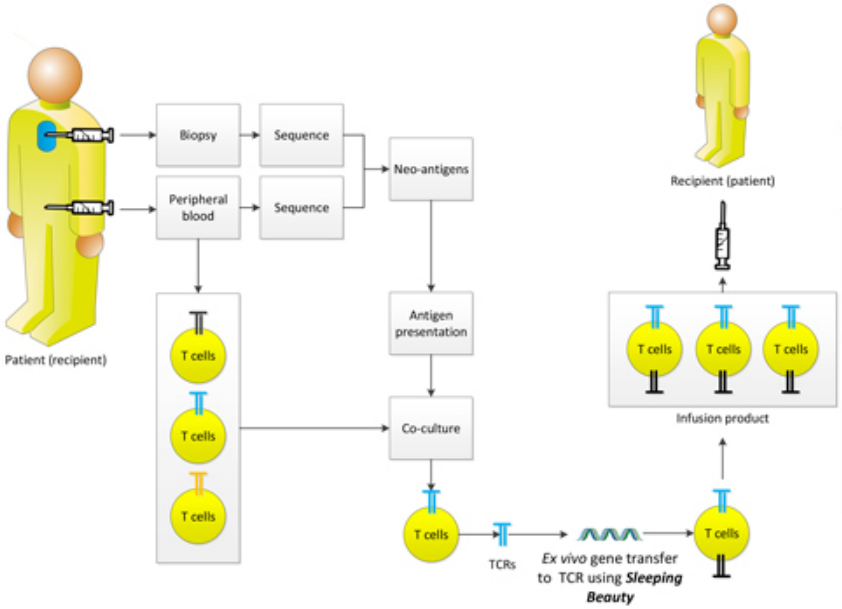


- *"Clinical evidence supports the hypothesis that immunogenic products of somatic mutations unique to each patient's cancer—so-called neoantigens—are the relevant targets for successful immunotherapies"*
- *"Success for cell-based immunotherapies may come from* ***the arduous task of targeting the unique set of mutations that cause each patient's cancer****"*
- *"Presently, use of the Sleeping Beauty (SB) transposon / transposase system has advanced farthest in clinical development"*

Nat Med. 2016 Jan 6;22(1):26-36
Science. 2015 Apr 3;348(6230):62-8
Science. 2015 Apr 3;348(6230):69-74

Sleeping Beauty: farthest advanced in non-viral clinical development

ZIOPHARM Oncology



Non-viral *Sleeping Beauty*	**Viral delivery**
Target solid tumor intracellular neo-antigens via multiple TCRs	Limited appeal for targeting multiple intracellular antigens via TCRs
Low cost approach	High cost approach
Rapid manufacture	Labor intensive, slow manufacture
Customizable, able to swap in different receptors	Challenging to customize

Examples of neoantigen-specific TCRs to target solid tumors

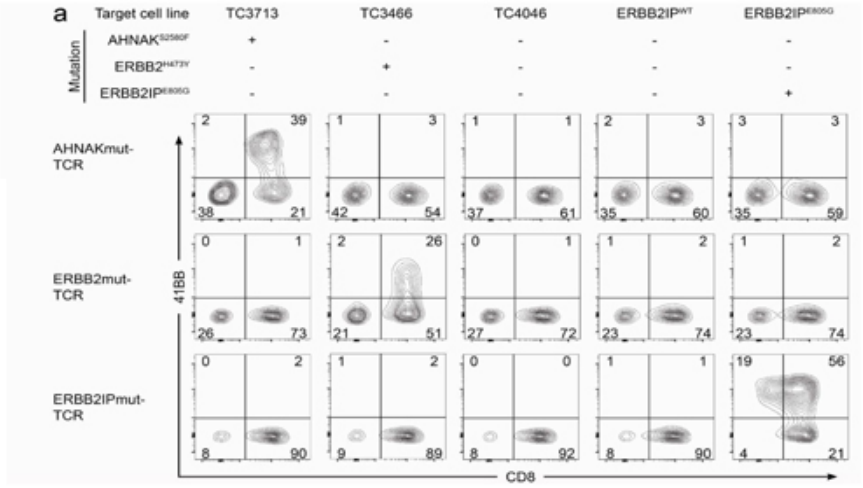
ZIOPHARM Oncology

- Melanoma: AHNAKmut-TCR
  - AHNAK^{S2580F}(A*0201)
- Melanoma: ERBB2mut-TCR
  - ERBB2H473Y(A*0201)
- Cholangiocarcinoma: ERBB2IPmut-TCR
  - ERBB2IPE805G(DQB*0601)


