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): November 4, 2015

PIERIS PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Nevada (State of Incorporation) 333-190728 (Commission File Number) EIN 30-0784346 (IRS Employer Identification No.)

Lise-Meitner-Strasse 30 85354 Freising-Weihenstephan, Germany (Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: +49 81 6114 11400

	
Chec	the 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))

Item 7.01 Regulation FD Disclosure.

Attached hereto as Exhibits 99.1 and 99.2 and incorporated by reference herein are industry conference presentations 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. at BIO-Europe 2015, dated November 4, 2015.
- 99.2 Industry Conference Presentation of Pieris Pharmaceuticals, Inc. at PEGs Europe Protein & Antibody Engineering Summit, dated November 4, 2015.

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: November 4, 2015

PIERIS PHARMACEUTICALS, INC.

By: /s/ Darlene Deptula-Hicks
Name: Darlene Deptula-Hicks
Title: Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Industry Conference Presentation of Pieris Pharmaceuticals, Inc. at BIO-Europe 2015, dated November 4, 2015.
99.2	Industry Conference Presentation of Pieris Pharmaceuticals, Inc. at PEGs Europe Protein & Antibody Engineering Summit, dated November 4, 2015.



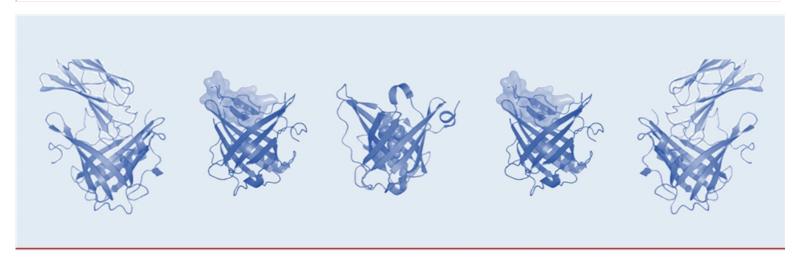
PRS-300 Series – Multispecific Anticalin® Fusions in Immuno-Oncology

BioEurope – Munich November 04, 2015

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 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; competition in our industry; regulatory developments in the U.S. and foreign countries; as well as those risks more fully discussed in the "Risk Factors" section of our Current Report on Form 8-K filed with the SEC on December 18, 2014, the Company's annual report on Form 10-K for the fiscal year ended December 31, 2014, the Company's quarterly reports on Form 10-Q, and the other reports we file with the SEC. 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.



Company & Anticalin® Technology

Pieris Pharmaceuticals, Inc.





Proprietary Next-generation Therapeutic Proteins With Several Degrees of Validation

Human data demonstrating desired drug-like properties

- 26 solid tumor patients with VEGF-A antagonist
- 36 healthy volunteers with hepcidin antagonist

Several R&D partnerships generating \$40+ M in revenue

- Potential for future milestone and royalties
- Retained commercial rights in major markets













- OrbiMed Advisors (~19%), Tekla Capital Management (~10%), Lombard Odier (~6.5%); Ally Bridge Group, Auriga, Emerald Mutual Fund, Forbion, Gilde, GLSV, Novo Nordisk, Sphera Funds, Zydus
- \$110M equity capital raised



Human Lipocalins – Scaffold for Novel Anticalin® Therapeutics



Human lipocalin "template"



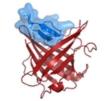
- Human, natural binding proteins
- Low molecular weight (~1/8 of mAb size)
- Extracellular
- Non-immunogenic
- Very stable "cuplike" structure

- Highly diverse libraries (>10¹¹) of potential drug candidates
- Highly automated selection and screening technology (phage display)
- Deep protein engineering know-how to yield ideal drug candidates

High-affinity (pM) Anticalin bound to



Small target



Medium target



Large target

Going Beyond Anticalin Proteins – Multispecific Drug Candidate Formats



Pure Anticalin formats	Anticalin	Duocalin	Tricalin	Tetracalin	→
mAb-Anticalin formats					→
Fc-Anticalin formats					→

- Molecules designed for optimal target engagement and drug like properties
- Binding site geometry can be adjusted to biological need

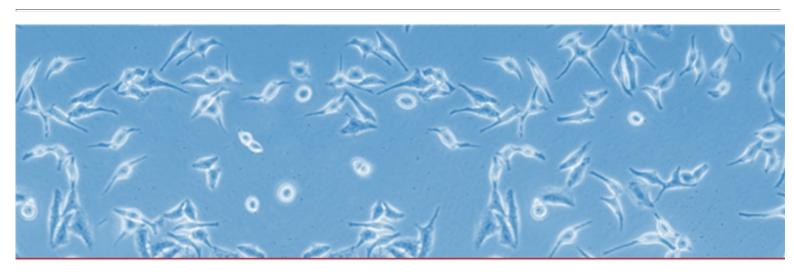
Anticalin® Product Pipeline



	Product	Target(s)	Indication	Partner	Discovery	Preclinical	Phase 1	Phase 2
	PRS-080	Hepcidin	Anemia	-pieris-	pegy	ylated Anticalin		
Fully	PRS-060	IL4Ra	Asthma	-pieris-	inhalable Ar	nticalin		
Owned	PRS-343	CD137/HER2	Immuno-	-pieris-	mAb-Anticalin	fusion		
	PRS-300s	n.d.	Oncology	-pieris-	bi-/multispecific	cs		
	PRS-110	cMet	Oncology	Zydus				
Co-	PRS-NN	n.d.	n.d.	Zydus				r funded*
Develop- ment	PRS-NN	n.d.	Ophthal-	Stelis			Major rig	hts retained
	PRS-NN	n.d.	mology	Stelis				
	Daiichi	n.d.	n.d.	Datichi-Saniye				
Fully Partnered	Sankyo	n.d.	n.d.	Dailchi-Saniye				er funded s & Royalties
urmorea	Sanofi	n.d.	n.d.	SANOFI				

