



# Graduate Training Centre of Neuroscience

## Integrating Neuroscience Education



## The University of Tübingen

Since 2012: 1 of 11 German Universities of Excellence



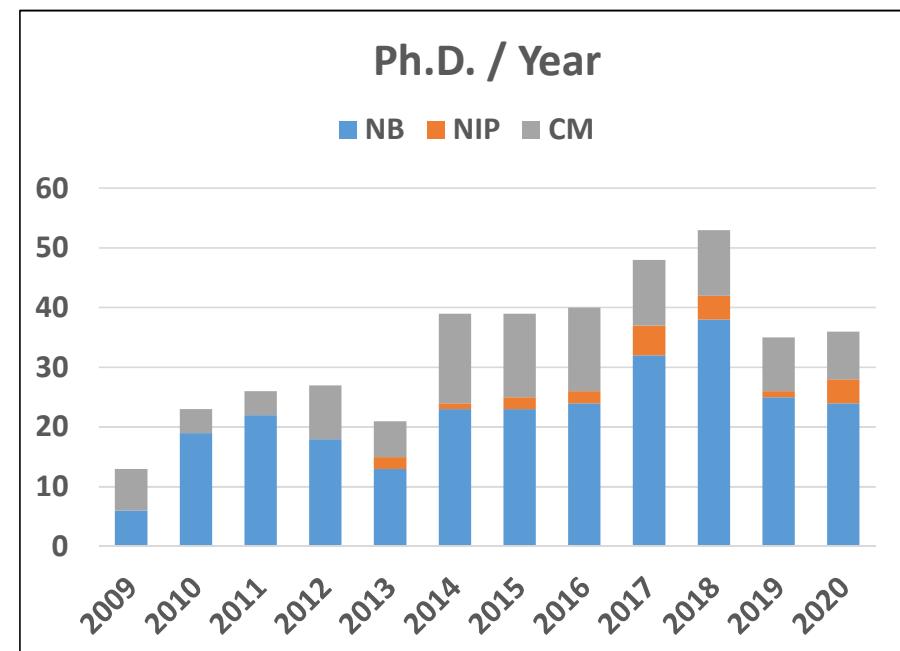
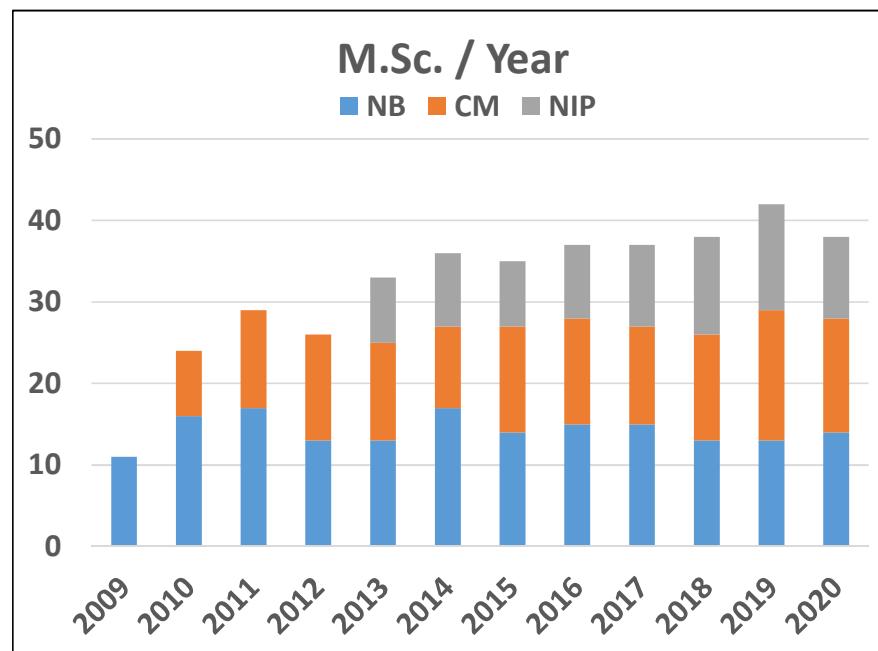
Winter semester 2021/22

All students	28,159
Female	16,589
New enrollments	5,219
International students	3,927



