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 2, 2022

PIERIS PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Nevada	**001-37471**	**30-0784346**
(State or other jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

255 State Street, 9th Floor Boston, MA	**02109**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: 857-246-8998
N/A
(Former name or former address, if changed since last report.)

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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, $0.001 par value per share	**PIRS**	**The Nasdaq Capital Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging Growth Company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition.

On November 2, 2022, Pieris Pharmaceuticals, Inc. (the "Company") issued a press release announcing certain financial results for the quarter ended September 30, 2022. A copy of the press release issued by the Company is furnished as Exhibit 99.1 to this report.

The information set forth under this "Item 2.02. Results of Operations and Financial Condition," including Exhibit 99.1 furnished 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 7.01 Regulation FD Disclosure.

Furnished hereto as Exhibit 99.2 is the November 2022 Investor Presentation of the Company.

The information set forth under this "Item 7.01. Regulation FD Disclosure," including Exhibit 99.2 furnished hereto, shall not be deemed "filed" for any purpose, and shall not be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, regardless of any general incorporation language in any such filing except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) *Exhibits.*

99.1	Press Release, dated November 2, 2022.
99.2	Investor Presentation, dated November 2022.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

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.

PIERIS PHARMACEUTICALS, INC.

Dated: November 2, 2022

/s/ Tom Bures
Tom Bures
Chief Financial Officer

Exhibit 99.1

PRESS RELEASE

PIERIS PHARMACEUTICALS REPORTS THIRD QUARTER 2022 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE

COMPANY TO HOST AN INVESTOR CONFERENCE CALL ON
WEDNESDAY, NOVEMBER 2, 2022 AT 8:00 AM EDT

- **Elarekibep (PRS-060/AZD1402) phase 2a study for asthma enrollment continues**
- **First subject dosed in PRS-220 phase 1 study for idiopathic pulmonary fibrosis (IPF)**
- **PRS-344/S095012 phase 1 study for solid tumors in collaboration with Servier continues**
- **IND accepted for SGN-BB228 (also known as PRS-346) phase 1 immuno-oncology study; preclinical data to be presented at SITC 2022**
- **PRS-342/BOS-342 phase 1 for solid tumors expected to begin in the next six months**
- **PRS-400 preclinical data for muco-obstructive diseases presented at ERS**

BOSTON, MA, November 2, 2022 - ***Pieris Pharmaceuticals, Inc. (NASDAQ: PIRS)***, a clinical-stage biotechnology company advancing novel biotherapeutics through its proprietary Anticalin® technology platform for respiratory diseases, cancer, and other indications, reported financial results for the third quarter of 2022 ended September 30, 2022, and provided an update on the Company's recent and anticipated future developments.

"Today's update highlights the value of our partnerships, which are validating our science, advancing and replenishing our clinical-stage pipeline, and satisfying a significant amount of our funding needs. AstraZeneca continues to advance our lead inhaled respiratory asset, elarekibep, while we continue to advance our lead IO bispecific program, PRS-344/S095012, in co-development with Servier. Furthermore, we are excited that Seagen and Boston Pharmaceuticals will soon initiate clinical development for their respective IO bispecifics programs, SGN-BB228 and PRS-342/BOS-342, which use Pieris' platform technology. This clinical progress follows the recent phase 1 initiation of our fully proprietary inhaled respiratory program, PRS-220," said Stephen S. Yoder, President and CEO of Pieris. "We will continue to make disciplined pipeline investments that demonstrate our commitment to achieve inflection points in the next year within our partnered and proprietary programs."

- **Elarekibep and AstraZeneca Collaboration:** AstraZeneca has completed enrollment of part 1b (safety of 10 mg cohort) and continues to enroll part 2 (efficacy of 3 mg cohort) of the multi-center, placebo-controlled phase 2a study of dry powder inhaler-formulated elarekibep (PRS-060/AZD1402), an IL-4 receptor alpha inhibitor Pieris is developing with AstraZeneca for the treatment of moderate-to-severe asthma. AstraZeneca has completed all submissions of the previously announced protocol amendments to improve enrollment. Topline results, which will include FEV1 improvement of the 3 mg cohort versus placebo, are expected to be reported by the third quarter of 2023. Upon delivery of these results, Pieris may choose to exercise its co-development option. Separately, Pieris will have a future option to co-commercialize elarekibep in the United States. Beyond elarekibep, Pieris continues to work on two discovery-stage programs with AstraZeneca, for which the research term was recently extended. Pieris retains co-development and U.S. co-commercialization options for these two programs.

- **PRS-344/S095012 and Servier Collaboration:** Pieris and Servier continue to enroll the escalation portion of the phase 1/2 study of PRS-344/S095012, a 4-1BB/PD-L1 bispecific Mabcalin™ (antibody-Anticalin fusion) compound for the treatment of solid tumors for which Pieris holds full U.S. rights and will receive royalties on ex-U.S. sales by Servier. The companies expect to present data from the study at a medical meeting in 2023. Additionally, Servier is continuing development of PRS-352/S095025, an OX40/PD-L1 bispecific Mabcalin compound.

- **PRS-220:** Pieris has dosed the first subject in the phase 1 study in healthy volunteers of PRS-220, a proprietary inhaled Anticalin protein targeting connective tissue growth factor (CTGF) for the treatment of IPF and other forms of fibrotic lung disease. The Company expects to report the outcome from the study in 2023. PRS-220 continues to benefit from a meaningful grant from the Bavarian government, which supports early-stage clinical development of this program.

