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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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**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 8, 2016**

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**PIERIS PHARMACEUTICALS, INC.**

(Exact Name of Registrant as Specified in its Charter)

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**Nevada**  
(State of Incorporation)

**001-37471**  
(Commission  
File Number)

**EIN 30-0784346**  
(IRS Employer  
Identification No.)

**255 State Street, 9th Floor**  
**Boston, MA 02109**  
**United States**  
(Address of principal executive offices, including zip code)

**Registrant's telephone number, including area code: 857-246-8998**

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Check the appropriate box below if the Form 8-K filing 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))
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**Item 7.01 Regulation FD Disclosure.**

Attached hereto as Exhibit 99.1 and incorporated by reference herein is an industry conference presentation of Pieris Pharmaceuticals, Inc.

The information set forth under this “Item 7.01. Regulation FD Disclosure,” including the exhibit attached hereto, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

**Item 9.01 Financial Statements and Exhibits**

(d) *Exhibits.*

99.1 Industry Conference Presentation of Pieris Pharmaceuticals, Inc., dated June 2016.

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**SIGNATURE**

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.

Dated: June 8, 2016

**PIERIS PHARMACEUTICALS, INC.**

By: /s/ Darlene Deptula-Hicks

Name: Darlene Deptula-Hicks

Title: Chief Financial Officer

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**EXHIBIT INDEX**

<b>Exhibit No.</b>	<b>Description</b>
99.1	Industry Conference Presentation of Pieris Pharmaceuticals, Inc., dated June 2016.



# **Pieris Pharmaceuticals, Inc.**

**Nasdaq:PIRS**

**Jefferies Conference - Investor Presentation**

**June 2016**

# Forward Looking Statements



Statements in this presentation that are not descriptions of historical facts are forward-looking statements that are based on management's current expectations and assumptions and are subject to risks and uncertainties. In some cases, you can identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or the negative of these terms or other comparable terminology. Factors that could cause actual results to differ materially from those currently anticipated include, without limitation, risks relating to the results of our research and development activities, including uncertainties relating to the discovery of potential drug candidates and the preclinical and clinical testing of our drug candidates; the early stage of our drug candidates presently under development; our ability to obtain and, if obtained, maintain regulatory approval of our current drug candidates and any of our other future drug candidates; our need for substantial additional funds in order to continue our operations and the uncertainty of whether we will be able to obtain the funding we need; our future financial performance; our ability to retain or hire key scientific or management personnel; our ability to protect our intellectual property rights that are valuable to our business, including patent and other intellectual property rights; our dependence on third-party manufacturers, suppliers, research organizations, testing laboratories and other potential collaborators; our ability to successfully market and sell our drug candidates in the future as needed; the size and growth of the potential markets for any of our approved drug candidates, and the rate and degree of market acceptance of any of our approved drug candidates; developments and projections relating to our competitors and our industry; our ability to establish collaborations; our expectations regarding the time which we will be an emerging growth company under the JOBS Act; our use of proceeds from this offering; regulatory developments in the U.S. and foreign countries; and other factors that are described more fully in our Annual Report on form 10-K filed with the SEC on March 23, 2016. In light of these risks, uncertainties and assumptions, the forward-looking statements regarding future events and circumstances discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. The forward-looking statements included in this presentation speak only as of the date hereof, and except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations.

## Unique Platform and Drug Class

### Anticalins<sup>®</sup> – Novel Therapeutic Proteins

- Superior drug-like properties; novel modes of action
- Potentially transformative multispecifics capabilities
- Track record of delivering to Big Pharma specifications

## Multiple Value Drivers

### Multiple Paths to Revenues & Risk Diversification

- High-value disease areas, including respiratory and IO
- Partnerships with leading pharmas: Roche, Sanofi, Daiichi: deal potential >\$700M plus royalties
- Several emerging clinical value inflection points

## Next-Gen IO Therapies

### Novel Bispecifics & Complete Independence

- 4-1BB (CD137) / HER2 (PRS-343): targeted T cell agonist offers high differentiation over mAbs
- PD-1 based bispecific (PRS-332): synergistic dual checkpoint blockade; future combination with PRS-343

# Anticalins are a Novel Class of Therapeutic Binding Proteins



## Drug Class With Favorable Properties...

- Anticalins® are derived from lipocalins – human extracellular binding proteins
- Small (18 kDa vs 150 kDa mAbs), high selectivity and potency, non-immunogenic
- Very stable



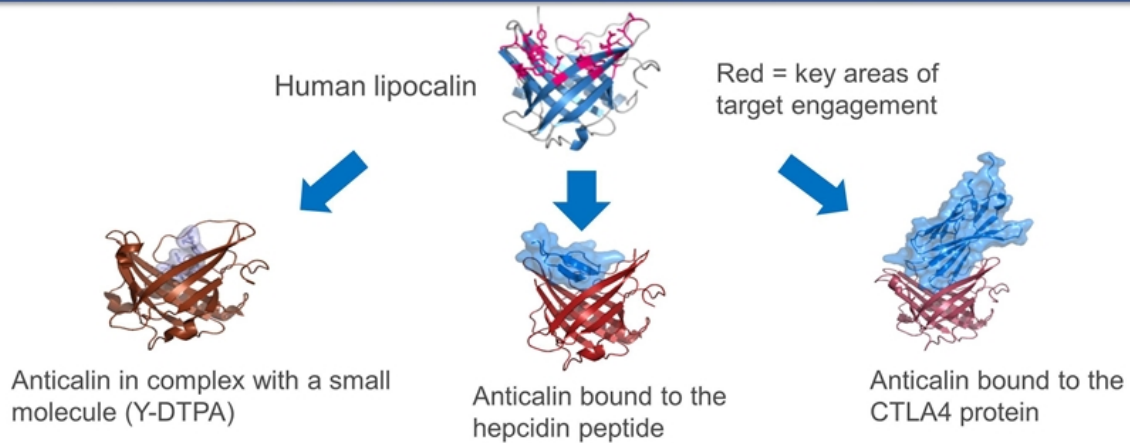
## ...Powered by Reliable Platform

- Highly diverse libraries ( $>10^{11}$ ) of potential drug candidates
- Automated high-throughput drug screening technology (phage display)
- Extensive protein engineering know-how

