Research Topics at University of Oldenburg

Career Day

Research Module

In contex of the study programs Biology, Neurocognitive Psychology, Neuroscience.

6-8 Weeks | + Experiments | + Research Practice | + Individual Scheduling

+ Individual Supervision | + Literature Background | + Individual Research Question | + Presentation

Department of Neuroscience

Animal Physiology and Behaviour

Prof. Dr. Georg Klump

- Behavioural Physiology
- Systems Neuroscience
- Animal Psychoacoustics
- Neuronal processing in the auditory pathway
- Communication

Dr. Ulrike Langemann

- Zoology and behavior
- Sensory ecology of auditory communication
- Processing mechanisms in the auditory system of birds and mammals

Auditory Neuroscience

Prof. Dr. Jannis Hildebrandt

- Auditory & systems neuroscience
- Behavioral Physiology
- Optogenetics, electrophysiology, data analyis, animal behavior, histology

Biochemistry

Prof. Dr. Karl-Wilhelm Koch

- Retinal phototransduction
- Calcium-sensing proteins
- Guanylate cyclases
- Molecular basis of congenital retinal degenration
- Receptors and signal transduction

Dr. Alexander Scholten

- Phototransduction in the retina
- Neuronal calcium sensor proteins
- Guanylate cyclases
- Molecular basis of inheritedneurodegenerations in the retina

Cochlea and Auditory Brainstem

Prof. Dr. Christine Köppl

- Physiology
- Anatomy and evolution of hearing

Dr. Ulrike Sienknecht

- Developmental Biology
- Evolution
- Vertebrates
- Auditory Systems

Computational Neuroscience

Prof. Dr. Jutta Kretzberg

- Computational Neuroscience
- Sensory physiology
- Neuronal coding
- Invertebrate Neuroscience

Neurogenetics

Prof. Dr. Hans Gerd Nothwang

- (Epi-)Genetics
- Developmental biology
- Evo-devo
- Deafness
- Audiory system

Dr. Anna-Maria Hartmann

- Cation-chloride cotransporter
- KCC2
- Evolution
- Analysis of structure - function - relationships

Visual Neuroscience

Prof. Dr. Martin Greschner

- Retina, visual system
- Elektrophysiology, multi-elektrode-array
- Visual coding

Apl. Prof. Dr. Ulrike Janssen-Bienhold

- Molecular and cellular neuroscience
- Neuroanatomy
- Signal transduction in the nervous system
- Vision research

External Research Project

- Research project outside of Oldenburg
- Flexible topic
- Co-supervisor from Oldenburg

Marseille-Oldenburg Fellowship

- Aix-Marseille Université
- Course and research based training
- Up to 10 fellowships per year
- 4-6 months
- Up to 5000 €

Department of Neurocognitive Psychology

Applied Cognitive Psychology

Prof. Dr. Jochem Rieger

- Human neurophysiology of perception and action
- Statistical learning, electrocorticography
- fMRI, MEG/EEG, BCI

Cognitive Neurobiology

Prof. Dr. Christiane Thiel

- Functional neuroimaging, fMRI
- Psychopharmacology, pharmacological interventions
- Behavioural experiments

Cognitive Psychology

Prof. Dr. Hans Colonius

- Multisensory integration
- Fechnerian Scaling
- Registration of eye movements, reaction times
- Probabilistic models including Bayesian statistics

Experimental Psychology

Prof. Dr. Christoph Hermann

- EEG/MEG, fMRI, TES,TMS
- Eye-tracking, neural network simulations
- Oscillatory brain activity

Neuropsychology

Prof. Dr. Stefan Debner

- Sensory deprivation and compensatory mechanisms
- High-density EEG,MEG, fMRI, concurrent EEG-fMRI recordings

Institute for Biology and Environmental Science

Animal Navigation

Apl. Prof. Dr. Karin Dedek

- Localization and function of gap junctions in the mouse retina
- Functional role of retinal interneurons

Prof. Dr. Henrik Mouritsen

- Animal navigation
- Magnetoreception

Animal Sensory Biology

Prof. Dr. Michael Winklhofer

- Biogenic magnetic nanoparticles
- Animal navigtion

Department of Health Services Research

Epidemiology and Biometry

Dr. Fabian Sobotka

- Geostatistics, boosting, GAMLSS
- Spatial statistics, instrumental variables, graphical models
- Quantile-/ Expectile-/ Semiparametric regression

Department of Human Genetics

Human Genetics

Prof. Dr. John Neidhardt

- Human genetics, therapy development
- Eye diseases, retinal degeneration
- Hearing impairment

Department of Medical Physics and Acoustics

Medical Physics

Dr. Jörn Anemüller

- Statistical signal models, signal processing, acustics
- Computational neuroscience, data analysis
- Machine learning

University of Groningen

Lab for Metabolic Signaling

Prof. Dr. Katrin Thedieck

- Metabolic signaling
- Mammalian Target of Rapamycin (mTOR)
- Cell growth and ageing
- Protein homeostasis

CARL VON OSSIETZKY universität OLDENBURG

IBU

Department for Neuroscience

Neuroscience Student Body University of Oldenburg

DEPARTMENT OF PSYCHOLOGY CARL VON OSSIETZKY UNIVERSITY OLDENBURG