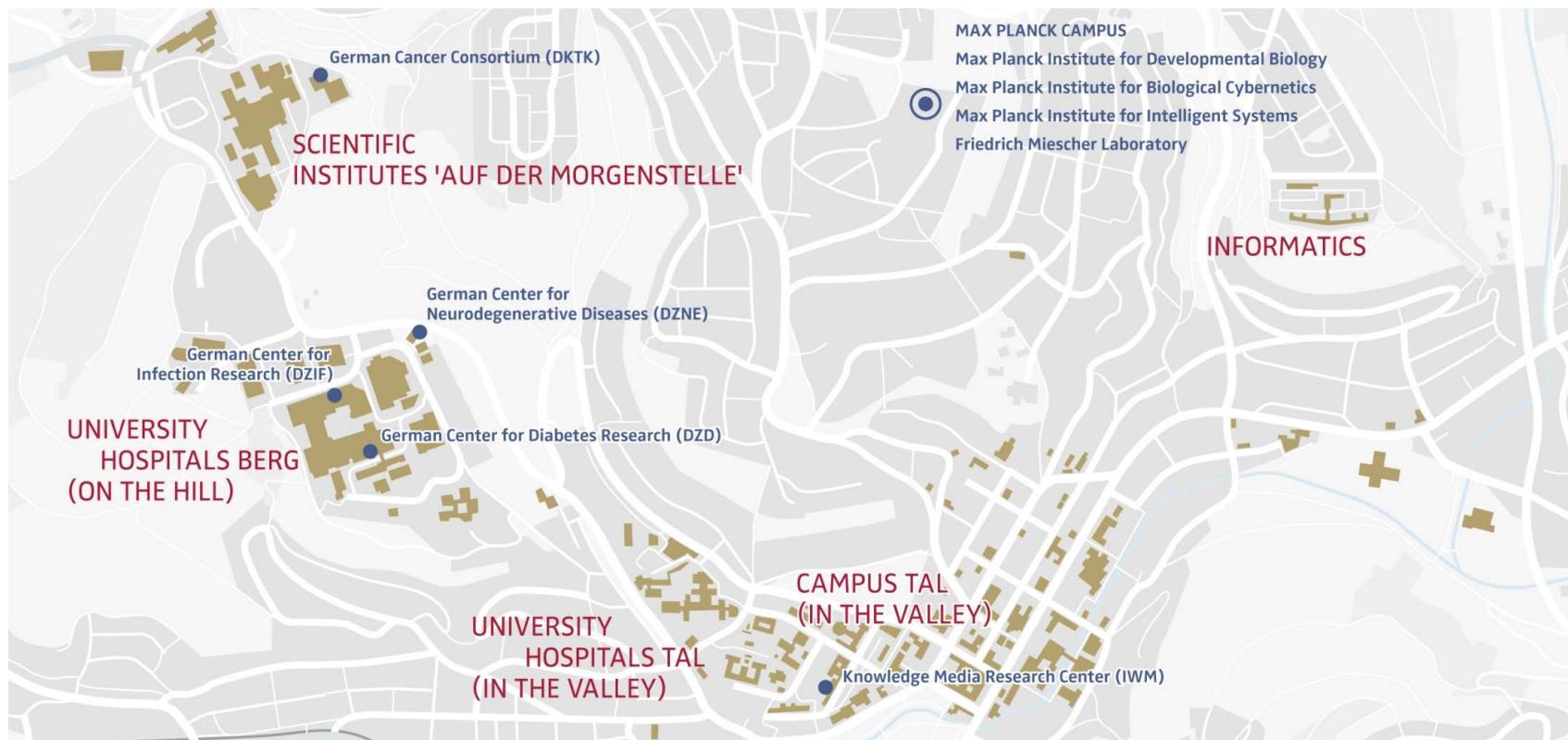
## The Graduate Training Centre

	Current	Internationals	Graduations (2009-2020)
Master	86	58%	386
PhD	223	53%	400





## Tübingen Campuses





## University of Tübingen Core Research



Neuroscience

Artificial Intelligence and Machine Learning

Plant Molecular Biology

Translational Immunology and Cancer Research

Microbiology and Infection Research

Human Evolution and Archaeology

Language and Cognition

Education and Media

Geoscience and Environmental Science



## University of Tübingen Core Research - Neuroscience

**2008 - 2021**

24 ERC Starting Grants

11 ERC Consolidator Grants

12 ERC Advanced Grants

3 ERC Proof of Concept

2 ERC Synergy Grant

**Since 2019/20**

ERC Starting Grants Dr. Christina Schwarz

Prof. Dr. Philipp Berens

ERC Consolidator Grants Prof. Dr. Markus Siegel

Prof. Dr. Tobias Hauser

Prof. Dr. Jakob Macke

ERC Advanced Grants Prof. Dr. Klaus Scheffler

Prof. Dr. Jan Born

ERC Synergy Grants Prof. Dr. Martin Giese

Prof. Dr. Ulf Ziemann



## TübingenNeuroCampus - TNC



<https://tuebingenresearchcampus.com/research-in-tuebingen/tnc/>



info@tuebingenresearchcampus.com



+49 7071 29-75570

## TÜBINGEN NEURO CAMPUS

You are here: Research » Tübingen Neuro Campus

The Neurosciences in Tübingen with more than 100 active research groups have the potential to rank among the most successful neuroscientific sites in Europe. Scientists in Tübingen pursue theoretical, system-neuroscientific, molecular and clinical research approaches in their entire breadth with a wide range of methods. The newly founded TübingenNeuroCampus wants to ensure the optimal use of Tübingen's potential with respect to research, education and application.



