Pieris demonstrates potent anti-tumor activity of a VEGF-specific Anticalin® in preclinical studies

Freising-Weihenstephan, Germany – March 29th 2007. Pieris AG, a bio-pharmaceutical company developing therapeutic products comprising of Anticalins®, a novel proprietary class of human binding proteins, announced today it has demonstrated potent anti-tumor activity of PRS-050. The positive results with PRS-050, a VEGF-specific Anticalin® with extended serum half life, were achieved in a tumor xenograft model, thereby supporting the development of a superior biotherapeutic for a range of cancer indications.

PRS-050 targets VEGF, a key positive regulator of angiogenesis important in several diseases including cancer and neovascular eye disorders. PRS-050 exhibits a favorable binding and functional *in vitro* activity profile in direct comparison to all currently approved VEGF antagonists. Strong reduction of VEGF-induced enhanced vascular permeability after systemic administration of PRS-050 was also demonstrated in a second preclinical model. In both *in vivo* models PRS-050 was at least as efficacious as Avastin® (bevacizumab; Genentech / Roche). The data will be presented at CHI's forthcoming Protein Engineering Summit in Boston, USA.

"This example highlights perfectly how Pieris is able to adapt pharmacokinetic properties of Anticalins® depending on the intended therapeutic use. It took less than three months after identification of an optimized Anticalin® to validate the approach *in vivo,*" comments Dr Andreas Hohlbaum, Director of Science and Preclinical Development of Pieris.

"We have unequivocally demonstrated the drug development potential of Anticalins® using well-accepted disease relevant preclinical models," says Evert Küppers, Chief Executive Officer of Pieris. "With our PRS-050 we have now established a solid fundament for developing the next generation of angiogenesis inhibitors with a favorable product profile."

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Notes to editors

About Pieris AG

Pieris is a biopharmaceutical company engaged in the discovery and development of Anticalins®, human non-antibody binding proteins, for the diagnosis and treatment of life-threatening human disorders. Exploiting extensive know-how in protein engineering as part of a broad intellectual property portfolio, the Company applies a balanced risk business model to the development of its Anticalin® candidates. To date, Pieris has reached all development milestones on time under the agreements with its industry partners. Recognizing the enormous market potential of protein-based drugs, Pieris is committed to becoming an integrated drug discovery and development company.

About the Anticalin® technology

Anticalins® are derived from the lipocalin scaffold, originally developed by Prof. Dr. Arne Skerra, a leading expert in the field and Head of the Department of Biological Chemistry at the Technical University of Munich, Germany. As engineered human proteins, Anticalins® have prescribed binding properties and have fundamental similarities with fully human antibodies e.g. picomolar potency and expected low immunogenicity. Anticalins® have several additional advantages over conventional antibodies due to their small size (20 kDa), robust tertiary structure and straight composition that confer high solubility, predictable stability and bacterial manufacturability. Fast pharmaco-kinetics and favorable tissue penetration of Anticalins® can be balanced through adjustable modulation of serum half-life and valency by established methodologies.

By developing Anticalin® based products, Pieris and its collaborators are not only able to develop superior biotherapeutics, but they also have the ability to overcome the encumbering patent landscape as currently present for developing conventional antibodies.

About VEGF and PRS-050

Angiogenesis - the development of new blood vessels from pre-existing vasculature - plays an important role in several diseases. Although various pro- and anti-angiogenic factors have been identified, Vascular Endothelial Growth Factor (VEGF) has been implicated as the key angiogenic factor in cancer and neovascular eye disorders.

The PRS-050 program has been designed to develop Anticalins® that specifically bind and block the signalling activity of VEGF. PRS-050 exhibits a favourable binding and functional *in vitro* activity profile in direct comparison to all currently approved

VEGF antagonists. Strong inhibition of VEGF-induced enhanced vascular permeability and strong anti-tumor activity could be demonstrated *in vivo*.

Pieris will exploit in the PRS-050 program the compact structure, intrinsic stability, broad formulation flexibility and small molecular size of Anticalins® to develop products with enhanced penetration into neovascularized tissues for indications such as age-related macular degeneration (AMD) or diabetic retinopathy. Anticalins® with extended serum half life will be employed for the treatment of solid tumors.

Further information is available at http://www.pieris-ag.com