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): September 28, 2015

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

Delaware	**001-33038**	**84-1475672**
(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 September 28, 2015, ZIOPHARM Oncology, Inc., or the Company, and Intrexon Corporation, or Intrexon, issued a joint press release announcing entry into an exclusive channel collaboration agreement for the treatment and prevention of graft-versus-host disease. The press release is attached to this Current Report on Form 8-K as Exhibit 99.1 and is incorporated herein by reference.

Representatives of the Company and Intrexon will host a conference call and live webcast today, September 28, 2015 at 5:00pm Eastern Time to provide an overview of the exclusive channel collaboration described above. The slides that will be used for the presentation are furnished as Exhibit 99.2 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	Press release dated September 28, 2015
99.2	Presentation slides dated September 28, 2015

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: September 28, 2015

INDEX OF EXHIBITS

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99.1	Press release dated September 28, 2015
99.2	Presentation slides dated September 28, 2015

Exhibit 99.1

Intrexon and ZIOPHARM to Develop Immunotherapies for Treatment of Graft-Versus-Host Disease

Companies Form New Collaboration to Pursue Cellular Therapy Approaches to Autoimmune Disorder

Companies to Host Conference Call and Webcast Slide Presentation Today at 5:00 PM ET

Germantown, MD, and Boston, MA September 28, 2015 – Intrexon Corporation (NYSE: XON), a leader in synthetic biology, announced today it has formed a new Exclusive Channel Collaboration (ECC) with ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a biopharmaceutical company focused on new cancer immunotherapies, for the treatment and prevention of graft-versus-host disease (GvHD), a major complication of allogeneic hematopoietic stem-cell transplantation (HSCT) which significantly impairs the quality of life and survival of many recipients. The collaboration will focus on addressing the underlying pathologies of GvHD through engineered cell platforms to express and deliver interleukin-2 (IL-2), a cytokine critical for modulation of the immune system.

"The combined expertise and the knowledge gained from our current research programs with Intrexon in adoptive T-cell therapies and cytokine modulation for treatment of cancer, position us well to develop and implement therapeutic approaches addressing an area of high unmet medical need for patients with GvHD," said Laurence Cooper, M.D., Ph.D., Chief Executive Officer of ZIOPHARM.

Through the ECC, the companies plan to pursue engineered cell therapy strategies, used either separately or in combination, for targeted treatment of GvHD. The first approach is infusion of regulatory T cells (Tregs) conditionally expressing IL-2 utilizing Intrexon's proprietary gene control approaches such as its RheoSwitch® platform. The second is deployment of orally-delivered microbe-based ActoBiotics® therapeutics expressing IL-2 to modulate immune function.

Allogeneic HSCT is used for the treatment of various diseases including hematological malignancies, immunological deficiencies as well as non-malignant conditions. Approximately 40 to 60% of HSCT recipients develop GvHD, either acute or chronic, when immune (graft) cells in a transplant patient recognize their engrafted host as foreign and attack the patient's (host) cells.

Immunosuppressive agents and systemic steroids routinely used to treat GvHD have limited efficacy and toxicity, defining the need for safer, more effective therapies. Human studies have shown that administration of low dose subcutaneous IL-2 in patients with steroid-refractory GvHD acts via Tregs to ameliorate its manifestations.

The ECC intends to expand on the benefits of IL-2 immunotherapy under Intrexon's technologies to generate clinical-grade Tregs that can precisely deliver IL-2. In addition, the ActoBiotics® platform will be harnessed for its ability to target delivery of IL-2 to the digestive tract, a site which plays a significant role in the body's immune system. These new ways of treating and preventing GvHD have the potential to broaden the number of patients eligible to receive allogeneic HCST and also increase the number of effective donor/recipient combinations.

Samuel Broder, M.D., Senior Vice President and Head of Intrexon's Health Sector stated, "GvHD substantially impairs the quality of life and survival of transplant patients. We believe adoptive therapy with gene-modified T cells may offer an exciting alternative approach for restoring 'immune homeostasis' and countering the destructive pro-inflammatory mediators of GvHD. This ECC also includes access to the ActoBiotics® platform as an innovative approach to GvHD."

Under the terms of the agreement, Intrexon will receive a technology access fee of $10 million in cash and reimbursement for all research and development costs. The agreement also provides for equal sharing of operating profits.

Conference Call and Webcast September 28, 2015, at 5:00 PM ET

ZIOPHARM and Intrexon will host a conference call and webcast slide presentation today, September 28, 2015, at 5:00 PM ET to discuss their GVHD exclusive channel collaboration. The call can be accessed by dialing (877) 751-7350 (U.S. and Canada) or (918) 559-5237 (international). The passcode for the conference call is 50985976. To access the slide and live audio webcast, or the subsequent archived recording, visit the "Investors & Media" section of the ZIOPHARM website at www.ziopharm.com. The webcast will be recorded and available for replay on the Company's website for two (2) weeks.

