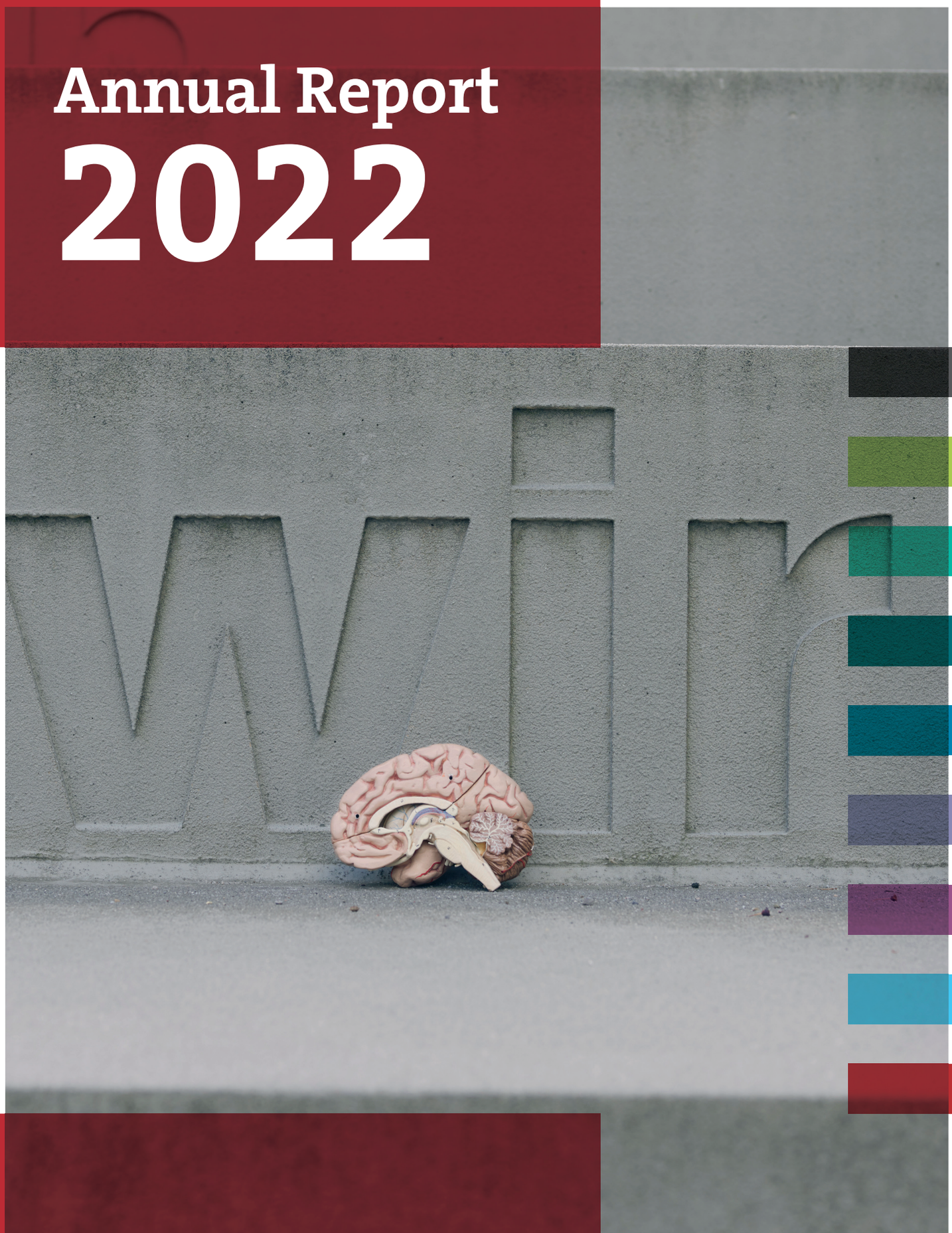
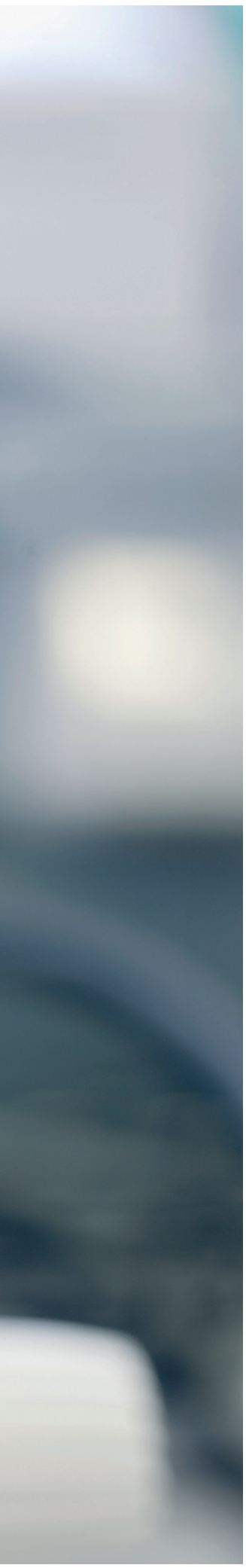
CENTER OF NEUROLOGY
TÜBINGEN