High Hit Rates

Quick to Development Candidate



Versatile Use





# Anticalins Share Several Features with mAbs Yet are Highly Differentiated



Differentiating Features	 Antibody	 Anticalin
Human-derived	✓	✓
Natural binding molecule	✓	✓
Non-immunogenic	✓	✓
High affinity and specificity	✓	✓
Systemic delivery	✓	✓
Tunable pharmacokinetics – PRS-080	(✓)	✓
Local delivery (e.g., inhalation) – PRS-060		✓
Versatile multispecifics – PRS-343		✓

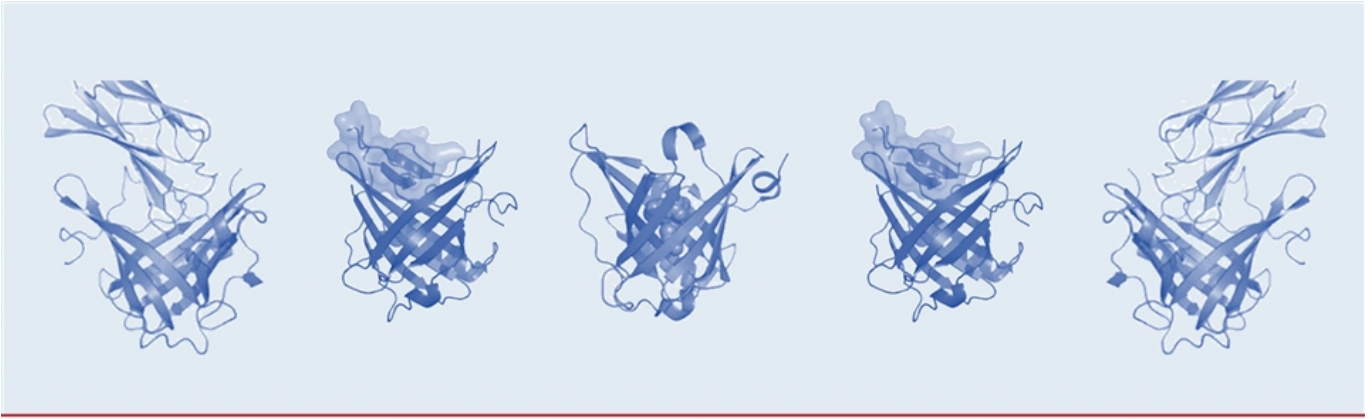
Safety Related

Efficacy Related

# Anticalin® Product Pipeline



	Product	Target(s)	Indication	Partner	Discovery	Preclinical	IND-enabling	P1	P1b/2a
Proprietary Non-IO	PRS-080	Hepcidin	Anemia		Half-life-optimized Anticalin – fastest drug to cPOC				
	PRS-060	IL4Ra	Asthma		Inhalable Anticalin				
IO	PRS-343	4-1BB (CD137) / HER2 bispecific	Immuno-Oncology		mAb-Anticalin				
	PRS-332	PD-1 / X			mAb-Anticalin				
	PRS-342	CD137/GPC3			Ac-Ac (Fc)				
	PRS-300s	n.d.							
	Roche	n.d.							
Non-IO Partnered Programs	Daiichi	PCSK9	Dyslipidemia		Half-life optimized Anticalin (DS-9001)				
	Daiichi	n.d.	n.d.						
	Sanofi	<i>P. aeruginosa</i>	Infectious disease		Tetraspecific Anticalin				
	Zydus	cMet	Oncology						



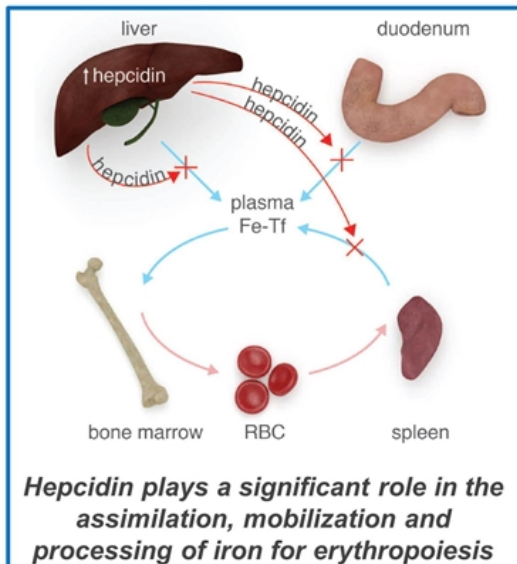
## **Anticalins in Anemia and Asthma**

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# PRS-080: Best-in-Class Hepcidin Antagonist for Anemia of Chronic Disease



## Hepcidin Elevation – a hallmark of anemia of chronic disease



Haematologica 2013 98:11

- First Anticalin projected to achieve clinical Proof of Concept (increased hemoglobin)
- Addressing anemia patients poorly responsive to ESAs and iron therapies
- Excellent Ph I results (ASH 2015)
  - Safe and well tolerated in healthy subjects (36 drug + 12 placebo)
  - Mode of action (iron mobilization) confirmed
    - Statistically significant increase in serum iron mobilization relative to placebo ( $p = 0.005$ )
- First-in-patient trial (ESRD) underway
  - Single Ascending Dose trial completion expected H2 2016 in anemic pts undergoing hemodialysis
  - Multi-dose completion expected mid 2017
    - Hemoglobin (Hb), reticulocyte concentration of Hb as endpoints