About Intrexon Corporation

Intrexon Corporation (NYSE:XON) is Powering the Bioindustrial Revolution with Better DNA™ to create biologically-based products that improve the quality of life and the health of the planet. The Company's integrated technology suite provides its partners across diverse markets with industrial-scale design and development of complex biological systems delivering unprecedented control, quality, function, and performance of living cells. We call our synthetic biology approach Better DNA®, and we invite you to discover more at www.dna.com.

About ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology is a Boston, Massachusetts-based biotechnology company employing novel gene expression, control and cell technologies to deliver safe, effective and scalable cell-based therapies for the treatment of cancer. The Company's synthetic immuno-oncology programs, in collaboration with Intrexon Corporation (NYSE:XON) and the MD Anderson Cancer Center, include chimeric antigen receptor T cell (CAR-T) and other adoptive cell based approaches that use non-viral gene transfer methods for broad scalability. The Company is advancing programs in multiple stages of development together with Intrexon Corporation's RheoSwitch Therapeutic System® technology, a switch to turn on and off, and precisely modulate, gene expression in order to improve therapeutic index. The Company's pipeline includes a number of cell-based therapeutics in both clinical and preclinical testing which are focused on hematologic and solid tumor malignancies.

Trademarks

Intrexon, ActoBiotics, Powering the Bioindustrial Revolution with Better DNA, and Better DNA are trademarks of Intrexon and/or its affiliates. Other names may be trademarks of their respective owners.

Safe Harbor Statement

Some of the statements made in this press release 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 our business. 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 press release.

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Exhibit 99.2

ZIOPHARM / Intrexon

Graft-Versus-Host Disease
Exclusive Channel Collaboration

SEPTEMBER 28, 2015

ZIOPHARM Oncology

INTREXON®

Forward-looking Statements

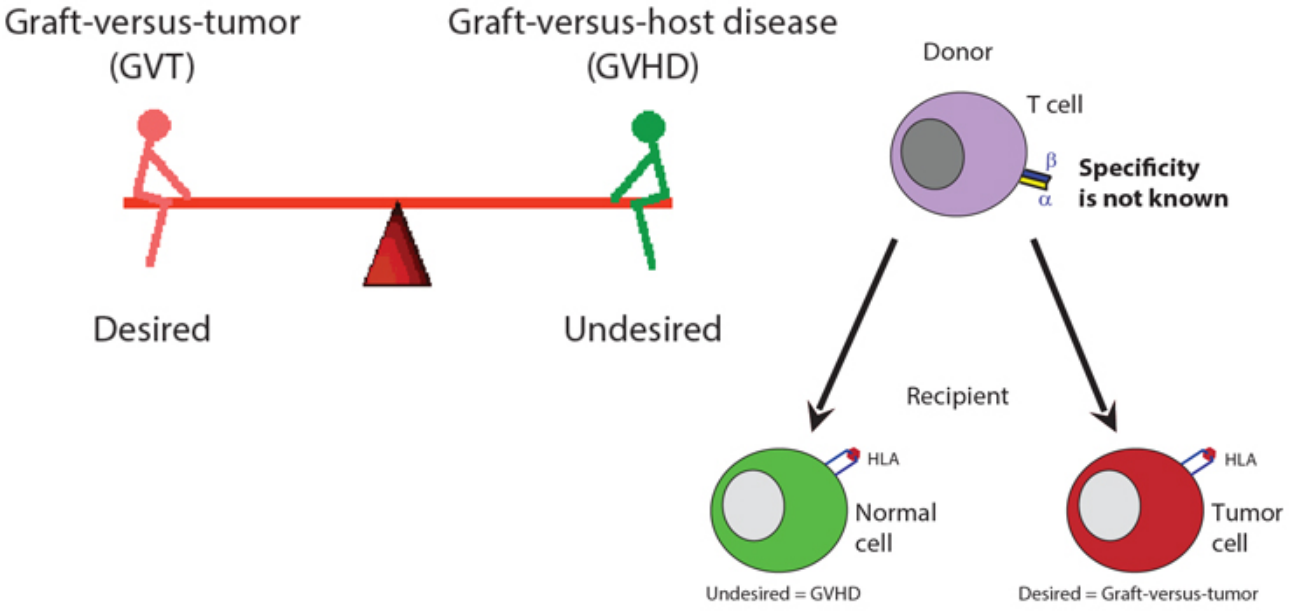
ZIOPHARM Oncology

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, 2014, and our Quarterly Report on Form 10Q for the quarter ended June 30, 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.*

Allogeneic Hematopoietic Stem-Cell Transplantation (HSCT)

