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Press Release



Working together against Alzheimer's, Parkinson's and dementia

Collaboration between two Helmholtz Centres: Neuroscientists and infection researchers focus on interdisciplinary partnership to study brain diseases

Two institutions of the Helmholtz Association are joining forces for health research: How does the brain protect itself from pathogens? Can infections favour Alzheimer's disease? Scientists from the German Center for Neurodegenerative Diseases (DZNE) in Bonn and the Helmholtz Centre for Infection Research (HZI) in Braunschweig want to tackle such questions together over the next few years. The interdisciplinary collaboration will receive funding of approximately 600,000 Euro. The researchers hope to discover new facts about dementia and other brain diseases.

"Despite a number of studies in the past we do not yet know what the role of infections is in favouring neurodegenerative disease progression," says the Scientific Director of the DZNE, Prof. Pierluigi Nicotera. "Chronic inflammations due to pathogens may favour certain processes in the brain that ultimately may cause neuronal damage."

Prof. Dirk Heinz, Scientific Director of the HZI, points to the potential of this joint venture: "Despite common interests there has as yet been too little exchange between neurobiologists and infection researchers. We want to change this," says Heinz. "This collaboration offers the best prospects as the expertise and methodology of both Helmholtz Centres complement each other optimally. We want to use this synergy and such interlinking is fully in line with the philosophy of the Helmholtz Association."

Joint projects

The Helmholtz Centres will collaborate on two projects over the next three years. Each receives funding of around 300,000 Euro. The laboratory studies are intended to explore fundamental issues related to infection processes and neurobiology.

One of the research projects will investigate the assumption that repeated infections may promote neurodegenerative diseases, in particular Alzheimer's disease. Prof. Michael Heneka from the DZNE and Prof. Martin Korte from the HZI will collaborate on this.

The second project will tackle the role of certain brain cells, so-called astrocytes, in fighting off viral infections. This subject will be investigated jointly by Prof. Frank Bradke (DZNE), Prof. Ulrich Kalinke (HZI) and Prof. Martin Stangel from the Hannover Medical School.

The German Center for Neurodegenerative Diseases

The German Center for Neurodegenerative Diseases (DZNE) investigates the causes of diseases of the nervous system and develops strategies for prevention, treatment and care. It is a member of the Helmholtz Association and has sites in Berlin, Bonn, Dresden, Göttingen, Magdeburg, Munich, Rostock/Greifswald, Tübingen and Witten. The administrative headquarters are in Bonn. The DZNE cooperates closely with universities, their clinics and other research facilities. Website: www.dzne.de/en

The Helmholtz Centre for Infection Research (HZI):

The Helmholtz Centre for Infection Research contributes to the achievement of the goals of the Helmholtz Association of German Research Centres and to the successful implementation of the research strategy of the German Federal Government. The goal is to meet the challenges in infection research and make a contribution to public health with new strategies for the prevention and therapy of infectious diseases.

www.helmholtz-hzi.de