

Annual Report 2021

APPENDIX





Content

Appendix

UNIVERSITY HOSPITAL OF NEUROLOGY

DEPARTMENT OF NEUROLOGY WITH
NEUROVASCULAR MEDICINE

DEPARTMENT OF NEUROLOGY AND EPILEPTOLOGY

DEPARTMENT OF NEURODEGENERATIVE DISEASES

DEPARTMENT OF NEUROLOGY AND
INTERDISCIPLINARY NEURO-ONCOLOGY

DEPARTMENT OF NEURAL DYNAMICS AND
MAGNETOENCEPHALOGRAPHY

DEPARTMENT OF CELLULAR NEUROLOGY

INDEPENDENT RESEARCH GROUPS
HIH MANAGEMENT

PUBLICATIONS AND STUDENT TRAINING IN 2021



University Hospital of Neurology

Clinical Staff

HEAD OF NURSING SERVICES

Dr. Renate D. Fuhr
(Head of Nursing Services)

Jürgen Weber
(Deputy Head of Nursing Services)

Adriana Hurcikova
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Banu Sahin
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Ward 42/43/45)

Isaac Emwinghare
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Ward 42/43/45)

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(Ward Manager, 44)

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Marc-Sebastian Haug
(Deputy Ward Manager, Ward 44)

WARD 42/43/45

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Önder Bilen
Irene Brady
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Nina Cutic Bozic
Olga Degraf
Michelle Dupke
Annette Eisele
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Maria Flohr
Emanuele Frasca
Karola Froehlich
Fatima Hammami
Michael Heymann
Alice Hoffmann
Sevbenur Ibrahimova
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Corinna Kalmbach-Ftits
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Marianne Müller-Kratz
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WARD 44 INTENSIVE CARE/ STROKE UNIT

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Jerome Blancia
Karin Brunner
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Ludwig Casselmann
Fabian Fach
Daniel Fuente Friend

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 Susanne Grumann
 Mustafa Hadzic
 Frank Hauber
 Kathrin Haug
 Lea Heinzelmann
 Stefanie Herholz
 Sigrid Herter
 Elli Hofmann
 Yvonne Horz-Weger
 Regina Johner
 Rosebell Justo
 Sandra Kästner
 Navdeep Kaur
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 Lothar Kunz
 Maria Macaraeg
 Mandy Manteuffel-Samavat
 Giusi Marchese
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 Lisa-Marie Özel
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 Sanela Sandvoß
 Sibel Sari
 Mirjam Schäfer
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 Simon Schippmann
 Sabine Schirmacher-Neemann
 Christine Schmidt
 Justin Schwarz
 Lena Seelmann
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 Bettina Weisser
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TECHNICIANS

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 Irina Köhnlein (Nurse)
 Renate Mahle (EEG Neurosonography)
 Veronika Serwotka (Nerve conduction)
 Elke Stransky (CSF Chemistry)
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 (Neurosonography, EP)
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 Johanna Keller (EEG)
 Leonie Behle (EEG)
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 Christine Riegraf
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MEDICAL DOCUMENTATION

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 Christina Tröger

Department of Neurology with Neurovascular Medicine



Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Ulf Ziemann

GROUP LEADERS/ATTENDING PHYSICIANS

PD Dr. Katharina Feil
Prof. Dr. Simon Greulich (Cardiologist)
PD Dr. Markus Kowarik
PD Dr. Markus Krumbholz (until 07/2021)
Dr. Annerose Mengel
Prof. Dr. Ulrike Naumann
PD Dr. Sven Poli, MSc
Dr. Jörn Pomper

SCIENTISTS/RESIDENTS

Dr. Adedolapo Kamaldeen Adeyemi
Dr. Yang Bai (100% until 09/2021, 50% since 10/2021)
Gabriel Barbu (since 10/2021)
Dr. David Baur
Dr. Paolo Belardinelli (5%)
Prof. Dr. Til Ole Bergmann (5%)
Dr. Corinna Blum
Dr. Jutta Dünschede
Dr. Mohamed Yasser Elnaggar (until 07/2021)
Stefan Förster
Dr. Lena Geiger-Primo (since 09/2021)
Julia Göddel-Sand (until 03/2021)
Alexandra Gomez-Exposito
Dr. Pedro Caldana Gordon
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Dr. Dania Humaidan (since 05/2021)
Dr. Roswitha Kemmner
Dr. Gábor Kozák
Valentin Kusch (until 02/2021)
Dr. Kornelia Laichinger
Dr. Anne Lieb
Joshua Mbroh
Dr. Johanna Metsomaa (until 08/2021)
Dr. Elisa Pichler (until 12/2021)
Dr. Khouloud Poli
Dr. Christoph Ruschil
Dr. Jennifer Sartor
Patricia Schwarz
Vera Stadler
Maria P. Tieck Fernandez (since 11/2021)
Dr. Johannes Tünnerhoff
Dr. Brigitte Zrenner (until 08/2021)
Dr. Christoph Zrenner (100% until 06, 20% since 07/2021)

TECHNICAL STAFF/ADMINISTRATION

Marcel Armbruster, technician
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 Sandra Friesch, study nurse
 Sarah Hendel, technician
 Gabriele Kuebart, technician
 Ivana Princip, technician (until 03/2021)
 Dr. Christine Rösinger-Hein
 Natalie Rumpel, study nurse
 Matthias Scholl, study coordinator (until 12/2021)
 Elke Stransky, technician
 Julia Zeller, study coordinator

MASTER STUDENTS

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 Laura Neumann (Supervisor PD Dr. Kowarik)

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 Yi Wang (Supervisor PD Dr. Poli)

MEDICAL DOCTORAL STUDENTS

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 Miriam Thies (Supervisor Prof. Dr. Ziemann)
 Dimitrios Vasilakis (Supervisor PD Dr. Poli)
 Xueyu Yang (Supervisor PD Dr. Poli)
 Jan Zurluh (Supervisors: PD Dr. Krumbholz, Dr. Mengel)

Clinical Studies

STROKE STUDIES

ANNEXA-4: Prospective, open-label study of Andexanet alfa in patients receiving a factor XA-Inhibitor who have acute major bleeding

Investigator: PD Dr. Sven Poli

ANNEXA-i: A Phase 4 randomizes clinical trial of Andexanet Alfa (Andexanet Alfa for Injection) in acute intracranial hemorrhage in patients receiving an oral Factor XA Inhibitor

Investigator: PD Dr. Sven Poli

APICES: Automatic Prediction of Edema after Stroke (APICES) – Computergestützte automatische Prognose der Entwicklung eines malignen Hirnödems nach Mediainfarkt

Investigator: PD Dr. Sven Poli

ATTICUS: Apixaban for treatment of embolic stroke of undetermined source

Investigator: PD Dr. Sven Poli

AXIOMATIC-SSP: A Global, Phase 2, Randomized, Double-Blind, Placebo-Controlled, Dose-Ranging Study of BMS-986177, an Oral Factor XIa Inhibitor, for the Prevention of New Ischemic Stroke or New Covert Brain Infarction in Patients Receiving Aspirin and Clopidogrel Following Acute Ischemic Stroke or Transient Ischemic Attack (TIA)

Investigator: PD Dr. Sven Poli

CAPIAS: The carotid plaque imaging in acute stroke (CAPIAS) study: protocol and initial baseline data

Investigator: Prof. Dr. Ulf Ziemann

ELAN: Early versus Late initiation of direct oral Anticoagulants in post-ischemic stroke patients with atrial fibrillation (ELAN): an international, multicenter, randomized-controlled, two-arm, assessor-blinded trial

Investigator: PD Dr. med. Sven Poli

German Stroke Registry

Investigator: PD Dr. Sven Poli

Pacific-Stroke: Phase 2 Program of AntiCoagulation via Inhibition of FXIa by the oral Compound BAY 2433334 – non-cardioembolic STROKE study

Investigator: PD Dr. Sven Poli

PRAISE: Prediction of acute coronary syndrome in acute ischemic stroke

Investigator: Dr. Annerose Mengel

Precious: PREvention of Complications to Improve Outcome in elderly patients with acute Stroke. A randomised, open, phase III, clinical trial with blinded outcome assessment

Investigator: PD Dr. Sven Poli

PRESTIGE-AF: PREvention of STroke in Intracerebral haemorrhage survivors with Atrial Fibrillation

Investigator: PD Dr. Sven Poli

Prodast: Prospective Record Of the use of Dabigatran in patients with Acute Stroke or TIA

Investigator: PD Dr. Sven Poli

PROOF: Penumbral Rescue by Normobaric O₂ Administration in Patients with Ischaemic Stroke and Target Mismatch Profile: A Phase II Proof-of-Concept Trial

Investigator: PD Dr. Sven Poli

RASUNOA-Prime: Register für Akute Schlaganfälle Unter Neuen Oralen Antikoagulantien - Prime

Investigator: PD Dr. Sven Poli

RIC-ICH: Register zum Einsatz von Idarucizumab bei Patienten mit intrakranieller Blutung

Investigator: PD Dr. Sven Poli

SANO: Strukturierte ambulante Nachsorge nach Schlaganfall

Investigator: PD Dr. Sven Poli

SPOCT-NOAC 1: Specific Point-of-Care Testing of Coagulation in Patients Treated with Non-Vitamin K Antagonist Oral Anticoagulants – Part Ia/b

Investigator: PD Dr. Sven Poli

STREAM (ClinicalTrials.gov Identifier: NCT03228251):

Simulation-based Training of Rapid Evaluation and Management for Acute Stroke Trial

Investigator: PD Dr. Sven Poli

TESTdem: Feststellung der Wirksamkeit und Sicherheit der Transkraniellen Extrakorporalen Stoßwellen-Therapie bei Patienten mit einer Alzheimer-Demenz

Investigator: PD Dr. Sven Poli

NEUROIMMUNOLOGY STUDIES

AFFINITY (NCT03222973, 215MS202):

Efficacy and Safety of BIIB033 (Opicinumab) as an Add-on Therapy to Disease-Modifying Therapies (DMTs) in Relapsing Multiple Sclerosis (MS)

Investigator: PD Dr. Markus Krumbholz

CFTY720D2406 PASSAGE (NIS – Phase 4):

Prospektive, nicht-interventionelle, multinationale Studie mit Parallel-Kohorten zur Bewertung der Langzeit-Sicherheit in Patienten mit MS, deren Behandlung kürzlich auf tägliche Fingolimod-Gabe umgestellt wurde oder die mit einer anderen zugelassenen krankheitsmodifizierenden Therapie behandelt werden

Investigator: PD Dr. Markus Krumbholz

CFTY720DDE02 PANGAEA (NIS – Phase 4):

Multizentrische, prospektive, nicht-interventionelle Langzeit-Registerstudie zur Beschreibung der Sicherheit und des Stellenwerts von Gilenya® (fingolimod 0.5 mg) in der Behandlung von MS Patienten

Investigator: PD Dr. Markus Krumbholz

CLADQoL (MS700568):

CLADribine tablets – evaluation of Quality of Life

Investigator: PD Dr. Markus Kowarik

CLARION (MS 700568-0002) (NIS – Phase 4):

Long term, prospective, observational cohort study evaluating the safety profile in patients with highly active relapsing multiple sclerosis (RMS) newly started on oral cladribine

Investigator: PD Dr. Markus Krumbholz

CONFIDENCE (ML39632): Safety and effectiveness of ocrelizumab under real world conditions:

a non-interventional post authorization safety study in patients diagnosed with relapsing or primary progressive multiple sclerosis

Investigator: PD Dr. Markus Kowarik

DIFUTURE/ProVal-MS:

BMBF-supported, Prospective study to validate a multidimensional risk score (DIFUTURE-MSRS) which predicts the 24-month outcome in early Multiple Sclerosis patients)

Investigator Tübingen: Prof. Dr. Ulf Ziemann

EmBioPro-MS: Explorative study of emerging blood biomarkers in progressive multiple sclerosis

Investigators: Dr. Ahmed Abdelhak, PD Dr. Markus Krumbholz

ENSEMBLE (EudraCT Nr: 2016-002937-31):

This is a prospective, multicenter, open-label, single-arm, phase 3b study which evaluates effectiveness and safety of ocrelizumab in participants with early stage RRMS. The study will consist of an open-label treatment period of 192 weeks and follow-up period of at least 48 weeks

Investigator: Prof. Dr. Ulf Ziemann

Ensemble-Plus (NCT03606460): A Study to Evaluate the Safety of Administering Ocrelizumab Per a Shorter Infusion Protocol in Participants With Primary Progressive Multiple Sclerosis (PPMS) and Relapsing Multiple Sclerosis (RMS)

Investigator: Prof. Dr. Ulf Ziemann

Evolution (MS200527_0082):

A Phase III, Multicenter, Randomized, Parallel Group, Double Blind, Double Dummy, Active Controlled Study of Evobrutinib Compared with Teriflunomide, in Participants with Relapsing Multiple Sclerosis to Evaluate Efficacy and Safety.

Investigator: PD Dr. Markus Kowarik

Pangaea 2.0 (CFTY720DDE26):

Post-Authorization Non-interventional GermAn treatment benefit study of GilEnyA in MS)

Investigator: PD Dr. Markus Krumbholz

PROFILE RRMS (ML39348):

Evaluation of specific unmet needs in current clinical practice of multiple sclerosis: characterization of different profiles of relapsing-remitting multiple sclerosis patients defined by disease activity and patient-reported outcomes

Investigator: PD Dr. Markus Kowarik

Raise / Raise-XT (RA101495-02.301):

A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Confirm the Safety, Tolerability, and Efficacy of Zilucoplan in Subjects with Generalized Myasthenia Gravis

Investigator: Prof. Dr. Ulf Ziemann

REGIMS Register: Ein Immuntherapieregister zur Verbesserung der Arzneimittelsicherheit in der MS-Therapie

Investigator: PD Dr. Markus Krumbholz

RETRO (ML39631): A retrospective study investigating best supportive and medical care in clinical practice in patients with primary progressive multiple sclerosis (PPMS) in Germany

Investigator: PD Dr. Markus Krumbholz

WA 21493 OLE (EudraCT-Nr. 2007-006338-32):

A phase II, multicenter, randomized, placebo and Avonex controlled dose finding study to evaluate the efficacy and safety of ocrelizumab in patients with relapsing-remitting multiple sclerosis

Investigator: Prof. Dr. Ulf Ziemann

WA21092 OPERA (EudraCT-Nr. 2010-020337-99):

A randomized, double-blind, double-dummy, parallel-group study to evaluate the efficacy and safety of ocrelizumab in comparison to interferon beta-1a (Rebif®) in patients with relapsing multiple sclerosis

Investigator: Prof. Dr. Ulf Ziemann

WA25046 ORATORIO (EudraCT-Nr.2010-020338-25):

A phase III, multicenter, randomized, parallel-group, double-blinded, placebo-controlled study to evaluate the efficacy and safety of ocrelizumab in adults with primary progressive multiple sclerosis.

Investigator: Prof. Dr. Ulf Ziemann

Third-Party Funding

ONGOING GRANTS

Pre-stimulus μ -rhythm phase differentially effects low-frequency repetitive TMS-induced corticospinal excitability

Project leader: Dr. David Baur

Funding institution: Medical Faculty University Tübingen, Junior Clinician Scientist Program

The sensorimotor μ -rhythm as cholinergically controlled pulsed inhibition

Project leader: Dr. Til Ole Bergmann

Funding institution: German Research Foundation (DFG)

Immunoglobulin (Ig) repertoire analysis in multiple sclerosis patients treated with cladribine (Mavenclad) - A combined Ig transcriptome and proteome approach -

Project leader: PD Dr. Markus Kowarik

Funding Institution: Merck GmbH

Immunoglobulin (Ig) repertoire analysis in multiple sclerosis patients treated with teriflunomid (Aubagio) - A combined Ig transcriptome and proteome approach -

Project leader: PD Dr. Markus Kowarik

Funding Institution: Genzyme

Assessment of YB-1 Dependent Oncolytic Adenovirus-Based Glioma-Virotherapy on Cellular Immune Responses

(NA 770/4-1)

Project leader: Prof. Dr. Ulrike Naumann

Funding institution: German Research Foundation (DFG)

Intranasal delivery of cellular “Trojan Horse” cells loaded with oncolytic adenovirus to treat invasive recurrent glioblastoma

Project leader: Prof. Dr. Ulrike Naumann

Funding institution: German Cancer Foundation

Automatic Prediction of Edema after Stroke (APICES)

Project leader: PD Dr. Sven Poli

Funding institution: Innovationsausschuss beim Gemeinsamen Bundesausschuss (GBA)

Penumbral Rescue by normobaric O₂ Administration in patients with ischemic Stroke and target mismatch profile:

A phase II Proof-of-Concept Trial

Project leader: PD Dr. Sven Poli

Funding institution: European Commission

Immunoglobuline repertoire analysis in multiple sclerosis

Project leader: Dr. Christoph Ruschil

Funding Institution: Medical Faculty University Tübingen, PATE Program

Intravenous thrombolysis in patients with low NIHSS, retrospective analysis and prospective cohort study

Project leaders: Dr. Jennifer Sartor-Pfeiffer, Dr. Annerose Mengel

Funding institution: Medical Faculty University Tübingen, Junior Clinician Scientist Program

Personalisierte neurorehabilitative Präzisionsmedizin: Von Daten zu Therapien

Project leader: Prof. Dr. Ulf Ziemann

Funding Institution: Ministry of Research and Arts (MWK), Federal State of Baden-Württemberg

Electroencephalographical signatures in cerebral cortex evoked by cerebellar transcranial magnetic stimulation (CERETEP)

Project leader: Prof. Dr. Ulf Ziemann

Funding Institution: Takeda Pharmaceutical Company Limited, USA

Apixaban for treatment of embolic stroke of undetermined source (ATTICUS randomized trial)

Project leaders: Prof. Dr. Ulf Ziemann, PD Dr. Sven Poli, Prof. Dr. Tobias Geisler (Cardiology)

Funding institution: Bristol-Myers Squibbs

Reconnecting the ageing brain to enhance plasticity and motor learning

Project leaders: Prof. Dr. John Semmler (Adelaide University), Co-PI: Prof. Dr. Ulf Ziemann

Funding institution: Australian Research Council (ARC)

DIFUTURE/ProVal-MS – Prospective study to validate a multi-dimensional risk score (DIFUTURE-MSRS) which predicts the 24-month outcome in early Multiple Sclerosis patients)

Clinical project leader Tübingen: Prof. Dr. Ulf Ziemann

Funding institution: Federal Ministry of Education and Research (BMBF)

Connecting to the Networks of the Human Brain (ConnectToBrain)

Project leaders: Prof. Dr. Ulf Ziemann,

Prof. Dr. Risto Ilmoniemi (Aalto University, Finland),

Prof. Dr. Gian-Luca Romani (Universita degli studi Gabriele d'Annunzio di Chieti-Pescara, Italy)

Funding Institution: European Research Council (ERC) Synergy Program

REHALITY: Closed-loop Softwaresystem zur Neuro-rehabilitation nach Schlaganfall durch personalisiertes EEG/EMG-Hirnzustand-gesteuertes Virtual Reality-Therapie-paradigma

Project leader: Prof. Dr. Ulf Ziemann

Funding Institution: Federal Ministry of Education and Research (BMBF)