Annual Report 2022





CENTER OF NEUROLOGY TÜBINGEN

Annual Report 2022

DIRECTORS

Prof. Dr. Thomas Gasser
Prof. Dr. Mathias Jucker
Prof. Dr. Holger Lerche
Prof. Dr. Markus Siegel
Prof. Dr. Dr. Ghazaleh Tabatabai
Prof. Dr. Ulf Ziemann

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Hertie-Institut
für klinische Hirnforschung

Universitätsklinikum
Tübingen

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The Center of Neurology in 2022

The Center of Neurology at the University of Tübingen was founded in 2001. It unites the Hertie Institute for Clinical Brain Research (HIH) and the University Hospital's Clinical Neurology Department. In research, teaching and patient care, the center is dedicated to excellence in the study of the human brain and its disorders.

The Center of Neurology presently consists of six departments: the Department of Neurology with Neurovascular Medicine (Prof. Dr. Ulf Ziemann), the Department of Neurodegenerative Diseases (Prof. Dr. Thomas Gasser), the Department of Neurology and Epileptology (Prof. Dr. Holger Lerche), the Department of Neurology & Interdisciplinary Neuro-Oncology (Prof. Dr. Dr. Ghazaleh Tabatabai), the Department of Neural Dynamics and Magnetoencephalography (Prof. Dr. Markus Siegel), and the Department of Cellular Neurology (Prof. Dr. Mathias Jucker).

All departments provide patient care within the University Hospital, while their clinical and basic research groups are part of the Hertie Institute. The fact that all departments of the center actively participate, albeit to a different degree, in the clinical care of patients with neurologic diseases is central to the concept of successful clinical brain research at the Hertie Institute.

This applies most obviously to clinical trials, which are conducted, for example, in the treatment of Parkinson's disease, multiple sclerosis, epilepsy and brain tumors. However, the intimate interconnection of science and patient care is of eminent importance to all areas of disease-related neuroscientific research. It distinguishes the Center of Neurology from other neuroscience institutions. In particular, the close interaction between basic science and patient care at the HIH and the University Hospital's Clinical Neurology Department was seen as a role model for clinical and translational research in Germany by the German Council of Science and Humanities (Wissenschaftsrat).

Mit dem im Jahre 2001 unterzeichneten Vertrag zwischen der Gemeinnützigen Hertie-Stiftung (GHS) und dem Land Baden-Württemberg, der Universität Tübingen und ihrer medizinischen Fakultät sowie dem Universitätsklinikum Tübingen wurde das „Zentrum für Neurologie" geschaffen. Damit entstand eines der größten Zentren für klinische und krankheitsorientierte Hirnforschung in Deutschland.

Das Zentrum setzt sich aus zwei eng verbundenen Institutionen zusammen, der Neurologischen Universitätsklinik und dem Hertie-Institut für klinische Hirnforschung (HIH). Die Aufgaben des Zentrums liegen sowohl in der Krankenversorgung durch die Neurologische Universitätsklinik als auch in der wissenschaftlichen Arbeit der im HIH zusammengeschlossenen Forscherinnen und Forscher. Die besonders enge Verknüpfung von Klinik und Grundlagenforschung innerhalb jeder einzelnen Abteilung und die Department-Struktur sind fundamentale Aspekte des Hertie-Konzeptes und ein Alleinstellungsmerkmal gegenüber anderen Institutionen der Hirnforschung in Deutschland. In der Department-Struktur sind die Professorinnen und Professoren mit Leitungsfunktion akademisch und korporationsrechtlich gleichgestellt.