ZIOPHARM Oncology

Patient's life after allogeneic HSCT hangs in the balance

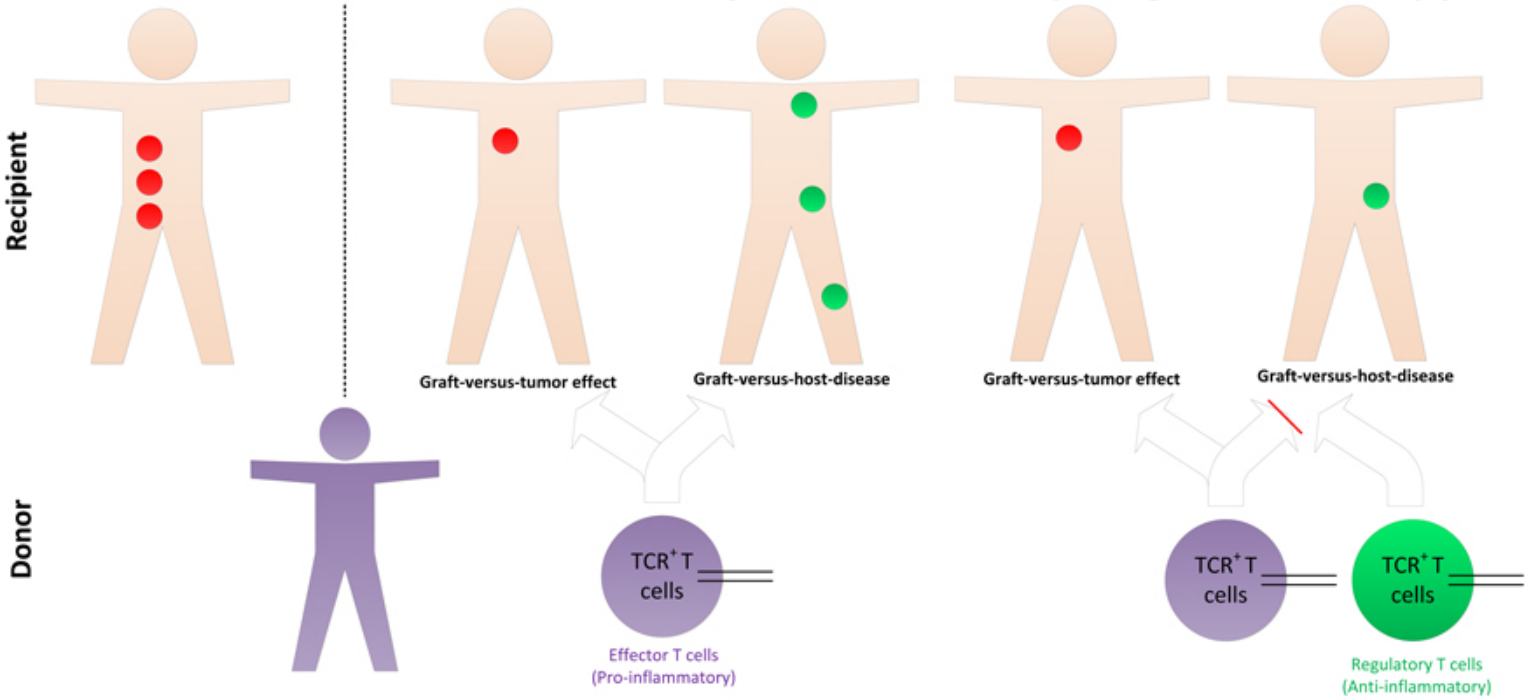


Allogeneic HSCT (or bone marrow transplantation) is used to treat various diseases including hematological malignancies, immunological deficiencies as well as non-malignant conditions.

Role of T cells in Recipients of Allogeneic HSCT

ZIOPHARM Oncology

HSCT can be consider as currently the best example of T-cell therapy

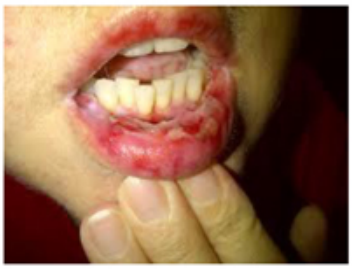


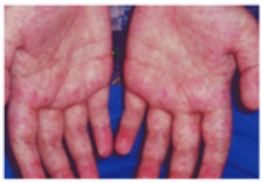
GVHD occurs when immune cells transplanted from a non-identical donor recognize the recipient (the host) as foreign, initiating an immune response that causes disease in the transplant recipient.