^{*} Until end of Phase 1

n.d. = not disclosed

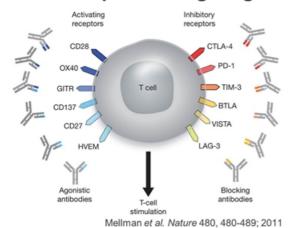


PRS-300 Series: Multispecifics for Immuno-Oncology

Pieris' Immuno-Oncology Approach – Localized Immune Activation



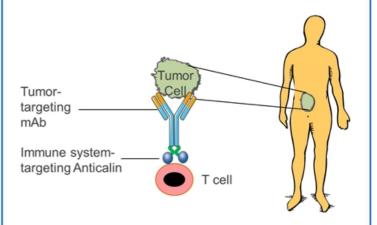
Monospecific Targeting



Challenges

- Systemic mAbs often show narrow therapeutic window
- mAbs are poor agonists for certain activating receptors and depend on Fc receptor clustering

Pieris' bispecific approach



Potential benefits

- Enhanced tolerability with reduced "off-tumor" effects
- Tumor-mediated clustering drives signaling by activating receptors
- Increased efficacy in patients unresponsive to tumor-targeted therapies

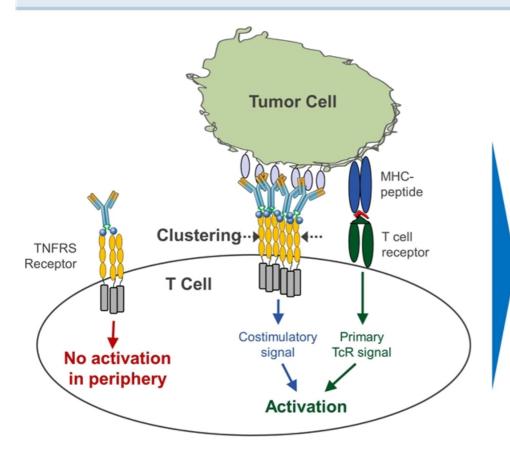
Pieris is pursuing both activating and inhibitory IO targets

PRS-300 Series in Immuno-Oncology - BIO EUROPE 2015

9

Costimulatory T cell Engagement in Tumor Microenvironment





Targeted Mode of Action

- Clustering of bispecific molecules in tumor microenvironment to drive costimulatory T cell engagement
- Maintaining T cell receptor-mediated tumor antigen specificity on activated T cells

PRS-300 Series in Immuno-Oncology - BIO EUROPE 2015

10

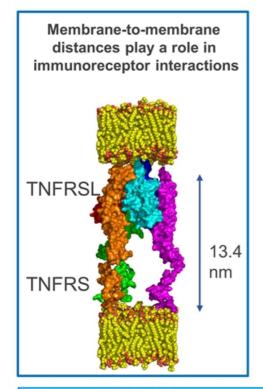
PRS-300 Series Differentiates from Current IO Approaches

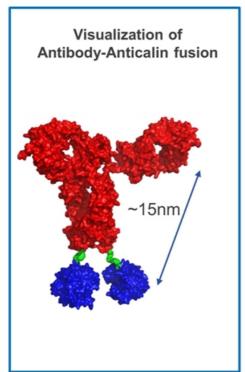


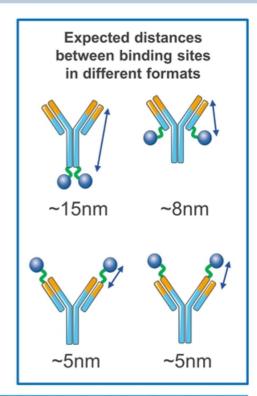
Approach	Tumor- targeted activation	TcR- mediated specificity	Toxicity	Delivery
PRS-300	Yes	Yes	Expected low	Injection
Agonistic mAbs	No	Yes	Low to significant	Injection
BiTE	Yes	No	Observed	Slow infusion
CAR-T	Yes	No	Observed	Individualized adoptive therapy