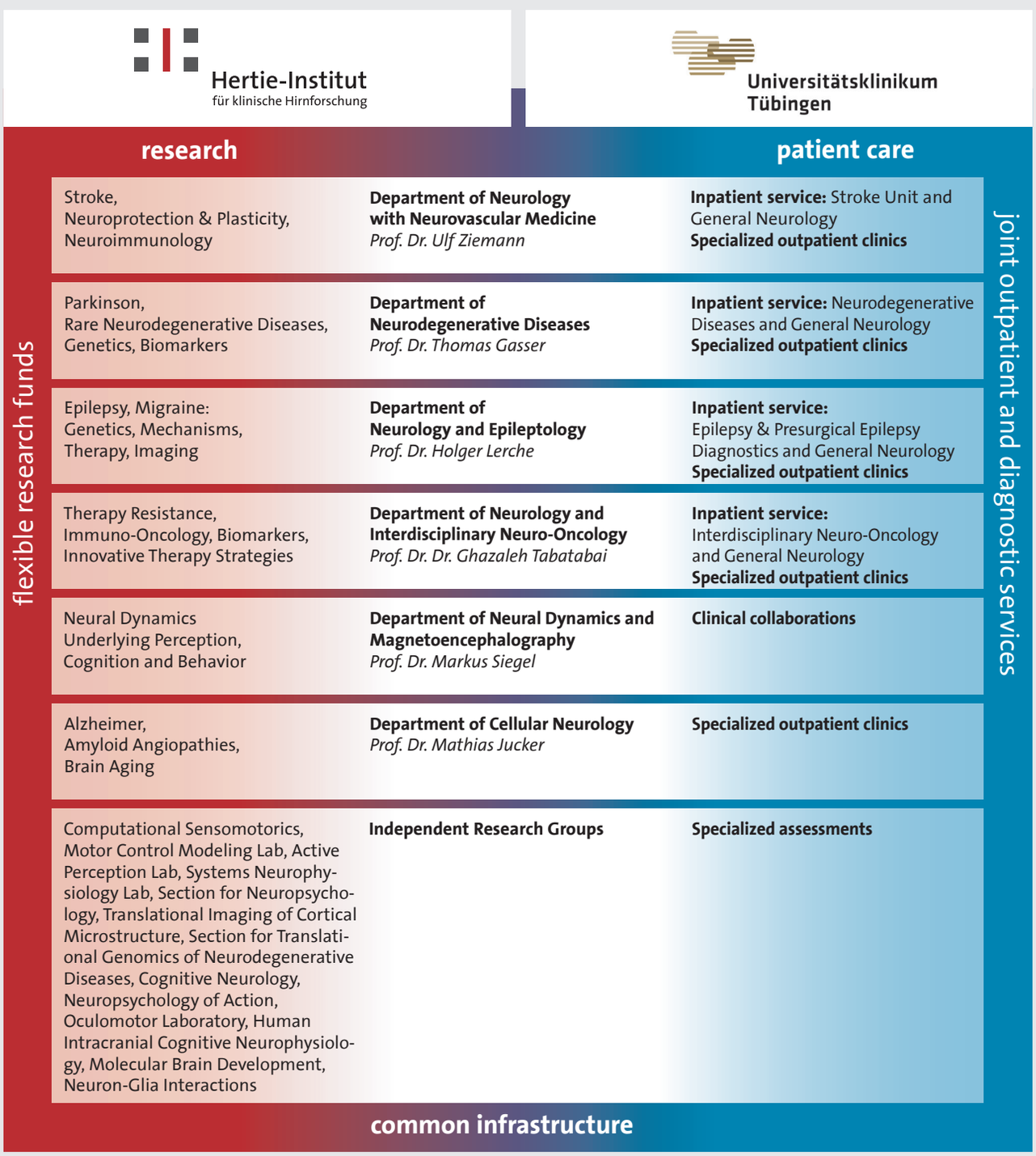
Das Zentrum besteht aus sechs Abteilungen: der Abteilung Neurologie mit Schwerpunkt neurovaskuläre Erkrankungen (Prof. Dr. Ulf Ziemann), der Abteilung Neurologie mit Schwerpunkt neurodegenerative Erkrankungen (Prof. Dr. Thomas Gasser), der Abteilung Neurologie mit Schwerpunkt Epileptologie (Prof. Dr. Holger Lerche), der Abteilung Neurologie mit interdisziplinärem Schwerpunkt Neuroonkologie (Prof. Dr. Dr. Ghazaleh Tabatabai), Abteilung Neuronale Dynamik und Magnetenzephalographie (Prof. Dr. Markus Siegel) und der Abteilung für Zellbiologie Neurologischer Erkrankungen (Prof. Dr. Mathias Jucker).

