EUROPEAN RESEARCHERS JOIN FORCES TO TRACK THE LINK BETWEEN DEVELOPING AND AGEING BRAIN

The Medical University of Vienna initiates a multinational research programme on molecular pathways in the brain, which are shared in early development and ageing. The project entitled DEVELAGE specifically aims to identify early pathological processes contributing to Alzheimer`s disease with the aim to improve its diagnosis and therapy. Coordinated by the Institute of Neurology at the Medical University of Vienna researchers at eight partners from six European countries, will study the links between aberrant brain development and Alzheimer's disease. The recently approved 3-year project will receive 2.99 million Euro through the 7th EU Framework Programme within the "Health" theme.

The increasing number of elderly people will have a major impact on the prevalence of age-related diseases, which threatens sustainability of health care systems in Europe. One of the major challenges in the treatment of Alzheimer's disease is the early detection of patients, when therapeutic measures can still slow disease progression. However, as Dr. Gabor G. Kovacs (Institute of Neurology, Medical University of Vienna), coordinator of the project entitled *DEVELAGE*, points out: „Our current knowledge is insufficient to identify the transition of normal brain ageing into Alzheimer's disease-like brain damage."
Based on their extensive research experience the Medical University of Vienna and its project partners have initiated the project DEVELAGE to characterise molecular pathways in the brain, which are shared in early development and ageing. "Our concept is based on the hypothesis that disorders of brain development contribute to age-related pathologies that proteins and genes essential for brain development may have a role in neurodegeneration. " Dr. Kovacs explains, "In reverse, genes and proteins related to degeneration of the brain may contribute crucially to its development."

DEVELAGE seeks answers to the following questions:

1) Alzheimer's disease and similar neurological disorders are characterised by the deposition of abnormal proteins in the brain. What physiological function do these perform during development? How do physiological pathways that are important for brain development act during normal ageing of the brain?

2) There are many people above 90 years of age with normal cognition and without the characteristic aberrations of Alzheimer`s disease in the brain. Can we identify protective and risk factors in the genome?

The Medical University of Vienna will coordinate a group with diverse but complementary skills from Austria, France, Germany, Italy, the Netherlands and Spain, comprising six other university institutes to perform research in this area and one SME for management and dissemination of the project.

Dr. Kovacs concludes: „Our approach aims at evaluating normal brain ageing and brain development to improve our understanding of what goes wrong in disease. Using advanced animal models and human tissue might help to identify factors suitable to reverse or halt disease progression, which may be exploited in the near future as therapeutically relevant target-molecules. "

DEVELAGE Background:
The EU project "DEVELAGE" ("Pathways common to brain development and ageing: defining strategies for preventive therapy and diagnostics") is a collaborative project of the Seventh Framework Programme of the European Union with the Grant Agreement No. FP7-HEALTH-2011-278486. The project aims to characterise molecular pathways in the brain, which are shared between early developmental processes and ageing, in order to identify early pathological processes contributing to Alzheimer's disease. The project will run for three years and is receiving 2.99 million EUR funding from the EU. The Institute of Neurology at the Medical University of Vienna serves as coordinator of the project's ambitious research programme.

The project partners consist of seven universities and one SME:
Medical University of Vienna (Austria) - Gabor G. Kovacs, MD PhD
The Bellvitge Insitute of Biomedical Research (Spain) – Prof. Isidro Ferrer
Amsterdam Medical Center (the Netherlands) – Eleonora Aronica, MD PhD
Sapienza University of Rome (Italy) – Prof. Sigfrido Scarpa
Tierärztliche Hochschule Hannover (Germany) – Prof. Elke Zimmermann
University of Montpellier 2 (France) – Prof. Jean-Michel Verdier
Université Paris Diderot (France) – Homa Adle-Biassette, MD, PhD
Biolution GmbH (Austria) – Dr. Iris Grünert

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