Bispecific Geometry May Create Different Pharmacodynamic Effects





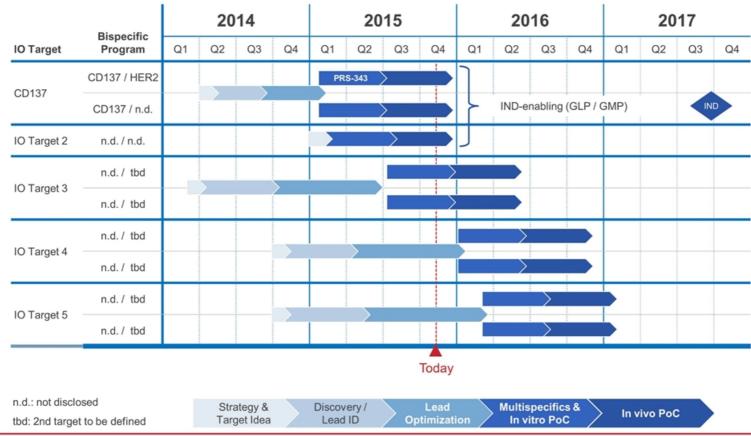




- Straightforward access to a range of distances between target binding sites
- Several formats to interrogate optimal target synapse for tumor cell killing

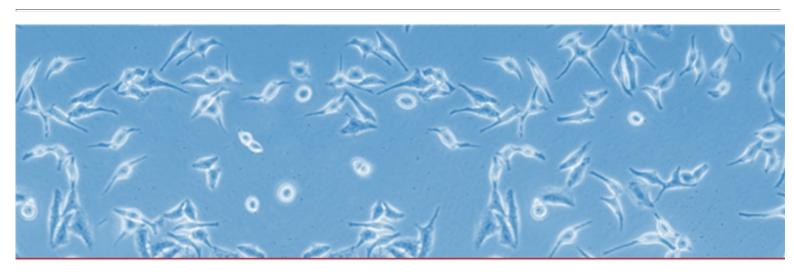
Pieris IO Pipeline Progressing Multiple Shots on Goal





PRS-300 Series in Immuno-Oncology - BIO EUROPE 2015

13



PRS-343: First-in-class HER2-CD137 Bispecific

PRS-343: HER2-CD137 Bispecific

Multiple Formats Under Preclinical Evaluation



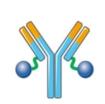
CD137 - a TNFR Costimulatory Target

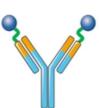
- Preclinically and clinically validated
 - Marker for tumor-reactive T cells
 - Activation leads to tumor elimination in vivo
 - Signaling included in clinical CAR-T cells
- mAbs struggle to find therapeutic window
 - Activity depends on Fc receptor interaction
 - Doses required for T cell activation have led to toxicity
 - Current approaches focus on NK activation

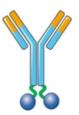
HER 2 - Validated but not fully exploited

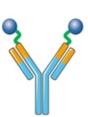
- Upregulated on several solid tumors with significant unmet medical need
 - Bladder, gastric, ovarian, breast cancer
 - Restricted expression on normal tissue favors immunotherapy approach
 - Bispecific immunotherapy approach may expand responding population
 - HER2+ tumors with lower expression levels not adequately addressed with current therapy

PRS-343











CD137targeting Anticalin



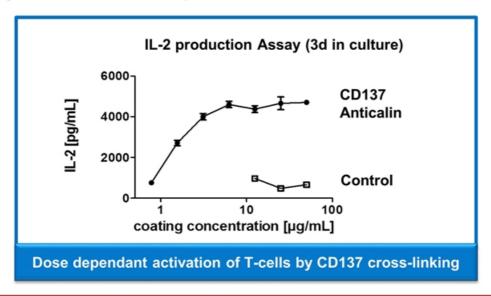
HER2targeting mAb (Trastuzumab derived)

CD137-Targeting Anticalin® Has Demonstrated Agonistic Properties



Lead CD137-targeting Anticalin identified (several backups available)

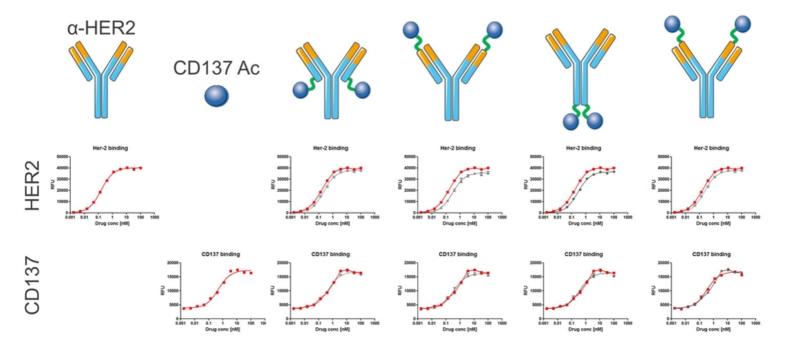
- Affinity: KDhCD137 = 2nM
- "Non-competitive" CD137 engagement preserves ligand-binding capability to CD137L
- Leads to T-cell activation in ex vivo human donor cell assay
- Good biophysical properties: 100% monomeric, high melting temperature (74°C), fully stable at 37°C in PBS or plasma



PRS-300 Series in Immuno-Oncology - BIO EUROPE 2015

HER2-CD137 Bispecific Formats Retain Target Binding Capacity

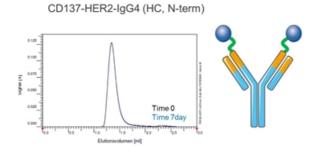


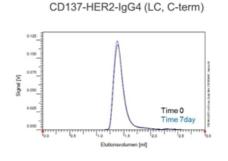


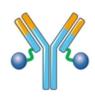
- Bispecific formats behave similarly to CD137 and HER2 building blocks
- Simultaneous target engagement confirmed for bispecific formats