- **Seagen Collaboration:** The investigational new drug (IND) application for the phase 1 study of SGN-BB228 (also known as PRS-346), a first-in-class 4-1BB/CD228 bispecific Mabcalin compound, has been accepted. Seagen plans to initiate a phase 1 study for SGN-BB228 in the coming months, for which Pieris will receive a milestone payment. Seagen will also present preclinical data for the program at a poster session during the Society for Immunotherapy of Cancer 37th Annual Meeting. Seagen continues to develop a second undisclosed bispecific program under the companies' immuno-oncology collaboration. Pieris has a multi-asset collaboration with Seagen and has an opt-in option to a U.S. co-promotion for one program in the collaboration.

- **PRS-342/BOS-342:** Boston Pharmaceuticals continues to advance PRS-342/BOS-342, a 4-1BB/GPC3 bispecific Mabcalin compound, towards the clinic, with phase 1 expected to begin in the next six months.

- **PRS-400:** Pieris unveiled and presented preclinical data for PRS-400, an inhaled Jagged-1 Anticalin protein the Company is developing for the treatment of muco-obstructive lung diseases, at the European Respiratory Society (ERS) International Congress 2022.

Second Quarter Financial Update:

Cash Position – Cash, cash equivalents, and investments totaled $69.8 million for the quarter ended September 30, 2022, compared to a cash and cash equivalents balance of $117.8 million for the year ended December 31, 2021. The decrease is due to funding operations in 2022. Including the proceeds from anticipated near-term milestones, the Company believes operations are sufficiently funded into the second quarter of 2024.

R&D Expense - R&D expenses were $13.6 million for the quarter ended September 30, 2022, compared to $18.9 million for the quarter ended September 30, 2021. The decrease is due to lower program costs, as work related to the Company's sponsored phase 1 trial of elarekibep was largely complete in 2021, as well as due to lower manufacturing costs across all later-stage respiratory and immuno-oncology programs, and lower consulting costs. These lower costs were partially offset by higher clinical costs for PRS-344/S095012, higher pre-clinical costs for earlier stage programs, and an increase in personnel costs.

G&A Expense - G&A expenses were $3.9 million for the quarter ended September 30, 2022, compared to $4.1 million for the quarter ended September 30, 2021. The period-over-period decrease was driven primarily by lower personnel and legal costs, partially offset by higher professional services and travel costs.

Other Income - For the quarter ended September 30, 2022, $1.5 million of grant income was recorded with respect to PRS-220, compared to $1.8 million for the quarter ended September 30, 2021. The decrease is due to lower overall costs incurred this quarter on PRS-220.

Net Loss - Net loss was $9.7 million or $(0.13) per share for the quarter ended September 30, 2022, compared to a net loss of $16.5 million or $(0.24) per share for the quarter ended September 30, 2021.

Conference Call:
Pieris management will host a conference call beginning at 8:00 AM EDT on Wednesday, November 2, 2022, to discuss the third quarter financial results and provide a corporate update. Individuals can join the call by dialing (888) 645-4404 (Toll Free US & Canada) or (862) 298-0702 (International). Alternatively, a listen-only audio webcast of the call can be accessed here.

For those unable to participate in the conference call or listen to the webcast, a replay will be available on the Investors section of the Company's website, www.pieris.com.

About Pieris Pharmaceuticals:

Pieris is a clinical-stage biotechnology company that combines leading protein engineering capabilities and deep understanding into molecular drivers of disease to develop medicines that drive local biology to produce superior clinical outcomes for patients. Our pipeline includes inhalable Anticalin proteins to treat respiratory diseases and locally-activated bispecifics for immuno-oncology. Proprietary to Pieris, Anticalin proteins are a novel class of therapeutics validated in the clinic and by respiratory and immuno-oncology focused partnerships with leading pharmaceutical companies. For more information, visit www.pieris.com.

Forward-looking Statements:

This press release contains forward-looking statements as that term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements in this press release that are not purely historical are forward-looking statements. Such forward-looking statements include, among other things, our expected cash runway; the potential for Pieris' development programs such as elarekibep, PRS-344/S095012, PRS-220, PRS-400, PRS-352/S095025, PRS-346/SGN-BB228 and PRS-342/BOS-342 to address our core focus areas such as respiratory diseases and immuno-oncology; the advancement of our proprietary and co-development programs into and through the clinic and the expected timing for reporting data; the receipt of royalty and/or milestone payments provided for in our collaboration agreements; making IND filings or achieving other milestones related to our programs, including elarekibep, PRS-220, PRS-400, PRS-344/S095012, PRS-352/S095025, PRS-346/SGN-BB228 and PRS-342/BOS-342; the therapeutic potential of our Anticalin platform; our continued progress in the areas of co-stim bispecifics and inhaled therapeutics; and the advancement and funding of our developmental programs generally. Actual results could differ from those projected in any forward-looking statement due to numerous factors. Such factors include, among others, the amounts of anticipated funding actually received for our continued development programs and our actual reductions in spending as compared to anticipated cost reductions; our ability to raise the additional funding we will need to continue to pursue our business and product development plans; the inherent uncertainties associated with developing new products or technologies and operating as a development stage company; our ability to develop, complete clinical trials for, obtain approvals for and commercialize any of our product candidates, including our ability to recruit and enroll patients in our studies; competition in the industry in which we operate; delays or disruptions due to COVID-19 or geopolitical issues, including the conflict in Ukraine; and market conditions. These forward-looking statements are made as of the date of this press release, and we assume no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements, except as required by law. Investors should consult all of the information set forth herein and should also refer to the risk factor disclosure set forth in the reports and other documents we file with the Securities and Exchange Commission available at www.sec.gov, including, without limitation, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 and the Company's Quarterly Reports on Form 10-Q.