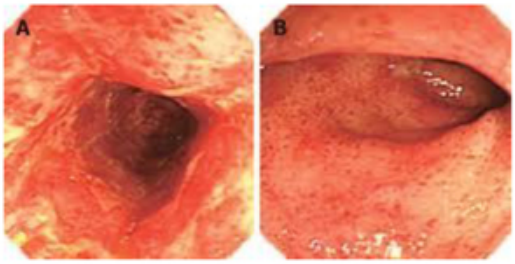
GVHD is a multi-system disease

ZIOPHARM Oncology

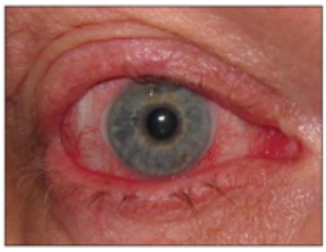
Acute

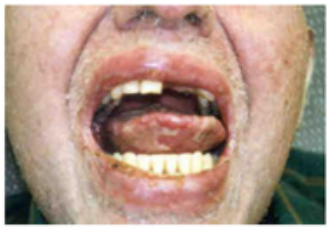


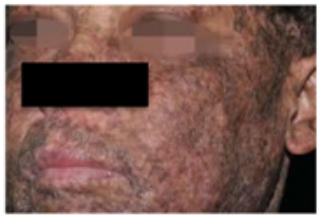


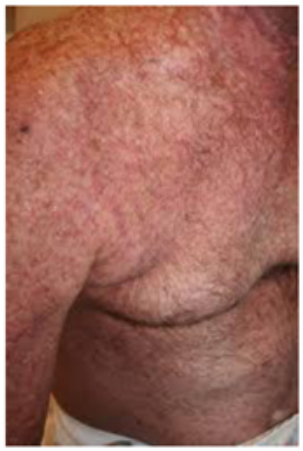


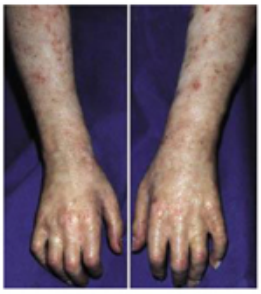
Chronic











Graft-versus-Host Disease (GVHD)

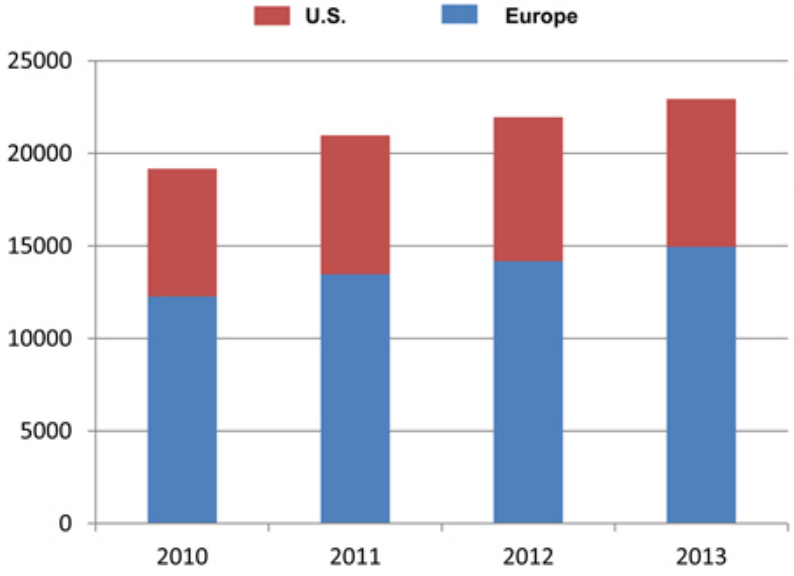
ZIOPHARM Oncology

- Acute and chronic GVHD are multisystem disorders that are common complications of allogeneic hematopoietic stem-cell transplantation (HSCT)
- Principal risk factors for non-relapse deaths after allogeneic HSCT are older age and GVHD
  - J Clin Oncol. 2011 Jun 1;29(16):2230-9
- Patients with steroid-resistant acute GVHD have a dismal prognosis, with mortality rates in excess of 90%.
  - Adv Hematol. 2011;2011:601953
- Despite aggressive treatment, chronic GVHD affects up to 50% of long-term allogeneic HSCT survivors and is lethal in 40% of severely affected recipients
  - Br J Haematol. 2015 Jul 26. [Epub ahead of print]
  - Blood. 2014 Jul 17;124(3):374-84.
- Chronic GVHD is the single major factor determining long-term quality of life following allogeneic HSCT
- Chronic GVHD is the leading cause of non-relapse mortality in patients surviving more than 2 years
  - N Engl J Med. 1999 Jul 1;341(1):14-21

GvHD Market

ZIOPHARM Oncology

*Rising Number of Allogeneic HSCT Procedures in US and Europe**



- There were ~23,000 allogeneic HCST procedures in US and Europe in 2013
- About 35% to 50% of allogeneic HSCT recipients will develop acute GVHD
- From 1995 to 2007 (26,563 recipients) there has been an increased incidence of chronic GVHD
  - Biol Blood Marrow Transplant. 2015 Feb;21(2):266-74

* Data complied from:

- Pasquini MC, Zhu X. Current uses and outcomes of hematopoietic stem cell transplantation: 2014 CIBMTR Summary Slides. http://www.cibmtr.org. (*US*)
- Bone Marrow Transplant. 2015 Apr; 50(4): 476–482. (*Europe*)