HER2-CD137 Bispecific Formats Exhibit Favorable Biophysical Properties

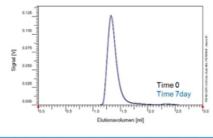


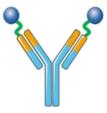




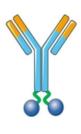








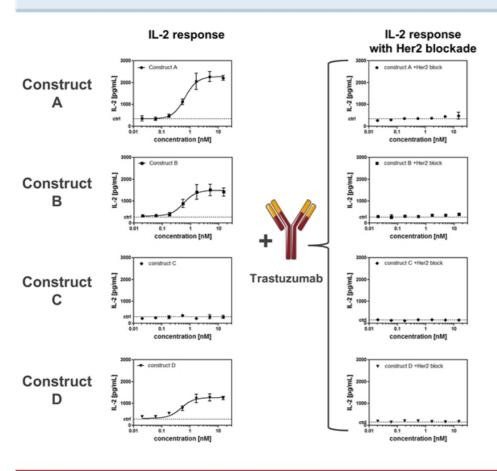
CD137-HER2-IgG4 (HC, C-term)

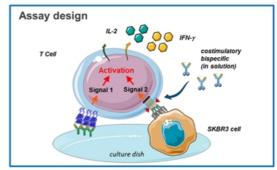


- Constructs stable after one week in PBS at 37°C no change in SEC profile observed
- Stability in human plasma also confirmed using a dual binding ELISA

PoC: T Cell Activation by HER2-CD137 Bispecifics is HER2 Target-Dependent







Geometry impacts activity of HER2-CD137 Bispecifics

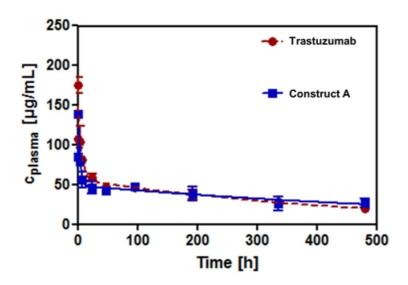
Three constructs are capable of activating T cells

Activity is HER2 targetdependent

 Addition of excess Trastuzumab prevents bispecific binding to HER2-positive cells and results in a loss of activity

Pharmacokinetics of HER2-CD137 Bispecifics in Mice Comparable to Trastuzumab



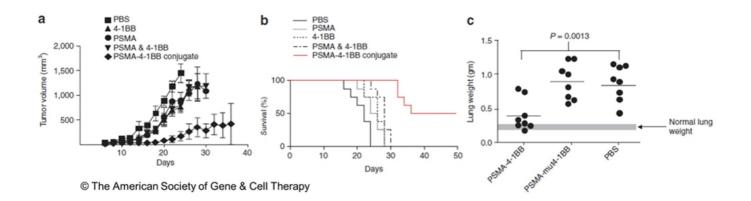


- 10mg/kg of bispecifics or Trastuzumab were injected i.v. in male CD-1 mice (3 mice per timepoint)
- Terminal half-lives of bispecifics range from 15-21 days compared to 13 days for Trastuzumab
- > Beneficial half-life of parental antibody is preserved for all bispecifics or even exceeded

Preclinical Validation of Tumor-Localized Activation of CD137 (4-1BB)



Tumor Targeted Costimulation With Bi-specific aptamers



- Tumor-targeting CD137 bispecific aptamer leads to tumor growth inhibition and survival advantage in vivo compared to combination therapy
- Supports Pieris' bispecifics Mode of Action:
 - Tumor-specific activation of CD137 positive T cells

Pastor et al, Molecular Therapy: 2011, 10: 1878-1886

PRS-343 - Status & Path Forward



PRS-343: HER2-CD137 Bispecifics

- Exhibit excellent binding and drug-like properties with long half lives in mice
- Induce strong T cell activation via tumor target-dependent costimulatory T cell engagement
- Are expected to drive potent local activation of tumor-specific T cells with low systemic toxicity

PRS-343: Path to Clinic

- Cell line development initiated
- Drug candidate nomination planned for YE 2015
 - > Further ex vivo profiling:
 - Impact of clustering / receptor density on T cell / NK cell activation
 - Killing of target positive tumor cells
 - Testing of different target-positive tumor cells, different T cell subtypes, etc.
 - In vivo evaluation
 - Various animal models including patient derived xenograft (PDX) models
- Initiate IND enabling studies in 2016
- Aim to perform clinical trial in HER2 positive cancer in 2017

PRS-300 Series in Immuno-Oncology - BIO EUROPE 2015

22

Summary of Pieris' Immuno-Oncology Efforts



Multispecifics to address non-responding patients and broaden therapeutic window

- Trafficking immunomodulation to tumor microenvironment
- Ability to test for optimal synapse through varied geometry

Various formats

- mAb-Anticalin fusions (e.g., PRS-343)
- Anticalin-Anticalin fusions (undisclosed)

Multiple targets

- Prioritization of costimulatory targets
- Multiple checkpoint inhibitors also being investigated
- Each immunomodulatory target combinable with different tumor targets
- External collaborations complementing internal expertise and resources to advance drug candidates

PRS-300 Series in Immuno-Oncology - BIO EUROPE 2015





Pieris Pharmaceuticals, Inc.