Investor Relations Contact:
Pieris Pharmaceuticals, Inc.
Maria Kelman
Executive Director, Investor Relations
+1 857 362 9635
kelman@pieris.com

PIERIS PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited, in thousands)

	September 30, 2022	December 31, 2021
Assets:		
Cash and cash equivalents	$ 48,423	$ 117,764
Short term investments	21,400	—
Accounts receivable	829	3,313
Prepaid expenses and other current assets	7,908	6,548
Total current assets	78,560	127,625
Property and equipment, net	15,897	19,122
Operating lease right-of-use assets	3,399	3,909
Other non-current assets	1,307	2,904
Total Assets	$ 99,163	$ 153,560
Liabilities and stockholders' equity:		
Accounts payable	$ 3,641	$ 8,609
Accrued expenses	11,382	16,836
Deferred revenue, current portion	18,498	25,116
Total current liabilities	33,521	50,561
Deferred revenue, net of current portion	18,484	38,403
Operating lease liabilities	11,391	13,841
Total Liabilities	63,396	102,805
Total stockholders' equity	35,767	50,755
Total liabilities and stockholders' equity	$ 99,163	$ 153,560

PIERIS PHARMACEUTICALS, INC
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited, in thousands, except per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Revenues	$ 5,370	$ 4,057	$ 20,056	$ 22,975
Operating expenses				
Research and development	13,589	18,937	39,602	51,299
General and administrative	3,949	4,132	12,409	12,508
Total operating expenses	17,538	23,069	52,011	63,807
Loss from operations	(12,168)	(19,012)	(31,955)	(40,832)
Interest income	241	4	370	10
Grant income	1,468	1,794	4,782	2,590
Other income (expense), net	723	678	1,628	2,026
Net loss	$ (9,736)	$ (16,536)	$ (25,175)	$ (36,206)
Basic and diluted net loss per share	$ (0.13)	$ (0.24)	$ (0.34)	$ (0.58)
Basic and diluted weighted average shares outstanding	74,397	67,730	74,080	62,019

Exhibit 99.2

PIERIS PHARMACEUTICALS

CORPORATE PRESENTATION
November 2022

Forward-Looking Statements

This presentation contains forward-looking statements as that term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements in this presentation that are not purely historical are forward-looking statements. Such forward-looking statements include, among other things, whether PRS-220 will provide a clinical benefit in the treatment of IPF and PASC-related fibrosis; the receipt of royalty and/or milestone payments provided for in our collaboration agreements; the expected timing and potential outcomes of the reporting by the Company of key clinical data from its programs; references to novel technologies and methods and our business and product development plans, including the Company's cash resources, the advancement of our proprietary and co-development programs into and through the clinic and the expected timing for reporting data, making IND filings or achieving other milestones related to our programs, including elarekibep (PRS-060/AZD1402), PRS-344/S095012, PRS-220, PRS-352/S095025, PRS-342/BOS-342, PRS-346/SGN-BB228 and PRS-400; our continued progress in the areas of co-stim bispecifics and inhaled therapeutics; the therapeutic potential of our Anticalin platform; the potential addressable market for our product candidates; and the advancement of and funding for our developmental programs generally. Actual results could differ from those projected in any forward-looking statements due to numerous factors. Such factors include, among others, our ability to raise the additional funding we will need to continue to pursue our business and product development plans; the inherent uncertainties associated with developing new products or technologies and operating as a development stage company; our ability to develop, complete clinical trials for, obtain approvals for and commercialize any of our product candidates, including our ability to recruit and enroll patients in our studies; our ability to address the requests of the U.S. Food and Drug Administration; competition in the industry in which we operate; delays or disruptions due to COVID-19 or geo-political issues, including the conflict in Ukraine; and market conditions. These forward-looking statements are made as of the date of this presentation, and we assume no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements, except as required by law. Investors should consult all of the information set forth herein and should also refer to the risk factor disclosure set forth in the reports and other documents we file with the Securities and Exchange Commission available at www.sec.gov, including without limitation the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 and the Company's subsequent Quarterly Reports on Form 10-Q.

Executive Summary

Proven Discovery Platform	Two Focus Areas	Industry & Clinical Validation
• Protein therapeutics that exploit biology validated by mAbs yet are engineered for focused activity at disease locus • Clinical benefit, reduced side effects, increased convenience	• Oral inhaled antagonists for respiratory disease • Locally activated immuno-oncology bispecifics	• ~$200M since 2017 in upfronts, milestones and equity investments • Several co-developed and out-licensed programs • Demonstrated clinical activity for both focus areas

Value Proposition

- **Three assets in the clinic; retained US or WW rights for each program**
- **All clinical assets are funded ~50% or more by partners or grants**
- **Key updates for each of the three clinical programs in 2023**
- **Two additional partnered clinical starts in coming months**