EXIST Forschungstransfer: NEUROSYNC

Project leader: Dr. Christoph Zrenner

Funding institution: Federal Ministry of Education and Research (BMBF)

Induction of brain plasticity with closed-loop EEG-triggered transcranial magnetic stimulation

Project leader: Dr. Christoph Zrenner

Funding institution: Medical Faculty University Tübingen, Clinician Scientist Program

Third-Party Funding

NEW GRANTS

Real-time Cognitive Output Modulation through EEG-triggered TMS

Project leader: Dr. Pedro Gordon

Funding Institution: German Research Foundation (DFG)

B-cell repertoire analysis in ozanimod (Zeposia®) treated multiple sclerosis patients – differential effects on B cell subsets through selective S1P receptor modulation

Project leader: PD Dr. Markus Kowarik

Funding Institution: Bristol Myers Squibb

Untersuchungen zum Metabolismus

Glioblastom-assoziiierter Perizyten

Project leader: Prof. Dr. Ulrike Naumann

Funding Institution: Medical Faculty, IZKF Promotionskolleg, University Tübingen

Brain-oscillation-synchronized stimulation to enhance motor recovery in early subacute stroke: double-blind three-arm parallel-group exploratory RCT (BOSS-STROKE)

Project leader: Prof. Dr. Ulf Ziemann

Funding Institution: Federal Ministry of Education and Research (BMBF)

Real-time Cognitive Output Modulation through EEG-triggered TMS

Project leader: Prof. Dr. Ulf Ziemann

Funding Institution: Medical Faculty, IZKF Promotionskolleg, University Tübingen

Brain-oscillation-synchronized stimulation to enhance motor recovery in early subacute stroke: A randomized controlled double-blind three-arm parallel-group exploratory trial comparing personalized, non-personalized and sham repetitive transcranial magnetic stimulation (BOSS-STROKE)

Project leader: Dr. Brigitte Zrenner, Prof. Dr. Ulf Ziemann

Funding Institution: Medical Faculty, Anschubförderung Klinische Forschung (AKF), University Tübingen

Awards

Prof. Dr. Ulf Ziemann

Listing “Top Physicians 2021” (Guter Rat)

Prof. Dr. Ulf Ziemann

Clarivate Web of Science™: “Highly Cited Researcher 2021”

Guest Researchers

Dr. Francesco Motolese

Neurology, Neurophysiology and Neurobiology Unit, Department of Medicine, Università Campus Bio-Medico di Roma, Rome, Italy

Host: Prof. Dr. Ulf Ziemann

Medical Theses

(Completed in 2021)

Katharina Gerny (née Hadaschik)

Frühe Antagonisierung der Thrombozytenaggregationshemmung mit Thrombozytenkonzentraten und Desmopressin bei intrazerebralen Blutungen

Supervisor PD Dr. Poli

Florian Härtig

Die anti-Faktor IIa-spezifische Point-of-Care Gerinnungstestung unter Behandlung mit Dabigatran und ihre Bedeutung für die klinische Schlaganfall-Akutversorgung

Supervisor PD Dr. Poli

Cheng Liang

Influence of perampone, dextromethorphan and nimodipine on resting, induced and evoked oscillatory brain activity

Supervisor: Prof. Dr. Ulf Ziemann

Anne Lieb

Rhythmische Fazilitierung kortikospinaler Erregbarkeit im motorischen System durch oszillatorische μ -Alpha-Aktivität

Supervisor: Prof. Dr. Ulf Ziemann

Adam Meder

Eine explorative Studie zur Untersuchung von Defiziten kortikaler Plastizität mittels transkranieller Magnetstimulation bei Patienten mit amnestischer leichter kognitiver Beeinträchtigung und Patienten mit Demenz vom Alzheimer-Typ im Vergleich zu gesunden Probanden

Supervisor: Prof. Dr. Ulf Ziemann

Matthias Sonnleitner

Point-of-Care-Testung der Blutgerinnung bei Therapie mit Edoxaban

Supervisor PD Dr. Poli

Jakob Spogis

Bewegungsverklängerung zur Rehabilitation der Armmotorik nach Schlaganfällen

Supervisor: Prof. Dr. Ulf Ziemann

Maria Ioanna Stefanou

The role of endogenous μ -oscillatory phase in corticospinal excitability and interhemispheric communication between the primary motor cortices assessed by real-time electroencephalography-triggered transcranial magnetic stimulation

Supervisor: Prof. Dr. Ulf Ziemann

Bachelor Theses

(Completed in 2021)

Niko Mangold

TMS-evoked potentials as a predictive marker for rTMS-therapy in chronic stroke

Supervisor: Prof. Ulf Ziemann

Department of Neurology and Epileptology



Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Holger Lerche

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Prof. Dr. Niels Focke (partially affiliated)
Prof. Dr. Tobias Freilinger (partially affiliated)
Prof. Dr. Alexander Grimm
Dr. Ulrike Hedrich-Klimosch
Dr. Stephan Lauxmann
Dr. Justus Marquetand
Dr. Pascal Martin
Dr. Melanie Schreiber
Prof. Dr. Sigrid Schuh-Hofer (partially affiliated)
Prof. Dr. Yvonne Weber (partially affiliated)
Dr. Thomas Wuttke

SCIENTISTS/RESIDENTS

Murtadha Alshabaan
Katharina Berger
Dr. Christian Boßelmann
Maria-Sophie Breu
Dr. Ahmed Eltokhi (until 02/2021)
Dr. Dr. Randolph Helfrich
(Independent research group leader at the HIH)
Dr. Yiwen Li Hegner
Dr. Josua Kegele
Benedict Kleiser
Dr. Cornelius Kronlage
Dr. Robert Lauerer-Braun
Dr. Stefanie Liebe
Dr. Yuanyuan Liu
Dr. Peter Müller
Filip Rosa
Dr. Andrea Santuy
Dr. Victoria Ruschil
Magdalena Schühle
Dr. Laura Schurr
Dr. Niklas Schwarz
Jan-Hendrik Stahl
Dr. Stephanie Straub
Sabine Thewes
Dr. Natalie Winter
Dr. Sophia Willikens

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Nikolas Layer
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Lorenz Over
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Nan Zhan

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Dr. Ulrike Hedrich-Klimosch*

Linda Paul
Supervisors: Hang Lyu, Dr. Yuanyuan Liu

Meret Saile
*Supervisors: Nikolas Layer,
Dr. Ulrike Hedrich-Klimosch*

Clinical Studies

LIBERTY / CAMG334A2301 – a 12-week double-blind, randomized, multicenter study comparing the efficacy and safety of once monthly subcutaneous 140 mg AMG 334 against placebo in adult episodic migraine patients who have failed 2-4 prophylactic treatments
*Investigators: Prof. Dr. Tobias Freilinger,
Prof. Dr. Holger Lerche*

Spectre / CAMG334ADE02 - Characterisation of prescription patterns in episodic and chronic migraine patients starting treatment in a real-life setting with erenumab in Germany
Investigator: Prof. Dr. Holger Lerche

Apollon / CAMG334ADE03 - Assessment of Prolonged safety and tolerability of erenumab in migraine patients in a Long-term Open-label study
Investigator: Prof. Dr. Holger Lerche

BIA-2093-213 - prevention of epilepsy in stroke patients at high risk of developing unprovoked seizures: anti-epileptogenic effects of eslicarbazepine acetate
Investigator: Prof. Dr. Holger Lerche

ELEVATE / XPF-008-201 - A Randomized, Double-blind, Placebo-controlled, Multicenter Study to Evaluate the Safety, Tolerability and Efficacy of XEN1101 as Adjunctive Therapy in Focal-onset Epilepsy, with an Open-label Extension
Investigator: Prof. Dr. Holger Lerche

PIMIDES I / CV08-017 - A pilot study to assess the feasibility of patient-controlled neurostimulation with the EASEE® System to treat medically refractory focal epilepsy
Investigator: Dr. Josua Kegele

ToSEE - Treatment of Established Status Epilepticus in the Elderly - a prospective, randomized, double-blind comparative effectiveness trial
Investigator: Prof. Dr. Holger Lerche

Clinical Studies

PERPRISE / E2007-M049-509 - A prospective non-interventional study evaluating the effectiveness of perampanel (Fycompa®) as only add-on treatment in patients with primary or secondarily generalized tonic-clonic seizures

Investigator: Prof. Dr. Holger Lerche

FINESSE / TV48125-MH-40148 - Prospective observational study of Fremanezumab (Ajovy™) effectiveness in chronic and episodic migraine patients in clinical routine

Investigator: Prof. Dr. Sigrid Schuh-Hofer

TRIUMPH / I5Q-MC-B004 - preventive Treatment of migraine: oUtcomes for Patients in real-world Healthcare systems

Investigator: Prof. Dr. Sigrid Schuh-Hofer

TUNAP – Studie zur Evaluierung der Rolle des Nervenultraschalls bei Nervenraumata

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter,

UPSS – Pattern Analysis bei Neuropathien

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter, Jan-Hendrik Stahl, Dr. Josua Kegele, Dr. Sophia Willikens, Julia Wittlinger, Debora Vittore-Welliong

MUSS – Muskelsummenscore zur Evaluierung der Muskelfibrose bei Neuropathien

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter

Follow-Up PNP - Ultrasound, electrophysiology and clinical follow-up study of patients with Immune-mediated neuropathies (in cooperation with CSL Behring)

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter, Jan-Hendrik Stahl, Dr. Josua Kegele, Dr. Sophia Willikens, Julia Wittlinger

ASPIRE 2018 - New keys to early diagnosis: nerve ultrasound patterns as potential diagnostic biomarkers in hereditary polyneuropathies – a multicentric baseline study

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter, Debora Vittore-Welliong

Tram2 – Screening for TTR-Amyloiosis in patients with axonal neuropathy (in cooperation with Centogene Rostock)

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter, Jan-Hendrik Stahl, Dr. Josua Kegele, Dr. Sophia Willikens, Julia Wittlinger, Debora Vittore-Welliong

I-Guide – Follow-Up Study of CIDP and MMN patients with treatment of ivIG (in cooperation with Grifols)

Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter, Jan-Hendrik Stahl, Dr. Josua Kegele, Dr. Sophia Willikens, Julia Wittlinger

Britoba - A 12-month noninterventional observational multinational study to evaluate effectiveness, tolerability, and quality of life of Brivaracetam adjunctive therapy in earlier treatment lines in adult patients with history of partial-onset seizures in daily clinical practice

Investigator: Prof. Dr. Holger Lerche

XPF-008-201 - A Randomized, Double-blind, Placebo-controlled, Multicenter Study to Evaluate the Safety, Tolerability and Efficacy of XEN1101 as Adjunctive Therapy In Focal-onset Epilepsy, with an Open-label Extension

Investigator: Prof. Dr. Holger Lerche

CLN-PXT3003-06 - A Multi-Center, randomized, double-blind, placebo-controlled phase III study to assess the efficacy, safety, and tolerability of PXT3003 in Charcot-Marie-Tooth type 1A (CMT1A)

Investigator: Prof. Dr. Alexander Grimm

Third-Party Funding

ONGOING GRANTS

Network-Imaging in genetic epilepsy

Project leader: Prof. Dr. Niels Focke

Funding Institution: German Research Foundation (DFG) (FO 750/5-1)

Trimodale Bildgebung humaner Hirnnetzwerke mittels simultaner PET/MR/EEG

Project leader: Prof. Dr. Niels Focke (with Prof. Dr. Christian la Fougere and Prof. Dr. Bernd Pichler)

Funding Institution: German Research Foundation (DFG)

DFG-Research Unit FOR2715 ‘Epileptogenesis of genetic epilepsies’ (first funding period from 2017-2021)

Speaker: Prof. Dr. Holger Lerche

Funding institution: German Research Foundation (DFG), additional funding by the FNR (Luxembourg): including the following five grants:

P1: Genetic mechanisms of developmental and epileptic encephalopathies

Project leader: Prof. Dr. Yvonne Weber

(with Prof. Dr. Ingo Helbig from Kiel University)

P2: Rare genetic factors in epileptogenesis

Project leader: Prof. Dr. Holger Lerche

(with Prof. Dr. Michael Nothnagel from Cologne University and Dr. Roland Krause from Luxembourg University)

P5: Brain region-specific epileptogenesis in a conditional mouse model

Project leaders: Prof. Dr. Holger Lerche, Dr. Henner Koch, Dr. Thomas Wuttke

P6: Mechanisms of epileptogenesis in KCNA2-/SCN2A-mediated epilepsies

Project leader: Dr. Ulrike Hedrich-Klimosch

(with Prof. Dr. Olga Garaschuk from Tübingen University)

Z3: Central Management

Project leaders: Prof. Dr. Holger Lerche,

Dr. Ulrike Hedrich-Klimosch, Dr. Henner Koch (now UK Aachen)

Entwicklung eines Anfallsdetektors

Project leader: Prof. Dr. Yvonne Weber

Funding institutions: Federal Ministry of Education and Research/Life Science Incubator Bonn (BMBF/LSI Bonn)

SNAREopathies - Mechanismen neuropsychiatrischer, genetischer Erkrankungen des SNARE-Komplexes:

Hin zu therapeutischen Maßnahmen

TP Tübingen: Funktionelle Analyse anhand von transgenen Mausmodellen, die Träger des krankheitsverursachenden Gens sind

Project leader: Prof. Dr. Holger Lerche

Funding institution: Federal Ministry of Education and Research (BMBF)

Doktorandenstipendium – Projekt:

Computer-basierte Modellrechnungen zur Änderung des Verhaltens von Nervenzellen bei genetischen Epilepsien

Project leader: Prof. Dr. Holger Lerche

Funding institution: Stiftung no epilep

TUNAP- Hochauflösender Nervenultraschall als Biomarker bei traumatischen peripheren Nervenverletzungen

Project leaders: Prof. Dr. Alexander Grimm, Dr. Natalie Winter

Funding institution: Deutsche Gesellschaft für Ultraschall in der Medizin (DEGUM)

TreatION - New therapies for neurologic ion channel and transporter disorders

Coordinator: Prof. Dr. Holger Lerche

Funding institution: Federal Ministry of Education and Research (BMBF)

TP1: Coordination, Mol.-Therap. Board, and existing rare disease initiatives

Project leader: Prof. Dr. Holger Lerche

(with Dr. Holm Graessner from the Centre of Rare Diseases, Tübingen)

TP2: Data integration and in silico precision medicine for neurological ion channel and transporter disorders

Project leader: Prof. Dr. Yvonne Weber

(with Dr. Sarah von Spiczak, University Medical Center Schleswig-Holstein, Campus Kiel and Roland Krause, Luxembourg Centre for Systems Biomedicine, University of Luxembourg)

TP7: Multimodal analysis of novel mouse models associated with glutamate transporter dysfunction

Project leader: Dr. Ulrike Hedrich-Klimosch

(with Prof. Dr. Nikolaus Plesnila, LMU Munich)

TP8: Pathophysiology and therapy in human neuronal models of KCNA2 channelopathies

Project leaders: Prof. Dr. Holger Lerche, Dr. Niklas Schwarz

Single-cell transcriptome sequencing to investigate mechanisms of epileptogenesis in genetic mouse models and human brain biopsy tissue

Project leaders: Dr. Ulrike Hedrich-Klimosch, Dr. Henner Koch

(with Prof. Dr. Albert Becker, University of Bonn and

Prof. Dr. Dirk Isbrandt, University of Cologne)

Funding institution: German Research Foundation (DFG)

Financial support awarded to the hosting lab of an Alexander von Humboldt research fellow

AvH research fellow: Dr. Andrea Santuy, Universidad Autónoma Madrid, Spain

Hosts: Dr. Thomas Wuttke, Dr. Henner Koch

Monthly Allowance to Dr. Thomas Wuttke

Funding Institution: Alexander von Humboldt Foundation

Third-Party Funding

ONGOING GRANTS

Effect of Eslicarbazepine on genetic gain-of-function mutations in voltage-gated Na⁺ channels causing epilepsies in young children

Project leaders: Prof. Dr. Holger Lerche, Dr. Stephan Lauxmann
Funding Institution: Bial

Functional in vivo restoration of genetically determined epileptic neocortical circuitry

Project leader: Dr. Thomas Wuttke
Funding Institution: German Research Foundation (DFG)

Investigation of ultrapotent chemogenetics in human brain slice cultures.

Project leader: Dr. Thomas Wuttke
Funding Institution: Redpin Therapeutics, Inc.

Non-viral gene therapy in refractory epilepsy using the Brain BaDGE® technology

(collaborative project with Prof. Gary Housley, University of South Wales Sydney and Boehringer Ingelheim)
Project leaders Tübingen: Prof. Dr. Holger Lerche, Dr. Thomas Wuttke
Funding Institution: Boehringer Ingelheim International GmbH

Guest Physician Stipend

Project participant: Murtadha Alshabaan
Funding institution: Saudi-Arabia

Establishment of a human electrophysiological model to quantify the CGRP-related axon reflex of trigeminal afferents and its evaluation as a clinical tool to assess and predict treatment effects of migraine prophylaxis

Project leader: Dr. Victoria Ruschil
Funding institution: Medical Faculty, University of Tübingen (Clinician Scientist)

Investigation of novel treatment strategies for idiopathic epilepsy: from genetic modulation of neuronal network activity in vivo to transplantation of MGE-derived interneurons

Project leader: Dr. Thomas Wuttke
Funding institution: Medical Faculty, University of Tübingen (Clinician Scientist)

Somatotopia und Fascikelarchitektur im gesunden und neuropathischen Nerv

Project leader: Dr. Natalie Winter
Funding Institution: University of Tübingen (Clinician Scientist)

Prophylactic treatment of hemiplegic migraine with lamotrigine – a pilot study

Project leader: PD Dr. Tobias Freilinger
Funding institutions: Centre for Rare Diseases (ZSE) and AKF, University of Tübingen

Neurological Clinical Problem Solving (Neuro-ClipS) Tübingen

Project leader: Prof. Dr. Tobias Freilinger, Christina Lipski
Funding institution: University of Tübingen, PROFIL programme

Understanding the network consequences of interneuron loss – versus gain-of-function as a distinct disease correlates by using high resolution electrical imaging

Project leaders: Dr. Ulrike Hedrich-Klimosch, Dr. Thomas Wuttke, Dr. Niklas Schwarz, Dr. Günther Zeck (NMI Reutlingen)
Funding Institution: Hertie Foundation

NEW GRANTS

Functional and ultrastructural studies of neuron-oligodendroglia interactions and myelination in Dravet syndrome

Project leader: Dr. Ulrike Hedrich-Klimosch
Funding Institution: Gruppo Famiglie Dravet Associazione Onlus

SCN1A-UP! - Therapeutic strategies for Dravet syndrome: upregulation of endogenous SCN1A and modulation of pathological remodeling

Project leader: Dr. Ulrike Hedrich-Klimosch
(*Speaker: Dr. Massimo Mantegazza, CNRS UNR7275 & Université Cote d'Azur*)
Funding Institution: German Research Foundation (DFG)

TreatKCNQ - Targeted treatment for KCNQ related encephalopathies: retigabine analogues, repurposed drugs and allele specific knock down.

