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## Pieris Pharmaceuticals Announces Presentation of Preclinical Data for Inhaled Jagged-1 Inhibitor PRS-400 at ERS

**BOSTON, MA / ACCESSWIRE / August 24, 2022 / Pieris Pharmaceuticals, Inc. (NASDAQ:PIRS)**, a clinical-stage biotechnology company advancing novel biotherapeutics through its proprietary Anticalin<sup>®</sup> technology platform for respiratory diseases, cancer, and other indications, today announced the presentation of 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. The poster is now available for viewing by registered participants, and a copy of the poster is available [here](#). Additionally, the poster will be available for viewing at the conference during a session scheduled on Tuesday, September 6, 2022, 8:30AM - 9:30AM CET.

Jagged-1 is a protein ligand for Notch receptors, which are implicated in mucus-producing cell differentiation. Inhibition of Jagged-1/Notch 2-dependent signaling has been shown to reduce the number of secretory cells in airways, thereby reducing goblet cell metaplasia and mucus hypersecretion in ex vivo and in vivo models. Pieris has generated a suite of inhaled candidates against Jagged-1, including several high-affinity antagonists across different target epitopes as well as biparatopic constructs with enhanced potency. The preclinical data presented show that candidate molecules inhibit Jagged-1-induced Notch 2 signaling in a dose-dependent manner and also demonstrate that PRS-400 reduces mucin expression ex vivo. Additionally, PRS-400 was found in vivo to reduce mucin gene expression and goblet cells in mice with IL-13-induced airway inflammation. These findings suggest that PRS-400 represents a promising opportunity to address muco-obstructive respiratory diseases locally with an attractive therapeutic index.

"PRS-400 is yet another inhaled application of Anticalin proteins for the treatment of respiratory diseases, following PRS-060/AZD1402 for asthma and PRS-220 for idiopathic pulmonary fibrosis," said Shane Olwill, Ph.D., Chief Development Officer of Pieris. "We believe there are broad applications for inhaled inhibition of Jagged-1, which is a highly attractive target in the treatment of muco-obstructive lung diseases, and that local inhibition of the Jagged-1/Notch pathway is vital to avoid safety challenges observed with systemic engagers."

### **About PRS-400:**

PRS-400 is preclinical program targeting Jagged-1 proteins via oral inhalation for the

treatment of muco-obstructive lung diseases. Muco-obstructive lung diseases are often caused by aberrant trans-differentiation of intermediate progenitors towards mucus (goblet) cells at the expense of ciliated cells, further worsening disease by impairing mucociliary clearance. Jagged-1 is a protein ligand for Notch receptors implicated in cell fate specification. In the lung, Jagged-1 acts predominantly through Notch 2 to control the balance of secretory club cells and ciliated cells, regulating mucus production. Inhibiting Jagged-1 redirects lineage specification towards ciliated cells and promotes loss of a majority of club cells, preventing their differentiation into mucus-secreting goblet cells and thereby profoundly reducing mucus cell burden in the epithelium.

***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](http://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 PRS-060/AZD1402, PRS-344/S095012 and PRS-220 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 PRS-060/AZD1402, PRS-220, PRS-344/S095012, PRS-352/S095025 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](http://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.

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