255 State Street Boston, MA 02109 USA info@pieris.com



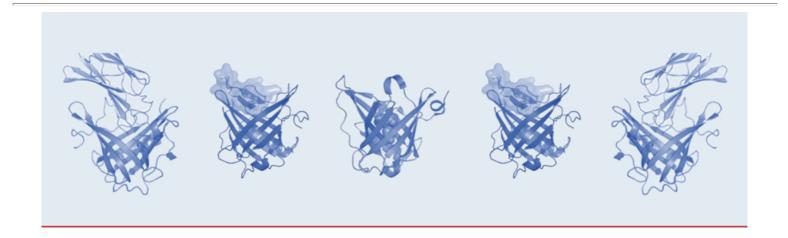
Bispecific Anticalin Fusion Proteins for Localized Targeting of Immune Cells for Application in Immuno-Oncology

Christine Rothe, Ph.D. PEGS Europe Summit, Nov 4, 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 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; competition in our industry; regulatory developments in the U.S. and foreign countries; as well as those risks more fully discussed in the "Risk Factors" section of our Current Report on Form 8-K filed with the SEC on December 18, 2014, the Company's annual report on Form 10-K for the fiscal year ended December 31, 2014, the Company's quarterly reports on Form 10-Q, and the other reports we file with the SEC. 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.



Company and Technology Overview

Pieris Pharmaceuticals, Inc.



 Anticalins are a novel class of protein therapeutics, proprietary to Pieris, with several degrees of validation



- Human data demonstrating desired drug-like properties
 - 26 solid tumor patients with VEGF-A antagonist
 - 36 healthy volunteers with hepcidin antagonist



 Proven track record for successful collaborations with Pharma











Human Lipocalins – Scaffold for Novel Anticalin® Therapeutics



Human lipocalin "template"



- Human, natural binding proteins
- Low molecular weight (~1/8 of mAb size)
- Extracellular
- Non-immunogenic
- Very stable "cuplike" structure

- Highly diverse phage display libraries (>10¹¹) of potential drug candidates
- Automated selection and screening technology
- Deep protein engineering know-how to yield ideal drug candidates

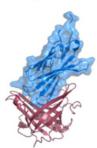
High-affinity (pM) Anticalin bound to



Small target



Medium target



Large target

Going Beyond Anticalin Proteins – Multispecific Drug Candidate Formats



Pure Anticalin formats	Anticalin	Duocalin	Tricalin	Tetracalin	→
mAb-Anticalin formats					→
Fc-Anticalin formats					→

- Molecules designed for optimal target engagement and drug-like properties
- Binding site geometry can be adjusted to biological need

Anticalin® Product Pipeline



	Product	Target(s)	Indication	Partner	Discovery	Preclinical	Phase 1	Phase 2
	PRS-080	Hepcidin	Anemia	-pieris-	peg	ylated Anticalin		
Fully	PRS-060	IL4Ra	Asthma	-pieris-	inhalable Ar	nticalin		
Owned	PRS-343	CD137/HER2	Ю	-pieris-	mAb-Anticalin	fusion		
	PRS-300s	n.d.	Ю	-pieris-	bi-/multispecific	s		
	PRS-110	cMet	Oncology	Zydus				
Co-	PRS-NN	n.d.	n.d.	Zydus				r funded*
Develop- ment	PRS-NN	n.d.	Ophthal-	Stelis			Major rights	hts retained
	PRS-NN	n.d.	mology	Stelis				
2 ::	Daiichi	n.d.	n.d.	Datic No-Sandyer				
Fully Partnered	Sankyo	n.d.	n.d.	Dalichi-Sankyo				er funded s & Royalties
artificion	Sanofi	n.d.	n.d.	SANOFI				,

* Until end of Phase 1

n.d. = not disclosed

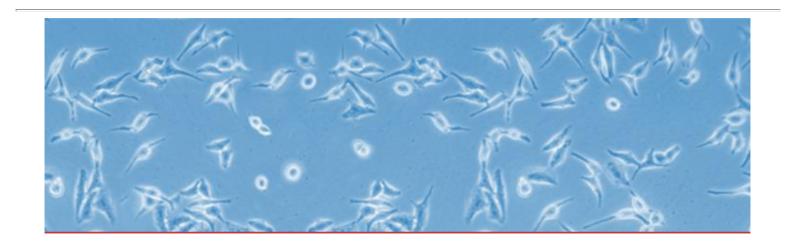
Anticalin® Product Pipeline



	Product	Target(s)	Indication	Partner	Discovery	Preclinical	Phase 1	Phase 2
	PRS-080	Hepcidin	Anemia	-pieris-	peg	ylated Anticalin		
Fully	PRS-060	IL4Ra	Asthma	-pieris-	inhalable Ar	nticalin		
Owned	PRS-343	CD137/HER2	Ю	-pieris-	mAb-Anticalin	fusion		
	PRS-300s	n.d.	Ю	-pieris-	bi-/multispecific	s		
	PRS-110	cMet	Oncology	Zydus				
Co-	PRS-NN	n.d.	n.d.	Zydus				er funded*
Develop- ment	PRS-NN	n.d.	Ophthal-	Stelis			Major rig	hts retained
	PRS-NN	n.d.	mology	Stelis				
	Daiichi	n.d.	n.d.	Dailch-Saniyo				
Fully Partnered	Sankyo	n.d.	n.d.	Dalichi-Sanlyo				er funded s & Royalties
Tarmorea	Sanofi	n.d.	n.d.	SANOFI				,