Project leader: Dr. Thomas Wuttke
(*Speaker: Dr. Sarah Weckhuysen, University of Antwerp*)
Funding Institution: Federal Ministry of Education and Research (BMBF)

Investigation of ultrapotent chemogenetics in a genetic focal model of epilepsy (new funding period)

Project leader: Dr. Thomas Wuttke

Funding Institution: Redpin Therapeutics, Inc.

Entwicklung von Computer-Modellen zur Vorhersage der Auswirkungen von Ionenkanalmutationen auf neuronales Verhalten

Project leader: Dr. Stephan Lauxmann

Funding Institution: Deutsche Gesellschaft für Epileptologie (DGFE)

DFG-Research Unit FOR2715 ‘Epileptogenesis of genetic epilepsies’ (second funding period from 2021-2024)

Speaker: Prof. Dr. Holger Lerche

Funding institution: German Research Foundation (DFG), additional funding by the FNR (Luxembourg): including the following grants from the HIH:

P2: Rare genetic factors in epileptogenesis

Project leader: Prof. Dr. Holger Lerche

(with Dr. Patrick May from Luxembourg University)

P5: Brain region-specific epileptogenesis in a conditional mouse model

Project leaders: Prof. Dr. Holger Lerche, Dr. Thomas Wuttke

P6: Mechanisms of epileptogenesis in KCNA2-/SCN2A-mediated epilepsies

Project leader: Dr. Ulrike Hedrich-Klimosch

(with Prof. Dr. Olga Garaschuk from Tübingen University)

Coordination and Central Management

Project leader: Prof. Dr. Holger Lerche

ILAE Task Force on Sequencing Data Sharing / ILAE Genomics

Project leader: Prof. Dr. Holger Lerche

Funding institution: International League Against Epilepsy (ILAE)

Doktorandenstipendium – Projekt:

Architecture of complex genetic epilepsies

Project leader: Prof. Dr. Holger Lerche

Funding institution: Stiftung no epilep

Clinician Scientist Program

Project leader: Dr. Justus Marquetand

Funding Institution: University of Tübingen

IZKF Stipendium

Project participants: Hannah Schwarz, Pauline Scheuber, Moritz Hanke

Funding institution: University of Tübingen / IZKF

Conferences & Workshops

Genetic epilepsies and other neuronal ion channel disorders: Mechanisms and therapeutic perspectives

Tübingen, 23-24 September 2021

Scientific coordinators: Prof. Dr. Holger Lerche,

Dr. Ulrike Hedrich-Klimosch

Treat-ION – Annual Meeting

Tübingen, 22 September 2021

Scientific coordinators: Prof. Dr. Holger Lerche,

Dr. Ulrike Hedrich-Klimosch

Awards

Christian Boßelmann

Gowers Clinical Science Award 2021 - ILAE British Branch

Master Theses

(Completed in 2021)

Nils Koch

Computational Modelling of the Effects of Ionic Current Alterations on Neuronal Firing in the Context of KCNA1-associated Episodic Ataxia Type 1

Supervisors: Prof. Dr. Jan Benda, Dr. Stefan Lauxmann

Albina Farkhutdinova

Functional in vitro characterization of chemogenetic approach in murine organotypic brain slices

Supervisors: Dr. Thomas Wuttke,

Dr. Ulrike Hedrich-Klimosch

Guest Researchers

Dr. Andrea Santuy

Universidad Autónoma Madrid, Spain

(Funded by the Alexander von Humboldt Stiftung)

Hosts: Dr. Thomas Wuttke, Dr. Henner Koch

Department of Neuro- degenerative Diseases



Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Thomas Gasser

DEPUTY HEAD OF THE DEPARTMENT

Prof. Dr. Ludger Schöls

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Jun.-Prof. Dr. Dr. Michela Deleidi (jointly with DZNE)
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PD Dr. Christian Johannes Gloeckner (jointly with DZNE)
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Prof. Dr. Inga Liepelt-Scarfone
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Prof. Dr. Daniel Weiß

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 Marvin Noss
 Lara Sophie Rieder

BUNDESFREIWILLIGEN- DIENSTLEISTERINNEN

Helen Alberth
 Sascha Köhler (until 08/2021)
 Lisa Sledz

Clinical Studies

PPMI – The Parkinson’s Progression Markers Initiative

(please see: <http://www.ppmi-info.org/>)

Multicenter longitudinal observational study in PD

Investigators: PD Dr. Kathrin Brockmann

P-PPMI (please see also: Fox-Trial-Finder):

Prodromal Parkinson’s Progression Markers Initiative:

Multicenter longitudinal observational study in individuals at risk for PD

Investigators: PD Dr. Kathrin Brockmann

PPMI Genetic Cohort: Multicenter longitudinal observational study in genetic PD

Investigators: PD Dr. Kathrin Brockmann

Roche Pasadena Studie BP39529: a randomized, double-blind, placebo-controlled, 52-week phase II study to evaluate the efficacy of intravenous RO7046015 (PRX002) in participants with early Parkinson’s Disease with a 52-week blinded extension Pasadena

Investigators: PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Cognitive-driven ADL impairment as a predictor for Parkinson’s disease Dementia (PDD)

Investigator: Prof. Dr. Inga Liepelt-Scarfone

ABC-PD: a monocenter longitudinal study on the predictive value of CSF abeta-pathology for PD dementia.

Investigators: Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Daniela Berg, Prof. Dr. Walter Maetzler

TREND-Studie (Tübinger evaluation of Risk factors for Early detection of NeuroDegeneration): Monocenter longitudinal observational study on individuals at high risk for PD to determine the value of risk, prodromal and progression markers in the prodromal phase. Please see also: <http://www.trend-studie.de/english/>

Investigators: Prof. Dr. Daniela Berg, Prof. Dr. Walter Mätzler (UKSH, Campus Kiel, Neurology), PD Dr. Kathrin Brockmann, (UKT, Neurology), Prof. Dr. Andreas Fallgatter, Prof. Dr. Gerhard Eschweiler, Prof. Dr. Florian Metzger (UKT, Psychiatry)

MIGAP: (Markers in GBA-associated PD) multicenter study of the DZNE to detect biomarkers and protective factors in GBA-associated PD.

Investigators: PD Dr. Kathrin Brockmann, Prof. Dr. Thomas Gasser

DESCRIBE PD: multicenter study of the DZNE to detect biomarkers and protective factors associated with clinical trajectories and molecular pathways in PD.

Investigators: PD Dr. Kathrin Brockmann, Prof. Dr. Thomas Gasser

DIFUTURE LOC- Early: DIFUTURE Longitudinale Kohortenstudie zur Beurteilung der Progression der Parkinson Erkrankung im frühen Krankheitsstadium (LOC-EARLY)

Investigators: PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

DIFuture LOC-DBS: : DIFUTURE Longitudinale Kohortenstudie zur Beurteilung des Therapieerfolges im späten Krankheitsstadium der Parkinson Erkrankung (LOC-DBS)

Investigators: Prof. Dr. Daniel Weiß, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Klinische Charakterisierung der Parkinson Demenz:

detaillierte Beschreibung und Identifikation von PDD Subgruppen aufgrund des kognitiven, genetischen, motorischen und nicht-motorischen klinischen Profils und deren Progression der Erkrankung über einen Verlauf von zwei Jahren

Investigators: Prof. Dr. Inga Liepelt-Scarfone, Sara Becker, Patricia Sulzer

ACT14820-MOVES-PD: Multizentrische, randomisierte, doppelblinde, placebokontrollierte Studie zur Beurteilung der Wirksamkeit, Sicherheit, Pharmakokinetik und Pharmakodynamik von GZ/SAR402671 bei Patienten mit Morbus Parkinson im Frühstadium, die eine GBA-Mutation oder eine vorspezifizierte Variante tragen

Investigators: PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Novartis CNIO752A02101: A Randomized, Participant, Investigator and Sponsor Blinded, Placebo-Controlled Study to Evaluate the Safety, Tolerability and Pharmacokinetics of Multiple Ascending Doses of Intrathecally Administered NIO752 in Patients With Progressive Supranuclear Palsy

Investigators: PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

EarlyStim – 10 year post study follow up: The effect of deep brain stimulation of the subthalamic nucleus (STN-DBS) on quality of life in comparison to best medical treatment in patients with complicated Parkinson's disease and preserved psychosocial competence.
Investigators: Prof. Dr. Daniel Weiß

Health-related quality of life in LCIG-treated and LCIG-amenable patients with continued oral dopaminergic therapy: Non-interventional, multicentre observational trial for levodopa-carbidopa gel (LCIG) in Germany – BALANCE
Investigator: Prof. Dr. Daniel Weiß

Subthalamic steering for therapy optimization in Parkinson's disease (SANTOP)
*Investigator: Prof. Dr. Daniel Weiß,
Prof. Dr. Alireza Gharabaahi*

Lateral steering of nigral stimulation for freezing of gait in Parkinson's disease (NIGRASTEER)
*Investigator: Prof. Dr. Daniel Weiß,
Prof. Dr. Alireza Gharabaahi*

Restitution of oral transport, deglutition, and aspiration with nigral stimulation in Parkinson's disease?
Investigator: Prof. Dr. Daniel Weiß

Combined stimulation of STN and SNr for Resistant Freezing of Gait in Parkinson's disease
Investigators: Prof. Dr. Daniel Weiß, Prof. Dr. Alireza Gharabaghi, Prof. Dr. Rejko Krüger, Dr. Georgios Naros

Sensing of oscillatory subthalamic nucleus field potentials for freezing of gait in Parkinson's disease (SenseFOG)
*Investigators: Prof. Dr. Daniel Weiß,
Prof. Dr. Alireza Gharabaghi*

The efficacy of the combination of opicapone (+levodopa) + DBS on freezing of gait in Parkinson's disease (OpiDBS)
Investigator: Prof. Dr. Daniel Weiß

StimTox-CD: Eine randomisierte Vergleichsstudie von Tiefer Hirnstimulation des Globus pallidus internus versus Botulinumtoxingabe bei cervikaler Dystonie
Investigators: Prof. Dr. Daniel Weiß, Prof. Dr. Gharabaghi, Dr. Ebba Lohmann

Aspen – OLS: A Phase 3, Open-Label, Multi-Center Trial to Evaluate the Long-Term Safety and Efficacy of Repeat Treatments of Daxibotulinumtoxin A for Injection in Adults with Isolated Cervical Dystonia
Investigators: Dr. Ebba Lohmann

Natural history of Hereditary Spastic Paraplegia Type SPG4 (HSP registry)
Investigators: PD Dr. Rebecca Schüle, Dr. Christoph Kessler, Dr. Tim Rattay, Dr. Melanie Wayand, Prof. Dr. Ludger Schöls

Phenotype, Genotype and Biomarkers in ALS and Related Disorders (Clinical Research in ALS and Related Disorders for Therapeutic Development Consortium / CREATe)
*Investigators: PD Dr. Rebecca Schüle,
Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Matthias Synofzik,
Dr. Christoph Kessler, Dr. Carlo Wilke*

Phenotypes, Biomarkers and Pathophysiology in Hereditary Spastic Paraplegias and Related Disorders (HSP-PBP)
Investigators: PD Dr. Rebecca Schüle, Dr. Christoph Kessler, Dr. Tim Rattay, Dr. Melanie Wayand, Prof. Dr. Ludger Schöls

GaitLab – Mobile Bewegungsanalyse unter supervidierten und nicht-supervidierten Bedingungen im häuslichen Umfeld bei Patienten mit Bewegungsstörungen
*Investigators: PD Dr. Rebecca Schüle, Dr. Christoph Kessler,
Dr. Melanie Wayand*

Patient-centered outcome parameters in HSP: development and validation of patient- and caregiver reported outcomes (HSP-PCOM)
*Investigators: PD Dr. Rebecca Schüle, Dr. Christoph Kessler,
Dr. Melanie Wayand*

Neuropsychological deficits in genetically defined subtypes of Hereditary Spastic Paraplegia (HSP)
*Investigators: PD Dr. Rebecca Schüle,
Prof. Dr. Inga Liepelt-Scarfone*

Biomarkers of axonal degeneration in Hereditary Spastic Paraplegia and related diseases
Investigators: PD Dr. Rebecca Schüle, Dr. Christoph Kessler

PROSPAX: an integrated multimodal progression chart in spastic ataxias
Investigators: Prof. Dr. Matthias Synofzik, PD Dr. Rebecca Schüle, Dr. Dr. Andreas Träschütz, Dr. Christoph Kessler

Clinical Studies

European Friedreich's Ataxia Consortium for Translational Studies (EFACTS)

Investigators: Prof. Dr. Ludger Schöls, Dr. Zofia Fleszar, Dr. Stefanie Hayer, Prof. Dr. Jörg B. Schulz (Aachen)

ESMI: European Spinocerebellar Ataxia Type 3 / Machado-Joseph Disease Initiative

Investigators: Prof. Dr. Ludger Schöls, Dr. Holger Hengel, Prof. Dr. Matthias Synofzik, Dr. Winfried Ilg

Sporadic ataxia with adult onset: Natural history study (SPORTAX)

Investigators: Prof. Dr. Ludger Schöls, Prof. Dr. Matthias Synofzik, Prof. Dr. Thomas Klockgether (Bonn)

Autosomal-recessive and Early onset ataxia: Genetic basis and natural history (ARCA/EOA)

Investigators: Prof. Dr. Matthias Synofzik, Prof. Dr. Ludger Schöls

GENFI- Genetic Frontotemporal Dementia Initiative

Investigators: Prof. Dr. Matthias Synofzik

Solving the unsolved Rare Diseases (Solve RD)

Investigators: PD Dr. Rebecca Schüle, Prof. Dr. Matthias Synofzik, Prof. Dr. Ludger Schöls

Third-Party Funding

ONGOING GRANTS

PPMI – The Parkinson's Progression Markers Initiative

Project leader: PD Dr. Kathrin Brockmann

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

PPMI – Amendment: Genetic PPMI

Project leader: PD Dr. Kathrin Brockmann

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

PPMI Amendment – Cognitive categorization assessment

Project leader: PD Dr. Kathrin Brockmann

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

Inclusion of Resting State MRI: A Parkinson's Progression Markers Initiative (PPMI) Substudy

Project leader: PD Dr. Kathrin Brockmann

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

P-PPMI – Prodromal subjects

Project leader: PD Dr. Kathrin Brockmann

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

MJFF - PPMI 2.0

Project leader: PD Dr. Kathrin Brockmann

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

Research Cooperation within the joint project "Predictive diagnostics of immune-associated diseases for personalized medicine"

Project leader: PD Dr. Kathrin Brockmann

Funding Institution: NMI - Naturwissenschaftliches und Medizinisches Institut an der Universität Tübingen

Observational study in non-demented patients with Parkinson's disease with lowered A-beta1-42 CFS levels

Project leaders: Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Daniela Berg, Prof. Dr. Walter Maetzler
Funding institution: Janssen Pharmaceutica NV

ACT14820-MOVES-PD: Multizentrische, randomisierte, doppelblinde, placebokontrollierte Studie zur Beurteilung der Wirksamkeit, Sicherheit, Pharmakokinetik und Pharmakodynamik von GZ/SAR402671 bei Patienten mit Morbus Parkinson im Frühstadium, die eine GBA-Mutation oder eine vorselektierte Variante tragen

Project leaders: Prof. Dr. Thomas Gasser, PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone
Funding institution: Sanofi-Aventis Deutschland GmbH

Cognitive-driven ADL impairment as a predictor for Parkinson's disease Dementia (PDD)

Project leader: Prof. Dr. Inga Liepelt-Scarfone
Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

Roche Pasadena Studie BP39529: A randomized, double-blind, placebo-controlled, 52-week phase II study to evaluate the efficacy of intravenous RO7046015 (PRX002) in participants with early Parkinson's disease with a 52-week blinded extension Pasadena

Project leaders: PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser
Funding institution: F. Hoffmann-La Roche AG

PPMI - Amendment 13

Project leader: PD Dr. Kathrin Brockmann
Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

PPMI - Amendment 14 - Digital Biomarker Data Collection

Project leader: PD Dr. Kathrin Brockmann
Funding Institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

MJFF Global Genetic PD Cohort project

Project leader: PD Dr. Kathrin Brockmann
Funding institution: University Medical Center Schleswig-Holstein, Institute of Neurogenetics, Lübeck; MJFF

Multi-dimensional stratification of Parkinson's disease patients for personalized interventions (PD-Strat)

Project leader: Prof. Dr. Thomas Gasser
Funding institution: Federal Ministry of Education and Research (BMBF)

LRRK2 as a target for the treatment of Parkinson's disease

Project leader: Prof. Dr. Thomas Gasser
Funding institution: German Research Foundation (DFG)

Molekulare Stratifizierung neurodegenerativer Erkrankungen für Früherkennung und personalisierte Therapie

Projekt leader: Prof. Dr. Thomas Gasser
Funding institution: Baden-Württemberg Ministry of Science, Research and the Arts (MWK)

Data Integration for Future Medicine (DIFUTURE).

Project leader: Prof. Dr. Thomas Gasser
Funding institution: Federal Ministry of Education and Research (BMBF)

Investigation of molecular and cellular functions of TDP-43 and FUS, pathorelevant proteins in frontotemporal dementias (FTD) and amyotrophic lateral sclerosis (ALS)

Project leader: Prof. Dr. Philipp Kahle
Funding institution: German Research Foundation (DFG)

Decipher the Complexity and Plasticity of Epigenomic Characteristics Under Influence of Environmental Factors in the Pathomechanistic Regulation of Parkinson's Disease (decipherPD): German-Canadian-French Joint Transnational Project „Epigenomics of Complex Diseases“

Project Leader: Prof. Dr. Philipp Kahle
Funding institution: Federal Ministry of Education and Research (BMBF)

Virtual Institute: RNA dysmetabolism in ALS and FTD

Project leader: Prof. Dr. Philipp Kahle
Funding institution: German Center for Neurodegenerative Diseases (DZNE)

DZNE Crosscutting Project: Posttranslational Modifications of TDP-43

Project leader: Prof. Dr. Philipp Kahle
Funding institution: NOMIS Foundation

Third-Party Funding

ONGOING GRANTS

GRK 2364: MOMbrane: The Multifaceted Functions and Dynamics of the Mitochondrial Outer Membrane

Project leaders: Dr. Julia Fitzgerald, Prof. Dr. Philipp Kahle
Funding institution: German Research Foundation (DFG)
Research Training Group GRK 2364

Genomweiter RNAi Screen der Parkin abhängigen Eliminierung von depolarisierten Mitochondrien

Project leader: Dr. Sven Geisler
Funding institution: German Research Foundation (DFG)

Identification of modulators of the PINK1/Parkin-dependent mitophagy by siRNA based high-content screening of mitochondrial Parkin translocation

Project leader: Dr. Sven Geisler
Funding institution: ONO Pharmaceuticals

Sensing of oscillatory subthalamic nucleus field potentials for freezing of gait in Parkinson's disease (SenseFOG)

*Investigators: Prof. Dr. Daniel Weiß,
Prof. Dr. Alireza Gharabaghi*
Funding institution: Medtronic

Combined interleaved stimulation of STN and SNr for mobility impairment related to freezing of gait:

A randomized controlled clinical trial
Project leaders: Prof. Dr. Daniel Weiß, Prof. Dr. Alireza Gharabaghi, Prof. Dr. Rejko Krüger, Dr. Georgios Naros
Funding institution: Medtronic

Subthalamic steering for therapy optimization in Parkinson's disease (SANTOP)

Investigator: Prof. Dr. Daniel Weiß
Funding institution: Abbott

Lateral steering of nigral stimulation for freezing of gait in Parkinson's disease (NIGRASTEER)

Investigator: Prof. Dr. Daniel Weiß
Funding institution: Boston Scientific

Restitution of oral transport, deglutition, and aspiration with nigral stimulation in Parkinson's disease?