Overcoming Limitations; Expanding Potential Patient Population

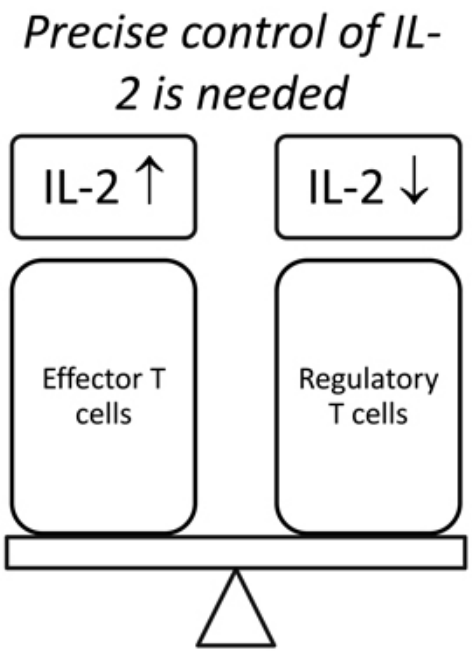
ZIOPHARM Oncology

- Immunosuppressive agents and systemic steroids routinely used to prevent and treat GvHD have limited efficacy and toxicity, defining the need for safer, more effective therapies.
- The ECC intends to overcome these limitations through the application of IL-2 immunotherapy under Intrexon's control technologies and/or the ActoBiotics® platform's ability for targeted delivery to the digestive tract which plays a significant role in the body's immune system.
- These new ways of treating and preventing GvHD have the potential to increase the market opportunity through:
  1. Broadening of patient eligibility to receive allogeneic HCST
  2. Increasing number of effective donor/recipient combinations

IL-2 – Important Immune Modulator

ZIOPHARM Oncology

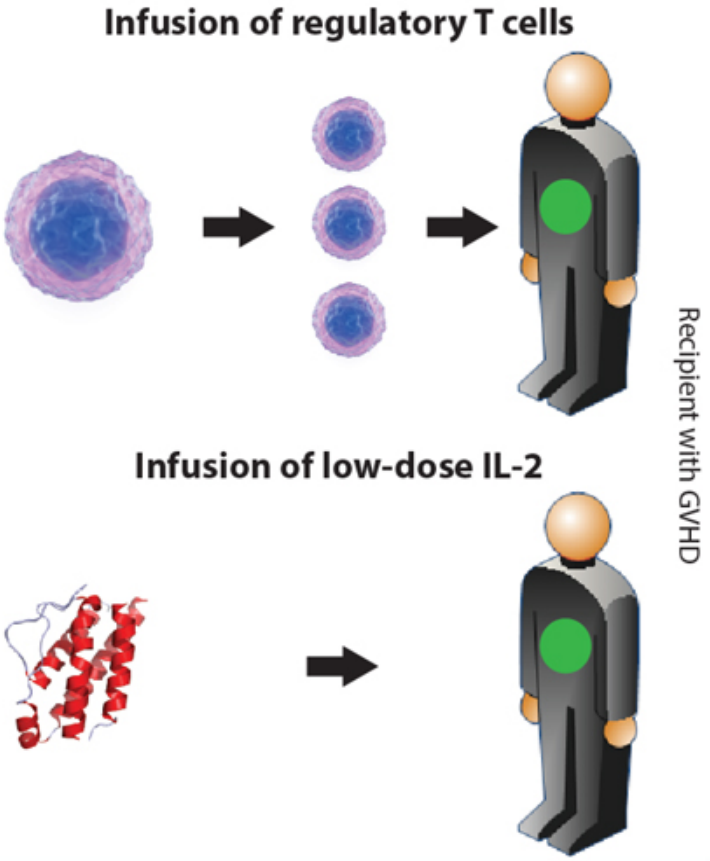
- Exclusive collaboration with Intrexon will focus on addressing the underlying pathologies of GvHD through two engineered cell platforms to control the delivery of interleukin-2 (IL-2), a cytokine that modulates the immune system.
- IL-2 is a pro-survival cytokine taken up by regulatory T cells (Tregs)
  - Too much IL-2 will amplify killer T-cell responses
- Administration of low dose IL-2 in patients with steroid-refractory GvHD activated Tregs and led to clinical improvements
  - N Engl J Med. 2011 Dec 1;365(22):2055-66
  - Sci Transl Med. 2013 Apr 3;5(179):179ra43



Nature Reviews Immunology 12, 180–190 (1 March 2012)