Target anemia population in U.S. ~ 90,000 patients

# PRS-060: First-in-Class Inhaled IL4Ra Antagonist For Uncontrolled Asthma

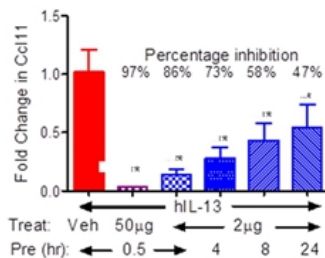


Inhaled Anticalin for local IL4Ra blockade



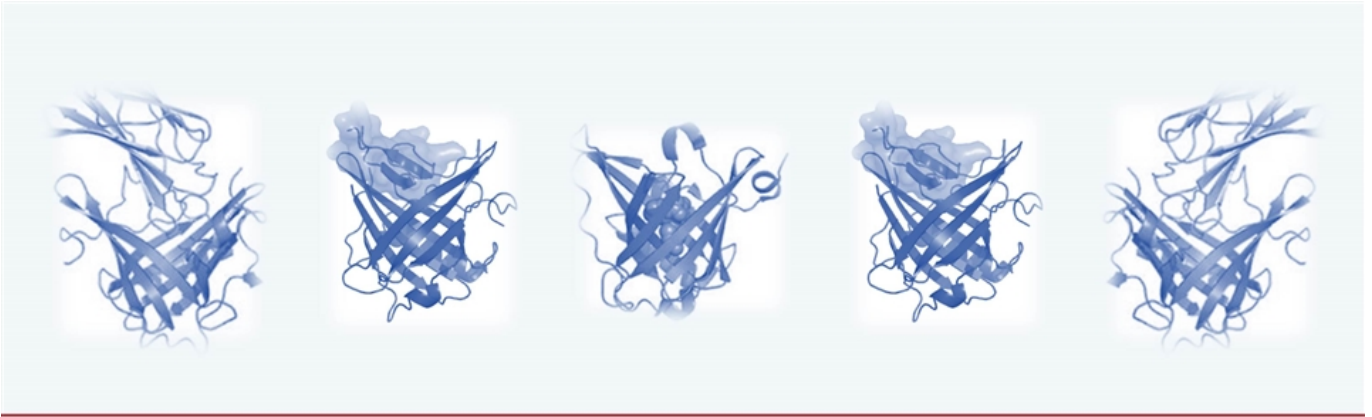
Systemic exposure with s.c. mAbs targeting IL-4Ra

PRS-060 inhibits IL4Ra-mediated inflammation *in vivo*



- First **inhaled biologic** to potentially engage highly validated asthma target (IL4Ra)
  - IL4Ra has emerged as a critical target in inflammation associated with uncontrolled asthma
  - Target engagement on lung tissue via pulmonary delivery is a key differentiator over s.c. mAbs
  - Potential low-dose, low-COGs alternative to mAbs
- In vivo* proof of concept for pulmonary delivery in preclinical disease models achieved
- Formulability for pulmonary delivery achieved
- IND-enabling studies underway
- First-in-man study planned for 1H 2017
- Clear line of sight to clinical POC in biomarker-focused trial

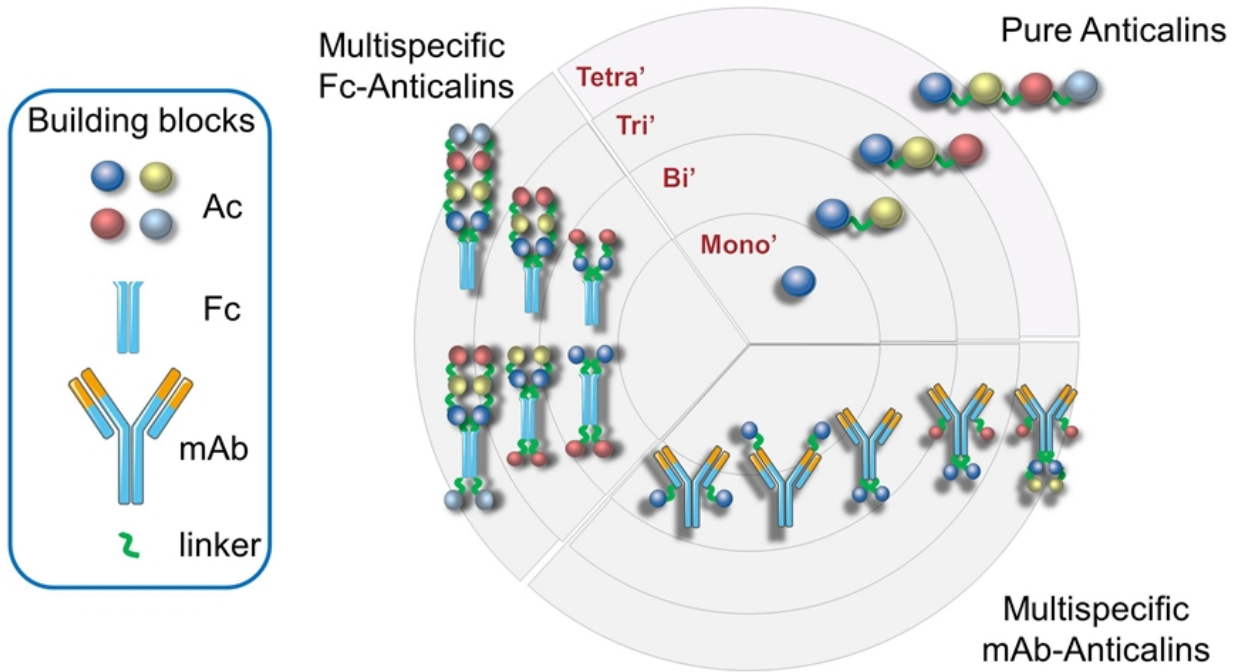
Target asthma population WW ~ 20 Mio patients



