



## **Pieris progresses development of its proprietary biotherapeutics platform: successful demonstration of dual targeting with Duocalin<sup>®</sup> technology**

**Freising-Weihenstephan, Germany – June 21<sup>st</sup> 2007.** Pieris AG, a biopharmaceutical company developing Anticalins<sup>®</sup>, a novel class of targeted human protein therapeutics, announced today that its proprietary Duocalin<sup>®</sup> technology has successfully demonstrated dual targeting potential.

Commenting on this development, Dr Andreas Hohlbaum, Director of Science and Preclinical Development of Pieris said: “As Pieris continues to validate the therapeutic application of its technologies, dual targeting is viewed as a major step forward. Combining the benefits of bivalent, avid binding of disease targets with the ability to modulate two targets at once shows the clear development potential of the Duocalin<sup>®</sup> technology to treat multi-factorial diseases”.

Using individual monomeric Anticalins<sup>®</sup> selected to have picomolar binding affinity to distinct determinants on two defined clinically validated targets, Pieris has constructed Duocalins<sup>®</sup> as monomeric, bivalent binding proteins that retain target specificity and affinity regardless of the structural orientation of their binding domains. Furthermore, the high intrinsic stability of Duocalins<sup>®</sup> is comparable to monomeric Anticalins<sup>®</sup>, offering flexible formulation and delivery potential for Duocalin<sup>®</sup>-based drug candidates.

Despite the low molecular weight of monomeric Anticalins<sup>®</sup> relative to antibodies, their core scaffold provides a highly selective binding site with high structural plasticity and an extensive binding surface comparable to that achieved with antibodies. The adaptability of the Anticalin<sup>®</sup> scaffold has already allowed Pieris to develop therapeutic and diagnostic product candidates with custom designed functionality. Duocalins<sup>®</sup> allow multiple targets to be bound and modulated through a single molecule, which is particularly advantageous in diseases known to involve more than a single causative factor. Moreover, bi- or multivalent binding formats such as Duocalins<sup>®</sup> have significant potential in targeting cell surface molecules in

disease, mediating agonistic effects on signal transduction pathways or inducing enhanced internalization effects via binding and clustering of cell surface receptors.

The data will be presented for the first time on June 25<sup>th</sup> 2007 at IBC's second annual "Beyond Antibodies" Conference in Coronado, CA, USA.

**ENDS**

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**Notes to editors**

**About Pieris AG**

Pieris is a biopharmaceutical company engaged in the discovery and development of Anticalins, a novel class of targeted protein therapeutics, 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.

**About the Anticalin<sup>®</sup> 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 with fundamental similarities to 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 pharmacokinetics and favorable tissue penetration of Anticalins can be balanced through adjustable modulation of serum half-life.

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 the development of conventional antibodies.

**About the Duocalin<sup>®</sup> technology**

Pieris can format Anticalin leads as dual targeting proteins, so-called Duocalins. A Duocalin binds two separate therapeutic targets in one easily produced protein using standard manufacturing processes. Duocalins will create new market opportunities by offering novel therapeutic rationales, better efficacy and increased patient coverage.

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

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