Anticalin® Proteins as Therapeutic Modalities

A Novel Therapeutic Class with Favorable Drug-Like Properties

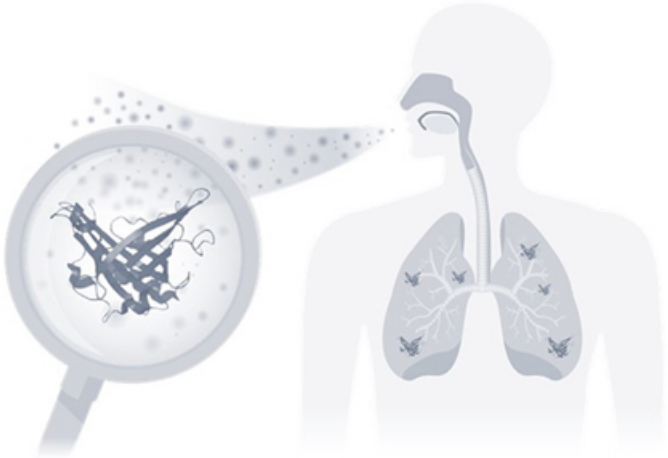
- **Human** – Derived from lipocalins (human extracellular binding proteins)
- **Small** – Monomeric, monovalent, small size (~18 kDa vs. ~150kDa mAbs)
- **Stable** – Inhalable delivery
- **Simple** – Bi/multispecific constructs
- **Proprietary** – Strong IP position on platform and derived products

Translational Science Expertise to Deploy Platform in Meaningful Way

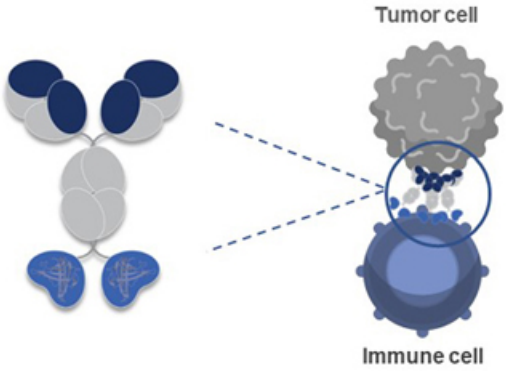
- Immunology expertise underpins IO and respiratory focus
- A leader in 4-1BB and costim biology
- Patient stratification efforts for improved stratification and novel targets in, e.g., asthma

Two-fold Focus of Anticalin Platform Deployment

Inhalable formulations to treat respiratory diseases locally



Bispecifics for local immune agonism to treat cancer

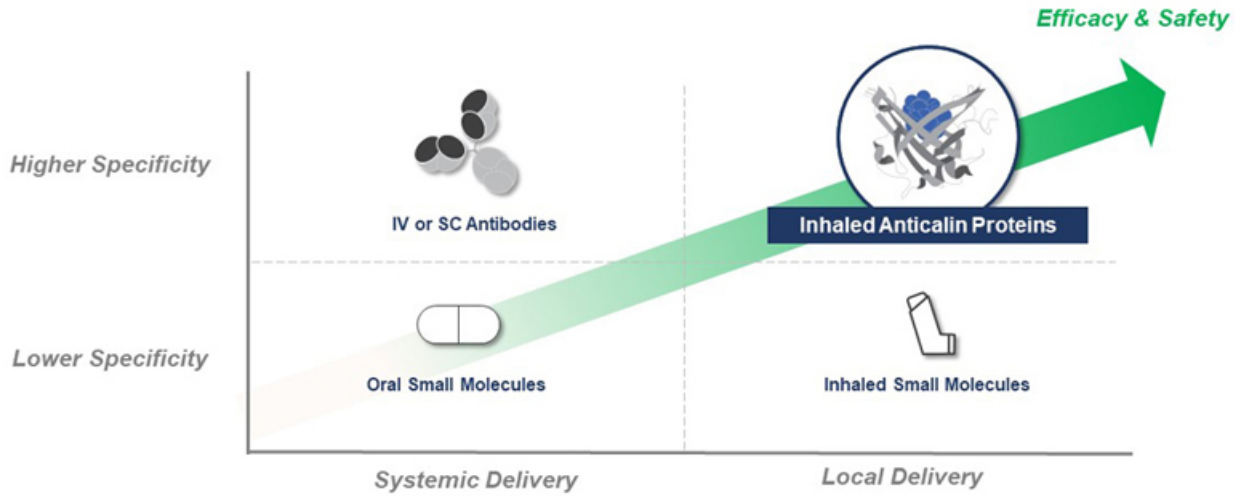


Validating Partnerships & Non-Dilutive Capital

	Number of Programs	Cash to Date	Cash Potential*
AstraZeneca	Three (all with co-dev)	$70.5M	>$4.6B plus royalties
Genentech A Member of the Roche Group	Two	$20M	>$1.4B plus royalties
SERVIER	Two (one co-dev program)	~$41M	~$205M plus royalties
Seagen	Three (one with U.S. copromotion option)*	$35M	$1.2B plus royalties
BOSTON pharmaceuticals	One	$10M	~$350M

* Two active bispecific programs with a base option for an additional one
*As of September 30, 2022 and based on applicable exchange rate on that date

Combined Potential Advantages of Higher Specificity with Local Delivery



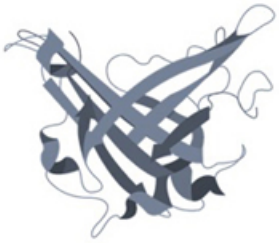
Respiratory Pipeline

Program	Target	Indication	Discovery	Preclinical	Phase 1	Phase 2	Partner
Elarekibep* (PRS-060/AZD1402*)	IL4Rα	Asthma	Phase 2a fully sponsored by AZ; co-dev option				AstraZeneca
PRS-220	CTGF	IPF, PF-ILD, PASC-PF#	>50% grant-funded‡				
AstraZeneca Programs**	n.d.	n.d.					AstraZeneca
PRS-400	Jagged-1	n.d.					
Genentech (GENE1)	n.d.	n.d.					Genentech A Member of the Roche Group