Investigator: Prof. Dr. Daniel Weiß
Funding institution: Michael J. Fox Foundation

ESMI: European Spinocerebellar Ataxia Type 3/ Machado-Joseph Disease Initiative

Project leader: Prof. Dr. Ludger Schöls
Funding institution: EU / BMBF

Genetic basis of hereditary spastic paraplegias

Project leaders: Prof. Dr. Ludger Schöls, PD Dr. Rebecca Schüle
Funding institution: HSP Support Group; Germany e.V.

Pre-SPG4: Presymptomatic state of Hereditary Spastic Paraplegia Type 4

*Project leaders: Dr. Tim Ratty, PD Dr. Rebecca Schüle,
Prof. Dr. Ludger Schöls*
Funding institution: HSP Support Group; Germany e.V.

International HSP registry

Project leaders: PD Dr. Rebecca Schüle, Prof. Dr. Ludger Schöls
Funding institution: HSP Selbsthilfegruppe e.V.

Entwicklung und Evaluation eines modularen Physiotherapiekonzepts für Patienten mit Hereditärer Spastischer Spinalparalyse (HSP)

Project leaders: PD Dr. Rebecca Schüle, Prof. Ludger Schöls
Funding institution: Förderverein für HSP-Forschung e.V.

Natural history in Hereditary Spastic Paraplegia

Project leaders: PD Dr. Rebecca Schüle, Prof. Dr. Ludger Schöls
Funding institution: HSP Support Group; Germany e.V.

Funktionelle Validierung genetischer Varianten im Exom-Zeitalter

Project leader: PD Dr. Rebecca Schüle
Funding institution: HSP Support Group; Germany e.V.

Clinical Research in ALS and Related Disorders for Therapeutic Development (CRATE) Consortium

Project leader: PD Dr. Rebecca Schüle
Funding institution: National Institutes of Health (NIH/NINDS)

Exome Studies in Hereditary Spastic Paraplegia – Beyond the Exome

Project leader: PD Dr. Rebecca Schüle

Funding institution: National Institutes of Health (NIH/NINDS)

TreatHSP: Translational Research in Hereditary Spastic Paraplegia

Project leader: PD Dr. Rebecca Schüle

Funding institution: Federal Ministry of Education and Research (BMBF)

Treat-HSP: WP4 iPSC-based neuronal models for biomarker discovery and therapeutic target identification in SPG4 and SPG31

Project leaders: Prof. Dr. Ludger Schöls, Dr. Stefan Hauser

Funding institution: Federal Ministry of Education and Research (BMBF)

Structural and biochemical analysis of LRRK2 conformational states as foundation for a rational development of allosteric compounds (Grant ID: 8068.04)

Project leader: PD Dr. Christian Johannes Gloeckner

Funding institution: The Michael J. Fox Foundation for Parkinson's Research (MJFF)

EU Horizon 2020 RIA Research and Innovation action: Solving the Unsolved Rare Diseases (Solve RD)

Co-Project leaders: Prof. Dr. Matthias Synofzik,

PD Dr. Rebecca Schüle

Funding institution: EU

Biomarkers of axonal degeneration in HSP

Project leader: PD Dr. Rebecca Schüle

Funding institution: National Institutes of Health (NIH/NINDS)

Biomarkers of axonal degeneration in HSP

Project leader: PD Dr. Rebecca Schüle

Funding institution: Australian Research Foundation

From Pathophysiology to Therapeutic Targets: Disturbed Sphingolipid Metabolism in HSP Caused by GBA2 Mutations

Project leaders: PD Dr. Rebecca Schüle, Ulrike Ulmer

Funding: Tom Wahlig Foundation

ZSE-DUO

Principle investigator: Prof. Dr. Ludger Schöls

Funding institution: Innovationsfond

Treat-ION: WP2 Investigating the pathophysiology and treatment options of ataxia-associated CACNA1A disease variants in Drosophila melanogaster

Project leader: Prof. Dr. Ludger Schöls

Funding institution: EU/BMBF

PROSPAX: an integrated multimodal progression chart in spastic ataxias (EJP consortium)

Project leaders: Prof. Dr. Matthias Synofzik,

PD Dr. Rebecca Schüle

Funding: European Union EJP RD program/DFG

Blood Based Mitochondrial Biomarkers of Parkinson's Disease

Project leader: Dr. Julia Fitzgerald

Co-project leader: Dr. Gerrit Machetanz

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

ERN-RND registry

Project leader: Prof. Dr. Ludger Schöls

Funding institution: European Union

LeukoExpert

Project leader: Prof. Dr. Ludger Schöls

Funding institution: Federal Ministry of Health (BMG)

Third-Party Funding

NEW GRANTS

Fellowship 2020

Project leader: Prof. Dr. Thomas Gasser

Funding institution: Deutsche Parkinson Vereinigung

Novartis CNIO752A02101: A Randomized, Participant, Investigator and Sponsor Blinded, Placebo-Controlled Study to Evaluate the Safety, Tolerability and Pharmacokinetics of Multiple Ascending Doses of Intrathecally Administered NIO752 in Patients With Progressive Supranuclear Palsy

Project leaders: PD Dr. Kathrin Brockmann,

Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Funding institution: Novartis Pharma GmbH

Roche Pasadena Study BP39529 - Amendment 2:

a randomized, double-blind, placebo-controlled, 52-week phase II study to evaluate the efficacy of intravenous RO7046015 (PRX002) in participants with early Parkinson's disease with a 52-week blinded extension Pasadena

Project leaders: PD Dr. Kathrin Brockmann,

Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Funding institution: F. Hoffmann-La Roche AG

Research Cooperation: Translation and Validation of the Non-Motor-Rating-Scale

Project leader: PD Dr. Kathrin Brockmann

Funding institution: TU Dresden

MJFF Global Genetic PD Cohort project – Amendment 1

Project leader: PD Dr. Kathrin Brockmann

Funding Institution: University Medical Center Schleswig-Holstein, Institute of Neurogenetics, Lübeck/ MJFF

Sanofi ASY16641: Expense Allowance for premature termination of study

Project leaders: PD Dr. Kathrin Brockmann,

Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Funding Institution: Sanofi Aventis Deutschland GmbH

Development of a LRRK2-kinase inhibitors for the treatment of Parkinson's disease

Project leaders: Prof. Dr. Thomas Gasser,

Prof. Dr. Philipp Kahle, Jun.-Prof. Dr. Dr. Michela Deleidi,

PD Dr. Christian Johannes Gloeckner

Funding institution: Chem Div Inc., San Diego, USA (DZNE)

ANR-DFG: Exploring immune-related pathways in familial forms of Parkinson's disease

Project leader: Dr. Dr. Michela Deleidi

Funding institution: German Research Foundation (DFG)

INTEGRative multi-OMICs approaches on iPSC-derived 2D and 3D models to elucidate the role of immune and energy metabolism related genes/ pathways in Amyotrophic Lateral Sclerosis

Project leader: Dr. Dr. Michela Deleidi

Funding institution: EU ERA-Net 2018

GBA – PaCTS; GBA – personalised medicine for Parkinson disease: clinical and therapeutic stratification

Project leader: Dr. Dr. Michela Deleidi

Funding institution: JPND

Mapping the glucocerebrosidase interaction network to identify novel therapeutic targets for Parkinson's disease

Project leader: Dr. Dr. Michela Deleidi

Funding institution: Juniorprofessuren-Programm Baden-Württemberg Ministry of Science, Research and the Arts (MWK)

Interaction between ageing and immune dysfunction in LRRK2 Parkinson's disease

Project leader: Dr. Dr. Michela Deleidi

Funding institution: Network of Centres of Excellence in Neurodegeneration (COEN)

Common Mitochondrial Deletions as a Peripheral Marker of Parkinson's Disease

Project leader: Dr. Julia Fitzgerald

Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

Converging Parkinson's Disease Pathways: Identification of Unique and Novel Gene Dependencies

Project leader: Dr. Julia Fitzgerald

Funding institution: ONO Pharmaceuticals

Spontane Muskelaktivität in Bewegungssensitiver MRT

Project leaders: Prof. Dr. Ludger Schöls,

Prof. Dr. Alexander Grimm, Prof. Dr. Fritz Schick

Funding institution: German Research Foundation (DFG)

MD Theses

(Completed in 2021)

Aline Lea-Beate Beyle

Leistungsbasierte Beurteilung der Progredienz kognitiv bedingter Einschränkungen der Aktivitäten des täglichen Lebens bei der Parkinson-Erkrankung

Supervisor: Prof. Dr. Thomas Gasser

Tobias Binder

Functional MRI for the early detection of Parkinson's disease: ROI analysis of the putamen in a population at risk of developing Parkinson's disease

Supervisor: Prof. Dr. Daniela Berg

Max-Lorenz Hollweck

Elektrophysiologische Diagnostik von subklinischen sensiblen Defiziten durch distale elektrische und multimodale mechanische somatosensorisch evozierte Potentiale (SEP) bei Patienten mit Morbus Parkinson

Supervisor: Prof. Dr. Walter Mätzler

Leonie Victoria Köhler

Das Langlebigkeitsgen Klotho und seine Liquor-Protein-profile: Modifikator für die Parkinson Erkrankung?

Supervisor: Prof. Dr. Thomas Gasser

Leonie Kraft

Quantitative Analyse des Fuß-Tappings bei Risikopersonen für sowie bei Patienten mit idiopathischem Parkinsonsyndrom: Assoziation mit axialen Symptomen und Lateralität

Supervisor: Prof. Dr. Walter Mätzler

Stefan Streich

Untersuchung der Wirkung von Ergotherapie bei idiopathischem Parkinsonsyndrom mittels subjektiver und objektiver Messverfahren

Supervisor: Prof. Dr. Daniela Berg

Melanie Wayand

Isoform-specific Interactome Analysis of Spastin

Supervisor: PD Dr. Rebecca Schüle

Zaubrecher, Anna-Laura Tiana

Assoziation von subjektiv empfundener Schlafqualität und motorischen Bewegungsprofilen mit der Levodopa-Nachtmedikation von Parkinsonpatienten - Eine Querschnittsstudie unter Verwendung von tragbaren Bewegungssensoren und standardisierten Fragebögen

Supervisor: Prof. Dr. Walter Mätzler

Master Theses

(Completed in 2021)

Lorenzo Davide Dodi

Calcium Imaging in Miro1 Parkinson's Disease Models

Supervisor: Dr. Julia Fitzgerald

Linus Wiora

CRISPR/Cas9 based KO of Spastin M1-Isoform in Human Induced Pluripotent Stem Cells for Disease Modeling of Hereditary Spastic Paraplegia

Supervisor: Prof. Dr. Ludger Schöls

Marius Kolodziej

Determination of context-specific interactomes involved in Rab8a-dependent LRRK2 downstream signaling by a complementation-based proximity-dependent biotinylation approach

Supervisor: PD Dr. Christian Johannes Gloeckner

Katharina Filodda

The analysis of LRRK2 effector protein interactomes by Split-BioID proximity labeling

Supervisor: PD Dr. Christian Johannes Gloeckner

Bachelor Theses

(Completed in 2021)

Nuria Garcia

Exosome Markers of Parkinson's Disease

Supervisor: Dr. Julia Fitzgerald (with Felix Knab)

Jonathan Matsch

LRRK2 Substratphosphorylierung – Abhängigkeit der Kinaseaktivität bei unterschiedlichen G-Nukleotiden

Supervisor: PD Dr. Christian Johannes Gloeckner

Department of Neurology and Interdisciplinary Neuro-Oncology



Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Dr. Ghazaleh Tabatabai

GROUP LEADERS/ ATTENDING PHYSICIANS

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(Deputy director, Junior group leader)
Dr. Daniel Merk (Junior group leader)
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PD Dr. Johannes Rieger
Prof. Dr. Constantin Roder
Dr. Marco Skardelly

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Lucia Grosse
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PD Dr. Susan Noell
Dr. David Rieger

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Kirsten Wyrwich

Clinical Studies

NEUROONCOLOGY STUDIES RECRUITING TRIALS (OPEN FOR ENROLLMENT)

N2M2/NOA 20 (NCT-2014-0235)

Umbrella protocol for phase I/IIa trials of molecularly matched targeted therapies plus radiotherapy in patients with newly diagnosed glioblastoma without MGMT promoter methylation: NCT Neuro Master Match - N²M² (NOA-20)
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Heidelberg

Gloria -SNOXA12C401: Single-arm, Dose-Escalation, Phase 1/2 Study of Olaptased Pegol (NOX-A12) in Combination with Irradiation in Inoperable or Partially Resected First-line Glioblastoma Patients with Unmethylated MGMT Promoter
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: NOXXON Pharma AG

ROSALIE: A Multicenter, Open-Label, First-in-Human, Phase Ib/IIa Trial of EO2401, a Novel multi-peptide Therapeutic Vaccine, with and without PD-1 Check Point Inhibitor, Following Standard Treatment in Patients with Progressive Glioblastoma (Rosalie study)
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Enterome

AmplifyNeovac/NOA-21 (NCT-2016-0458): Amplifying Neopitope-specific Vaccine Responses in progressive diffuse glioma – a randomized, open label, 3 arm multicenter Phase I trial to assess safety, tolerability and immunogenicity of IDH1R132Hspecific peptide vaccine in combination with checkpoint inhibitor Avelumab (AMPLIFY-NEOVAC, NOA-21)
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: German Cancer Research Center

NOA 13: prospektive Beobachtungsstudie zur Chemotherapie bei nicht spezifisch vorbehandelten Patienten mit primärem ZNS-Lymphom (PZNSL)
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Universitätsklinikum Bochum

Meningeosis Register: Multizentrische nicht-interventionelle Studie zur prospektiven Beobachtung und systematischer Behandlungsdokumentation bei Patienten mit leptomeningealer Ausbreitung eines Tumors
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Universität Marburg

ZPM-001: Nicht-interventionelle Studie zur prospektiven systematischen Analyse der weiterführenden Molekular-diagnostik und zielgerichteter Therapiestrategien
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Tübingen

GLIOPT: Gliompatienten in der ambulanten Versorgung - Optimierung des psychosozialen Screenings bei ambulanten neuroonkologischen Patienten in einer prospektiven multizentrischen Studie
Investigator in Tübingen: Dr. Mirjam Renovanz
Sponsor: University Hospital Tübingen

GLIOFIT: Machbarkeit einer Bewegungstherapie im Sinne der „prehabilitation“ für Patienten mit Glioblastom und Auswirkungen auf Aktivität, Fatigue, Lebensqualität und Metabolismus
Investigator in Tübingen: Dr. Mirjam Renovanz
Sponsor: University Hospital Tübingen

NOA 19: Retest-Reliabilität und lokalisationsabhängige Sensitivität neurokognitiver Testung bei erst-diagnostizierten Glioblastompatienten
Investigator in Tübingen: Dr. Mirjam Renovanz
Sponsor: University Hospital Tübingen

iMRI/5-ALA: A parallel group phase II trial to investigate maximum extent of resection based on iMRI versus 5-ALA
Lead Principal Investigators: PD Dr. Constantin Roder, Prof. Dr. Marcos Tatagiba
Sponsor: University Hospital Tübingen

IT PD-1/NOA-26: Intrathecal application of PD1 antibody in metastatic solid tumors with leptomeningeal disease
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Tübingen

BASILEA: An open-label Phase 1/2a study of oral BAL101553 in adult patients with advanced solid tumors and in adult patients with recurrent or progressive glioblastoma or high-grade glioma
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Basilea

Clinical Studies

NEUROONCOLOGY STUDIES RECRUITING TRIALS (OPEN FOR ENROLLMENT)

IMPROVE CODEL / NOA-18: Improvement of functional outcome for patients with newly diagnosed grade II or III glioma with co-deletion of 1p/19q – IMPROVE CODEL: the NOA-18 trial

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Heidelberg

ON-TRK: PrOspective Non-interventional study in patients with locally advanced or metastatic TRK fusion cancer treated with larotrectinib.

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Bayer

NOA-10 (NCT01252459): Amino-acid PET versus MRI-guided re-irradiation in patients with recurrent Glioblastoma Multiforme (GLIAA)

Investigator in Tübingen: Prof. Dr. Daniel Zips
Sponsor: University Hospital Freiburg

NEUROONCOLOGY STUDIES TRIALS IN TREATMENT AND FOLLOW-UP PHASE (ENROLLMENT CLOSED)

AbbVie M13-813 (NCT02573324): A study of ABT-414 in subjects with newly diagnosed Glioblastoma (GBM) with Epidermal Growth Factor Receptor (EGFR) amplification (Intelligence 1)

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: RTOG and AbbVie

NOA12: Phase I/II trial exploring the combination of the compound BIBF120 with re-irradiation versus re-irradiation alone in progressive glioblastoma.