* Until end of Phase 1

n.d. = not disclosed

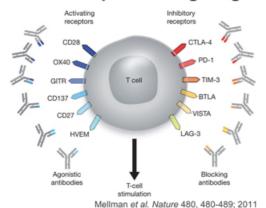


PRS-300 Series: Multispecifics for Immuno-Oncology

Pieris' Immuno-Oncology Approach – Localized Immune Activation



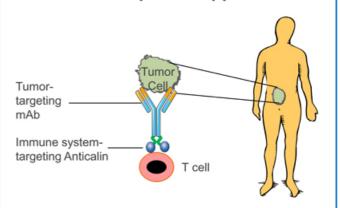
Monospecific Targeting



Challenges

- Systemic mAbs often show narrow therapeutic window
- mAbs are poor agonists for certain activating receptors and depend on Fc receptor clustering

Pieris' Bispecific Approach



Potential benefits

- Enhanced tolerability with reduced "off-tumor" effects
- Tumor-mediated clustering drives signaling by activating receptors
- Increased efficacy in patients unresponsive to tumor-targeted therapies

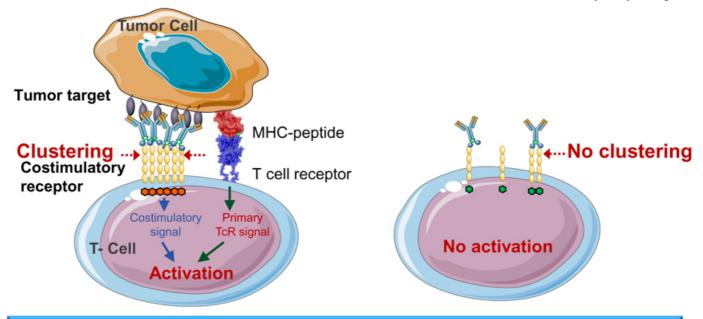
Pieris is pursuing both activating and inhibitory IO targets

Costimulatory T cell Engagement in Tumor Microenvironment



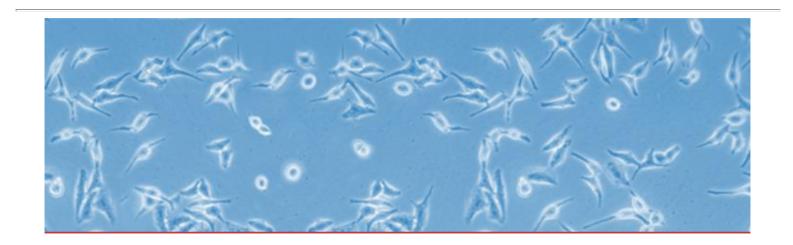
T cell costimulation in tumor

No T cell costimulation in periphery



Targeted Mode of Action

- Clustering of bispecific molecules in tumor microenvironment drives costimulatory
 T cell engagement
- Maintaining T cell receptor-mediated tumor antigen specificity on activated T cells



PRS-343

HER2-CD137 Bispecific Anticalin Fusion Proteins

PRS-343: HER2-CD137 Bispecifics

Multiple Formats Under Preclinical Evaluation



CD137 – a TNFR Costimulatory Target

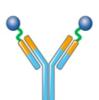
- Preclinically and clinically validated
 - Marker for tumor-reactive T cells
 - Activation leads to tumor elimination in vivo
 - Signaling included in clinical CAR-T cells
- mAbs struggle to find therapeutic window
 - Activity depends on Fc receptor interaction
 - Doses required for T cell activation have led to toxicity

HER 2 – Validated but not fully exploited

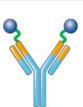
- Upregulated on several solid tumors with significant unmet medical need
 - Bladder, gastric, ovarian, breast cancer
 - Restricted expression on normal tissue favors immunotherapy approach
- Bispecific immunotherapy approach may expand responding population
 - HER2+ tumors with lower expression levels not adequately addressed with current therapy

PRS-343













HER2targeting mAb (trastuzumab derived)

CD137 Targeting Lead Anticalin® Has Demonstrated Agonistic Properties



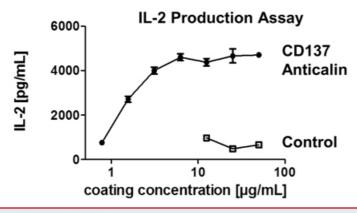
Binding to CD137

- Affinity: KD_{hCD137} = 2nM
- "Non-competitive" CD137 engagement preserves ligand-binding capability to CD137L