Die ersten vier Genannten sind bettenführende Abteilungen in der Neurologischen Universitätsklinik, die anderen beiden sind an der Patientenversorgung im Rahmen von Spezialambulanzen beteiligt. Die klinischen Abteilungen sind für die Versorgung von Patientinnen und Patienten mit der gesamten Breite neurologischer Erkrankungen gemeinsam verantwortlich. Die Einheit der Neurologischen Universitätsklinik in Lehre, Ausbildung und Krankenversorgung wird dabei durch eine gemeinsame Infrastruktur (Patientenaufnahme, Behandlungspfade, Poliklinik, diagnostische Labors, Bettenmanagement, Pflegedienst) gesichert. Die Neurologische Universitätsklinik besteht daher nach innen und außen weiterhin als einheitliche Struktur. In den klinischen Abteilungen werden pro Jahr rund 6.000 Patientinnen und Patienten stationär und mehr als 15.000 Patientinnen und Patienten ambulant behandelt.

Der Wissenschaftsrat hat das Zentrum als modellhaft für die Universitätsmedizin in Deutschland gewürdigt und insbesondere die praktizierte Verbindung von Grundlagenforschung und klinischer Praxis.

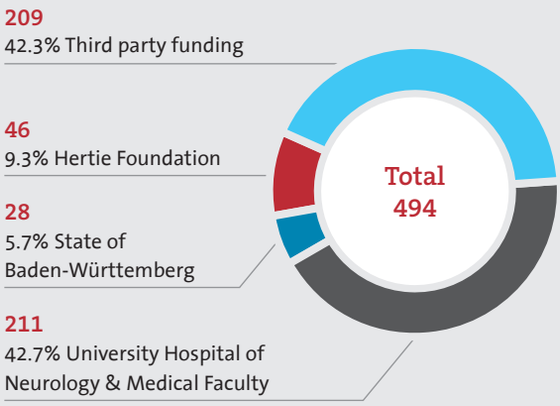
Facts & Figures

CENTER OF NEUROLOGY



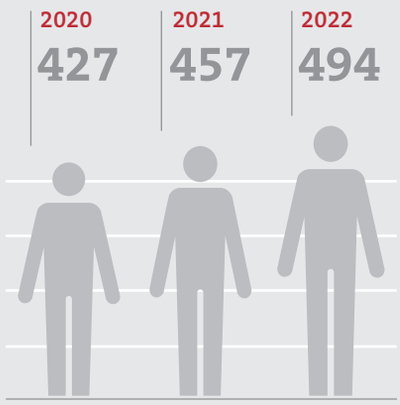
NUMBER OF STAFF IN 2022

Center of Neurology without nursing services (by headcount)



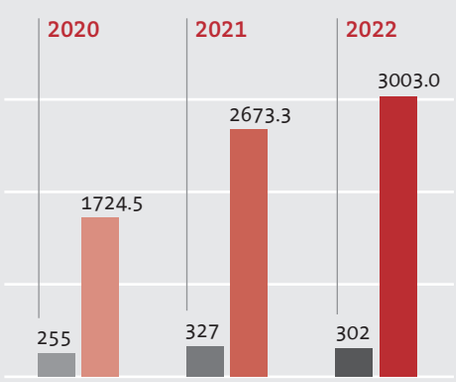
DEVELOPMENT OF STAFF

Center of Neurology (by headcount)



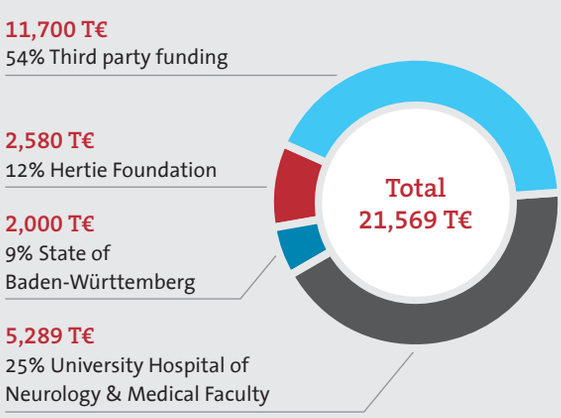
NUMBER OF PUBLICATIONS
IMPACT FACTORS

Center of Neurology (SCIE and SSCI / in 100 %)