# **Anticalins in Immuno-Oncology**

Differentiation Through Unique Multispecific Formats

# Not Just Another Bispecifics Platform... Anticalin-Based Drug Candidates Can Be Tailored to Multiple Formats



Potent Multi-target Engagement | Novel MoA | Excellent Drug-like Properties

# First IO Partnership with Roche Validates Approach



## Scope:

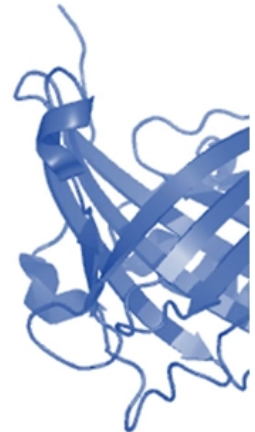
- Independent from PRS-300 Series programs
- One-target but potentially multi-program
- Roche solely responsible from IND-enabling studies

## Economics:

- Pieris receives upfront payment of ~US\$6.5 million
- Roche fully funds collaborative research phase
- Total potential deal could exceed US\$400 million
  - Majority of agreed payments for development milestones
  - Not including royalties, which are up to low double-digit

## Implications:

- Validation of Anticalins by industry leader in cancer biologics
- Ability to sign additional partnerships
- Free cash flow to advance proprietary programs



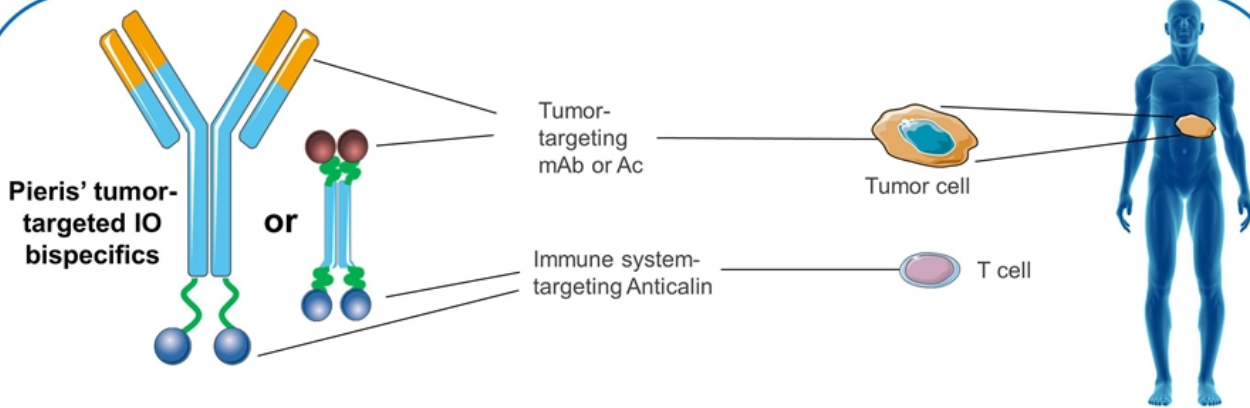


# Lead IO Program (PRS-343) Addresses Biology That's Been Intractable for mAbs



## The Challenges of Agonistic mAb Approaches

- Inconsistent agonistic activity *in vivo* (e.g. urelumab vs. utomilumab)
- Systemically agonizing mAbs have resulted in narrow therapeutic window due to cytokine storm (urelumab, TGN1412)



## Potential Benefits of Pieris' Approach

- Tumor-targeted drug clustering drives localized T cell activation
- Reduced T cell-mediated systemic toxicity
- Increased therapeutic index in patients unresponsive to standard of care