Current Human Application of Tregs and IL-2

ZIOPHARM Oncology



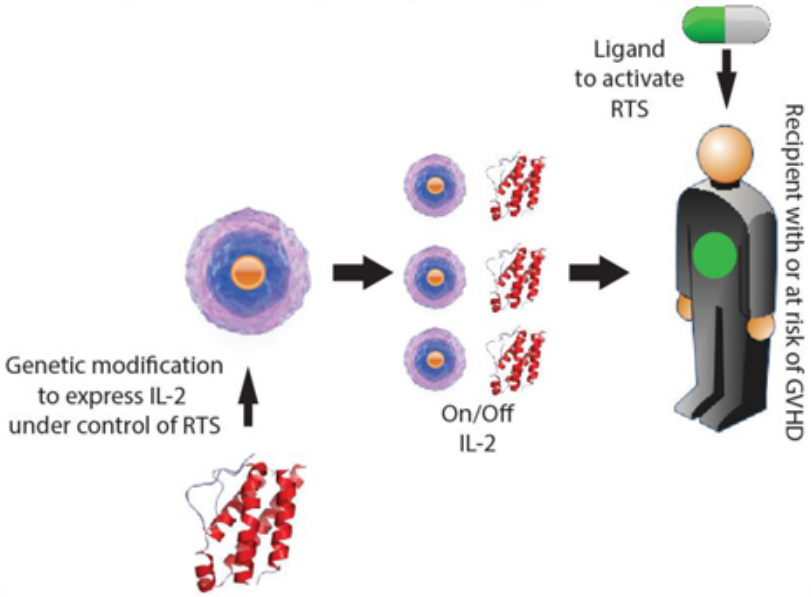
Clin Cancer Res. 2014 Apr 15;20(8):2215-25.
Blood. 2013 Apr 11;121(15):2864-74.
Best Pract Res Clin Haematol. 2011 Sep;24(3):459-66.
Sci Transl Med. 2011 May 18;3(83):83ra41.
Semin Immunol. 2006 Apr;18(2):78-88.
Blood. 2011 Jan 20;117(3):1061-70.

Clinical Application of Gene Control Technologies

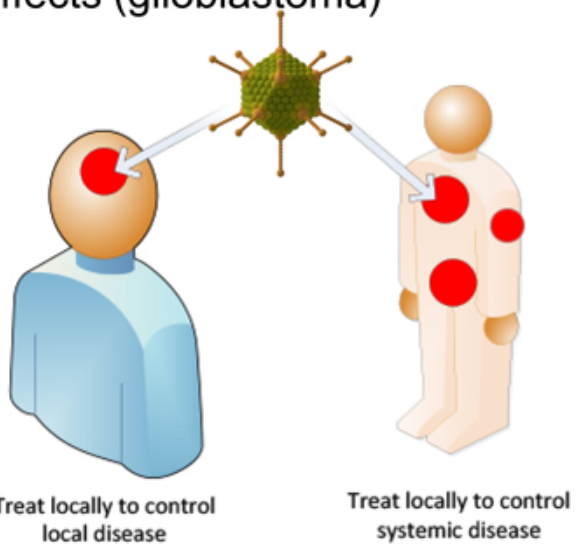
ZIOPHARM Oncology

- **First approach** will develop regulatory T cells (Tregs) expressing IL-2 utilizing Intrexon's proprietary gene control technologies such as its RheoSwitch® (RTS) platform

Infusion of regulatory T cells generating IL-2



- Administer Ad-RTS-hIL12 locally to achieve systemic anti-tumor effects (breast cancer)
- Administer Ad-RTS-hIL12 locally to achieve local anti-tumor effects (glioblastoma)

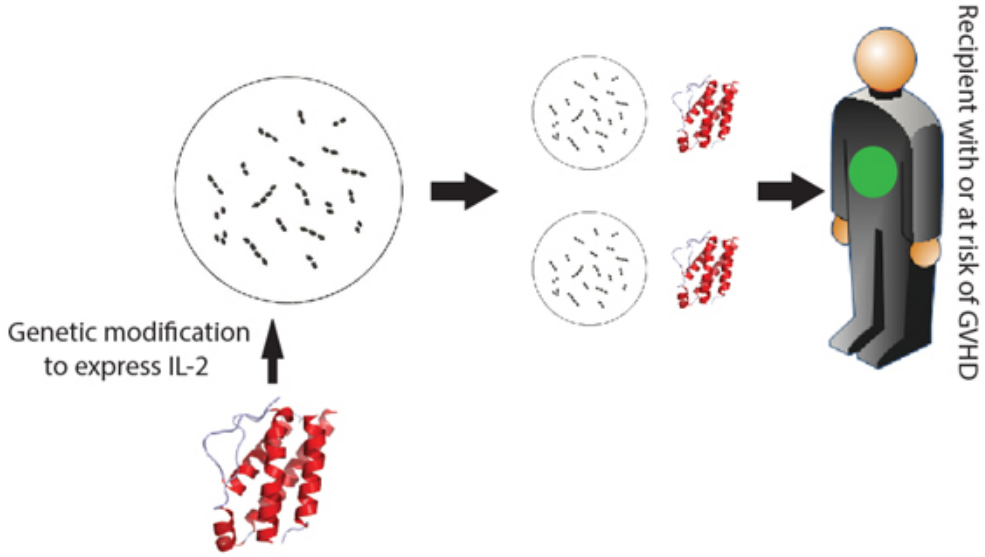


Expression of IL-2 through ActoBiotics® microbes

ZIOPHARM Oncology

- **Second approach** is based on genetic engineering of food-grade bacteria *Lactococcus lactis*
  - Chromosomal insertion of genes to generate biologically-contained ActoBiotics® therapeutics for *in situ* expression of proteins and peptides
  - Exclusive collaboration with Intrexon generate *L. lactis* to precisely express IL-2

