

Unexpected Discovery Made by Swedish Researchers within the Field of Alzheimer:

Newly Discovered Protein Inhibits the Formation of the Precursor to Alzheimer's Plaques.

STOCKHOLM, Sweden, March 27, 2008. As of today, there is no cure or effective treatment of Alzheimer's disease. Swedish researchers have now through their discoveries opened up new possible strategies for potential treatment of the actual cause of the disease. These results have been obtained through a fruitful collaboration between researchers from Sahlgrenska Academy at University of Gothenburg, Royal Institute of Technology (Kungliga Tekniska Högskolan, KTH) and the company Affibody AB.

The researchers have for the first time shown how a newly developed Affibody® molecule, with specific binding affinity for the Alzheimer's amyloid- β peptide, can stabilize and encapsulate the β -peptide.

In Alzheimer's disease, toxic aggregates of the amyloid- β peptide assemble in the brain as fibrils and eventually plaques. The discovery gives insights on how the toxic aggregates are formed and how this process might be inhibited. These results are now published in the distinguished journal, *Proceedings of the National Academy of Sciences of the USA**.

A research group at Sahlgrenska Academy at University of Gothenburg, headed by Professor Torleif Härd has determined the three-dimensional structure of the amyloid- β peptide, by the use of the Affibody® molecule that can specifically capture the β -peptide. Furthermore, it has been shown that the Affibody® molecule stabilizes the β -peptide and inhibits the β -peptide from forming the toxic aggregates known as a precursor of Alzheimer's disease.

"It feels really rewarding when our research on the Affibody® technology platforms leads to breakthroughs of unexpected nature, and especially when it relates to a disease of such impact as Alzheimer's disease", says Professor Stefan Ståhl, who leads a research group at School of Biotechnology, KTH, that has developed the Affibody protein in collaboration with the biotech company Affibody AB.

The study provides not only the first high-resolution 3D structure of the amyloid- β peptide bound to an aggregation-preventing agent, i.e. the Affibody® molecule, but also demonstrates how the Affibody protein embraces the peptide and thereby buries large parts of it within a tunnel-like structure. *"While other molecules that interact with the amyloid- β peptide typically also bind to the peptide aggregates, the Affibody® protein specifically binds non-aggregated, single amyloid- β peptide molecules",* explains senior author Professor Torleif Härd. Importantly the mode of interaction explains why full inhibition of aggregation is achieved.

Successful Swedish research collaboration

Present treatments of Alzheimer's are focused on the limiting the major symptom of the disease, i.e. memory loss. No cure or effective treatments of Alzheimer's disease are available. The results of the research team might allow new possible strategies for treatment.

"The obtained results could have great clinical impact but further studies remain to assess whether it will give us new efficacious treatments for Alzheimer's disease." says Professor Bengt Winblad at the Karolinska Institute.

* *Proceedings of the National Academy of Sciences of the United States of America*, "Stabilization of a β -hairpin in monomeric Alzheimer's amyloid- β peptide inhibits amyloid formation" of Wolfgang Hoyer, Caroline Grönwall, Andreas Jonsson, Stefan Ståhl, and Torleif Härd.

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Enquiries

Chief Scientific Officer, Lars Abrahmsén, Affibody AB

Phone: +46 8 5988 3812

e-mail: reception@affibody.com

Professor Torleif Härd, Department of Medical Biochemistry and Swedish Nuclear Resonance, Sahlgrenska Academy, University of Gothenburg

Phone: +46 31 786 3952

e-mail: torleif.hard@gu.se

Professor Stefan Ståhl, Dean, School of Biotechnology, Royal Institute of Technology (KTH)

Phone: +46 8 5537 8329

e-mail: stefans@biotech.kth.se

About Affibody

Affibody is a Swedish biotech company focused on improving the treatment of cancer through a combination of molecular imaging and individualized targeted treatments.

Affibody imaging and therapeutic products are based on the Company's proprietary Affibody® molecules. These small and robust high affinity protein molecules can be designed to bind specifically to a large number of target proteins that play an important role in the diagnosis or treatment of cancer. Affibody® molecules are easily produced and are stable in a wide range of conditions.

Affibody® molecules are well suited for molecular imaging and as the same Affibody® molecule could be charged with a cytotoxic payload, it can potentially also be used for targeted therapy.

In addition to its pipeline of molecular imaging and targeted therapeutic products, Affibody is developing Affibody® molecules for various biotechnology applications in a number of commercial collaborations.

Affibody was founded in 1998 by researchers from the Royal Institute of Technology and the Karolinska Institute and is based in Bromma outside Stockholm, Sweden. Current owners include the investment companies HealthCap, Investor Growth Capital and SV Life Sciences.

Further information can be found at: www.affibody.com