# PRS-343: 4-1BB/HER2 Bispecific Target Rationale for Lead IO Program

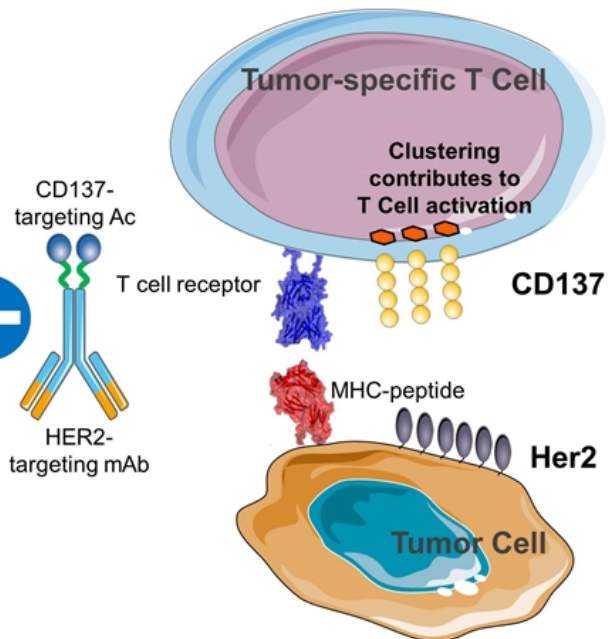


## 4-1BB (CD137) – Key Costimulatory Target

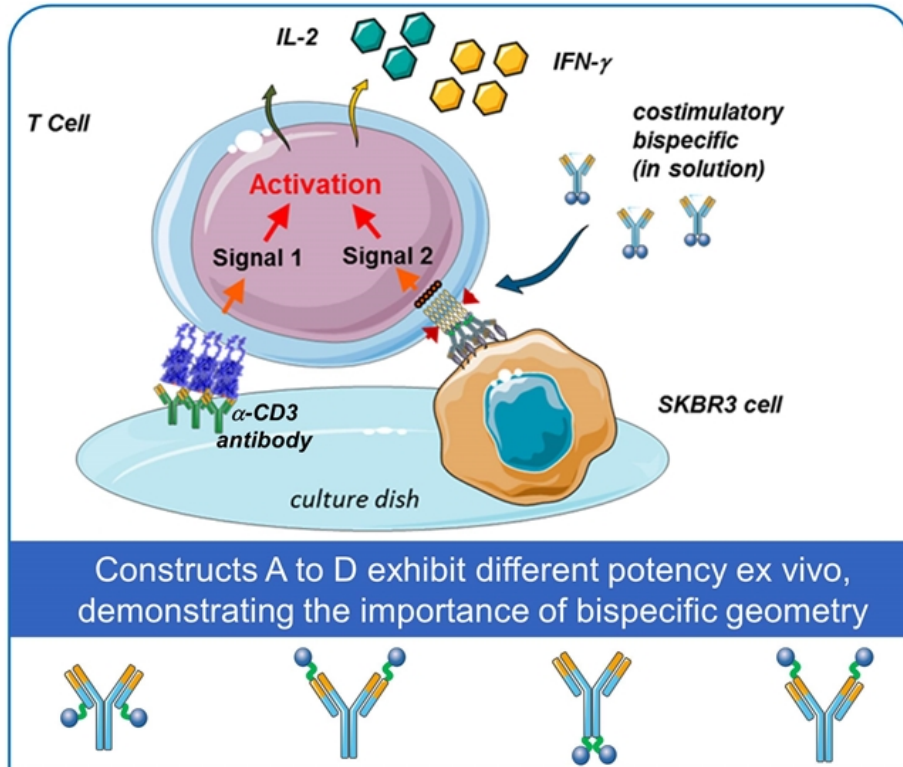
- Preclinically and clinically validated
  - Marker for tumor-reactive T cells
  - Activation leads to tumor elimination in vivo
- Pure mAb approaches are sub-optimal
  - Systemic immune system engagement
  - Doses required for T cell activation have led to severe toxicity

## HER2 – Validated but not fully exploited

- Restricted expression on normal tissue favors immunotherapy approach
- Several HER2+ tumors nonresponsive to approved anti-HER2 therapies
  - Bladder, Gastric, Endometrial, Breast, etc.
  - Several non-responders have CD137+ TILs (T cells in tumor microenvironment)

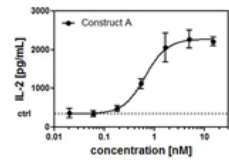


# Bispecific Geometry Impacts Activation of Human T Cells

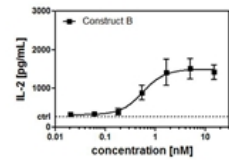


Cell activation = IL-2 response

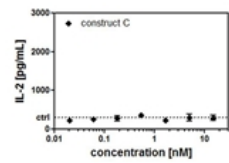
Construct A



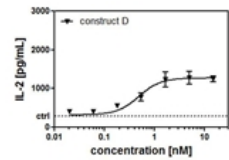
Construct B



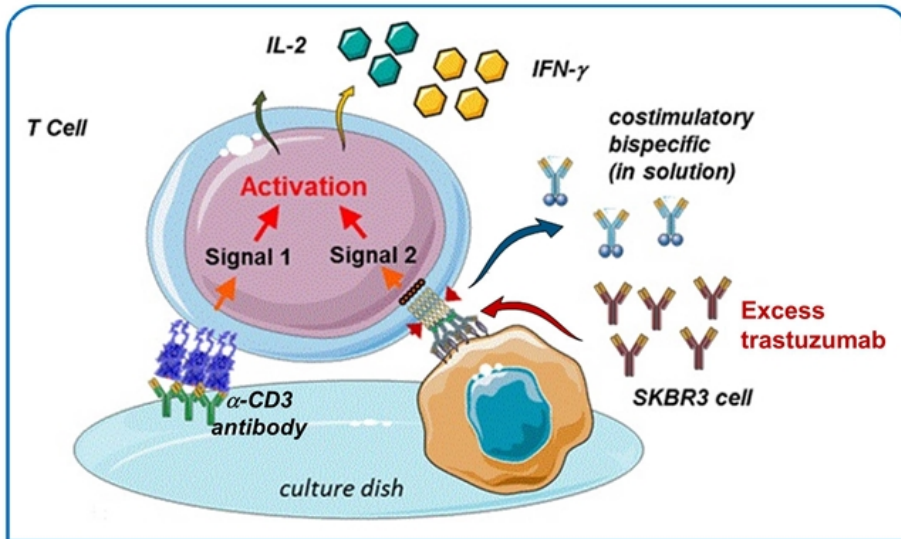
Construct C



Construct D



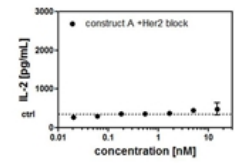
# T Cell Activation is HER2 Target-Dependent



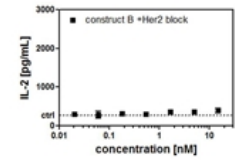
Addition of excess HER2-targeting trastuzumab prevents PRS-343 binding to HER2-positive cells and results in a loss of activity, as intended, confirming mode of action

IL-2 response with Her2 blockade

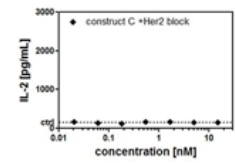
Construct A



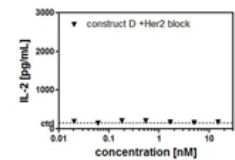
Construct B



Construct C



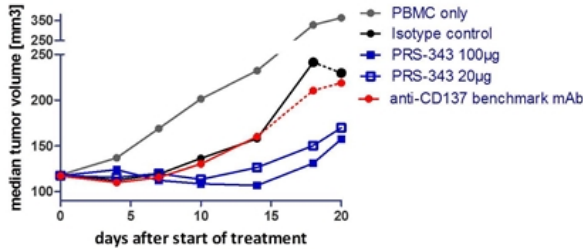
Construct D



# PRS-343 Inhibits Tumor Growth and Expands TILs in Cancer Model



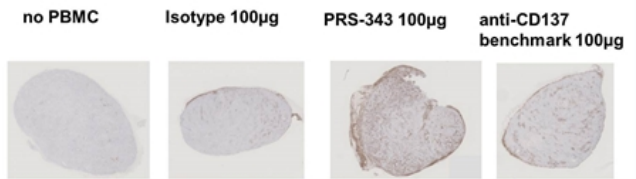
## Tumor growth (Median)