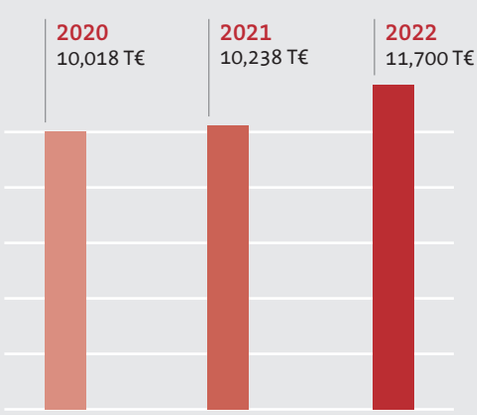
TOTAL FUNDINGS IN 2022

Center of Neurology



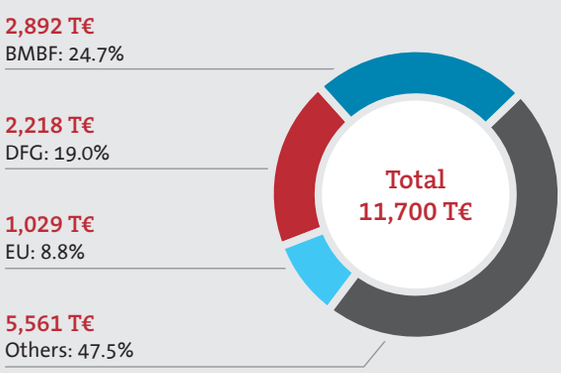
THIRD PARTY FUNDING

Center of Neurology



THIRD PARTY FUNDING IN 2022

Center of Neurology



University Hospital of Neurology

CLINICAL CARE

More than 5,000 inpatients are yearly admitted to the Clinic of Neurology of the University Hospital Tübingen. Four general wards serve for treating inpatients of the whole spectrum of neurology. Patients with acute strokes are treated on a specialized certified stroke-unit, which allows 24-hour surveillance and treatment. Neurointensive-care patients are treated in a cooperative model on intensive care units of the University Hospital. A specialized video-EEG-monitoring unit allows continuous long-term recordings for patients with intractable epilepsies or those with an unclear diagnosis of a paroxysmal disorder.

Neurological emergencies are primarily handled in an interdisciplinary emergency unit with a 24/7 coverage by neurologists. In the outpatient unit of the clinic, more than 15,000 patients (including diagnostic procedures) are examined and treated every year, most of them in specialty clinics which are directed by recognized specialists in their respective fields. The day clinic newly opened by the end of 2021 provides care to patients needing complex diagnostic procedures and/or intravenous treatment subject to surveillance.

Universitätsklinikum Tübingen

PATIENTENVERSORGUNG

Die Neurologische Klinik am Universitätsklinikum Tübingen behandelt jährlich mehr als 5.000 Patienten. Das gesamte Spektrum neurologischer Erkrankungen wird auf vier Allgemeinstationen versorgt. Patienten mit akuten Schlaganfällen werden auf einer zertifizierten Schlaganfall-Spezialstation („Stroke-Unit“) behandelt, die rund um die Uhr die erforderlichen Überwachungs- und Therapiemaßnahmen erlaubt. Neurointensiv-Patienten werden in einem kooperativen Modell auf Intensivstationen im Universitätsklinikum behandelt. Daneben gibt es eine spezielle Einheit zur kontinuierlichen Langzeit-Video-EEG-Ableitung (EEG-Monitoring) für Patienten mit schwer behandelbaren Epilepsien oder solchen mit unklarer Diagnose einer paroxysmalen Erkrankung.