Investigator in Tübingen: Prof. Dr. Daniel Zips
Sponsor: University Hospital Heidelberg

BMS-CA209-548 (NCT02667587): Study of Temozolomide Plus Radiation Therapy With Nivolumab or Placebo, for Newly Diagnosed Patients With Glioblastoma (GBM, a Malignant Brain Cancer) (CheckMate548)

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: BMS

BMS CA 209-498 (NCT02617589): Phase III trial of Nivolumab Compared to Temozolomide, Given With Radiation Therapy, for Newly-diagnosed Patients With Unmethylated Glioblastoma (GBM, a Malignant Brain Cancer) (CheckMate 498)

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: BMS

EORTC1410/AbbVie M14-483 (NCT02343406): ABT-414 Alone or ABT-414 Plus Temozolomide vs. Lomustine or Temozolomide for recurrent glioblastoma (INTELLANCE 2)

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: EORTC

CINC280X2204 (NCT01870726): Safety and efficacy of INC280 and Buparlisib (BKM120) in patients with recurrent glioblastoma

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Novartis

GAPVAC-101: A phase I study using an innovative individualized peptide-vaccination-based immunotherapy in newly diagnosed glioblastoma (www.gapvac.eu)

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Immatix GmbH, Tübingen

CeTeG (NCT01149109): Efficacy and safety study of Lomustine/Temozolomide combination therapy versus standard therapy for glioblastoma patients

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Bonn

CATNON Intergroup Trial (EORTC 26053): Phase III trial on concurrent and adjuvant temozolomide chemotherapy in non-1p/19q deleted anaplastic glioma

Investigator: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: EORTC

EORTC 26101 (NCT01290939): Bevacizumab and Lomustine for Recurrent GBM

Investigator: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: EORTC

NOA-16 (NCT02454634): Phase I trial of IDH1-peptide vaccine in IDH1R132H-mutated grade III-IV gliomas

Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Heidelberg

Bayer 18239 (NCT02746081): Phase I study of BAY1436032 in Isocitrate Dehydrogenase-1 (IDH1)-mutant advanced solid tumors
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
 Sponsor: Bayer

EORTC 1320: Phase II trial in atypical and anaplastic meningioma
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
 Sponsor: EORTC

MIRAGE(EORTC-1709-BTG): A phase III trial of marizomib in combination with standard temozolomide-based radiochemotherapy versus standard temozolomide-based radiochemotherapy alone in patients with newly diagnosed glioblastoma
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
 Sponsor: EORTC

Third-Party Funding

ONGOING GRANTS

Multipeptide vaccination with a new immunomodulatory agent XS15 in newly diagnosed glioblastoma: a first in man phase 1 trial
Project leaders: Prof. Dr. Dr. Ghazaleh Tabatabai, Prof. Dr. Hans-Georg Rammensee
 Funding institution: Medical Faculty Tübingen

EKFS-Forschungskolleg „Therapieresistenz solider Tumore“
Project leader: Prof. Dr. Dr. Ghazaleh Tabatabai
 Funding institution: Else Kröner-Fresenius-Stiftung

Funktionelle Genomanalysen zur Charakterisierung von Resistenzmechanismen gegen Rezeptor-Tyrosinkinase-Inhibitoren im Glioblastom
Project leaders: Prof. Dr. Dr. Ghazaleh Tabatabai, Dr. Daniel Merk
 Funding institution: Adolf-Leuze-Stiftung

Understanding acquired resistance and synthetic lethal interactions by functional genomics for designing rational combination therapies in glioblastoma
Project leader: Dr. Daniel Merk
 Funding institution: Medical Faculty

Awards

Prof. Dr. Dr. Ghazaleh Tabatabai
 Listing “Top physician 2021” (Brain Tumor Treatment)

MD Theses

(Completed in 2021)

Juliane Ebert
Erfassung der klinischen Betreuung und Behandlung von Patienten mit operierten ZNS-Metastasen im Zeitraum 2005-2012 am Universitätsklinikum Tübingen
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Ines Fachner
Analyse zellfreier DNA (cfDNA) in liquid biopsies von neuroonkologischen Tumoren
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Elina Brendle
Prädiktoren von präoperativen und frühen postoperativen epileptischen Anfällen bei Patienten mit intraaxialen primären Tumoren und Metastasen des ZNS: Eine retrospektive Beobachtungsstudie
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Bachelor Theses

(Completed in 2021)

Jens Maile
ETMR Screening
Supervisor: Dr. Daniel Merk

Conferences & Workshops

Jahrestagung der Neuroonkologischen Arbeitsgemeinschaft
 Tübingen, 18-19 March 2021
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Symposium Umgang mit beruflichen Herausforderungen: Eine Kunst?
 Tübingen, 20 March 2021
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Department of Neural Dynamics and Magneto- encephalography



Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Markus Siegel

SCIENTISTS/RESIDENTS

Prof. Dr. Christoph Braun
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Dr. Qinglin Li
Dr. Yiwen Li Hegner
Dr. Justus Marquetand
Dr. Nima Noury
Dr. Constantin von Nicolai

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Janet Giehl
Andrea Ibarra Chaoul
Tobias Ludwig
Katrina Quinn
Clara Rastelli
Giulia Righetti
Florian Sandhäger
Jan Schlüsener
Davide Sometti
Vera Voigtländer

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Lukas Emmerich
Bianca Layer
Carolin Schnabel
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Paul Hege
Jungmin Lee
Jiatong Liu
Tobias Ludwig
Malav Shah

TECHNICAL STAFF/ ADMINISTRATION

Jürgen Dax
Timo Larbig
Gabriele Walker-Dietrich

Clinical Studies

Imaging cortico-cortical interactions in multiple sclerosis

Investigators: Marcus Siems, Dr. Johannes Tünnerhoff,
Prof. Ulf Ziemann, Prof. Dr. Markus Siegel

Acting in space and time – two functions of the same neural circuits?

Investigators: Dr. Qinglin Li, Dr. David Hawellek,
Prof. Dr. Markus Siegel

Network biomarkers of fractal and oscillatory cortical activity

Investigators: Andrea Ibarra Chaoul, Prof. Dr. Markus Siegel

Sequence motifs of rhythmic cortical activity

Investigators: Paul Hege, Prof. Dr. Markus Siegel

Cortico-subcortical interactions during flexible working memory

Investigators: Dr. Constantin von Nicolai,
Prof. Dr. Markus Siegel

Non-invasive entrainment of cortical oscillations using transcranial alternating current stimulation (tACS)

Investigators: Dr. Nima Noury, Prof. Dr. Markus Siegel

Oscillatory waveforms as spectral biomarkers of neuronal circuit interactions

Investigators: Janet Giehl, Prof. Dr. Markus Siegel

Non-invasive decoding of abstract choices using magnetoencephalography (MEG)

Investigators: Florian Sandhäger, Prof. Dr. Markus Siegel

Large-scale interactions during natural vision

Investigators: Jan Schlüsener, Prof. Dr. Markus Siegel

Neural dynamics of human vocalization

Investigators: Vera Voigtländer, Prof. Dr. Markus Siegel

Neural mechanisms of multi-task reinforcement learning

Investigators: Tobias Ludwig, Dr. Eric Schulz,
Prof. Dr. Markus Siegel

Cortical dynamics of perceptual inference

Investigators: Katrina Quinn, Florian Sandhäger,
Dr. Nima Noury, Prof. Dr. Markus Siegel

Neuronal learning of auditory statistical regularities

Investigators: Dr. Antonino Greco, Dr. Julia Moser,
Prof. Dr. Hubert Preissl, Prof. Dr. Markus Siegel

OPM-based magnetomyography in health and disease

Investigators: Dr. Justus Marquetand, SangYeob Baek,
Davide Sometti, Dr. Antonino Greco, Dr. Nima Noury,
Dr. Thomas Middelman, Dr. Philip Broser,
Prof. Dr. Christoph Braun, Prof. Dr. Markus Siegel

Investigating muscle fatigue with OPM-based magnetomyography

Investigators: Davide Sometti, SangYeob Baek,
Prof. Dr. Christoph Braun, Dr. Thomas Middelman,
Dr. Philip Broser, Dr. Justus Marquetand

Manipulation of the somatosensory coordinate system by vibratory stimulation of the neck

Investigators: Roberta Calce, Dr. Daniel Wiesen,
Prof. Dr. Hans-Otto Karnath, Prof. Dr. Christoph Braun

Network analysis in generalized epilepsy

Investigators: Yiwen Li Hegner, Christina Stier,
Adham Elshahabi, Prof. Dr. Niels Focke,
Prof. Dr. Christoph Braun, Prof. Dr. Holger Lerche

Reading of German words and Chinese symbols in dyslexic and normal reading children

Investigators: Giulia Righetti, Prof. Dr. Christoph Braun,
Prof. Dr. Susanne Trauzettel-Klosinski

Localizing spontaneous memory reprocessing during human sleep

Investigators: Lea Himmer, Zoé Bürger, Leonie Fresz,
Janina Maschke, Lore Wagner, Dr. Svenja Brodt,
Prof. Dr. Monika Schönauer, Prof. Dr. Christoph Braun,
Prof. Dr. Steffen Gais

Clinical Studies

Biological motion and social cognition

Investigators: Verónica Cuevas Villanueva, Julian Kubon, Valentina Romagnano, Dr. Alexander Sokolov, Prof. Dr. Christoph Braun, Prof. Dr. Marina Pavlova

Spatial hearing in cochlear implant users: a multisensory training approach

Investigators: Giulia Righetti, SangYeob Baek, Lorenzo Semeia, Eusebia Schäfer, Karola Schiele, Bianca Layer, Dr. Li Hegner, Prof. Dr. Christoph Braun

Neurophysiological assessment of the subcortical and cortical processing in the auditory system

Investigators: Verónica Cuevas Villanueva, Carolin Schnabel, Dr. Yiwen Li Hegner, Prof. Dr. Christoph Braun

Development of a therapeutic vest for the prophylaxis of falling by training proprioception

Investigators: Giuliano Giari, Dr. Eva Glink, Dr. Yiwen Li Hegner, Prof. Dr. Christoph Braun

A tactile virtual reality for the psychophysical and neuroimaging studies of active and passive touch

Investigators: Dr. Arindam Bhattacharjee, Dr. Diljit Singh Kajal, Prof. Dr. Cornelius Schwarz, Prof. Dr. Christoph Braun

Third-Party Funding

ONGOING GRANTS

ERC Consolidator grant:

Neuronal information through neuronal interactions

Project leader: Prof. Dr. Markus Siegel

Funding institution: European Research Council (ERC)

SFB 1233 – project 7:

Large-scale neuronal interactions during natural vision

(DFG SFB 1233 , Robust Vision', TP 7; second funding period)

Project leaders: Prof. Dr. Markus Siegel,

Prof. Dr. Andreas Bartels

Funding institution: German Research Foundation (DFG)

Next generation connectomics: laminar and spectral specificity

Project leaders: Prof. Dr. Markus Siegel,

Prof. Dr. Klaus Scheffler, Dr. Gabriele Lohmann

Funding institution: German Research Foundation (DFG) within SPP 2041 (Computational Connectomics)

Psychophysics and coding of vibrotactile signals in the human fingertip-related tactile system

Project leaders: Prof. Dr. Cornelius Schwarz,

Prof. Dr. Christoph Braun

Funding institution: German Research Foundation (DFG)

NEW GRANTS

Neural Dynamics of human vocal behavior

Project leaders: Vera Voigtländer, Prof. Dr. Markus Siegel

Funding institution: Evangelisches Studienwerk e.V.

Network dynamics of the electro-magnetic epileptic focus in patients with focal cortical dysplasia

Project leaders: Dr. Yiwen Li Hegner, Dr. Marcel Heers

Funding institution: German Research Foundation (DFG)

Tactile virtual reality to investigate sensorimotor integration in unilateral cerebral palsy and normal controls

Project leaders: Davide Sometti, Prof. Dr. Christoph Braun

Funding institution: German Academic Exchange Service (DAAD)

Myoquant – Integrierte Quantenoptische Magnetometer für Magnetomyographie auf der ISS

Project leaders: Dr. Justus Marquetand,

Dr. Thomas Middelman, Prof. Dr. Markus Siegel

Funding institution: German Aerospace Center (DLR)

MD Theses

(Completed in 2021)

Karola Schiele

Training des Raumrichtungshörens bei Patienten mit Cochlea-Implantat – eine hochauflösende EEG-Studie

Supervisor: Prof. Dr. Christoph Braun

Master Theses

(Completed in 2021)

Vera Jiatong Liu

Large-scale correlation of cortical spiking activity

Supervisor: Prof. Dr. Markus Siegel

Tobias Ludwig

Neural correlates of task switching in the human brain

Supervisor: Prof. Dr. Markus Siegel

Department of Cellular Neurology



Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Mathias Jucker

GROUP LEADERS

Prof. Dr. Christoph Laske
(Section of Dementia Research,
jointly with the University Department of Psychiatry
and Psychotherapy)
Dr. Jonas Neher
(Experimental Immunology group, jointly with the
German Center for Neurodegenerative Diseases, DZNE)

SCIENTISTS/RESIDENTS

Dr. Melanie Barth (until 03/21)
Carina Bergmann
Desirée Brösamle
Lena Erlebach
Lisa Häsler
Nina Hermann
Stephan Käser
Dr. Deborah Kronenberg-Versteeg
Ping Liu
Dr. Linda Oberle (until 10/21)
Dr. Jörg Odenthal
Dr. Vasiliki Pangiotakopoulou
Christine Rother
Dr. Alejandro Ruiz Riquelme (until 02/21)
Dr. Angelos Skodras
Dr. Matthias Staufenbiel
Lisa Steinbrecher (until 09/21)
Dr. Jian Sun (until 11/21)
Dr. Gaye Tanriöver (until 09/21)
Marleen Veit
Dr. Jessica Wagner
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Ying Xu

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Dr. Anna Hofmann
Elke Kuder-Buletta
Oliver Preische

MASTER STUDENTS

Nina Hermann
Philipp Schaible
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Marta Vilademunt Alcaide

Clinical Studies

DIAN Dominantly Inherited Alzheimer Network: The goal of DIAN is to study brain changes and biomarker changes in people who carry an Alzheimer's disease mutation to determine how the disease process develops before any symptoms are detected.

Investigators: Prof. Dr. Mathias Jucker, Prof. Dr. Christoph Laske, Oliver Preische, Dr. Susanne Gräber-Sultan, Dr. Anna Hofmann, Elke Kuder-Buletta

A Phase II, Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group, Efficacy and Safety Study of MTAU9937A in Patients with Prodromal to Mild Alzheimer's Disease

Investigator: Prof. Dr. Christoph Laske

DELCODE (DZNE – Longitudinal Cognitive Impairment and Dementia Study): The aim of the study is to characterize the neuronal network mechanisms of cognitive adaption and decompensation.

Investigator: Prof. Dr. Christoph Laske

Personalized medicine in Alzheimer's disease: New prognostic biomarkers and therapeutic approaches through ultra-deep sequencing of the human gut microbiome: The aim is to identify new diagnostic and prognostic biomarkers as well as novel treatment targets for Alzheimer's disease in the human gut microbiome.

Investigator: Prof. Dr. Christoph Laske

High resolution structural Magnetic Resonance Imaging in Alzheimer's disease

Investigator: Prof. Dr. Christoph Laske

Third-Party Funding

ONGOING GRANTS

Generation of APP transgenic mice

Project leader: Prof. Dr. Mathias Jucker

Funding institution: Koesler

Characterization of early proteopathic seeds in Alzheimer's disease

Project leader: Prof. Dr. Mathias Jucker

Funding institution: Academy of Sciences and Humanities in Hamburg

Award for medical research

Project leader: Prof. Dr. Mathias Jucker

Funding institution: MetLife Foundation USA

Donation for Alzheimer research and DIAN (Dominantly Inherited Alzheimer Network)

Project leader: Prof. Dr. Mathias Jucker

Funding institution: Anonymous donor

Intersite research grant DIAN (Tübingen site)

Project leader: Prof. Dr. Mathias Jucker

Funding institution: German Center for Neurodegenerative Diseases (DZNE)

EpiROM: Epigenetic reprogramming of microglia across neurodegenerative diseases (ID18 – EpiROM)

Project leader: Dr. Jonas Neher

Funding institution: Baden-Württemberg-Stiftung

IMPRiND – Inhibiting Misfolded protein Propagation in Neurodegenerative Diseases

Project leader: Prof. Dr. Mathias Jucker

Funding institution: EU Joint Programme – IMI (Innovative Medicines Initiative)

EQIPD (EUROPEAN QUALITY IN PRECLINICAL DATA)

Project leader: Prof. Dr. Mathias Jucker

Funding institution: EU Joint Programme – IMI (Innovative Medicines Initiative)

PHD scholarship

Project leader: Ping Liu

Funding institution: China Scholarship Council

Mode of microglial proliferation in ageing and disease

Project leader: Dr. Deborah Kronenberg-Versteeg

Funding institution: Alexander von Humboldt Foundation

Longitudinal Study of Individuals that carry Dominantly Inherited Alzheimer's Disease Mutations

Project leader: Prof. Dr. Mathias Jucker

Funding institution: Deutsches Zentrum Neurodegenerativer Erkrankungen (DZNE)

Structural basis of biologically active Abeta-conformers

Project leader: Prof. Dr. Mathias Jucker

Funding institution: German Research Foundation (DFG)

Targeting proteopathic seeds at pre-amyloid stages of Alzheimer's disease

Project leader: Dr. Alejandro Ruiz-Riquelme

Funding institution: Alzheimer Forschung Initiative e. V.

Investigating familial forms of dementia with amyloid deposits

Project leader: Prof. Dr. Mathias Jucker

Funding institution: EISAI Co., Ltd.

DIAN: Dominantly Inherited Alzheimer Network – Subaward Agreement

Project leader: Prof. Dr. Mathias Jucker

Funding institution: NIH / Washington University

Understanding molecular biomarker changes in Alzheimer's disease using genetically-defined mouse models

Project leaders: Prof. Dr. Mathias Jucker, Stephan Käser

Funding institution: Cure Alzheimer's Fund

Donation for Alzheimer Research and DIAN

Project leader: Prof. Dr. Mathias Jucker

Funding institution: Sigrid-Marx-Stiftung

Microglia-amyloid interaction in a unique human adult brain slice culture model

Project leaders: Dr. Gaye Tanriöver,

Dr. Deborah Kronenberg-Versteeg

Funding institution: Alzheimer Forschung Initiative e. V.

Bridging the translational gap: A novel adult human brain tissue system

Project leader: Dr. Deborah Kronenberg-Versteeg

Funding institution: Chan Zuckerberg Initiative (CZI)

Understanding the mechanisms of neuronal spread, and role of microglia, in neurodegeneration using mouse and human organotypic slice culture seeding models

Project leader: Prof. Dr. Mathias Jucker

Funding institution: Novartis Institutes for BioMedical Research, Inc. (NIBR)

PHD scholarship

Project leader: Ying Xu

Funding institution: China Scholarship Council

The human brain's immune response to peripheral inflammation and its role in Alzheimer's disease pathology

(2018_A158)

Project leader: Dr. Jonas Neher

Funding institution: Else Kröner-Fresenius-Stiftung

Profiling epigenetic microglial reprogramming in aging and Alzheimer's disease at single-cell level

(P1200024)

Project leader: Dr. Jonas Neher

Funding institution: Hertie Foundation

NEW GRANTS

The role of HIF-1a in the microglial response to Alzheimer's disease pathology

Project leader: Dr. Jonas Neher

Funding institution: Brightfocus foundation, USA

PHD Scholarship

Project leader: Lena Erlebach

Funding Institution: Deutsche Studienstiftung

A novel model to study the role of microglial TREM2 in AD pathology

Project leader: Dr. Vasiliki Panagiotakopoulou

Funding Institution: Fritz Thyssen Stiftung

Toxicity modulation of alphasynuclein aggregates through glial uptake

Project leader: Dr. Deborah Kronenberg-Versteeg

Funding Institution: Chan Zuckerberg Initiative (CZI)

Combining cerebral organoids and abeta seeding in a novel model to study the role of microglial TREM2 in AD pathology

Project leader: Dr. Vasiliki Panagiotakopoulou

Funding Institution: Deutsche Demenzhilfe – Innovative Minds Programm

PhD Theses

(Completed in 2021)

Melanie Barth

Organotypic slice culture models for induced alpha-synucleinopathy and exploration of the potential role of microglia in pathogenesis

Supervisor: Prof. Dr. Mathias Jucker

Jessica Wagner

The role of Medin, the most common human amyloid, in cerebrovascular disease and cerebral beta-amyloidosis

Supervisor: Dr. Jonas Neher

Master Theses

(Completed in 2021)

Nina Hermann

Microglial heterogeneity in mouse models of brain aging and Alzheimer's disease

Supervisor: Dr. Jonas Neher

Marleen Veit

Pathological effects of Medin aggregation on the cerebral vasculature in a mouse model of cerebral beta-amyloidosis

Supervisor: Dr. Jonas Neher

Marta Vilademunt Alcaide

Lipopolysaccharide-induced neuroinflammation in a novel chimeric brain slice culture model

Supervisor: Prof. Dr. Mathias Jucker

Independent Research Groups



Computational Sensomotrics

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Martin Giese

SCIENTISTS/RESIDENTS

Dr. Alia Benali
Dr.-Ing. Winfried Ilg
Dr. Albert Mukovskiy

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Jochen Fokuhl
Tim Schäfer
Simon Schaub

STUDENT ASSISTANTS

David Cicchetti
Lukas Gehre
Anusha Hiremath
Jonas Mücke
Pauline Reichert

Clinical Studies

PreAtaxia: Changes in the control of posture and gait in pre-symptomatic and pre-clinical stages of degenerative cerebellar ataxia

Investigators: Dr. Winfried Ilg, Zofia Fleszar, Cornelia Schatton, Prof. Dr. Martin Giese, Prof. Dr. Ludger Schöls, Prof. Dr. Matthias Synofzik

Computational Sensomotrics

Third-Party Funding

ONGOING GRANTS

Direct recordings of neuronal circuit responses during transcranial magnetic stimulation in rodents (BE 6084/2-1)

Project leader: Dr. Alia Benali

Funding institution: German Research Foundation (DFG)

Hierarchische Koordination komplexer Bewegungen (BMBF CRCNS)

Project leader: Prof. Dr. Martin A. Giese

Funding institution: Federal Ministry of Education and Research (BMBF)

Smarte Sensorik bei Telepsychotherapie von Kindern und Jugendlichen mit Zwangsstörungen (SSTeP-KiZ)

Project leaders: Prof. T. Renner, Prof. Dr. Martin A. Giese

Funding institution: Federal Ministry of Health (BMG)

How body relevance drives brain organization (RELEVANCE)

Project leader: Prof. Dr. Martin A. Giese

Funding institution: European Research Council, Horizon 2020 (ERC, H2020)

Human Frontier Science Program Organization (HFSP-Project)

Project leader: Prof. Dr. Martin A. Giese

Funding institutions: Human Frontier Science Program Organization (HFSP), Cyber Valley Research Fund Board (RFB)

Conferences & Workshops

TMS animal models-bridging scales with computational models

Symposium at the 4th International Brain Stimulation Conference Meeting

Charleston, USA, 6-9 December 2021

Coordinators: Alexander Opitz, Dr. Alia Benali, Prof. Dr. Andreas Vlachos, Marc Sommer.