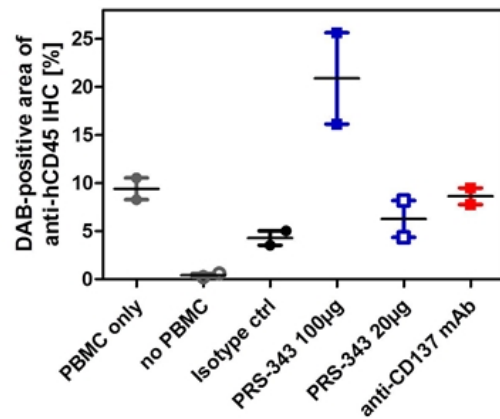
SK-OV-3 tumor model

- PRS-343 shows best response
- PRS-343 leads to strong lymphocyte infiltration in tumors
- Anti-CD137 benchmark mAb inferior
  - insignificant response compared to isotype control
  - no significant tumor infiltration of lymphocytes

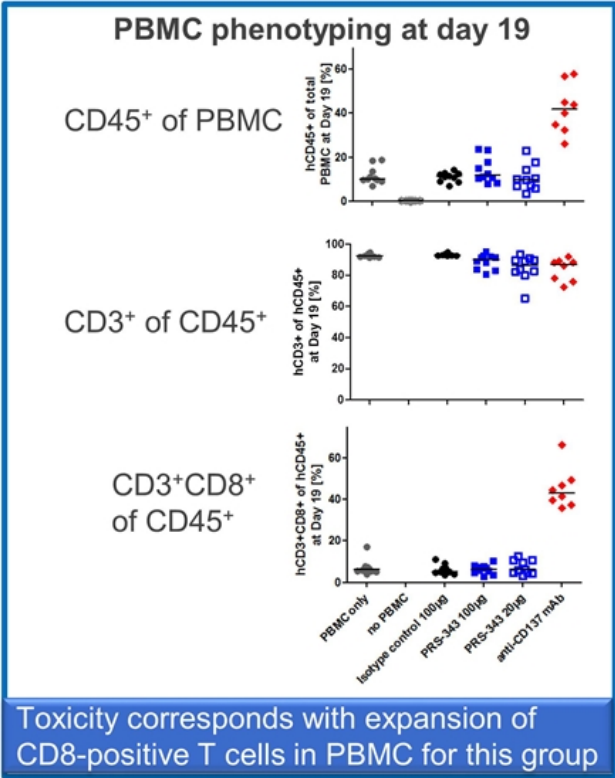
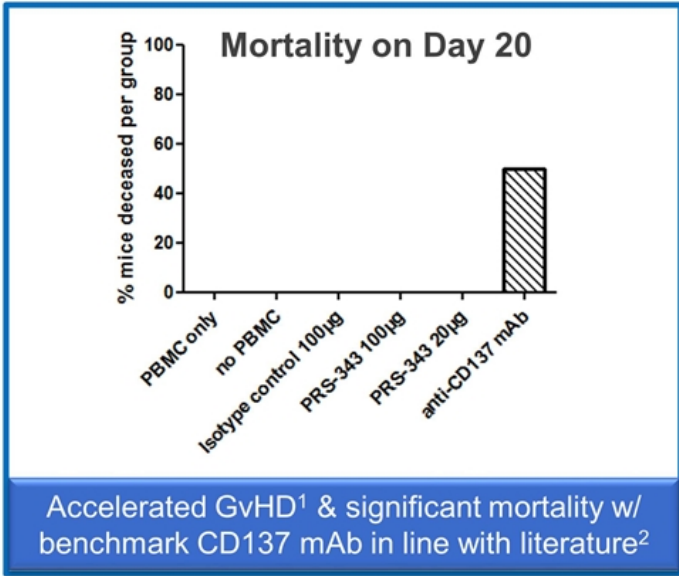
## TIL (hCD45-staining of tumors)



## TIL (digital quantitation of IHC)



# High Mortality Rate With Anti-CD137 mAb, But Not PRS-343, Supports Enhanced Safety of Targeted T Cell Activation



<sup>1</sup> GvHD = graft vs host disease  
<sup>2</sup> Sanmamed et al., Cancer Res. 2015 Sep 1;75(17):3466-78

# PRS-343 Target Indication Rationale & Prioritized Indications



## Targeted Indication Characteristics

### Known Immune Component

- Existing tumor-infiltrating lymphocyte (TIL) repertoire
- Validated role of CD137

### High Medical Need

- Populations where current HER2 therapies don't work

### Clear Registration Path

- Manageable trial size and duration with clear endpoints

### HER2 = Attractive Marker

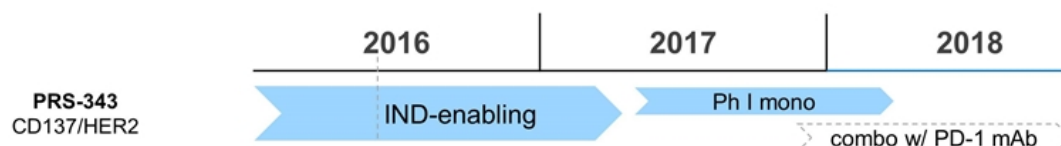
- Enriched in target population; linked to poor prognosis

### Significant Commercial Potential

- Sizeable target population

Muscle-invasive Bladder Cancer	Advanced Gastric Cancer	Resistant Metastatic HER2+Breast Cancer
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓

# PRS-343 Phase 1 Initiation Planned for 1H17



- **Lead drug candidate progressing through IND enabling studies**

- Demonstrated ability to activate human T cells consistent with desired mode of action
  - Potent, tumor-dependent activation
  - Differentiation over anti-CD137 mAbs
- Desired drug-like properties
  - CMC / manufacturing: robust titers and long-term stability
  - Low risk of immunogenicity observed *ex vivo*
  - Antibody-like half-life in mouse and cynomolgus monkey

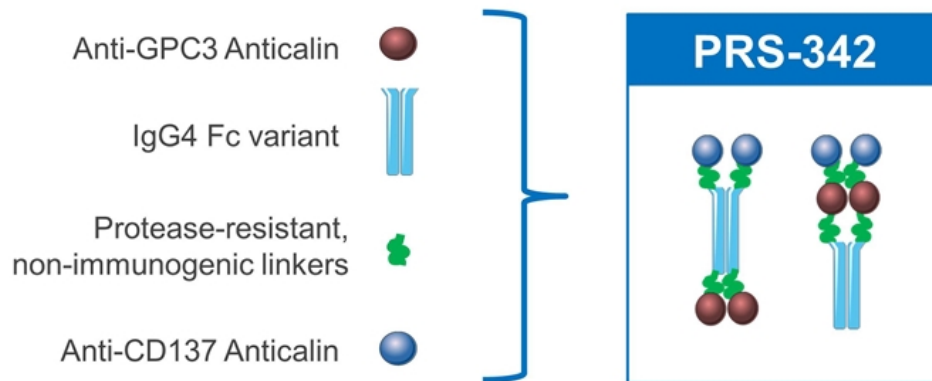
- **First-in-Patient Clinical Trial planned for 1H17**

- HER2+ solid tumor patients unresponsive to SOC



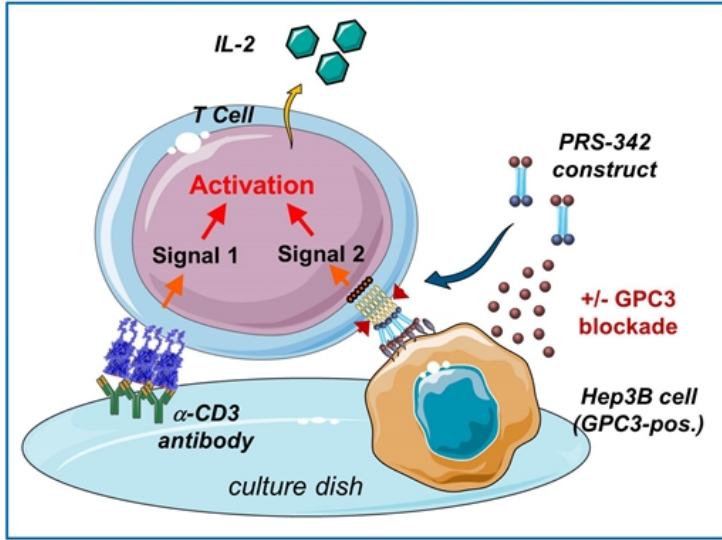


# PRS-342: 4-1BB/GPC3 Bispecific Repeating the Targeted Co-stim Paradigm

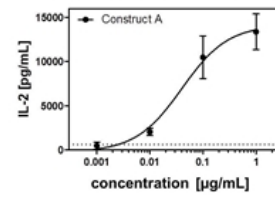


- **GPC3 Expression is pronounced in multiple cancers that are known to have CD137+ TILs**
  - **Hepatocellular Carcinoma (HCC):** Overexpressed in 60-80% of lesions with no expression in healthy liver tissue; correlated with poor prognosis
  - **Merkel Cell Carcinoma:** Overexpressed in 80% of tumors
  - **Melanoma:** Overexpressed in 40-80% of melanoma lesions

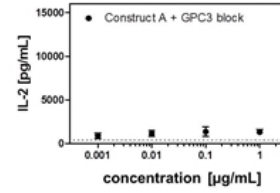
# PRS-342: 4-1BB/GPC3 Bispecific Tumor-Dependent T Cell Activation



IL-2 response to PRS-342 Without GPC3 blockade

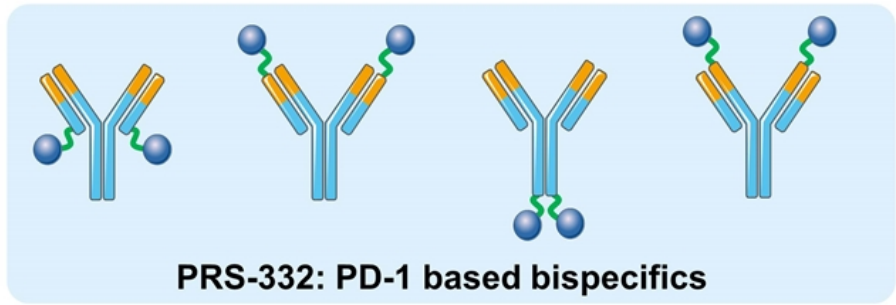
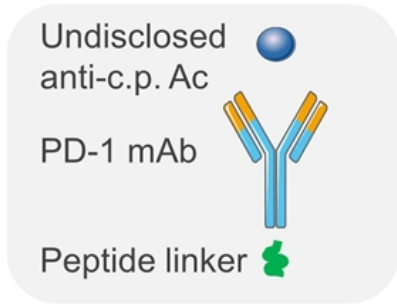