#IPF - Idiopathic Pulmonary Fibrosis, PF-ILD - Progressive Fibrosing Interstitial Lung Diseases, PASC-PF - Post-Acute sequelae of SARS-CoV-2 infection (PASC) Pulmonary Fibrosis (PF)
‡~$17 million grant from the Bavarian government to evaluate PRS-220 in PASC-PF covers more than half of early-stage and phase 1 development costs of PRS-220
**Pieris has separate co-development and U.S. co-commercialization options on elarekibep*
***Pieris has separate co-development and U.S. co-commercialization options for the two additional programs partnered with AstraZeneca*

Elarekibep: Inhaled IL-4Rα Antagonist

Candidate	Elarekibep
Function/MoA	Inhibiting IL4-Rα (disrupts IL-4 & IL-13 signaling)
Indications	Moderate-to-severe asthma
Development	Phase 2a in moderate asthmatics
Commercial Rights	Co-development and U.S. co-commercialization options with gross margin share or royalties



elarekibep

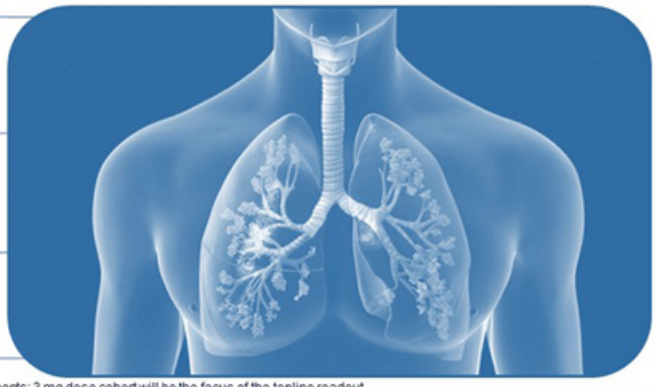
Elarekibep Phase 2a Study

Part 1 (Safety)	**Participant Population:** Moderate asthmatics controlled on ICS/LABA **Primary Endpoint:** Safety and tolerability compared to placebo from baseline until follow-up (approximately 56 days) **Doses:** 1 mg (completed), 3 mg (completed), 10 mg (ongoing)
Part 2 (Efficacy)	**Participant Population:** Moderate uncontrolled asthmatics on ICS/LABA with blood EO count of ≥ 150 cells/µL and FeNO ≥ 25 ppb at screening **Primary Endpoint:** Improvement of FEV1 at four weeks relative to placebo **Doses*:** 1 mg (enrolling), 3 mg (enrolling)

Safety initiated Q1 2021; efficacy initiated Q1 2022

Dry powder formulation, administered b.i.d. over four weeks on top of standard-of-care therapy (medium or high dose ICS with LABA)

Study is sponsored, conducted, and funded by AstraZeneca



*1 mg dose cohort will cease enrolling with approval by regulatory authorities of protocol amendments; 3 mg dose cohort will be the focus of the topline readout

DPI Formulation of Elarekibep Passed Safety Review

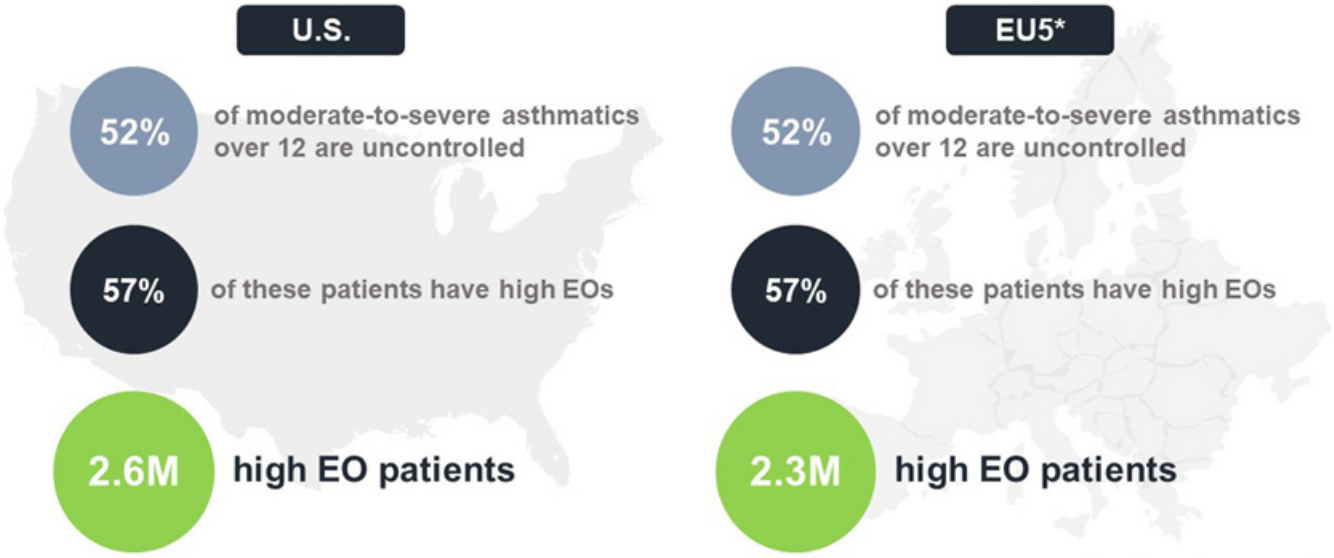
31 moderate asthmatics controlled on standard-of-care therapy (medium dose ICS with LABA) were dosed twice daily over four weeks randomized across two dose levels and placebo (1:1:1)