Biophysical properties

- 100% monomeric expression
- TM = 74°C (DSC)
- Fully stable after 1 week at 37°C in PBS, hu or mu plasma

In vitro functional testing

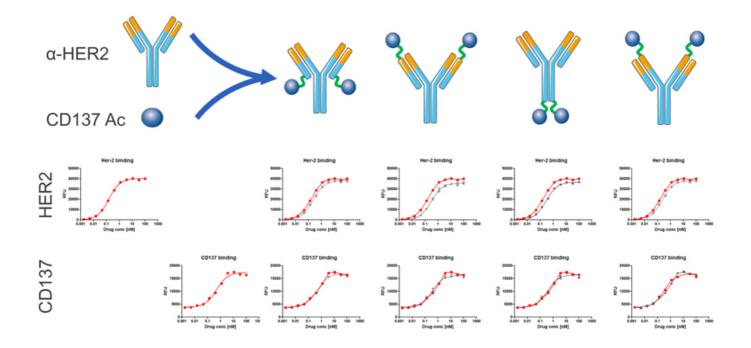


Dose dependent T-cell activation in ex vivo human donor cell assay by CD137 clustering

 CD137-specific Anticalin coated together with subthreshold concentration of aCD3 antibody on ELISA plate

HER2-CD137 Bispecific Formats Retain Target Binding Capacity



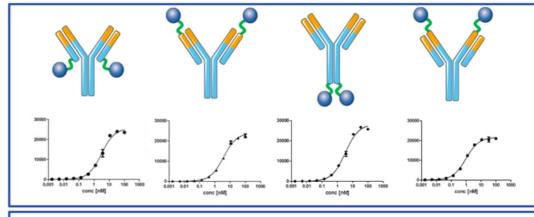


Bispecific formats show similar binding to CD137 and HER2 as building blocks

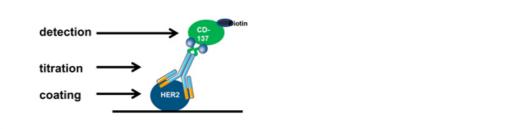
HER2-CD137 Bispecific Formats Bind Both Targets at the Same Time



Dual binding ELISA data



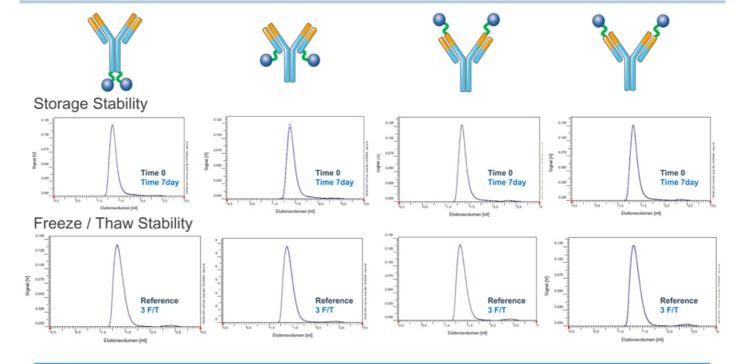
Dual binding assay format



Simultaneous target engagement confirmed for all bispecific formats

PRS-343 Bispecifics Exhibit Favorable Biophysical Properties

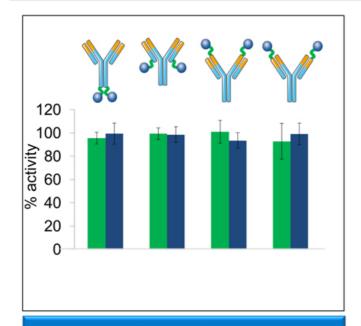




- Constructs are stable after freeze / thaw cycles and one-week storage in PBS at 37°C
- No change in SEC profile and full recovery of activity in qELISA

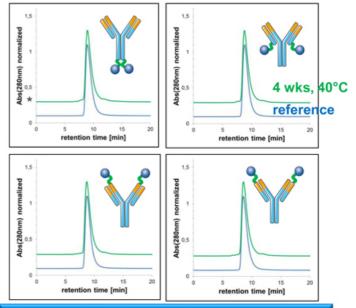
Plasma and Storage Stability Confirmed -pieris-







 Fully active after 1 week in human (green) and mouse plasma (blue) at 37°C (0.5mg/ml; dual binding qELISA)



Storage stability confirmed

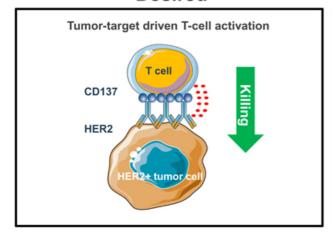
 Fully stable and active after 4 weeks at 40°C in PBS (20mg/mL, aSEC and dual binding qELISA); *blotted with an off-set on the y-axis for better visualization

Non-Confidential .__18

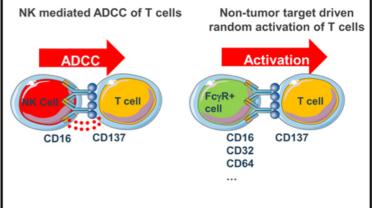
HER2-CD137 Bispecifics Mode of Action – Relevance of Fc-γ Receptor Interaction