### MISSION

Find here the mission, priority activities and the governance of the TNC



### PARTNERS

A list of the members representing the partners in the Institutional Steering Board and the Founding Group.



### PEOPLE OF THE TNC

A list of all the PIs and their research interests.

 Visit page



<https://tuebingenresearchcampus.com/research-in-tuebingen/tnc/>



Rechteckiges Ausschneiden

ABOUT US | RESEARCH | CAREER | FACILITIES | PEOPLE | EVENTS | PRESS



## Understanding Thought Processes

The aim of the Max Planck Institute for Biological Cybernetics is to understand information processing in the brains of humans and animals. We use experimental, theoretical and computational methods to elucidate the characteristics and implementations of the cascades of plastic and recurrent interactions that transform sensory data into perceptions, memories, appropriate choices of actions, and motor output.

<https://www.kyb.tuebingen.mpg.de/en>



### Department for Computational Neuroscience

Dr. Peter Dayan

> [more]



### Molecular Signaling

Dr. Robert Ohlendorf > [more]



### Dynamic Cognition Group

Dr. Assaf Breska > [more]



### Translational Sensory and Circadian Neuroscience

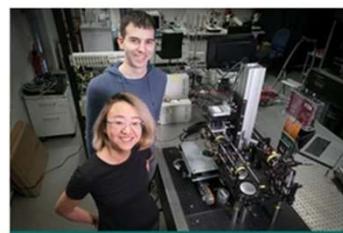
Prof. Dr. Manuel Spitschan > [more]



### Department for Sensory and Sensorimotor Systems

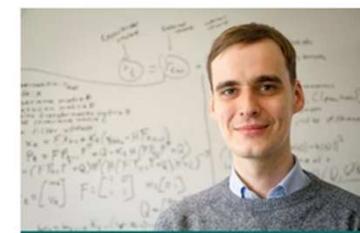
Prof. Dr. Zhaoping Li

> [more]



### Systems Neuroscience & Neuroengineering

Dr. Jennifer Li & Dr. Drew Robson



### Computational Principles of Intelligence

Dr. Eric Schulz



### Department for High-field Magnetic Resonance

Prof. Dr. Klaus Scheffler

> [more]