Safety review successfully completed for two dose levels (1mg and 3mg), triggering efficacy portion of study for those same doses in participants with moderate asthma uncontrolled on medium dose ICS-LABA

Safety review performed of the following (compared to placebo):

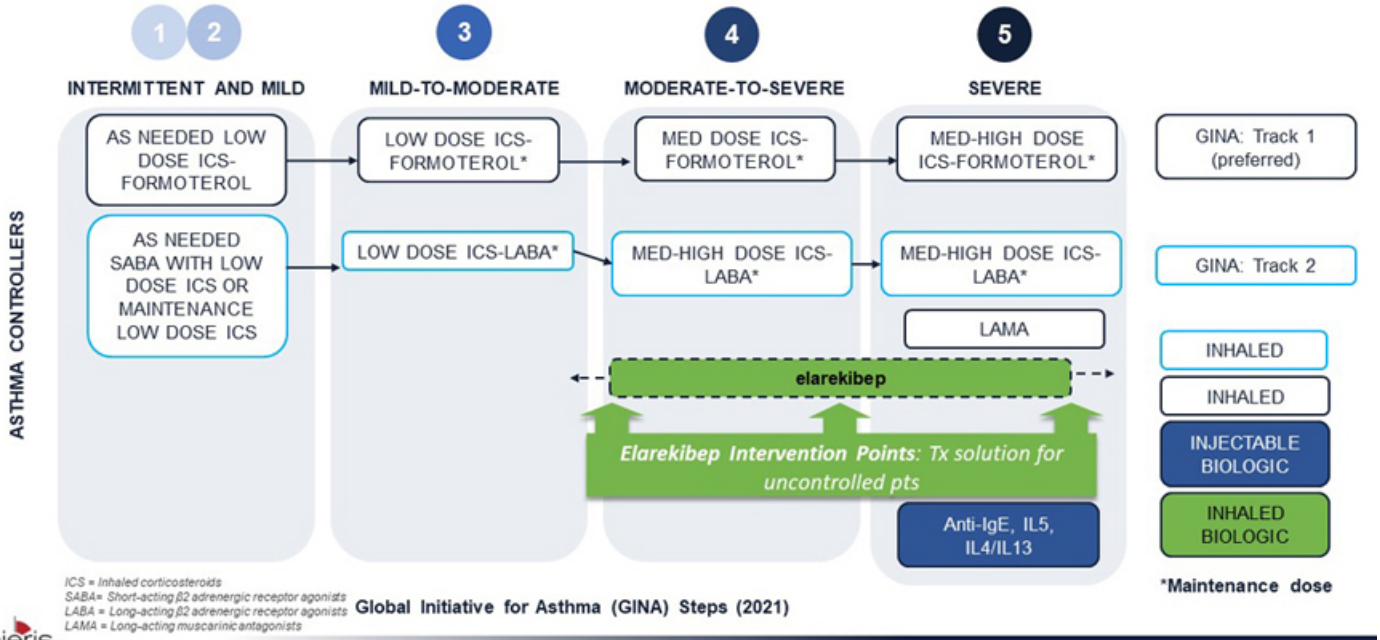
- ☑ Incidence of adverse events
- ☑ Changes in laboratory markers (immune biomarkers, clinical chemistry, and hematology)
- ☑ Forced expiratory volume in 1 second (FEV1)
- ☑ Pharmacokinetics