Neurologische Notfälle werden primär in der interdisziplinären Notaufnahme behandelt, wofür rund um die Uhr neurologische Facharztexpertise zur Verfügung steht. In der neurologischen Poliklinik werden jährlich über 15.000 Patienten (inkl. diagnostischer Prozeduren) ambulant betreut, die meisten davon in Spezialambulanzen, die von ausgewiesenen Experten für die jeweiligen Erkrankungen geleitet werden. Die Ende 2021 eröffnete Tagesklinik behandelt Patienten mit komplexen diagnostischen Prozeduren und/oder überwachungspflichtigen Infusionstherapien.

Clinical Performance Data

Close monitoring of patients at the intensive care unit.

INPATIENT CARE

The inpatient units of the University Hospital of Neurology treated more than 5,200 patients in 2022.

NUMBER OF ADMISSIONS

5,246

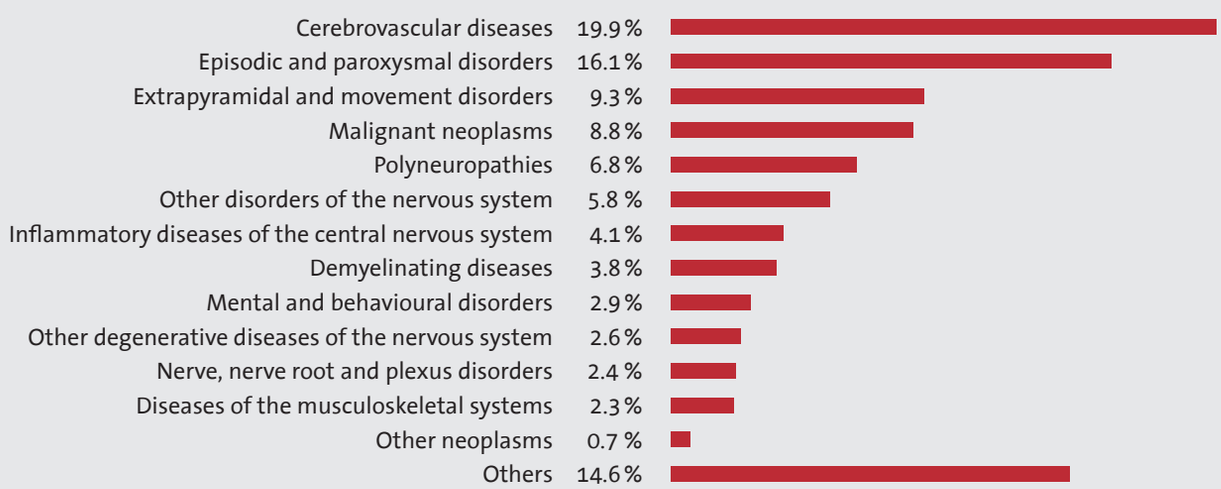
LENGTH OF STAY (IN DAYS)

4.7

CASE-MIX-INDEX

1.05

INPATIENT DIAGNOSIS GROUPS



OUTPATIENT CARE

NUMBER OF CONSULTATIONS
(including diagnostic procedures)

15,246

The Hertie Institute for Clinical Brain Research (HIH)

Hertie-Institut
für klinische Hirnforschung

Since its founding more than 20 years ago, the Hertie Institute has grown to almost 500 employees at all levels, from technicians and PhD students to full professors. The institute's achievements include discoveries related to the molecular, genetic and physiological basis of a number of major neurologic diseases as well as relevant advances in their treatment.

The institute presently consists of six departments. They combine basic and clinical research with patient care, albeit to different degrees and with variable emphasis: the four departments focusing on Stroke, Epileptology, Neurodegenerative Disorders, and Neuro-Oncology treat outpatients in specialized clinics, but also inpatients with the whole spectrum of neurological diseases, while the Department of Neural Dynamics and Magnetoencephalography and the Department of Cellular Neurology provide specialized diagnostic services and care in an outpatient setting only, focusing on neurocognitive impairments and Alzheimer's disease, respectively.

The institute is home to a total of 21 professors and 30 research groups. Seventeen belong to the aforementioned departments, 13 are led as independent research groups. The main focus of the HIH is on neurodegenerative and inflammatory brain diseases as well as on stroke, brain tumors, epilepsy, and the fundamentals and disorders of perception and motor function. The HIH's most significant research successes in 2022 include the identification of certain proteins in cerebrospinal fluid that provide conclusions about inflammatory processes in Alzheimer's, Parkinson's and other neurodegenerative diseases. A second research highlight was the finding that, paradoxically, we do extremely poor when we try to recall locations in our line of sight from short-term memory – even though this is the part of the visual field we see most sharply.