Stable, non-viral expression of mutated tumor neoantigen-specific T-cell receptors using the Sleeping Beauty transposon/transposase system

Accepted manuscript

Molecular Therapy 05 March 2016



Power-law curve
The industrialization of immunotherapies

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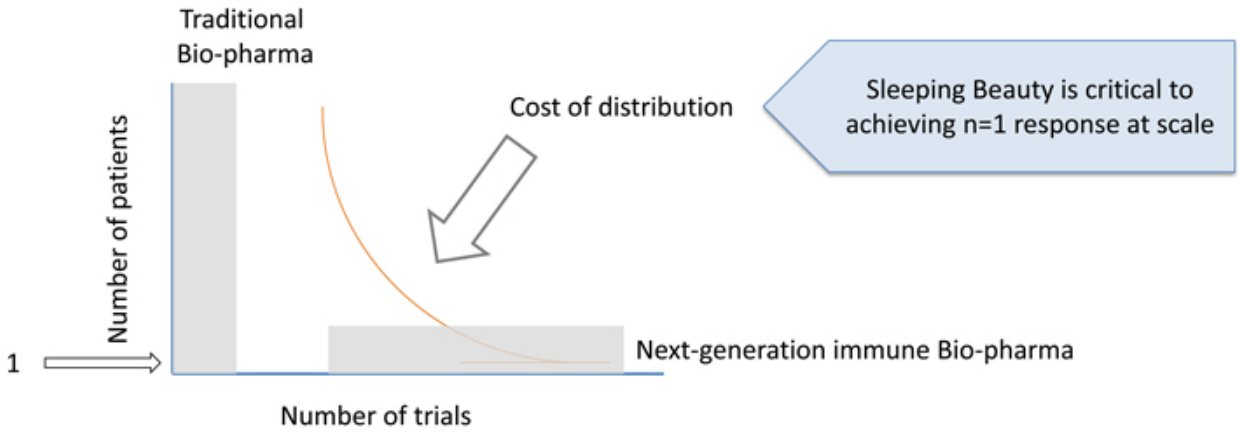

Multiple immunotherapies and combination immunotherapies are being administered

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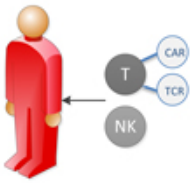
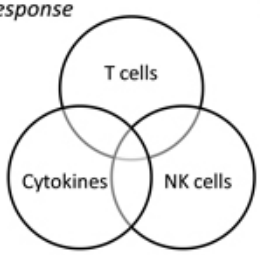
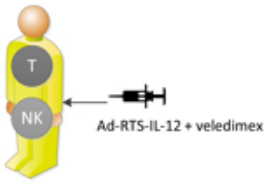
Current Clinical Approaches leading to combination immunotherapy

Administer modified immune cells to provide effective anti-tumor response





Administer IL-12 via controlled gene therapy to bolster endogenous immune response



- We stand alone in our ability to control the delivery of IL-12
- We stand alone in being able to harness non-viral DNA as a method to genetically control T cells
- We are launching multiple immunotherapy trials
  - Trial initiated with 2nd generation CD19 CAR-T utilizing non-viral *Sleeping Beauty* platform
  - Three new trials in 2016: Combination immunotherapy, viral CAR-T, and NK cells
- We are combining different elements of the immune system
- We have an ecosystem to efficiently develop and test new ideas in the clinic
- We have an expanding and unique platform to control the immune system

ZIOPHARM

Jefferies Immuno-Oncology Summit

April 2016

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