

## **Affiris Uses Definiens Technology in Fight Against Alzheimer's Disease**

**Munich, Germany and Vienna, Austria – March 18th 2008** – Affiris GmbH announced today that it will integrate the Definiens Enterprise Image Intelligence™ Suite in the company's Alzheimer's disease vaccination program. The decision was based on the company's outstanding experience with Definiens software. Affiris' business strategy focuses on rapid identification of drug candidates and accelerated preclinical and clinical development. Matching Affiris requirements comprehensively, Definiens provides automated image analysis solutions with reliable, fast and consistent results.

### **Definiens – unparalleled image analysis coupled with time and cost saving**

In order to launch its new AFFITOPE™ vaccines, which facilitate the induction of a desired antibody immune response, Affiris wants to streamline its processes and control timelines more aggressively. One bottleneck common in preclinical stages is the detailed analysis of a large amount of high content images. In the project the challenge was automating high content image analysis of histological slides of mouse brains. Crucial factors were the batch processing and job scheduling capabilities of the Definiens software which enable efficient processing of files larger than 1 GB. Definiens' automated image analysis will not only help Affiris to reduce costs and save its scientific personnel time, but the results will also be more objective compared to a manual approach.

### **Peptide-based vaccines against Alzheimer's disease**

In November 2007 Affiris attracted public attention, when it was granted a European-wide patent for key elements of its Alzheimer's disease vaccination strategy. The hallmark of Alzheimer's disease are deposits of aggregated beta-amyloid peptide in the brain. Beta-amyloid is removed from larger precursor protein by the body's own enzymes, in healthy as well as afflicted persons. It is generally believed however, that in Alzheimer's disease the regulation of this removal is disturbed, leading to higher amounts and/or more aggregation-prone species of beta-amyloid. AFFITOPE™ vaccines, invented and produced by Affiris, are modified beta-amyloid-like peptides which elicit an immune response against the aggregation-prone beta-amyloid, but not against the physiological precursor protein. One

such vaccine is currently undergoing clinical tests, while others are still in the preclinical stage.

Dr. Markus Mandler, Head of Neurodegeneration Department at Affiris, said “The Definiens Enterprise Image Intelligence Suite is an open platform that can be easily integrated with the existing hardware as well as image acquisition devices and software. It enables even untrained users to calibrate and execute versatile image analysis workflows. Thanks to the user-friendliness of the platform and the excellent support provided by Definiens, the implementation process will be very short and the technology is expected to become part of our work routine as early as February 2008.”

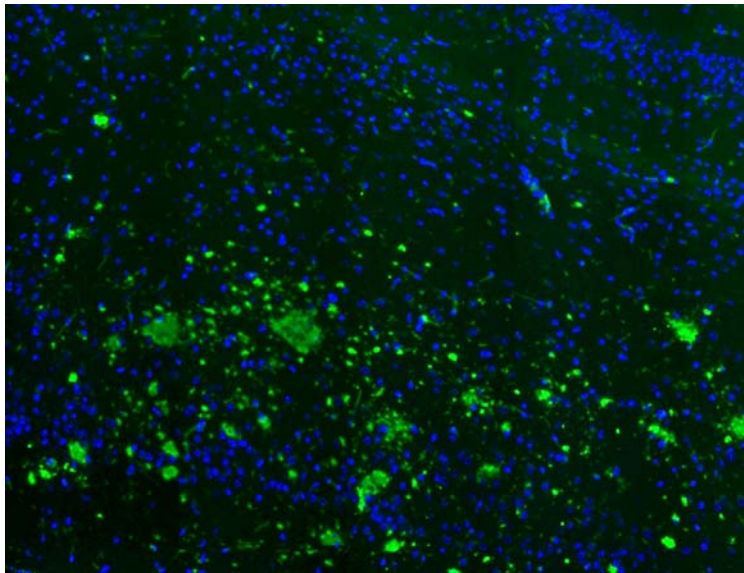


Fig.: Amyloid plaque staining on brain sections of an AD mouse.

One of the hallmarks of Alzheimer's disease is the accumulation of amyloid plaques in the brain. These amyloid plaques can be visualised on sections of such brains by staining with amyloid specific antibodies. This staining reaction results in green amyloid plaques surrounded by blue nuclei of surrounding cells like neurons or astrocytes.

Image courtesy of Affiris GmbH

### **About AFFiRiS**

AFFiRiS GmbH develops peptide-based vaccines for the treatment of Alzheimer's disease, atherosclerosis and other serious diseases. The company has established its AFFITOME platform technologies. It employs 30 highly qualified members of staff on 600m<sup>2</sup> of rented laboratory facilities at the Campus Vienna Biocenter ([www.affiris.com](http://www.affiris.com)).

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### **Definiens in Life Sciences**

By automating [image analysis](#) on an enterprise level, Definiens supports Life Science organizations to analyze and interpret vast numbers of images accurately and consistently. Definiens improves the measurement of cell assays, the examination of tissue samples and the interpretation of non-invasive imaging, enabling high-content screening, digital pathology and translational medicine.

### **About Definiens**

Definiens is the number one Enterprise Image Intelligence company for analyzing and interpreting images on every scale, from microscopic cell structures to satellite images. The Definiens Cognition Network Technology®, developed by Nobel laureate Prof. Gerd Binnig and his team, is an advanced and robust context-based technology designed to fulfill the image analysis requirements of the Life and Earth sciences markets. The technology is modeled on the powerful human cognitive perception processes to extract intelligence from images. Definiens provides organizations with faster [image analysis](#) results, allowing deeper insights enabling better business decisions. The company is

headquartered in Munich, Germany and has offices throughout the United States. Further information is available at [www.definiens.com](http://www.definiens.com)

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