Desired



Detrimental



- Desired mode of action is HER2-dependent CD137 clustering and activation on T cells
- Trastuzumab lgG1 backbone could induce undesired side effects of ADCC directed against T cells and non-tumor localized activation of T-cells via FcγR positive cells in the periphery
- PRS-343 bispecifics contain trastuzumab with an engineered IgG4 backbone to minimize FcγR binding

Engineered IgG4 Backbone Ensures Reduced FcγRI & FcγRIII Interaction – FcRn Interaction Retained





Trastuzumab (IgG1)



Control fusion (IgG1)



HC-C-Term. (IgG4_{engineered})



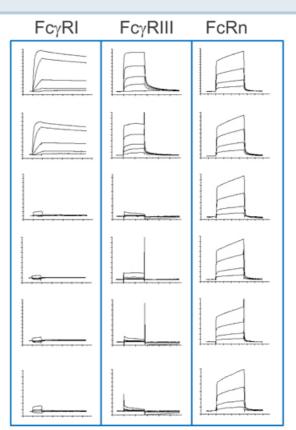
LC-C-Term. (IgG4_{engineered})



LC-N-Term. (IgG4_{engineered})

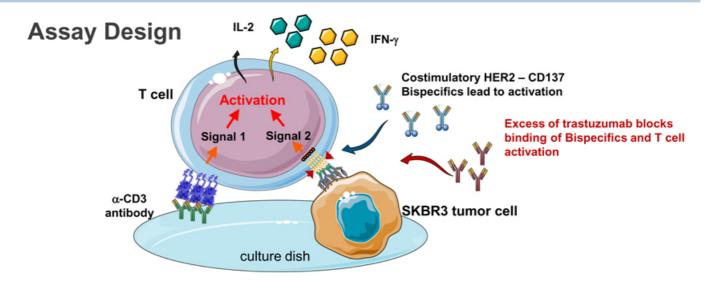


HC-N-Term. (IgG4_{engineered})



PoC: T Cell Activation by HER2-CD137 Bispecifics is HER2 Target-Dependent

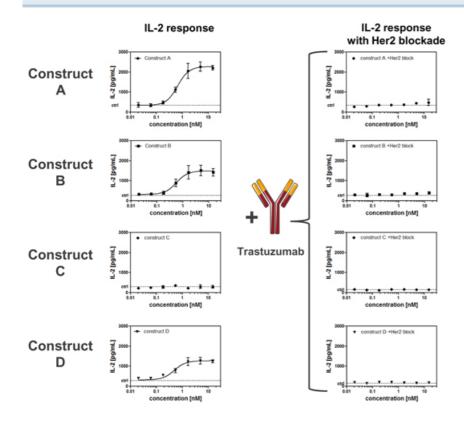


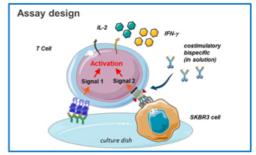


- Her-2 positive SKBR3 cells were grown on 96-well culture dishes, precoated with aCD3 antibody
- T cells from healthy donor PBMCs were added together with HER2 CD137 bispecifics to activate T cells
- Excess of trastuzumab inhibits binding of HER2 CD137 bispecifics and activation of T cells

PoC: T Cell Activation by HER2-CD137 Bispecifics is HER2 Target-Dependent







Activity is HER2 targetdependent

 Addition of excess trastuzumab prevents bispecific binding to HER2-positive cells and results in a loss of activity

Geometry impacts activity of HER2-CD137 Bispecifics

 Three constructs are capable of activating T cells

Pharmacokinetics of HER2-CD137 Bispecifics in Mice are Comparable to Trastuzumab



PK assay set up Pharmacokinetics in mice trastuzumab 200 Cplasma [µg/mL] Construct A 150 detection 100 titration coating 100 200 300 400 500 **Bispecifics** Trastuzumab Time [h]

- 10mg/kg of bispecifics or trastuzumab were injected i.v. in male CD-1 mice (3 mice per timepoint)
- Terminal half-lives of bispecifics range from 15-21 days compared to 13 days for trastuzumab
- Beneficial half-life of parental antibody is preserved for all bispecifics or even exceeded

Summary and Path Forward



PRS-343: HER2-CD137 Bispecifics

- Exhibit excellent binding and drug-like properties with long half lives in mice
- Induce strong T cell activation via tumor target-dependent costimulatory T cell engagement
- Expected to allow potent local activation of tumor-specific T cells with low toxicity

PRS-343 Path to Clinic

- Drug candidate nomination planned for YE 2015
- Initiate IND enabling studies in 2016
- Aim to perform clinical trial in HER2-positive cancer in 2017

Pieris' IO pipeline focusing on multiple targets

- Pieris is pursuing both activating and inhibitory IO targets
- Each immunomodulatory target combinable with different tumor targets

Bispecifics approach for tumor localized immune activation

Variable bispecific geometry facilitates optimal engagement for all receptors





Pieris Pharmaceuticals, Inc.

255 State Street Boston, MA 02109 USA info@pieris.com

Pieris Pharmaceuticals, GmbH.

Lise-Meitner-Strasse 30 85354 Freising (Munich) Germany info@pieris.com

Thanks to the Pieris Team!