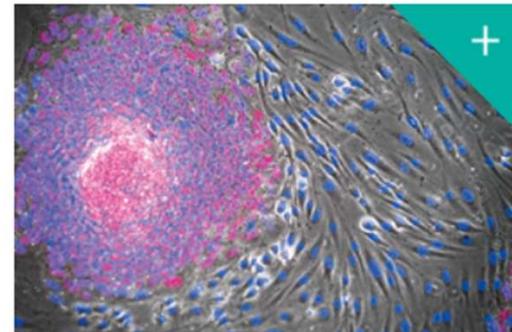


Hertie-Institut  
für klinische Hirnforschung

## Departments



Neurology with Neurovascular Medicine



Neurodegenerative Diseases



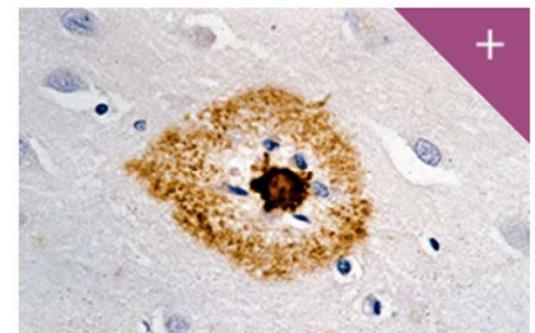
Neurology and Epileptology



Department of Neurology and Interdisciplinary Neuro-Oncology



Department of Neural Dynamics and Magnetoencephalography



Cellular Neurology

<https://www.hih-tuebingen.de/en/>

## Overview of research groups

- Brockmann Lab  
([Clinical Parkinson Research](#))
- Fitzgerald Lab  
([Mitochondrial Biology of Parkinson's Disease](#))
- Gasser Lab  
([Dystonia](#))
- Gasser Lab  
([Genetics of Parkinson's disease](#))
- Giese Lab  
([Section for Computational Sensomotorics](#))
- Grimm Lab  
([Neuromuscular Imaging Group](#))
- Hafed Lab  
([Active Perception Lab](#))
- Häufle Lab  
([Motor Control Modeling](#))
- Hedrich-Klimosch Lab  
([Experimental Neurophysiology of Channelopathies](#))
- Lerche Lab  
([Experimental Epileptology](#))
- Mayer Lab  
([Molecular Brain Development](#))
- Merk Lab  
([Experimental Pediatric Neuro-Oncology](#))
- Naumann Lab  
([Molecular Neurooncology](#))
- Neher Lab  
([Experimental Neuroimmunology](#))
- Poli Lab  
([Stroke and Neuroprotection](#))
- Renovanz Lab  
([Health Care Research in Neuro-Oncology](#))
- Schöls Lab  
([Section for Clinical Neurogenetics](#))
- Schüle Lab  
([Genomic of Rare Movement Disorders](#))
- Schwarz Lab  
([Systems Neurophysiology Lab](#))
- Helfrich Lab (Human Intracranial Cognitive Neurophysiology)
- Himmelbach Lab  
([Neuropsychology of Action](#))
- Ilg Lab  
([Oculomotor Laboratory](#))
- Jucker Lab  
([Experimental Neuropathology](#))
- Kahle Lab  
([Functional Neurogenetics](#))
- Karnath Lab  
([Section for Neuropsychology](#))
- Kowarik Lab  
([Neurological B-Cell Immunology Group](#))
- Kühn Lab  
([Translational Imaging of Cortical Microstructure](#))
- Laske Lab  
([Dementia Research](#))
- Siegel Lab  
([Neural Dynamics and Magnetoencephalography](#))
- Snaidero Lab  
([Neuron-Glia Interactions](#))
- Synofzik Lab  
([Section for Translational Genomics of Neurodegenerative Diseases](#))
- Tabatabai Lab  
([Laboratory for Clinical and Experimental Neuro-Oncology](#))
- Thier Lab  
([Cognitive Neurology](#))
- Weiss Lab  
([Deep Brain Stimulation](#))
- Wuttke Lab  
([Molecular and translational neurosurgical epilepsy](#))
- Ziemann Lab  
([Brain Networks and Plasticity](#))



About CIN ▾ Research ▾ Mission & Methods ▾ News & Events ▾ Contact Search

**Understanding How the Brain Generates Function**

The Werner Reichardt Centre for Neuroscience is a Cluster of Excellence focusing upon neurosciences, established at the University of Tübingen in the framework of the Excellence Initiatives funded by the German federal and state governments.

News and Events

Calendar

Overview

## About Us

The Werner Reichardt Centre for Integrative Neuroscience (CIN) is the common platform of systems-oriented neuro-



## Latest News

Sensory Perception Is Not a One-Way Street



<https://uni-tuebingen.de/en/research/core-research/cin/about-cin/>



- [Aristides Arrenberg](#)  
Systems Neurobiology
- [Andreas Bartels](#)  
Vision & Cognition
- [Jan Benda](#)  
Neuroethology
- [Philipp Berens](#)  
Data Science for Vision Research
- [Matthias Betge](#)  
Computational Neuroscience
- [Andrea Burgalossi](#)  
Neural Circuits and Behaviour
- [Thomas Euler](#)  
Ophthalmic Research
- [Henry Evrard](#)  
Functional and Comparative Neuroanatomy
- [Olga Garaschuk](#)  
Physiology of Neural Circuits
- [Martin Giese](#)  
Computational Sensomotorics  
(jointly with Hertie Institute)