IL-2 response to PRS-342 with GPC3 blockade

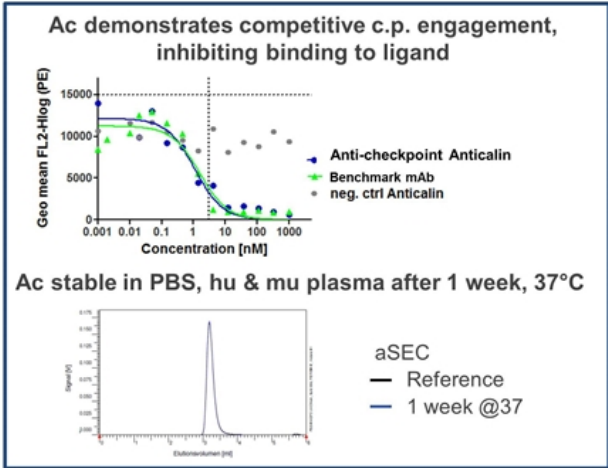


Expands therapeutic applications of key IO targets  
Wholly owned, internally generated

# Lead Dual Checkpoint Antagonist (PRS-332): Aims to Enhance Clinical Activity of PD-1



- Fully proprietary Anticalins
- Novel in-licensed PD-1 mAb sequences
- Several bispecifics with novel profiles under preclinical evaluation
- **Objective of nominating PD-1 based bispecific development candidate in 2H16**



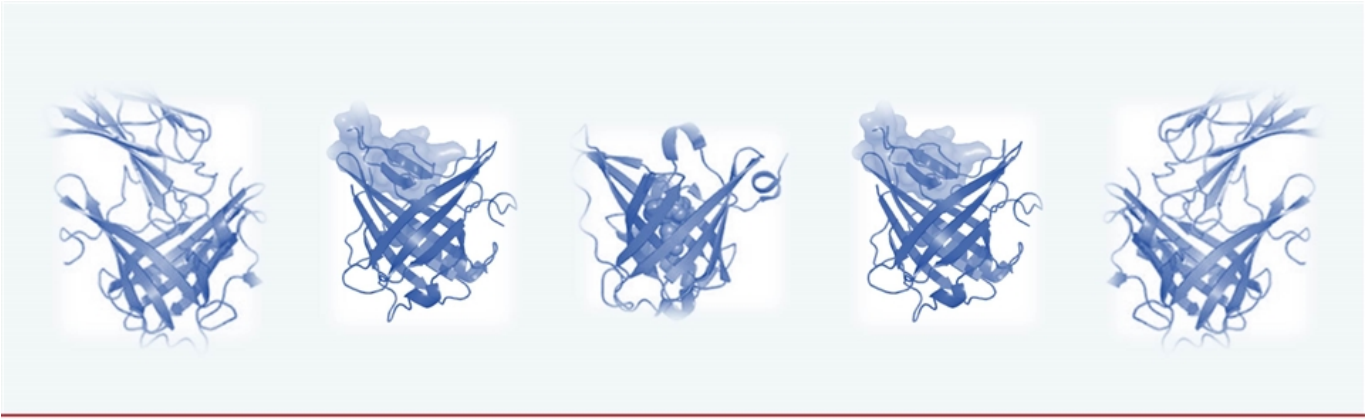
# Strategy For Clinical Development of Innovative IO Approaches



- Engage immune costimulatory targets (e.g. 4-1BB) in highly novel, targeted manner with unique multispecifics
  - Establish superior therapeutic window over mAbs
  - Aim to safely improve on monotherapy activity
  - Explore checkpoint inhibitor combinations for maximum synergy, including PD-1
- Create novel IO therapies built on key backbone components such as PD-1: next-generation multi-checkpoint antagonists
  - Demonstrate superiority to existing PD-1 mAbs by leveraging flexibility of Anticalins
  - Fully proprietary PD-1 position; internally generated
- Demonstrate synergy between targeted costimulatory engagement and multi-checkpoint blockade within own pipeline
  - 4-1BB (CD137) activation combined with PD-1 blockade results in greater tumor growth inhibition than either monotherapy in preclinical studies<sup>1</sup>

Next-Generation IO Therapies:  
Novel multispecifics, novel combinations, wholly owned

<sup>1</sup> Shindo, Y et al., Anticancer Res. 2015 Jan;35(1):129-36



## **Financials – Accomplishments – Goals**

# Financial Highlights



## *As of March 31, 2016*

Cash & Cash Equivalents	\$31.2M <sup>1</sup>
Total Debt	\$0.0M
Revenue Since Inception	\$52.9M
Grant Revenue Since Inception	\$14.1M
12 Months 2015 Cash Burn (includes \$1.2M in debt repayment)	\$14.4M
Common Shares Outstanding	39,833,023
Options Outstanding (as of 3-31-16)	3,761,210 (at W/A strike price of \$1.91)
June 8, 2016 Closed \$16.5M PIPE Financing	8,188,804 units <sup>2</sup>

<sup>1</sup> excludes \$16.5M gross proceeds from June 8 PIPE financing

<sup>2</sup> each unit includes 0.40 warrants with \$2/share strike price and 0.20 warrants with \$3/share strike price

## 2015 Accomplishments and 2016 Goals



- 2015 Accomplishments
  - ✓ Positive clinical data for second Anticalin (PRS-080)
  - ✓ IND-enabling activities initiated for PRS-343 (IO) & PRS-060 (asthma)
  - ✓ Several partnering milestone payments including Ph I initiation (Daiichi)
  - ✓ First IO collaboration (Roche)
- 2016 Goals
  - ✓ *In vivo* POC for CD137 bispecific immune costimulatory (PRS-343)
  - ✓ Obtain independent PD-1 position
    - Initiate IND-enabling studies for PD-1/X bispecific (PRS-332)
    - Completion of first-in-patient study for PRS-080 (anemia)
    - Progressing PRS-060 (asthma) and PRS-343 (IO) through IND-enabling studies, initiating first-in-man trials in 1H17
    - Report Ph I data for Daiichi lead Anticalin program (DS-9001)
    - Additional partnership(s)



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