



Institut für Schlaganfall-
und Demenzforschung (ISD)

RESEARCH GROUPS

Dr. Corinne Benakis

Microbiome–Gut–Brain Interactions

- Gut microbiome and the brain after stroke
- corinne.benakis@med.uni-muenchen.de
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Prof. Dr. Jürgen Bernhagen

Vascular Biology

- Molecular and cellular mechanisms of cardiovascular diseases
 - Atherosclerosis, stroke, inflammation, chemokines
- juergen.bernhagen@med.uni-muenchen.de
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Prof. Dr. Martin Dichgans

Translational Stroke and Dementia Research

- Molecular, cellular, and physiological mechanisms of stroke and cerebrovascular disease
 - Genetics of stroke and dementia
- martin.dichgans@med.uni-muenchen.de
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Dr. Ali Erturk

Acute Brain Injury

- Tissues transparency technologies
 - AI in imaging and spatial-omics
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Prof. Dr. Michael Ewers

Brain Imaging and Biomarker

- Resilience, connectomics & immunity in Alzheimer's disease (AD)
 - MRI and molecular PET imaging
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Dr. Nicolai Franzmeier

Alzheimer's Disease Neuroimaging

- Multi-modal neuroimaging methods
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RESEARCH GROUPS

Dr. Ozgun Gokce

Systems Neuroscience – Cell Diversity

- Mechanisms regulating nervous and immune systems
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Dr. Sarah Jäkel

Oligodendrocyte Pathology

- Oligodendrocytes and pathogenesis of AD
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Prof. Dr. Arthur Liesz

Stroke-Immunology

- Systemic immunomodulation after stroke
 - Translational stroke research
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Prof. Dr. Dominik Paquet

iPSC-Models of Brain Diseases

- Human tissue models
 - CRISPR/Cas genome editing
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Prof. Dr. Nikolaus Plesnila

Experimental Stroke Research

- Acute and chronic brain injury
 - Neuro-vascular morphology and function
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Dr. Steffen Tiedt

Molecular Biomarkers – From Omics to Mechanisms


- Local and systemic effects of stroke
 - Circulating proteome and metabolome
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Center for Stroke and Dementia Research

Research Groups



Institut für Schlaganfall-
und Demenzforschung (ISD)

Deutsches Zentrum für
Neurodegenerative Erkrankungen e. V.
(DZNE) 



Center for Stroke and Dementia Research (CSD)

The CSD provides the laboratories for the **German Center for Neurodegenerative Diseases (DZNE)** and the **Institute for Stroke and Dementia Research (ISD)**.

It provides 8.311 sqm of occupancy space and hosts scientists from the Ludwig-Maximilians Universität München (LMU), the Technische Universität München (TUM), the German Center for Neurodegenerative Diseases (DZNE) of the Helmholtz Association, and the Munich Cluster for Systems Neurology (SyNergy).



The new building provides home to more than 200 basic and clinician scientists, technical and support staff.

It has a dedicated outpatient clinic & clinical trials unit for cerebro-vascular disorders and patients with dementia.

For researchers and students it offers a lecture hall, seminar rooms and space for informal discussion and exchange.

The CSD building was designed by the architects Nickl & Partners and is in operation since winter of 2014.



Martin Dichgans
(Director ISD)



Christian Haass
(Speaker DZNE)



Deutsches Zentrum für
Neurodegenerative Erkrankungen e. V.
(DZNE)

RESEARCH GROUPS

Prof. Dr. Christian Behrends (LMU / SyNergy)
Systems Biology of Neurodegenerative Diseases
• *Dissecting autophagy and ubiquitin pathways*
christian.behrends@mail03.med.uni-muenchen.de
<https://behrendslab.com/>

Prof. Dr. Lena Burbulla (DZNE / LMU / SyNergy)
Translational Disease Modeling
• *Neurodegeneration in Parkinson's disease (PD)*
• *Neuron-glia crosstalk*
lena.burbulla@dzne.de

Prof. Dr. Dieter Edbauer (DZNE / LMU / SyNergy)
Cell Biology of Neurodegeneration
• *Frontotemporal dementia (FTD)*
• *Amyotrophic lateral sclerosis (ALS)*
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Prof. Dr. Dr. h.c. Christian Haass (DZNE / LMU / SyNergy)
Molecular Neurodegeneration
• *Alzheimer's disease (AD) and Frontotemporal dementia (FTD)*
• *Modulation of microglial function*
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Prof. Dr. Jochen Herms (DZNE / LMU / SyNergy)
Translational Brain Research
• *Synaptic dysfunction in neurodegenerative diseases*
• *Role of astrocytes and microglia in neurodegenerative diseases*
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Prof. Dr. Stefan Lichtenthaler (DZNE / TUM / SyNergy)
Neuroproteomics
• *Molecular pathogenesis of Alzheimer's disease - secretases and genetic risk factors in microglia*
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Prof. Dr. Thomas Misgeld (DZNE / TUM / SyNergy)
Neuronal Cell Biology
• *Axon degeneration and axon loss*
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Deutsches Zentrum für
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RESEARCH GROUPS

Dr. Martina Schifferer (DZNE / SyNergy)
Nanoscale Hub
• *Electron Microscope Facility*
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Dr. Bettina Schmid (DZNE)
Zebrafish Models
• *Zebrafish models to study molecular mechanisms of neurodegenerative diseases*
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Prof. Dr. Mikael Simons (DZNE / TUM / SyNergy)
Molecular Neurobiology
• *Biology of glia in development and disease*
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Prof. Dr. Harald Steiner (DZNE / LMU)
Biochemistry of γ -Secretase
• *Molecular recognition of γ -secretase substrates*
• *Modulation of γ -secretase activity*
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Dr. Sabina Tahirovic (DZNE)
Ex Vivo Models
• *Microglial dysfunction in neuronal and glial signaling*
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Dr. Benedikt Wefers (DZNE)
Genome Engineering
• *Mouse models and neurodegenerative diseases*
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Prof. Dr. Mikael Simons (DZNE / TUM / SyNergy)
Prof. Dr. Johannes Levin (DZNE / LMU / SyNergy)
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