Master Theses

(Completed in 2021)

Julian Wisser

Implementation of a spatial filter for Brain-Computer Interfaces in stroke rehabilitation by regularizing Convolutional Neural Networks

Supervisors: Prof. Dr. Martin A. Giese,

Prof. Dr. Oliver Bringmann

Bachelor Theses

(Completed in 2021)

Hannah Benz

Analyse von Aufstehbewegungen bei cerebellären Patienten mittels tragbarer Sensorik im Alltag

Supervisors: Prof. Dr. Martin A. Giese, Dr. Winfried Ilg

Lukas Gehring

Entwicklung einer Android-App zum Gangbild und EKG-Monitoring im Alltag von Ataxie-Patienten

Supervisors: Prof. Dr. Martin A. Giese, Dr. Winfried Ilg

Federico Leuze

Entwicklung eines Stimuluspräsentations-Tools für psychophysische Experimente unter Nutzung einer VR-Engine

Supervisor: Prof. Dr. Martin A. Giese

Iris Mahninger

Analyse von Armbewegungen bei Patienten mit cerebellärer Ataxie und Kindern mit Autismus auf der Basis tragbarer Bewegungssensoren

Supervisors: Prof. Dr. Martin A. Giese, Dr. Winfried Ilg

Jonas Mücke

Classification of everyday human activities based on deep neural networks

Supervisors: Prof. Dr. Martin A. Giese, Dr. Winfried Ilg

Motor Control Modeling Laboratory

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

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Matthew Araz
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Pierre Schumacher

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Felix Jung

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Daniel Höglinger
Nathalie Renz

INTERNSHIPS

Mark Baley
Audrey Benson
Marina Reichel
Johanna Sellhorn-Timm
Evgenii Smirnov

Third-Party Funding

ONGOING GRANTS

Einstellbare muskuläre Dämpfung zur Erhöhung von morphological computation bei der Fortbewegung mit Beinen
(DFG HA 7170/3-1)

Project leader: PD Dr. Daniel Häufle

Funding institution: German Research Foundation (DFG)

Learning efficient control of non-linear muscle-driven systems: Morphological computation as guiding principle
(CyVy-RF-2020-11)

Project leader: PD Dr. Daniel Häufle

Funding institution: Cyber Valley Research Fund

The contribution of bioinspired morphology to the control of technical movement: Quantification with Control Effort and Morphological Computation

Project leader: PD Dr. Daniel Häufle

Funding institution: International Max-Planck Research School for Intelligent Systems & University of Tübingen

NEW GRANTS

Integrated models of cognitive and physical human-robot interaction

Project leaders: Prof. Dr. Philip Beckerle, FAU Erlangen,

Prof. Dr. Nele Rußwinkel, TU Berlin, PD Dr. Daniel Häufle

Funding institution: VolkswagenStiftung

PhD Theses

(Completed in 2021)

Katrin Stollenmaier

Neuro-musculoskeletal Models:

A Tool to Study the Contribution of Muscle Dynamics to Biological Motor Control

Supervisor: PD Dr. Daniel Häufle

Master Theses

(Completed in 2021)

Nathalie Renz

Simulation menschlicher Reflexe in einem neuro-muskuloskelettalen Modell zur Auslegung eines Exoskelett-Reglers

Supervisor: PD Dr. Daniel Häufle

Katrin Stollenmaier

Neuro-musculoskeletal Models:

A Tool to Study the Contribution of Muscle Dynamics to Biological Motor Control

Supervisor: PD Dr. Daniel Häufle

Active Perception Laboratory

Clinical and Scientific Staff

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Anna Denninger
Tatiana Malevich
Tong Zhang
Yue Yu

MD DOCTORAL STUDENTS

Marlene Mathis

MASTER STUDENTS

Yuyao Deng
Elmira Hosseini
Mehmet Yörüten

Awards

Dr. Antimo Buonocore

Vision Sciences Society 2021 Travel Award

Saad Idrees and Matthias Baumann

Top 10 Vision-Related Publication Ranking by the
European Vision Institute
(for Idrees, Baumann, et al, Nature Communications, 2020)

Master Theses

(Completed in 2021)

Anna Denninger

Sensory tuning in neuronal movement commands

Supervisor: Prof. Dr. Ziad Hafed

Third-Party Funding

ONGOING GRANTS

SPP 2205 (Evolutionary Optimisation of Neuronal Processing): Saccadic suppression: from zebrafish to primates

*Project leaders: Prof. Dr. Ziad Hafed,
Jun. Prof. Aristides Arrenberg*

Funding institution: German Research Foundation (DFG)

BO5681/1-1: Visual functions of the primate superior colliculus

Project leader: Prof. Dr. Ziad Hafed

Funding institution: German Research Foundation (DFG)

FOR1847 (The Physiology of Distributed Computing Underlying Higher Brain Functions in Non-Human Primates)

– project A6: Brainstem control of slow ocular drifts during gaze fixation

Project leader: Prof. Dr. Ziad Hafed

Funding institution: German Research Foundation (DFG)

SFB 1233 (Robust Vision) – project 11: Impacts of eye movements on visual processing: from retina to perception

Project leaders: Prof. Dr. Ziad Hafed, Dr. Katrin Franke

Funding institution: German Research Foundation (DFG)

HA6749/4-1: Development of a minimally-invasive magnetic system for high-quality wireless eye movement tracking in non-human primates

Project leader: Prof. Dr. Ziad Hafed

Funding institution: German Research Foundation (DFG)

NEW GRANTS

BU4031/1-1: Sensory races between motor control brain areas for coordinating how to react to the outside world

Project leaders: Dr. Antimo Buonocore, Prof. Dr. Ziad Hafed

Funding institution: German Research Foundation (DFG)

Systems Neurophysiology Laboratory

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Cornelius Schwarz

SCIENTISTS/RESIDENTS

Dr. Christine Pedroarena

Dr. Arindam Bhattacharjee

In Cooperation with HIH Group Martin Giese:

Dr. Alia Benali

Dr. Vishnudev Ramachandra

TECHNICAL STAFF/ADMINISTRATION

Ursula Pascht

PHD DOCTORAL STUDENTS

May-Li Silva Prieto

Kalpana Gupta

Ritu Roy Chowdhury

MD DOCTORAL STUDENTS

Yuechen Zhang

BACHELOR STUDENTS

Lilli Rötzer

Third-Party Funding

ONGOING GRANTS

Psychophysics and coding of vibrotactile signals in the human fingertip-related tactile system

(DFG SCHW 577/14-3)

Project leader: Prof. Dr. Cornelius Schwarz

Funding institution: German Research Foundation (DFG)

Process models of associative learning and related plasticity in primary sensory cortex

(DFG SCHW 577/17-1)

Project leader: Prof. Dr. Cornelius Schwarz

Funding institution: German Research Foundation (DFG)

NEW GRANTS

The role of the cerebello-parietal pathway in state estimation (DFG SCHW 577/21-1)

Project leader: Prof. Dr. Cornelius Schwarz

Funding institution: German Research Foundation (DFG)

Translational Genomics of Neurodegenerative Diseases

Clinical and Scientific Staff

HEAD OF THE RESEARCH DIVISION

Prof. Dr. Matthias Synofzik

SCIENTISTS/RESIDENTS

Dr. Lukas Beichert
 Dr. David Mengel
 Dr. Dr. Andreas Traschütz
 Dr. Carlo Wilke

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Lisa Graf, M.Sc.
 Alejandra Leyva, M.Sc.
 Doreen Müller
 Selina Reich, M.Sc.
 Madeleine Wacker, M.Sc.

PHD DOCTORAL STUDENTS

Vaibhavi Kadam

MD DOCTORAL STUDENTS

Mario Auch
 Merit Bade
 Theresa Beyme
 Julia Göddel-Sand
 Dominik Hermle
 Monika Mosler
 Julia Maren Ott
 Ester Soter

Clinical Studies

PROSPAX: an integrated multimodal progression chart in spastic ataxias

Investigators: Prof. Dr. Matthias Synofzik, PD Dr. Rebecca Schüle, Dr. Dr. Andreas Traschütz, Dr. Christoph Kessler

GENFI - Genetic Frontotemporal dementia Initiative: a multicentre longitudinal progression study in subjects at risk of genetic FTD

Investigators: Prof. Jon Rohrer (UCL), Prof. Dr. Matthias Synofzik et al.

PREPARE GENESIS- a global ataxia NGS consortium for collaborative gene-identification in hereditary ataxias

Investigators: Prof. Stephan Zuchner (Miami), Prof. Dr. Matthias Synofzik

Autosomal-recessive and Early onset ataxia: Genetic basis and natural history (ARCA/EOA)

Investigators: Prof. Dr. Matthias Synofzik, Prof. Dr. Ludger Schöls

Identifying and validating digital-motor progression biomarkers for hereditary ataxias: body-worn sensors (APDM) and upper limb sensors (q-motor)

Investigators: Prof. Dr. Matthias Synofzik, Dr. Winfried Ilg, Dr. Andreas Traschütz

Fluid biomarkers as progression and treatment-response biomarkers in Frontotemporal Dementia, Alzheimer's disease, and degenerative ataxias

Investigators: Prof. Dr. Matthias Synofzik, Dr. David Mengel, Dr. Carlo Wilke

Solving the unsolved Rare Diseases (Solve-RD)

Investigators: PD Dr. Rebecca Schüle, Prof. Dr. Matthias Synofzik, Prof. Dr. Ludger Schöls

Sporadic ataxia with adult onset: Natural history study (SPORTAX)

Investigators: Prof. Dr. Ludger Schöls, Prof. Dr. Matthias Synofzik, Prof. Dr. Thomas Klockgether (Bonn)

Translational Genomics of Neurodegenerative Diseases

Clinical Studies

ESMI: European Spinocerebellar Ataxia Type 3 /

Machado-Joseph Disease Initiative

*Investigators: Prof. Dr. Ludger Schöls, Dr. Holger Hengel,
Prof. Dr. Matthias Synofzik, Dr. Winfried Ilg*

Detecting PreAtaxia: A mixed challenge strategy to identify ataxia at its preclinical stage

Investigators: Prof. Dr. Matthias Synofzik, Dr. Winfried Ilg

SPEECH-Atax: A randomised delayed entry trial of intensive home-based speech therapy in spinocerebellar ataxias

*Investigators: Prof. Dr. Matthias Synofzik, Dr. Adam Vogel
(University of Melbourne)*

Phenotype, Genotype and Biomarkers in ALS and Related Disorders (Clinical Research in ALS and Related Disorders for Therapeutic Development Consortium / CReATe)

*Investigators: PD Dr. Rebecca Schüle,
PD Dr. Inga Liepelt-Scarfone, Prof. Dr. Matthias Synofzik,
Dr. Christoph Kessler, Dr. Carlo Wilke*

RFC1 Natural History Study (RFC1-NHS)

*Investigators: Prof. Dr. Matthias Synofzik,
Dr. Dr. Andreas Traschütz*

Third-Party Funding

ONGOING GRANTS

EU Horizon 2020 RIA Research and Innovation action: Solving the Unsolved Rare Diseases (Solve RD)

Co-Project leaders: Prof. Dr. Matthias Synofzik, PD Dr. Rebecca Schüle

Funding institution: EU

Neurofilamente als blutbasierter Progressions- und Therapie-Biomarker für SCA3: eine speziesübergreifende Analyse bei SCA3-Patienten und SCA3-Mäusen

Project leader: Prof. Dr. Matthias Synofzik

Funding institution: Stiftung Hoffnung

Bronya J. Keats International Research Collaboration Award: Speech Trial in FA

Project leaders: Prof. Dr. Matthias Synofzik, Dr. Adam Vogel

Funding institution: Friedreich's Ataxia Research Alliance
(FARA)

SpeechAtax: A rater-blinded randomised controlled trial of intensive home-based speech treatment for ataxia

Co-Project leaders: Dr. Adam Vogel, Prof. Dr. Matthias Synofzik

Funding Institution: Australian National Health and
Research Council-MRFF-Research Gate

GENFI-prox: Defining measures of proximity to symptom onset in the GENetic Frontotemporal dementia Initiative

Project leader: Prof. Dr. Matthias Synofzik

Funding: European Union JPND program/BMBF

PROSPAX: an integrated multimodal progression chart in spastic ataxias (EJP consortium)

*Project leaders: Prof. Dr. Matthias Synofzik,
PD Dr. Rebecca Schüle*

PD Dr. Rebecca Schüle

Funding: European Union EJP RD program/DFG

Neurofilament Light Chain as an individual stratification and treatment-response blood biomarker for SCA3

Project leader: Prof. Dr. Matthias Synofzik

Funding: Zentrum für Seltene Erkrankungen, Tübingen

Designing a toolbox of paradigmatic treatments for a targeted molecular medicine approach to autosomal-recessive ataxias (TREAT-ARCA)

Project leaders: Prof. Dr. Matthias Synofzik,

Prof. Dr. Helene Puccio (Lyon)

Funding Institution: European Union EJP RD program/BMBF

NEW GRANTS

Else Kröner Forschungskolleg Tübingen:

Gen, Mechanismus, Therapie (PRECISE.net)

Project leaders: Prof. Dr. Matthias Synofzik,

PD Dr. Rebecca Schüle, Prof Dr. Holger Lerche

Funding: Else-Kröner Fresenius Stiftung

EVIDENCE-RND - Creating robust evidence for longitudinal progression changes and treatment effects in ultra-rare neurological diseases: the case of multisystemic autosomal-recessive ataxias

Project leaders: Prof. Dr. Matthias Synofzik,

PD Dr. Rebecca Schüle

Funding: European Union EJP RD program

Charting the neurodevelopmental stage of ARSACS (Neuro-devARSACS): A cross-species longitudinal characterization of the early molecular changes in the brain, CSF and blood.

Project leaders: Prof. Dr. Matthias Synofzik, Dr. David Mengel

Funding institution: Fondation de l'Ataxie Charlevoix, Saguenay

Conferences & Workshops

Ataxia Global Initiative 2021

Virtual Meeting, 22-23 November 2021

Scientific coordinators: Prof. Dr. Matthias Synofzik,

Prof. Dr. Thomas Klockgether, Dr. Holm Graessner

MD Theses

(Completed in 2021)

Dominik Wabersich

MRI substrates of specific neuropsychological dysfunctions within and across FTD genotypes at the presymptomatic and symptomatic disease stage

Supervisor: Prof. Dr. Matthias Synofzik

Human Intracranial Cognitive Neurophysiology

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Dr. Dr. Randolph Helfrich

SCIENTISTS/RESIDENTS

Dr. Michael Hahn
Dr. Janna Lendner
Dr. Frank van Schalkwijk

PHD DOCTORAL STUDENTS

Isabel Raposo
Jan Weber

MD DOCTORAL STUDENTS

Markus Kopf

MASTER STUDENTS

Gabriela Iwama (from 09/2021)

Awards

Dr. Dr. Randolph Helfrich
Ernst Jung Career Advancement Award
Funding institution: Jung Foundation for Science and Research **Guest Researchers**

Guest Researcher

Hannah Schmidt
University of Mannheim
Host: Dr. Dr. Randolph Helfrich

Third-Party Funding

ONGOING GRANTS

DFG Emmy Noether Program: Rhythmic building blocks of attention

Project leader: Dr. Dr. Randolph Helfrich

Funding institution: German Research Foundation (DFG)

Hertie Network of Excellence in Clinical Neuroscience

Project leader: Dr. Dr. Randolph Helfrich

Funding institution: Hertie Foundation

Baden Württemberg Foundation – Postdoctoral Fellowship

Project leader: Dr. Dr. Randolph Helfrich

Funding institution: Baden-Württemberg Foundation

IZKF Fellowship

Project leader: Markus Kopf, Dr. Dr. Randolph Helfrich

Funding institution: Medical Faculty, University of Tübingen

NEW GRANTS

Junior Research Group Plus

Project leader: Dr. Dr. Randolph Helfrich

Funding institution: Medical Faculty, University of Tübingen

SFB1158 Associated Project

Project leaders: Dr. Dr. Randolph Helfrich,

Prof. Dr. Sigrid Schuh-Hofer

Funding institution: German Research Foundation (DFG)

Cooperation funds Tübingen-Nottingham Joint Research Project

Project leaders: Dr. Dr. Randolph Helfrich, Dr. Nicholas Myers

Funding institution: University of Nottingham and the University of Tübingen (Excellence Strategy of the German Federal and State Governments)

ClinbrAln: Künstliche Intelligenz für Klinische Hirnforschung (Project A2)

Project leaders: Dr. Dr. Randolph Helfrich, Dr. Stefanie Liebe,

Prof. Dr. Zeynep Akata

Funding institution: Else Kröner-Fresenius-Stiftung

Molecular Brain Development

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Dr. Simone Mayer

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Theresa Kagermeier
Kseniia Sarieva
Zeynep Yentür

TECHNICAL STAFF/ADMINISTRATION

Elisabeth Gustafsson

STUDENT RESEARCH ASSISTANTS

Maximilian Feige
Lea Fischer
Jasmin Treu

Conferences & Workshops

Studium Generale

Faszination Gehirn - Entwicklung, Plastizität und Krankheit

Public virtual seminar series, 26 Oct 2021 - 8 Feb 2022

Organizers: Dr. Simone Mayer, Prof. Dr. Birgit Derntl

Journal Club "Neurodevelopment" for PhD students

Seminar series, 27 Oct 2021 - 9 Feb 2022

Organizers: Theresa Kagermeier, Kseniia Sarieva,
Zeynep Yentür

Workshop at the German Neuroscience Olympiade

Virtual seminar, 29 May 2021

Speaker: Dr. Simone Mayer

Third-Party Funding

ONGOING GRANTS

Cortical network activity in the developing human brain

Project leader: Dr. Simone Mayer

Funding institution: Brain and Behavior Research
Foundation, Young Investigator Grant

Stabilizing and destabilizing processes of change – Insights from brain and software development

Project leaders: Dr. Simone Mayer,

Dr. Christian Mahringer (Stuttgart University)

Funding institution: Heidelberg Academy of Sciences and
Humanities, State of Baden-Württemberg

Dissecting cell type-specific effects of maternal immune activation on the human fetal neocortical development

Project leader: Kseniia Sarieva

Funding institution: State Postgraduate Fellowship
Programme, University of Tübingen,
State of Baden-Württemberg

Human stem cell-based models of PCH2

Project leaders: Dr. Simone Mayer, Prof. Dr. Ludger Schöls

Funding institution: PCH-Familie e.V.

