

LOEWE Research Cluster NeFF

Neuronal Coordination Research Focus Frankfurt

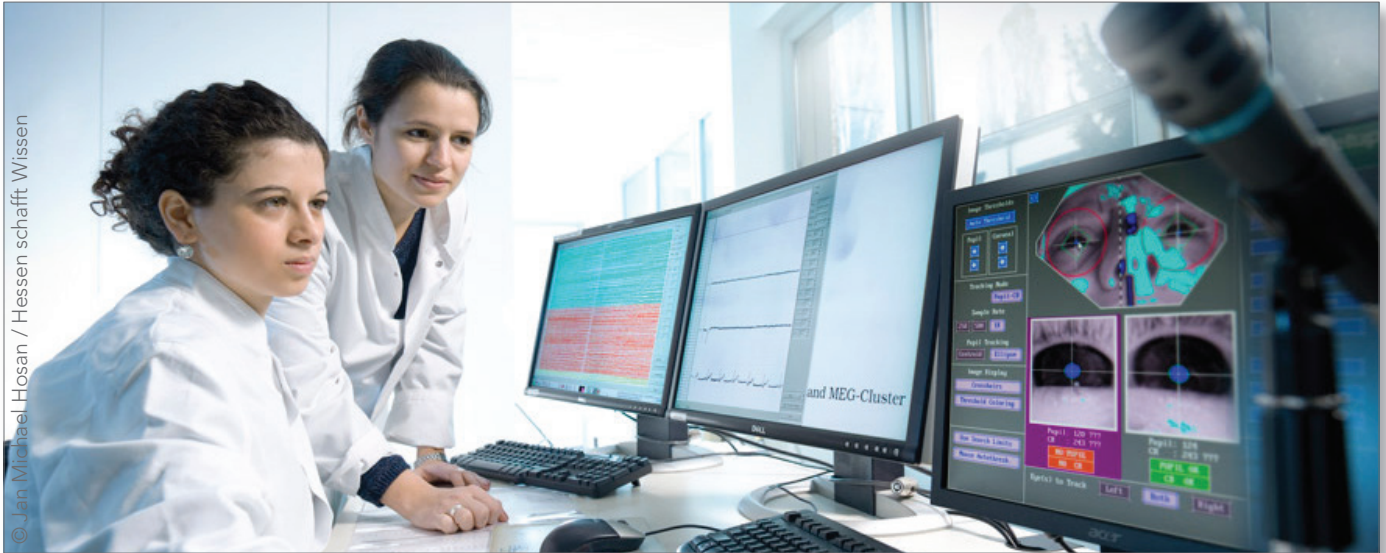


© Jan-Michael Hosen / Hessen schafft Wissen

How does the human brain work?

The human brain is made of billions of nerve cells. Higher brain activity such as cognition, language or memory is based on neuronal coordination, the coordinated exchange of signals between individual nerve cells and groups of nerve cells. If this coordination is disrupted, brain disorders occur. NeFF is analysing neuronal coordination in schizophrenia and autism as well as in Alzheimer's disease and multiple sclerosis. The scientists in the LOEWE research cluster are trying to determine indicators that will enable early diagnosis and allow therapeutic effects to be measured. To that end, they combine basic research with clinical neuroscience and mathematical modelling. In the field of neuromodulation, NeFF's aim is to continue the work in a DFG Collaborative Research Centre (CRC). In a CRC set up together with the Johannes Gutenberg University in Mainz, for which a full proposal is being prepared, the focus is on resilience: hardly any research has so far been conducted into the human ability to resist psychiatric and neurological diseases, which is of extreme clinical relevance.

NeFF 
NeFF - Neuronale Koordination
Forschungsschwerpunkt Frankfurt M.



COORDINATOR

Prof. Dr. Michael Wibrals,
Goethe University, Frankfurt am Main

PARTNERS

Goethe University, Frankfurt am Main
Max Planck Institute for Brain Research,
Frankfurt am Main
Frankfurt Institute for Advanced
Studies (FIAS)
Ernst Strüngmann Institute (ESI),
Frankfurt am Main
Technische Universität Darmstadt

LOCATIONS

Frankfurt am Main
Darmstadt

SUBJECT AREAS

Medicine
Biology
Physics
Mathematics
Informatics

FUNDING PERIOD

2011 to 2014

COORDINATION OFFICE

Prof. Dr. Michael Wibrals
Phone +49 69 6301-83193
wibrals@em.uni-frankfurt.de

INTERNET

www.proloewe.de/en/neff

LOEWE and ProLOEWE

Since 2008 the German federal state of Hessen has been promoting outstanding research initiatives through its own excellence programme, LOEWE. To date, 11 LOEWE research centres and 35 LOEWE research clusters have been selected in a competitive process to receive funding.

ProLOEWE is the LOEWE research initiatives network: their common aim is to provide information about their activities, speed up access to their research and intensify their cooperation. The website www.proloewe.de/en provides an overview of the LOEWE research initiatives.