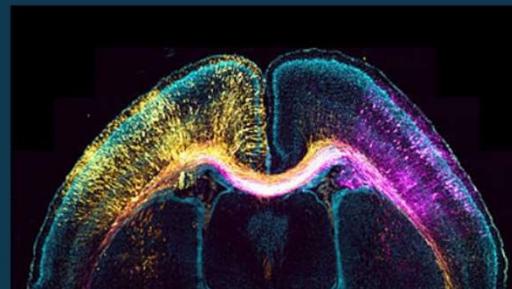
- [Ziad Hafed](#)  
Physiology of Active Vision
- [Steffen Hage](#)  
Neurobiology of Social Communication
- [Daniel Häufle](#)  
Multi-Level Modeling in Motor Control and Rehabilitation Robotics
- [Anna Levina](#)  
Self-Organization and Optimality in Neural Networks
- [Zhaoping Li](#)  
Sensory and Sensorimotor Systems
- [Andreas Nieder](#)  
Animal Physiology
- [Ivana Nikić-Spiegel](#)  
Molecular Mechanisms of Axonal Injury
- [Yulia Oganian](#)  
Cognitive Neuroscience of Human Verbal Communication

- [Klaus Scheffler](#)  
Biomedical Magnetic Resonance (jointly with MPI for Biological Cybernetics)
- [Hans-Ulrich Schnitzler](#)  
Echolocation in Bats
- [Cornelius Schwarz](#)  
Systems Neurophysiology
- [Markus Siegel](#)  
Neural Dynamics and Magnetoencephalography
- [Hans-Peter Thier](#)  
Cognitive Neurology
- [Lena Veit](#)  
Neurobiology of Vocal Communication
- [Felix Wichmann](#)  
Neural Information Processing
- [Hong Yu Wong](#)  
Philosophy of Neuroscience
- [Eberhardt Zrenner](#)  
Retinal Degeneration

DEMENTIA | PARKINSON'S | ALS

## Neurodegenerative Diseases

Understand and investigate the causes, develop novel strategies for prevention, treatment and care



<https://www.dzne.de/en/about-us/sites/tuebingen/>

DE EN Contact

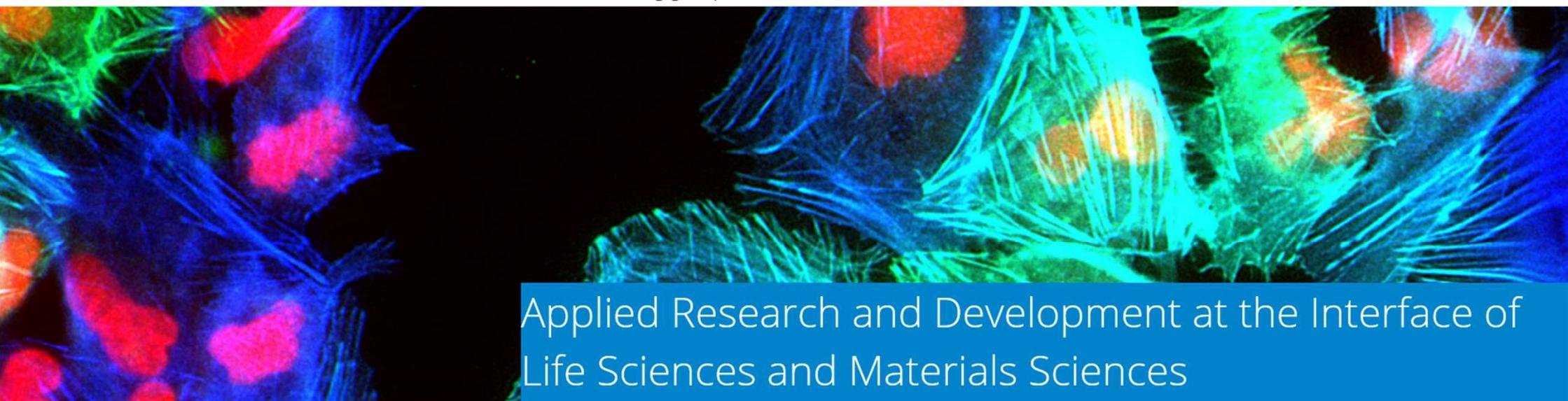


»