NEW GRANTS

Characterization of TSEN54 function in human brain development and in pontocerebellar hypoplasia

Project leader: Theresa Kagermeier

Funding institution: State Postgraduate Fellowship
Programme, University of Tübingen,
State of Baden-Württemberg

HTR2A receptor signaling in human neural stem cells

Project leader: Dr. Simone Mayer

Funding institution: Daimler and Benz Foundation,
Postdoctoral Fellowship

Neuron-Glia Interactions

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Dr. Nicolas Snaidero

PHD DOCTORAL STUDENTS

Shahrazad Askari

(co-supervised with Prof. Misgeld, TUM)

Katharina Eichenseer

(co-supervised with Prof. Misgeld, TUM)

Laura Flüter

Third-Party Funding

ONGOING GRANTS

Myelin remodeling in vivo: A longitudinal study of targeted myelination and neuronal control of sparse myelination in mouse cortex (DFG SN 149/1-1)

Project leader: Dr. Nicola Snaidero

Funding institution: German Research Foundation (DFG)

NEW GRANTS

Fast scanning two photon microscope with confocal unit for intravital and reflectance imaging (DFG Art. 91b GG)

Responsible spokesperson: Dr. Nicola Snaidero

Funding institution: German Research Foundation (DFG)

Hertie Network of Excellence in Clinical Neuroscience

Project leader: Dr. Nicola Snaidero

Funding institution: Hertie Foundation

Neuropsychology of Action

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

PD Dr. Marc Himmelbach

PHD DOCTORAL STUDENTS

Francesko Molla
Nikhil Prabhu

MD DOCTORAL STUDENTS

Luise Engelmann
Leonie-Isabelle Reineremann
Dominik Wabersich

Clinical Studies

MRI substrates of specific neuropsychological dysfunctions within and across FTD genotypes at the presymptomatic and symptomatic disease stage

*Investigators: PD Dr. Marc Himmelbach,
Prof. Dr. Matthias Synofzik, Prof. Dr. Dr. Hans-Otto Karnath*

Tremor, Blickbewegungen und neuropsychiatrische Evaluation bei Patienten mit zervikaler Dystonie

*Investigators: Prof. Dr. Uwe Ilg, PD Dr. Marc Himmelbach,
Dr. Ebba Lohmann*

Third-Party Funding

ONGOING GRANTS

NIH-BMBF CRCNS Grant: Computational neuroimaging of the human brainstem at 9.4T

Project leader: PD Dr. Marc Himmelbach

Funding institution: BMBF

PhD Theses

(Completed in 2021)

Nikhil Prabhu

Characterization of motor functions of the human Superior Colliculus using fMRI

Supervisor: PD Dr. Marc Himmelbach

MD Theses

(Completed in 2021)

Dominik Wabersich

MRI substrates of specific neuropsychological dysfunctions within and across FTD genotypes at the presymptomatic and symptomatic disease stage

Supervisor: PD Dr. Marc Himmelbach

Oculomotor Laboratory

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Uwe Ilg

MD DOCTORAL STUDENTS

Julia Müller

BACHELOR STUDENTS

Philipp Dennenmoser
Jana Bay

BUNDESFREIWILLINGENDIENST

Jared Mayer (since 09/20)
Jona Göltenboth (since 09/21)

Third-Party Funding

ONGOING GRANTS

Pupils Lab for Neuroscience (P1130023)
Project leader: Prof. Dr. Uwe Ilg
Funding institution: Hertie Foundation

NEW GRANTS

Pupils Lab for Neuroscience
Project leader: Prof. Dr. Uwe Ilg
Funding institution: Adolf Leuze Stiftung

Bachelor Theses

(Completed in 2021)

Jana Bay
Saccade properties under monocular and binocular viewing
Supervisor: Prof. Dr. Uwe Ilg

Philipp Dennenmoser
The effects of luminance and colour defined stimuli on successfully performing anti-saccades
Supervisor: Prof. Dr. Uwe Ilg

Julia Grieb
Spine Drift Illusion als diagnostisches Werkzeug in der Schwindelambulanz
Supervisor: Prof. Dr. Uwe Ilg

Section for Neuropsychology

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

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 Dr. Tamara Matuz
 Dr. Christoph Sperber (until 03/2021)

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Ina Baumeister

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Francesko Molla
 Sophia Nestmann
 Nikhil Prabhu
 Lisa Röhrig
 Hannah Rosenzopf
 Azam Shahvaroughi Farahani
 Stefan Smaczny
 Britta Stammner
 Daniel Wiesen
 Sofia Wöhrstein

MD DOCTORAL STUDENTS

Dana Babin
 Jacob Clausen
 Joel C. Marques
 Dominik Wabersich

MASTER STUDENTS

Baharnaz Hassani
 Vanessa Kasties
 Annika Liebelt

INTERNSHIPS

Leonie Behle
 Vanessa Kasties
 Franziska Mech
 Selma Sauter
 Lorena Witzl

Section for Neuropsychology

Clinical Studies

Manipulation of the somatosensory coordinate system by vibratory stimulation of the neck

*Investigators: Roberta Calce, Dr. Daniel Wiesen,
Prof. Dr. Dr. Hans-Otto Karnath, Prof. Dr. Christoph Braun*

A new therapy approach for pusher syndrome

*Investigators: Sophia Nestmann, Lisa Röhrig,
Prof. Dr. Dr. Hans-Otto Karnath*

New techniques to treat spatial exploration and attention disorders after stroke

Investigators: Prof. Dr. Dr. Hans-Otto Karnath, Katrin Flammer

Third-Party Funding

ONGOING GRANTS

Individuelle Erholung von kognitiven Defiziten nach Schlaganfall

Project leader: Prof. Dr. Dr. Hans-Otto Karnath
Funding institution: German Research Foundation (DFG)

Facts and Figures: Neurofunktionelle Strukturen und kognitive Prozesse numerischer Größenverarbeitung und arithmetischen Faktenabrufs (KA 1258/24-1)

Project leader: Prof. Dr. Dr. Hans-Otto Karnath
Funding institution: German Research Foundation (DFG)

NEW GRANTS

Augmented Reality - Eine neue Technik zur Behandlung räumlicher Explorations- und Aufmerksamkeitsstörungen nach Schlaganfall

Project leader: Prof. Dr. Dr. Hans-Otto Karnath
Funding institution: Hector Stiftung II GmbH, Weinheim

PhD Theses

(Completed in 2021)

Neuronal correlates of complex object and color perception

Supervisor: Prof. Hans-Otto Karnath

The role of the deep Superior Colliculus in the functional specification of movement execution

Supervisor: PD Dr. Marc Himmelbach

Unravelling the high-dimensional structure of spatial neglect in visuospatial attention: A multivariate approach to lesion-behaviour mapping

Supervisor: Prof. Hans-Otto Karnath

MD Theses

(Completed in 2021)

Disturbed body size perception: acute versus chronic stroke patients with hemiparesis

Supervisor: Prof. Hans-Otto Karnath

Master Theses

(Completed in 2021)

Prediction of post-stroke apraxia from measured and inferred structural disconnection

Supervisor: Prof. Hans-Otto Karnath

Cognitive Neurology

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Hans-Peter Thier

SCIENTISTS/RESIDENTS

Dr. Peter Dicke
 Dr. Akshay Markanday
 Dr. Dr. Silvia Spadacenta

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 Dr. Friedemann Bunjes
 Dagmar Heller-Schmerold

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Ian Chong
 Marius Görner
 Lilei Peng
 Aikaterini Eleonora Rassia
 Masih Shafiei
 Mohammad Shams Ahmar (until 09/2021)
 Ramona Siebert
 Shengjun Wen (until 09/2021)

MD DOCTORAL STUDENTS

Maria Sophie Breu

Clinical Studies

'Gaze Following'-Störungen bei Autismus-Spektrum-erkrankungen

Investigators: Manuel Roth, Prof. Dr. Dirk Wildgruber, Prof. Dr. Hans-Peter Thier

Third-Party Funding

ONGOING GRANTS

Research Unit FOR 1847 "Primate Systems Neuroscience" – Project A3: The role of the cerebellum in the control of saccades as a window into neural mechanisms of movement optimization (TH 425/13-2)

Project leader: Prof. Dr. Hans-Peter Thier

Funding institution: German Research Foundation (DFG)

Erfüllung der Aufgaben der Abt. Kognitive Neurologie (T0013/29010/2016/kg)

Project leader: Prof. Dr. Hans-Peter Thier

Funding institution: Hermann and Lilly Schilling Foundation

PhD Theses

(Completed in 2021)

Akshay Markanday

Approaches to understanding the role of the cerebellum in sensorimotor control and learning: the big picture of the little brain

Supervisor: Prof. Dr. Hans-Peter Thier



HIH Management

Management Staff

ADMINISTRATIVE DIRECTOR

Dr. Astrid Prosch, Master of Management (MZSG)

ADMINISTRATIVE ASSISTANCE

Sabine Steimle
Fatma Esmail

CONTROLLING

Anja Reiber

COMMUNICATION

Dr. Mareike Kardinal (Head of Communication)
Natalie Adler (Student Assistant)

COORDINATOR TÜBINGEN NEURO CAMPUS

Silke Dutz





**Publications
and Student
Training
in 2021**

List of Publications in 2021

(In alphabetical order)

Peer-Reviewed Articles

- Adesoji O, Nothnagel M, **Lerche H**, May P, Krause R (2021) A Benchmarking of Univariate Pleiotropy Detection Methods, with an Application to Epilepsy Phenotypes. *Human Heredity* 85:70
- Amaefule CO, Dyrba M, Wolfsgruber S, Polcher A, Schneider A, Fließbach K, Spottke A, Meiberth D, Preis L, Peters O, Incesoy EI, Spruth EJ, Priller J, Altenstein S, Bartels C, Wiltfang J, Janowitz D, Burger K, **Laske C**, Munk M, Rudolph J, Glanz W, Dobisch L, Haynes JD, Dechent P, Ertl-Wagner B, Scheffler K, Kilimann I, Duzel E, Metzger CD, Wagner M, Jessen F, Teipel SJ (2021) Association between composite scores of domain-specific cognitive functions and regional patterns of atrophy and functional connectivity in the Alzheimer's disease spectrum. *Neuroimage: Clinical* 29:102533
- Atrsaei A, Hansen C, Elshehabi M, Solbrig S, **Berg D, Liepelt-Scarfone I**, Maetzler W, Aminian K (2021) Effect of Fear of Falling on Mobility Measured During Lab and Daily Activity Assessments in Parkinson's Disease. *Frontiers in Aging Neuroscience* 13:12
- Auffenberg E, Hedrich UBS**, Barbieri R, **Miely D**, Groschup B, **Wuttke TV, Vogel N, Luhrs P**, Zanardi I, Bertelli S, Spielmann N, Gailus-Durner V, Fuchs H, de Angelis MH, Pusch M, Dichgans M, **Lerche H**, Gavazzo P, Plesnila N, **Freilinger T** (2021) Hyperexcitable interneurons trigger cortical spreading depression in an Scn1a migraine model. *Journal of Clinical Investigation* 131:14
- Bai Y**, He J, Xia X, Wang Y, Yang Y, Di H, Li X, **Ziemann U** (2021) Spontaneous transient brain states in EEG source space in disorders of consciousness. *Neuroimage* 240:118407
- Balestrini S, Chiarello D, Gogou M, Silvennoinen K, Puvirajasinghe C, Jones WD, Reif P, Klein KM, Rosenow F, **Weber YG, Lerche H**, Schubert-Bast S, Borggraefe I, Coppola A, Troisi S, Moller RS, Riva A, Striano P, Zara F, Hemingway C, Marini C, Rosati A, Mei D, Montomoli M, Guerrini R, Cross JH, Sisodiya SM (2021) Real-life survey of pitfalls and successes of precision medicine in genetic epilepsies. *Journal of Neurology, Neurosurgery and Psychiatry* 92:1044-52
- Ballarini T, Melo van Lent D, Brunner J, Schroder A, Wolfsgruber S, Altenstein S, Brosseron F, Buerger K, Dechent P, Dobisch L, Duzel E, Ertl-Wagner B, Fließbach K, Freiesleben SD, Frommann I, Glanz W, Hauser D, Haynes JD, Heneka MT, Janowitz D, Kilimann I, **Laske C**, Maier F, Metzger CD, Munk M, Perneczky R, Peters O, Priller J, Ramirez A, Rauchmann B, Roy N, Scheffler K, Schneider A, Spottke A, Spruth EJ, Teipel SJ, Vukovich R, Wiltfang J, Jessen F, Wagner M, group Ds (2021) Mediterranean Diet, Alzheimer Disease Biomarkers and Brain Atrophy in Old Age. *Neurology*:e2920-e32
- Barth M, Bacioglu M, Schwarz N, Novotny R, Brandes J, Welzer M, Mazzitelli S, Hasler LM, Schweighauser M, Wuttke TV, Kronenberg-Versteeg D**, Fog K, Ambjorn M, Alik A, Melki R, **Kahle PJ**, Shimshek DR, **Koch H, Jucker M, Tanriover G** (2021) Microglial inclusions and neurofilament light chain release follow neuronal alpha-synuclein lesions in long-term brain slice cultures. *Molecular Neurodegeneration* 16:54
- Baumann MP**, Idrees S, Munch TA, **Hafed ZM** (2021) Dependence of perceptual saccadic suppression on perisaccadic image flow properties and luminance contrast polarity. *Journal of Vision* 21:15
- Becker S, Boettinger O, Sulzer P, Hobert MA, **Brockmann K**, Maetzler W, **Berg D, Liepelt-Scarfone I**, Alzheimers Dis Neuroimaging I (2021) Everyday Function in Alzheimer's and Parkinson's Patients with Mild Cognitive Impairment. *Journal of Alzheimer's Disease* 79:197-209
- Becker S, Granert O, Timmers M, Pilotto A, van Nueten L, Roeben B, Salvatore G, Galpern WR, Streffer J, Scheffler K, Maetzler W, **Berg D, Liepelt-Scarfone I** (2021) Association of Hippocampal Subfields, CSF Biomarkers, and Cognition in Patients With Parkinson Disease Without Dementia. *Neurology* 96:E904-E15
- Behling F, Fodi C, **Gepfner-Tuma I, Kaltenbach K, Renovanz M**, Paulsen F, Skardelly M, Honegger J, Tatagiba M, Schittenhelm J, **Tabatabai G** (2021) H3K27me3 loss indicates an increased risk of recurrence in the Tübingen meningioma cohort. *Neuro-Oncology* 23:1273-81
- Behling F, Fodi C, Hoffmann E, **Renovanz M**, Skardelly M, **Tabatabai G**, Schittenhelm J, Honegger J, Tatagiba M (2021) The role of Simpson grading in meningiomas after integration of the updated WHO classification and adjuvant radiotherapy. *Neurosurgical Review* 44:2329-36

- Behling F, Fodi C, Wang S, Hempel JM, Hoffmann E, **Tabatabai G**, Honegger J, Tatagiba M, Schittenhelm J, Skardelly M (2021) Increased proliferation is associated with CNS invasion in meningiomas. *Journal of Neuro-Oncology* 155:247-54
- Behling F, Suhm E, Ries V, Gonçalves VM, **Tabatabai G**, Tatagiba M, Schittenhelm J (2021) COX2 expression is associated with preoperative tumor volume but not with volumetric tumor growth in vestibular schwannoma. *Neurological Research and Practice* 3:11
- Belardinelli P, König F, Liang C, Premoli I, Desideri D, Müller-Dahlhaus F, Gordon PC, Zipser C, Zrenner C, Ziemann U** (2021) TMS-EEG signatures of glutamatergic neurotransmission in human cortex. *Scientific Reports* 11:8159
- Benali A, Li B, Ramachandra A, Oeltermann A, Giese MA, Schwarz C** (2021) Deciphering the dynamics of neuronal activity evoked by transcranial magnetic stimulation. *Brain Stimulation* 14:1745
- Bender F, Timmann D, van de Warrenburg BP, Adarmes-Gomez AD, Bender B, Thieme A, **Synofzik M, Schols L** (2021) Natural History of Polymerase Gamma-Related Ataxia. *Movement Disorders* 36:2642-52
- Benke T, Dazinger F, Pechlaner R, Willeit K, **Clausen J, Knoflach M** (2021) Lesion topography of posterior cerebral artery infarcts. *Journal of the Neurological Sciences* 428:117585
- Benussi A, Premi E, Gazzina S, Brattini C, Bonomi E, Alberici A, Jiskoot L, van Swieten JC, Sanchez-Valle R, Moreno F, Laforce R, Graff C, **Synofzik M**, Galimberti D, Masellis M, Tartaglia C, Rowe JB, Finger E, Vandenberghe R, de Mendonca A, Tagliavini F, Santana I, Ducharme S, Butler CR, Gerhard A, Levin J, Danek A, Otto M, Frisoni G, Ghidoni R, Sorbi S, Le Ber I, Pasquier F, Peakman G, Todd E, Bocchetta M, Rohrer JD, Borroni B, Genetic FTDI [**Karnath HO** et al] (2021) Progression of Behavioral Disturbances and Neuropsychiatric Symptoms in Patients With Genetic Frontotemporal Dementia. *JAMA Network Open* 4:e2030194
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Editorials, Book Chapters & Proceedings

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List of Student Training in 2021

(In alphabetical order)

Lectures

(Summer Term/Winter Term)

Basic Neurobiology

*Prof. Dr. Philipp Kahle (coordinator and lecturer),
Jun.-Prof. Dr. Dr. Michela Deleidi, Dr. Julia Fitzgerald,
Dr. Ulrike Hedrich-Klimosch, Dr. Simone Mayer,
Dr. Jonas Neher, Prof. Dr. Daniel Weiß*
Curriculum Molecular Medicine