Significant Market Opportunity in High EO Moderate-to-Severe Asthma

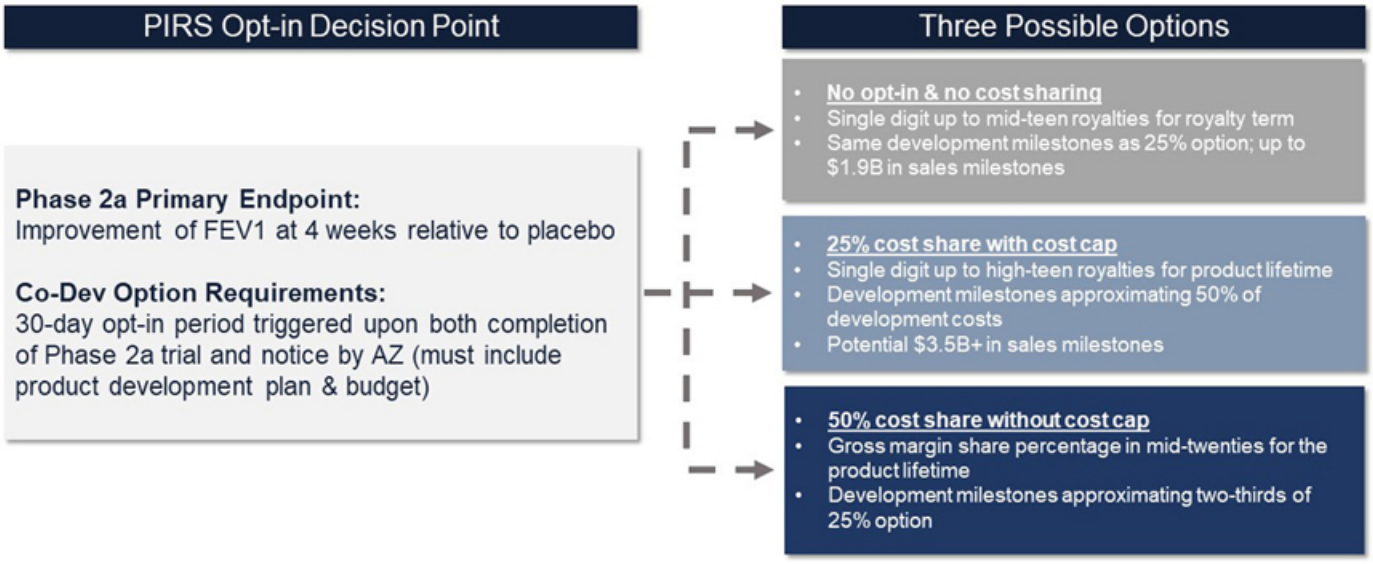


*United Kingdom, Germany, France, Spain and Italy
All numbers reflect 2022 estimates.
Sources: Artisan Healthcare Consulting analysis (2022), including the following: CDC, Journal of Asthma and Allergy, The Journal of Allergy and Clinical Immunology, International Society of Pharmacoepidemiology

Potential Large Market Opportunity in Moderate-to-Severe Asthma not Addressed by ICS/LABA before Injectable Biologics



Co-Development Options for Elarekibep



PRS-220: Inhaled CTGF Antagonist

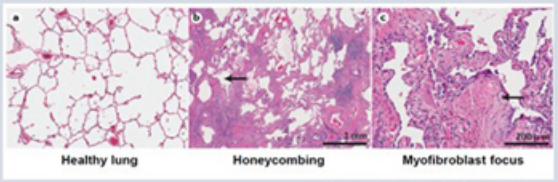
Candidate	PRS-220
Function/MoA	Inhibiting CTGF/CCN2
Indications	IPF, PF-ILD and PASC-PF*
Development	Phase 1 in healthy volunteers
Commercial Rights	Fully proprietary

PRS-220

*IPF - Idiopathic Pulmonary Fibrosis
*PF-ILD - Progressive Fibrosing Interstitial Lung Diseases
*PASC-PF - Post-Acute sequelae of SARS-CoV-2 infection (PASC) Pulmonary Fibrosis (PF)

IPF: High Unmet Medical Need and Significant Commercial Opportunity

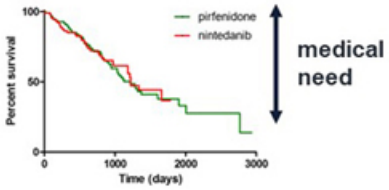
PF – a chronic lung disease:
ultimately fatal lung disease of unknown cause characterized by progressive scarring of the interstitial lung tissue



Martinez, Nature Rev Dis Primer, 2017

3 to 5 years — **median survival from the time of diagnosis**
Hopkins, European Respiratory Journal, 2016

2 — **approved therapies nintedanib & pirfenidone providing modest benefit with significant side effects**



medical need

Adapted from Camelli, Frontiers in Molecular Biosciences, 2020

>$3B — **current market in sales**

Significant need for well-tolerated and effective therapies

Inhaled Delivery of PRS-220: A Novel Approach to Modulate CTGF Biology with Best-in-Class Potential

Potential key points of differentiation of inhaled PRS-220 compared to systemically delivered CTGF antagonists:

More Efficient Target Saturation	• Avoidance of systemic CTGF sink (in blood) • Significantly higher affinity with superior binding profile
Superior Lung Biodistribution	• Local delivery to the site of the disease in the lung via inhalation • Increased concentration
Increased Convenience	• Inhalation at home compared to regular visits to infusion centers for i.v. administrations

PRS-400: An Inhaled JAG1 Antagonist

Candidate	PRS-400
Target	Jagged-1 (JAG1)
Function/MoA	Reducing mucus hypersecretion by blocking Jagged1/Notch signaling to reduce goblet cell metaplasia, hyperplasia and mucus plugging
Indications	Respiratory Diseases: COPD, CF, PCD, CRS, Bronchiectasis and Asthma*
Development	Lead Optimization
Commercial Rights	Fully proprietary

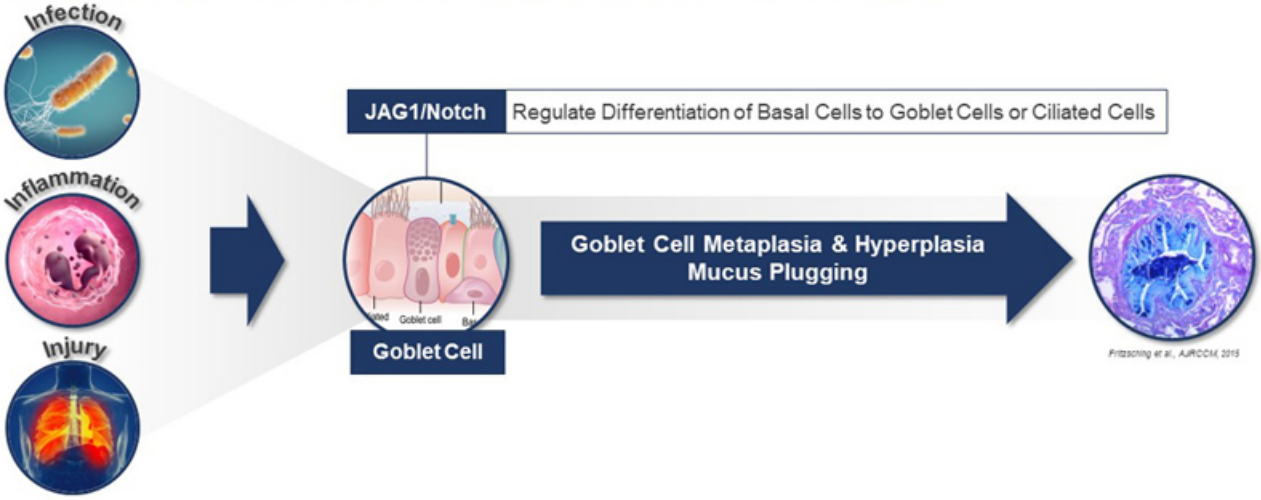
Monocalin

Duocalin

*COPD - Chronic Obstructive Pulmonary Disease; CF - Cystic Fibrosis; PCD - Primary Ciliary Dyskinesia; CRS - Chronic Rhinosinusitis

