Pieris Pharmaceuticals Presents IND-enabling Data for Bispecific Immuno-Oncology Drug Candidate, PRS-343, in Poster Session at the 2017 Meeting of the American Association for Cancer Research (AACR)

BOSTON, MA -- (Marketwired) -- 04/04/17 -- Pieris Pharmaceuticals, Inc. (NASDAQ: PIRS), a clinical-stage biotechnology company advancing novel biotherapeutics through its proprietary Anticalin® technology platform, announced today the presentation of data informing the design of a first-in-patient clinical trial for PRS-343, a first-in-class 4-1BB/HER2 bispecific in a poster session at the 2017 Annual Meeting of the American Association for Cancer Research (AACR).

Complementing previously disclosed preclinical data demonstrating that PRS-343 elicits robust T cell expansion in the tumor microenvironment while avoiding unwanted peripheral T cell activation in HER2-positive cancer models, the data presented today demonstrate:

- PRS-343 elicited robust T cell activation when engaging HER2 on cell lines derived from tumors resistant to trastuzumab therapy, as well as tumor cell lines with elevated HER2 expression in the IHC 2+ range
- 4-1BB-mediated T cell activation by PRS-343 resulted in the expression of a broad spectrum of inflammatory cytokines associated with anti-tumor immune responses
- PRS-343 was well tolerated and led to no significant findings in IND-enabling preclinical safety and non-human primate toxicology studies

Today's presented data suggest the clinical potential of PRS-343 in a broad population of patients with HER2-expressing cancers," commented Louis Matis, MD, Chief Development Officer of Pieris. "Moreover, the preclinical pharmacokinetic and safety profile of PRS-343 supports the initiation of clinical development, which we anticipate during the first half of this year." A copy of the poster can be viewed here.

About PRS 343:
PRS-343 is a bispecific monoclonal antibody/Anticalin fusion protein comprised of a HER2 tumor-targeting mAb genetically linked to a potent Anticalin specific for the immune
costimulatory TNF family receptor 4-1BB (CD137). PRS-343 is being developed as the first 4-1BB based therapeutic to mediate the activation of tumor-specific T lymphocytes selectively within the tumor microenvironment (TME). 4-1BB is a potent costimulatory immunoreceptor and an established marker for tumor-specific infiltrating T lymphocytes (TILs), and is, therefore, an attractive target for cancer immunotherapy. In \textit{in vivo} preclinical tumor models, PRS-343 has demonstrated potent T lymphocyte activation localized to the TME of established HER2-positive tumors, indicating the potential for both enhanced safety and efficacy.

\textbf{About Pieris Pharmaceuticals}:

Pieris is a clinical stage biotechnology company that discovers and develops Anticalin-based drugs to target validated disease pathways in a unique and transformative way. Our pipeline includes immuno-oncology multi-specifics tailored for the tumor micro-environment, an inhaled Anticalin to treat uncontrolled asthma and a half-life-optimized Anticalin to treat anemia. Proprietary to Pieris, Anticalins are a novel class of protein therapeutics validated in the clinic and by partnerships with leading pharmaceutical companies. Anticalin®, is a registered trademark of Pieris. Pieris has partnerships with Servier, ASKA, Roche, Sanofi, Daiichi Sankyo and Zydus. For more information visit www.pieris.com.

\textbf{Forward Looking Statements}

This press release contains forward-looking statements as that term is defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Statements in this press release that are not purely historical are forward-looking statements. Such forward-looking statements include, among other things, references to novel technologies and methods; our business and product development plans and timelines; the timing and progress of our studies, development of therapeutic programs; ability to receive research funding; our liquidity and ability to fund our future operations; our ability to achieve certain milestones and receive future milestone or royalty payments; current or future partnerships; or market information. 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; competition in the industry in which we operate 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 SEC available at www.sec.gov, including without limitation the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and the Company's Quarterly Reports on Form 10-Q.

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Source: Pieris Pharmaceuticals, Inc.