Basispropädeutik Laborforschung und Tiermodelle

Prof. Dr. Uwe Ilg
Faculty of Science (Biology)

Behavior and Cognition: Methods in Neuropsychology

PD Dr. M. Himmelbach, Dr. Axel Lindner
Graduate Training Centre of Neuroscience

Behavior and Cognition: Neuropsychology

Prof. Dr. Dr. Hans-Otto Karnath, PD Dr. Axel Lindner
Graduate Training Centre of Neuroscience

Biochemistry II for Medical Students

Prof. Dr. Philipp Kahle
Faculty of Science (Biochemistry)

Biomedical Technologies in Diagnostic and Therapy

Prof. Dr. Christoph Braun
Faculty of Medicine (Biomedical Technology)

BioRobotics

Dr. Daniel Häufle
Faculty of Science (Informatics)

Cholesterol Metabolism for Medical Students

Dr. Julia Fitzgerald
Faculty of Science (Biochemistry)

Computational Motor Control

Dr. Winfried Ilg, Dr. Daniel Häufle
Graduate Training Centre of Neuroscience

Developmental Neurobiology

Dr. Simone Mayer
Graduate Training Centre of Neuroscience

Dynamics of Neural Systems

Prof. Dr. Martin Giese
Graduate Training Centre of Neuroscience

Fundamentals of Sensorimotor Integration

Prof. Dr. Uwe Ilg
Graduate Training Centre of Neuroscience

Genetic and Molecular Basis of Neural Diseases I

*Prof. Dr. Mathias Jucker, Prof. Dr. Thomas Gasser,
Prof. Dr. Ludger Schöls, Prof. Dr. Manuela Neumann*
Graduate Training Centre of Neuroscience

Genetic and Molecular Basis of Neural Diseases II

*Prof. Dr. Holger Lerche, Prof. Dr. Ulrike Naumann,
Dr. Ulrike Hedrich-Klimosch, PD Dr. Markus Krumbholz*
Graduate Training Centre of Neuroscience

Genome-Editing Technologies for Gene and Stem Cell Therapy

Jun.-Prof. Dr. Dr. Michela Deleidi
Graduate Training Centre of Neuroscience

Introduction to Clinical Neurology

*PD Dr. Kathrin Brockmann, PD Dr. Markus Krumbholz,
Prof. Dr. Daniel Weiß*
Medical Faculty

Introduction to Scholarly Research and Writing

PD Dr. Marc Himmelbach, Prof. Dr. Thomas Euler
Graduate Training Centre of Neuroscience

Lecture General Neurology

*Prof. Dr. Thomas Gasser, Prof. Dr. Holger Lerche,
Prof. Dr. Dr. Ghazaleh Tabatabai, Prof. Dr. Ulf Ziemann,
Prof. Dr. Hans-Otto Karnath, Prof. Dr. Alexander Grimm*
Medical Faculty

Lecture Series for doctoral candidates: Ion Channels and Epilepsy

Prof. Dr. Holger Lerche, Dr. Ulrike Hedrich-Klimosch
Graduate Training Centre of Neuroscience

Lecture Series on the Fundamentals of Neurobiology – Part I + II

Dr. Ulrike Hedrich-Klimosch
Graduate Training Centre of Neuroscience

LSC Wissenschaftlichkeit –

Säulenpropädeutik Grundlagenwissenschaften

PD Dr. Marc Himmelbach, Prof. Dr. Uwe Ilg
Medical Faculty

Machine Learning*Prof. Dr. Martin Giese*

Graduate Training Centre of Neuroscience

Massenspektrometrie in Diagnostik & Therapiemonitoring*Prof. Dr. Marius Ueffing, Dr. Janina Dalvise (both Institute for Ophthalmic Research), PD Dr. Christian Johannes Gloeckner*

Medical Faculty

Medical Physics*Prof. Dr. Christoph Braun*

Medical Faculty (Molecular Medicine)

Mitochondrial Metabolism*Dr. Julia Fitzgerald*Current Topics in Cellular Metabolism,
University of Tübingen**Motor Systems***Prof. Dr. Peter Thier*

Graduate Training Centre of Neuroscience

Motor Systems NIPS*Prof. Dr. Cornelius Schwarz*

Graduate Training Centre of Neuroscience

Multimodal Therapy of Parkinson's Disease for Pharmacists*PD Dr. Rebecca Schüle*

Faculty of Science

Multisensory integration: Insights into the modulation and integration of sensory input*Prof. Dr. Cornelius Schwarz, Dr. Alia Benali*

Graduate Training Centre of Neuroscience

Neurochemistry and Neurotransmitters*Prof. Dr. Philipp Kahle*

Graduate Training Centre of Neuroscience

Neurogenesis, Excitability, Plasticity and Neurostimulation*Dr. Christoph Zrenner*

Medical Technology – Human Biology IV

Neuroglia*Dr. Jonas Neher*

Graduate Training Centre of Neuroscience

Neurointensive Care*PD Dr. Katarzyna Feil, Dr. Johannes Platz, Dr. Annerose Mengel*

Medical Faculty

Neurological Emergencies (QB8)*PD Dr. Sven Poli*

Medical Faculty

Neurophysiologie für Mediziner -**Funktionell relevante Läsionen des Gehirns***PD Dr. Marc Himmelbach*

Medical Faculty

Neurophysiology*Prof. Dr. Cornelius Schwarz, Dr. Christine Pedroarena*

Graduate Training Centre of Neuroscience

Perception, Cognition & Behavior*PD Dr. Marc Himmelbach, Prof. Dr. Ziad Hafed,**Prof. Dr. Andreas Bartels*

Graduate Training Centre of Neuroscience

Physiological and Physical Basis of Functional Brain Imaging*Prof. Dr. Christoph Braun, Prof. Dr. Andreas Bartels*

Graduate Training Centre of Neuroscience

QB4 Infections & Immunology*Dr. Annerose Mengel, PD Dr. Markus Kowarik,**PD Dr. Markus Krumbholz, PD Dr. Sven Poli*

Medical Faculty

QB8 Neurological Emergencies*PD Dr. Sven Poli*

Medical Faculty

Rare neurological diseases: Interdisciplinary Medicine and Translational Research*Prof. Dr. Ludger Schöls*

Medical Faculty

Ringvorlesung Wissenschaftlichkeit (Neuroscience)*Dr. Jonas Neher, Prof. Thomas Euler, Prof. Birgit Derntl*

Medical Faculty

Sensory Systems I: Visual System*Dr. Christina Schwarz, Prof. Dr. Ziad Hafed, Prof. Dr. Francois**Paquet-Durand, Dr. Timm Schubert, Prof. Dr. Marius Ueffing*

Graduate Training Centre of Neuroscience

Lectures

(Summer Term/Winter Term)

Sensory Systems II: Auditory and remaining

*Dr. Alia Benali, Prof. Dr. Christoph Braun,
Prof. Dr. Anthony Gummer, Prof. Dr. Horst Herbert,
Prof. Dr. Francois Pagnat-Durand, Prof. Dr. Lukas Tüttiger*
Graduate Training Centre of Neuroscience

Studium Generale

Faszination Gehirn - Entwicklung, Plastizität und Krankheit

Dr. Simone Mayer, Prof. Dr. Birgit Derntl et al.
Medical Faculty

Theoretical Methods for Computational Neuroscience I & II

Prof. Dr. Martin Giese
Graduate Training Centre of Neuroscience

Ultraschall in der Neurologie

Prof. Dr. Alexander Grimm
Medical Faculty

Seminars and Courses

(Summer Term/Winter Term)

Addressing Current Questions in Research on Sensorimotor Coordination

Prof. Dr. Peter Thier
Medical Faculty

Advanced Methods in Molecular and Translational Neuroscience (Research Internship)

Prof. Dr. Philipp Kahle
M.Sc. Molecular and Translational Neuroscience,
Ulm University

Animal Physiology Practical for Students of Bioinformatics (BSc)

Prof. Dr. Uwe Ilg
Faculty of Science (Biology)

Basics in Gene Therapy

Prof. Dr. Ulrike Naumann
Medical Faculty

Bedside Teaching: Neurological Examination for Advanced Students

*Prof. Dr. Ludger Schöls, PD Dr. Rebecca Schüle,
Prof. Dr. Matthias Synofzik*
Medical Faculty

Bedside Training: Neurological Diagnostics

*Gabriela Zaiser, Nathalie Vetter, Yvonne Schütze, Prof. Dr.
Alexander Grimm, Dr. Benjamin Röben, Dr. Tobias Lindig*
Medical Faculty

Bedside Training: Neurology and Epileptology

*Dr. Melanie Schreiber, Dr. Sabine Rona, Prof. Dr. Holger Lerche,
Dr. Stephan Lauxmann, Dr. Benjamin Bender, Dr. Christian
Boßelmann*
Medical Faculty

BioRobotics

Dr. Daniel Häufle
Faculty of Science (Informatics)

Block Neurohistology and Neuromorphology

Prof. Dr. Mathias Jucker
Graduate Training Centre of Neuroscience

Block Practical Electrophysiology

Prof. Dr. Cornelius Schwarz
Graduate Training Centre of Neuroscience

Chronic Pain Syndromes – Bedside Teaching (QB14)

PD Dr. Markus Krumbholz et al.
Medical Faculty

Clinical Neurophysiology

Dr. Pascal Martin
Medical Faculty

Clinical Pathological Case Conference (CPC)

*Prof. Dr. Manuela Neumann (Dept. of Neuropathology, UKT),
Prof. Dr. Matthias Synofzik*
Medical Faculty

Clinic, Diagnosis and Therapy of Inflammatory Diseases of the Nervous System

PD Dr. Felix Bischof
Medical Faculty

Current Problems in Neuropsychology

Prof. Dr. Dr. Hans-Otto Karnath
Medical Faculty

Die Natur des Sprachlauts – Phonology in the Brain*Prof. Dr. Ingo Hertrich*

General Linguistics (Philosophical Faculty) and Cognitive Science (Faculty of Science)

Dynamics of Neural Systems (exercises)*Prof. Dr. Martin Giese, Dr. Albert Mukovskiy*

Graduate Training Centre of Neuroscience

Geriatric-neurological-psychiatric Case Conference*Prof. Dr. Gerhard W. Eschweiler (UKT), Prof. Dr. Matthias Synofzik, Prof. Dr. Daniel Weiß, Dr. Günther Schnauder (UKT)*
Medical Faculty**Gibt es zwei verschiedene Sprachen? Bedeutung und Wirkung -****the outer and the inner world in brain and language***Prof. Dr. Ingo Hertrich*

General Linguistics (Philosophical Faculty) and Cognitive Science (Faculty of Science)

Hands-on rare neurological diseases:**Hospitation in ZSE clinics***Prof. Dr. Ludger Schöls*

Medical Faculty

HER (now TüWIN) Seminar Series*Dr. Julia Fitzgerald*

Tübingen Neuroscience Campus

Hertie Lunch Seminar*Prof. Dr. Uwe Ilg*

Medical Faculty

i-KLiC*Prof. Bornemann, PD Dr. Markus Krumbholz,**PD Dr. Markus Kowarik, PD Dr. Sven Poli et al.*

Medical Faculty

i-Klic Neurochirurgie*Dr. Thomas Wuttke*

Medical Faculty

In-Depth Module in MEd Studies Biology*Prof. Dr. Uwe Ilg*

Faculty of Science (Biology)

Introduction to Transcranial Brain Stimulation*Dr. Til Ole Bergmann*

Medical Faculty

Journal Club*Dr. Dr. Saskia Biskup, Dr. Julia Fitzgerald*

Graduate School of Cellular and Molecular Neuroscience

Journal Club IZKF Promotionskolleg*Prof. Dr. Ulrike Naumann, Dr. Tanja Riess (Medical Faculty),**Prof. Dr. Karin Schilbach (UKT)*

Medical Faculty

Journal Club “Neurodevelopment” for PhD students*Theresa Kagermeier, Kseniia Sarieva, Zeynep Yentür*

Graduate School of Cellular and Molecular Neuroscience

Kick OFF Meeting IZKF Promotionskolleg*Prof. Dr. Ulrike Naumann, Dr. Tanja Riess (Medical Faculty), PD**Dr. Marc Himmelbach, Prof. Dr. Karin Schilbach (UKT)*

Medical Faculty

Lab Rotations, Cellular and Molecular Neurosciences*Prof. Dr. Philipp Kahle, Dr. Simone Mayer*

Graduate Training Centre of Neuroscience

LSC Wissenschaftlichkeit – Projekt “Funktion des ventralen präfrontalen Kortex in der Bewertung der Funktionalität von Werkzeugen”*PD Dr. Marc Himmelbach*

Medical Faculty

LSC Wissenschaftlichkeit –**Projekt “Kongruenz funktioneller Netzwerke in resting-state und task-basierter funktioneller MRT”***PD Dr. Marc Himmelbach*

Medical Faculty

Machine Learning I & II (exercises)*Prof. Dr. Martin Giese*

Graduate Training Centre of Neuroscience

Methodological Frontiers in the Cognitive Neurosciences*PD Dr. Marc Himmelbach, Prof. Dr. Ziad Hafed*

Graduate Training Centre of Neuroscience

Molecular Neurooncology and Neuro-Immunology*Prof. Dr. Ulrike Naumann, PD Dr. Markus Kowarik*

Medical Faculty

Neurocognitive disorders*Prof. Dr. Inga Liepelt-Scarfone*

Faculty of Science (Psychology)

Seminars and Courses

(Summer Term/Winter Term)

Neurohistology and -morphology

Block course of the Department of Cellular Neurology

Prof. Dr. Mathias Jucker

Graduate Training Centre of Neuroscience

Neurological Differential Diagnosis and Interactive Clinical Case Discussions

Prof. Dr. Tobias Freilinger

Medical Faculty

Neurological Examination Course

Prof. Dr. Thomas Gasser, Prof. Dr. Holger Lerche,

Prof. Dr. Ulf Ziemann, and staff

Medical Faculty

Neurological Palliative Care (QB13)

Dr. Vanessa Heinrich, PD Dr. Markus Kowarik,

PD Dr. Markus Krumbholz, Dr. Annerose Mengel et al.

Medical Faculty

Neurological Seminar

PD Dr. Kathrin Brockmann, PD Dr. Niels Focke,

Prof. Dr. Tobias Freilinger, Prof. Dr. Alexander Grimm,

PD Dr. Markus Kowarik, PD Dr. Markus Krumbholz,

Dr. Ebba Lohmann, Dr. Annerose Mengel, PD Dr. Sven Poli,

PD Dr. Mirjam Renovanz, Prof. Dr. Ludger Schöls,

PD Dr. Rebecca Schüle, Prof. Dr. Matthias Synofzik,

Prof. Dr. Daniel Weiß

Medical Faculty

Neurophysiology Seminars and De-Briefing of Practical Course

Dr. Ulrike Hedrich-Klimosch, Dr. Niklas Schwarz

(coordinator: Prof. Dr. Olga Garaschuk)

Medical Faculty

Oncolytic Viruses as Cancer Therapeutic Drugs

Prof. Dr. Ulrike Naumann

Medical Faculty

OSCE

PD Dr. Markus Krumbholz, Dr. Nele Dammeier et al.

Medical Faculty

OSCE

Dr. Thomas Wuttke

Medical Faculty

Practical Neurobiology

Prof. Dr. Ziad Hafed

Faculty of Science (Biology)

Project Module #4105: Assessment of RNA treatment against modified TDP-43 aggregation

Prof. Dr. Philipp Kahle

Faculty of Science (Cell Biology)

Retreat IZKF Promotionskolleg

Prof. Dr. Ulrike Naumann, Dr. Tanja Riess (Medical Faculty),

Prof. Dr. Karin Schilbach (UKT)

Medical Faculty Neuroscience

Rotation Seminars I and II

PD Dr. Marc Himmelbach

Graduate Training Centre of Neuroscience

Scientific Colloquium Neurology (“Wednesday Colloquium”)

Prof. Dr. Matthias Synofzik

Medical Faculty

Sprache und Musik – Two Siblings in the Brain

Prof. Dr. Ingo Hertrich

General Linguistics (Philosophical Faculty) and Cognitive Science (Faculty of Science)

Structure & Plasticity of the Nervous System (BSc)

Prof. Dr. Andrea Burgalossi, Dr. Simone Mayer,

Jun-Prof. Dr. Dr. Michela Deleidi

Faculty of Science (Biology)

Technical Didactics: Neuroscience in the Classroom

Prof. Dr. Uwe Ilg

Faculty of Science (Biology)

The Neurobiology of the Cerebellum

Prof. Dr. Peter Thier

Medical Faculty

Therapy Seminar of the Neurological Clinic

*PD Dr. Kathrin Brockmann, Prof. Dr. Thomas Gasser,
Prof. Dr. Holger Lerche, PD Dr. Rebecca Schüle,
Prof. Dr. Matthias Synofzik, Prof. Dr. Ghazaleh Tabatabai,
Prof. Dr. Peter Thier, Prof. Dr. Ulf Ziemann,*
Medical Faculty

Tübinger Lernportfolio Medizin

Dr. Ebba Lohmann, Dr. Annerose Mengel, Dr. Jonas Neher
Medical Faculty

TüRex project: Are oblique saccades special?

Prof. Dr. Uwe Ilg
Medical Faculty

TüRex project: Cellular and temporal Characterization of Cortical Myelination in Mammals

Dr. Nicolas Snaidero
Medical Faculty

TüRex project: Classification of functional effects of variants in the NaV1.1 sodium channel gene.

Dr. Ulrike Hedrich-Klimosch
Medical Faculty

TüRex project: Classification of functional effects of variants in the NaV1.6 sodium channel gene.

Dr. Ulrike Hedrich-Klimosch
Medical Faculty

TüRex project: Fall-Risiko und sensorbasierter Messung von Stürzen im Alltag bei Morbus Parkinson und Multipler Sklerose

Dr. Winfried Ilg
Medical Faculty

TüRex project: Kultivierung von menschlichen Hirnschnitten als organotypische ex-vivo Plattform.

Dr. Thomas Wuttke
Medical Faculty

TüRex project: Lymphozyten nach Antigenkontakt - Methoden zur Fixierung aktivierter Immunzellen

PD Dr. Markus Krumbholz
Medical Faculty

TüRex project: Motor Learning a pilot study

Prof. Dr. Uwe Ilg
Medical Faculty

TüRex project: Precision and reaction time of saccadic eye movements

Prof. Dr. Uwe Ilg
Medical Faculty

TüRex project: Videogames and eye movement properties

Prof. Dr. Uwe Ilg
Medical Faculty

Two Photon microscopy: Deep brain imaging. Neuronal-Glia interaction

Dr. Yury Kolvalchuk, Dr. Nicolas Snaidero
Medical Faculty

U-Kurs Neurochirurgie

Dr. Thomas Wuttke
Medical Faculty

U-Kurs Psychiatrie

Dr. Josua Kegele
Medical Faculty

Videoseminar Movement Disorders

*Prof. Dr. Ludger Schöls, PD Dr. Rebecca Schüle,
Prof. Dr. Matthias Synofzik*
Medical Faculty

Wa-wa-warum stottern wir manchmal? - The biological mechanisms of dysfluencies

Prof. Dr. Ingo Hertrich
General Linguistics (Philosophical Faculty) and Cognitive Science (Faculty of Science)

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