PRS-400 (anti-JAG1) Designed to Disrupt Master Regulator of Mucus Production

Reversing Goblet Cell Metaplasia (GCM), Hyperplasia (GCH) and Mucus Plugging



PRS-400 is designed to block Jag1/Notch signaling, reversing, independent of stimulus, GCM, GCH and mucus plugging, as well as increasing number of ciliated cells

Immuno-Oncology Pipeline

Program	Target	Indication	Discovery	Preclinical	Phase 1	Phase 2	Partner
PRS-344/ S095012	4-1BB/PD-L1	n.d.	~50% co-dev cost share				SERVIER
PRS-346/ SGEN-BB228‡	4-1BB/CD228	n.d.					Seagen
PRS-352/ S095025	OX40/PD-L1	n.d.					SERVIER
PRS-342/ BOS-342	4-1BB/GPC3	n.d.					BOSTON pharmaceuticals

‡ *One additional active bispecific program in collaboration with Seagen, with Pieris retaining a U.S. co-promotion option in one of the programs in the collaboration*

4-1BB & The Advantages of Anticalin-based Bispecifics

High-value target	• 4-1BB activation can drive massive proliferation and improved cytotoxic profile of tumor-specific T cells • 4-1BB activation significantly increases mitochondrial load, improving metabolic fitness and overall survival of T cells
Historical challenges of systemic mAbs	• Despite showing clinical activity, systemically active mAbs caused unmanageable hepatic toxicity and were discontinued
Local activation solution	• Pieris' bispecifics are designed to efficiently activate 4-1BB on T cells and NK cells outside the liver to avoid hepatic toxicity and drive improved therapeutic window • Earlier clinical studies validated this mode of action: well-tolerated and single-agent activity in heavily pre-treated patients

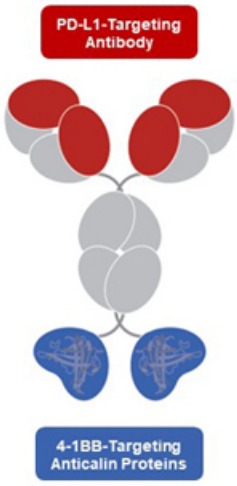
4-1BB-based Bispecific Achieved Clinical POC in Early Clinical Studies

First 4-1BB-based bispecific in the clinic (cinrebafusp alfa) provided key validation of multi-program 4-1BB franchise

- ☑ Acceptable safety profile observed at all doses tested with no dose-limiting toxicities
- ☑ Clinical benefit at active dose levels (≥ 2.5 mg/kg), including confirmed complete response and several confirmed partial responses
- ☑ Dose-dependent immune activation and 4-1BB modulation in both HER2-high and HER2-low expressing patients
- ☑ Durable anti-tumor activity in heavily pre-treated patient population (5+ line on average), including "cold" tumors

PRS-344/S095012: Localized 4-1BB Agonism with PD-L1 Antagonism

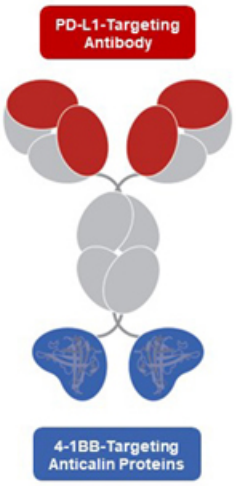
Candidate	PRS-344/S095012
Function/MoA	Localized 4-1BB agonism with PD-L1 antagonism
Indications	N.D.
Development	Phase 1 (in co-dev with Servier)
Commercial Rights	Full U.S. commercial rights; royalty on ex-U.S. sales



PRS-344/S095012: Why 4-1BB/PD-L1

PRS-344/S095012 is designed to activate 4-1BB on tumor-specific T cells when bridging to PD-L1-expressing tumors and dendritic cells

Molecule designed to drive potent 4-1BB agonism with an optimal therapeutic window



Affinity	Binds with 5nM affinity to 4-1BB (lower than competitors) with 7-fold higher affinity to PD-L1 (0.6nM)
Valency	Bivalent 4-1BB inactive peripherally but potent activation potential when clustered on PD-L1-positive cells
Geometry and flexibility	Empirically tested multiple bispecific prototypes for best effect with objective of recreating natural immune synapse
4-1BB epitope	Ligand independent to avoid disrupting peripheral immune surveillance (safety) while facilitating ligand engagement when drug-bound (efficacy)

Financial Overview (as of 9/30/22)

$69.8M	$0.00	74.4M
Cash, Cash Equivalents & Investments	Debt	CSO

>$175M non-dilutive capital from partnerships since 2017

~$17M[1] grant announced in 2021

[1] *Calculated based on the June 25, 2021, noon buying rate of €1.00 to U.S. $1.1938*

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