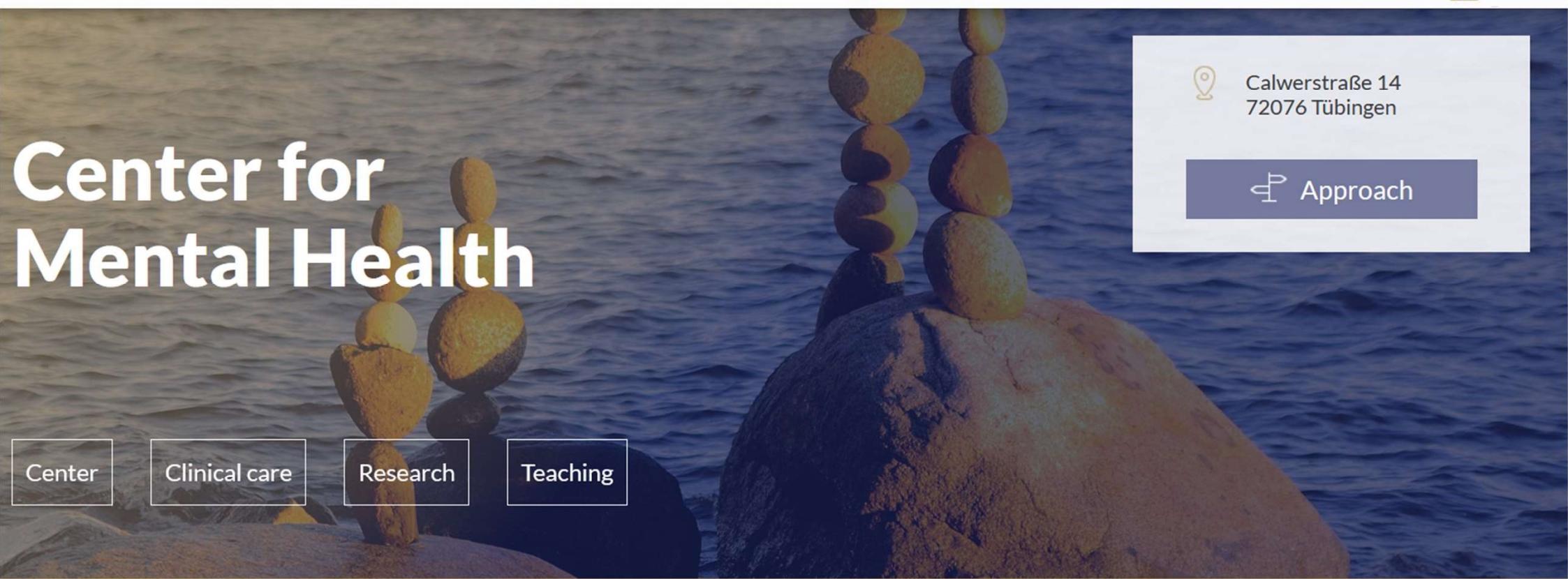
Natural and Medical  
Sciences Institute

Pharma and Biotech Biomedicine and Materials Sciences Working groups Latest Jobs About us



Applied Research and Development at the Interface of  
Life Sciences and Materials Sciences