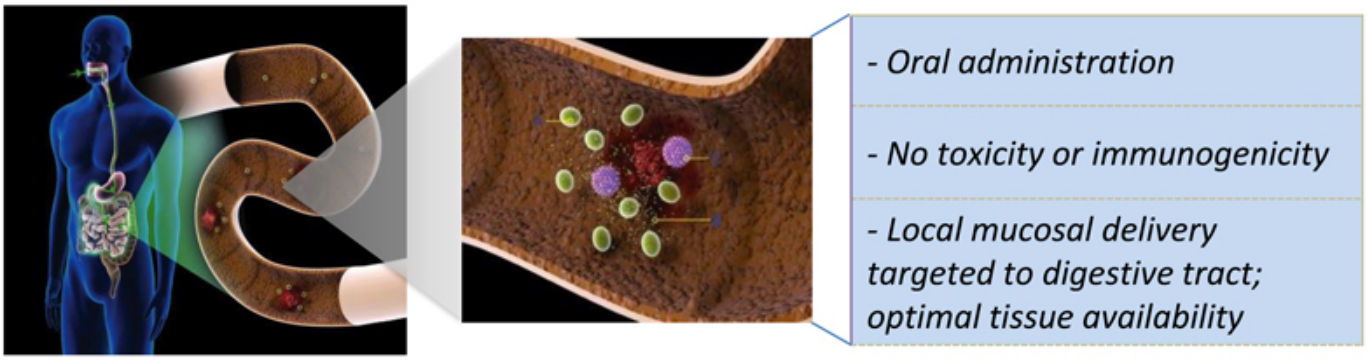
Administration of *L. lactis* generating IL-2



Targeted ActoBiotics® Delivery to GI Tract

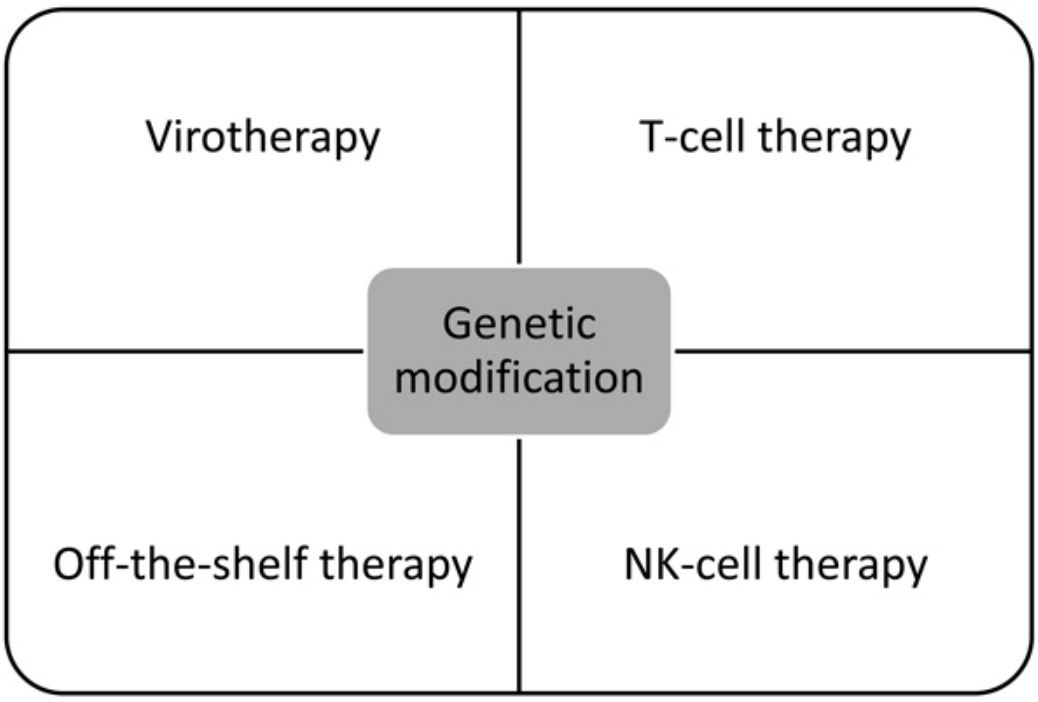
ZIOPHARM Oncology

- **Oral Administration, Targeted Delivery:**
  - Coated capsules with freeze-dried ActoBiotics® therapeutics are taken by patient and released in gastrointestinal tract to secrete biotherapeutics *in situ (*locally) at site of disease.
  - Largest mass of lymphoid tissue in body is found in digestive tract which plays a significant role in the immune system.
  - ECC plans to deploy orally-delivered microbe-based ActoBiotics® therapeutics expressing IL-2 to modulate immune function directly to this vital area to overcome limitations with systemically administered treatments that carry the risk of toxicities and off-target effects.