<https://www.nmi.de/en/>

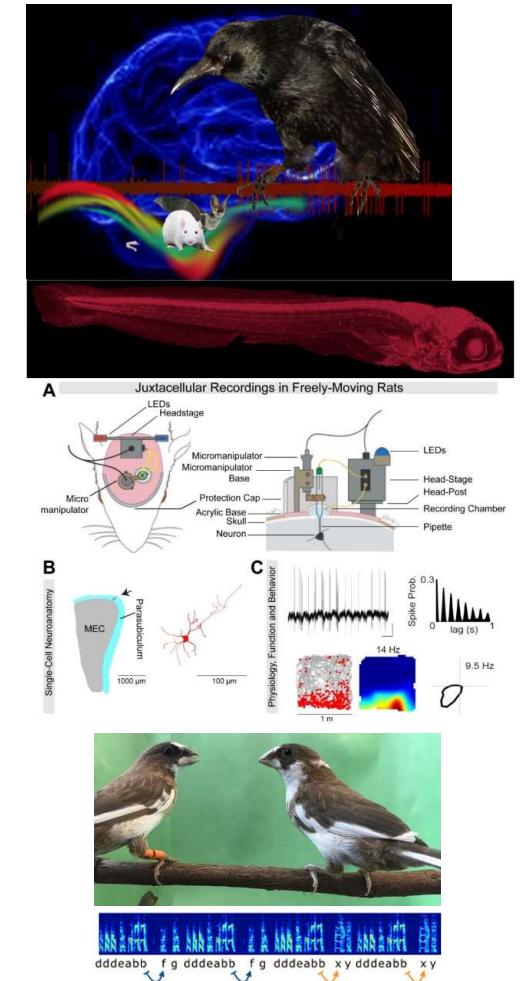


Calwerstraße 14  
72076 Tübingen

Approach



Group	Topic	Scientists
<a href="#">Cognitive Neuroscience</a> (Prof. H. Mallot)	Spatial cognition Visual cognition Motion perception	<a href="#">Prof. H. Mallot</a> Dr. G. Hardiess Dr. H.J. Dahmen
<a href="#">Animal Physiology</a> (Prof. A. Nieder)	Neural basis of cognitive control Vocal communication Behavioral control in rodents Auditory physiology Bioacoustic and Echolocation	<a href="#">Prof. A. Nieder</a> Dr. S. Westendorff Prof. P. Pilz Prof. J. Ostwald Prof. H.-U. Schnitzler / Dr. A. Denzinger
<a href="#">Neuroethology</a> (Prof. J. Benda)	Electrocommunication in weakly electric fish Neurophysiology of sensory systems Computational Neuroscience	<a href="#">Prof. Dr. Jan Benda</a> Dr. Jan Grewe
<a href="#">Systemic Neurobiology</a> (Prof. A. Arrenberg)	Ocularmotor system Visualsystem Zebrafish circuits	<a href="#">Prof. Aristides Arrenberg</a>
<a href="#">Neural Circuits and Behavior</a> (Prof. A. Burgalossi)	Neural Circuits Hippocampus, Memory Spatial Navigation	<a href="#">Prof. Andrea Burgalossi</a> <a href="#">Dr. Patricia Preston-Ferrer</a>
<a href="#">Neurobiology of Vocal Communication</a> (Jun. Prof. L. Veit)	Vocal communication and learning Neural basis of birdsong sequencing Flexible control of skilled behavior	<a href="#">Jun. Prof. Lena Veit</a>



## Hertie AI

# Hertie Institute for Artificial Intelligence in Brain Health

[Studying the Brain](#) / [Creating Structures](#) / Hertie AI

With the "Hertie Institute for Artificial Intelligence in Brain Health" (Hertie AI), an institute is being established in Tübingen that is unique in Germany and focuses on the early diagnosis of diseases of the nervous system and their prevention with the help of artificial intelligence methods.

Detailed information on this project and our activities as a whole can be found on the [German website](#).

<https://www.ghst.de/en/studying-the-brain/creating-structures/translate-to-english-hertie-ai>

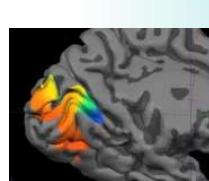




## The Graduate Training Centre – Master's programs

1999

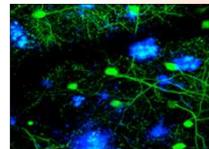
**Neural &  
Behavioural  
Sciences**



systems & cognitive neuroscience,  
neurophysiology, neuropsychology,  
sleep and learning & memory,  
brain imaging: fMRI, MEG, EEG, TMS

2008

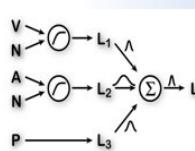
**Cellular &  
Molecular  
Neuroscience**



genetic, molecular and cellular  
processes of neurodegeneration,  
stem cells, genetic mouse models,  
molecular imaging techniques

2011

**Neural  
Information  
Processing**



computational vision, machine learning,  
computational motor control, robotics  
modelling of neuronal processes,  
BCI & neuroprosthetics



## The Graduate Training Centre of Neuroscience