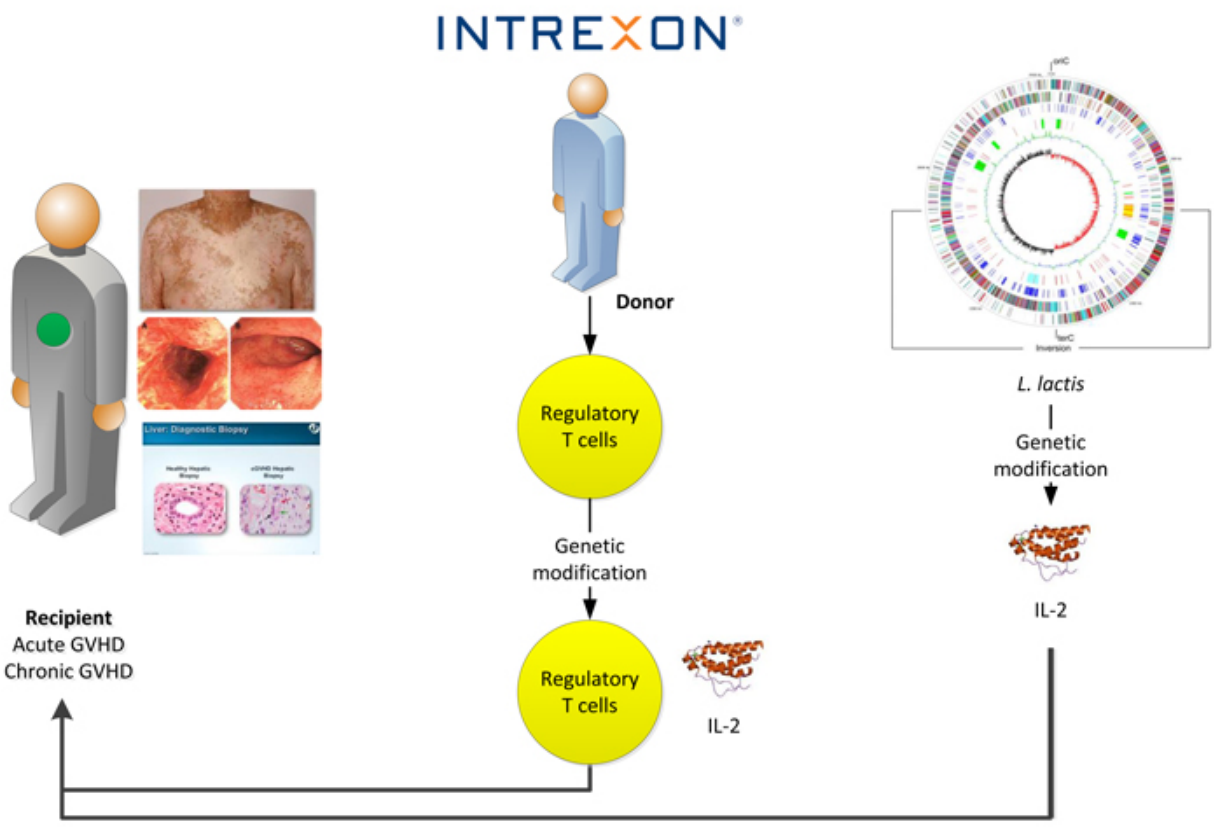
Synergies with Existing Programs

ZIOPHARM Oncology



Summary

ZIOPHARM Oncology



Conclusions

ZIOPHARM Oncology

- Allogeneic HSCT is a widely accepted approach to T-cell therapy that does not rely on *a prior* knowing the tumor antigens
- ZIOPHARM is delivering biologics based on genetic modification of the immune system to treat cancer
  - This is based on existing ECC with Intrexon
- ZIOPHARM will leverage its expertise to deliver biologics to improve the outcome of patients receiving T-cell therapy in the context of allogeneic HSCT
  - This is based on a new ECC with Intrexon
- The number of recipients that can benefit from allogeneic HSCT can be increased if GVHD can be prevented or treated
  - This will impact treatment of oncology as well as non-malignant diseases

ZIOPHARM / Intrexon

Graft-Versus-Host Disease
Exclusive Channel Collaboration

SEPTEMBER 28, 2015

ZIOPHARM Oncology

INTREXON®