The newly established research area in the field of neurorehabilitation, neuroprosthetics, and neurotechnology (N3-research area) will dovetail the Hertie Institute with the excellent Tübingen research environment in the field of machine learning and artificial intelligence. The aim is to jointly develop innovative approaches for the clinic, such as technical assistance systems for diagnostics and treatment support.

Professor Esther Kühn joined the HIH in the summer of 2022. Her independent research group "Translational Imaging of Cortical Microstructure" is funded by an ERC grant. She investigates the neuronal mechanisms underlying healthy and pathological brain states using high-resolution magnetic resonance imaging (MRI).

In 2022, scientists at the Center of Neurology have obtained almost 12 million Euros in third party funding and published more than 300 papers in peer-reviewed journals. These figures attest to the excellent scientific performance of the Center. Over the last 20 years, the Hertie Foundation has spent about 70 million euros on the HIH and plans to continue its support. A major milestone in 2022 was the decision of the state of Baden-Württemberg to provide additional permanent funding of two million euros per year.

The permanent funding from the State of Baden-Württemberg twenty years after the foundation of the institute is proof of the HIH's outstanding contribution to the state as a research location. Together with continued support of the non-profit Hertie Foundation, it enables the HIH to implement its "HIH 2030" agenda.

In line with its mission to provide cutting-edge research and optimal patient care for the benefit of patients and society, the HIH will continue to develop its research structures. In the future, it will devote itself even more to developing strategies for the early detection, prevention and rehabilitation of neurological diseases. While expanding its research spectrum the institute will focus on two promising research fields: systems-based neurology and personalized medicine.

A highlight of 2022 was the celebration of HIH's 20th anniversary. Invited guests included Science Minister Theresia Bauer, Helmholtz President Otmar D. Wiestler and TV host Frank Elstner.

Tübingen is one of six top research locations in Germany that form the "Hertie Network of Excellence in Clinical Neuroscience". The Hertie Foundation's network and junior researcher support program, which is funded with five million euros over a period of three years, aims to facilitate the transfer of scientific findings into clinical practice in the field of clinical neurosciences. A second funding period has just started, based on outstanding reviews by a panel of international neuroscientists and clinicans.

Prof. Dr. Thomas Gasser
Prof. Dr. Mathias Jucker
Prof. Dr. Holger Lerche
Prof. Dr. Markus Siegel
Prof. Dr. Dr. Ghazaleh Tabatabai
Prof. Dr. Ulf Ziemann

Das Hertie-Institut für klinische Hirnforschung (HIH)

Mehr als 20 Jahre nach seiner Gründung durch die Gemeinnützige Hertie-Stiftung, die Universität Tübingen und das Universitätsklinikum Tübingen gehört das HIH auf dem Gebiet der klinischen Hirnforschung zum Spitzenfeld europäischer Forschungseinrichtungen. Herausragende Forschungsergebnisse haben das Institut auch über die Grenzen Europas hinaus bekannt gemacht.

Das HIH besteht derzeit aus sechs Abteilungen: Der Abteilung Neurologie mit Schwerpunkt neurovaskuläre Erkrankungen (Prof. Dr. Ulf Ziemann), der Abteilung Neurologie mit Schwerpunkt neurodegenerative Erkrankungen (Prof. Dr. Thomas Gasser), der Abteilung Neurologie mit Schwerpunkt Epileptologie (Prof. Dr. Holger Lerche), der Abteilung Neurologie mit interdisziplinärem Schwerpunkt Neuroonkologie (Prof. Dr. Dr. Ghazaleh Tabatabai), die Abteilung Neuronale Dynamik und Magnetenzephalographie (Prof. Dr. Markus Siegel) und der Abteilung für Zellbiologie Neurologischer Erkrankungen (Prof. Dr. Mathias Jucker).

Die ersten vier Genannten sind bettenführende Abteilungen in der Neurologischen Klinik, die anderen beiden sind an der Patientenversorgung im Rahmen von Spezialambulanzen und speziellen diagnostischen Verfahren beteiligt. Die klinischen Abteilungen sind für die Versorgung von Patientinnen und Patienten mit der gesamten Breite neurologischer Erkrankungen gemeinsam verantwortlich.

In den Abteilungen sind zurzeit 21 Professorinnen und Professoren und fast 500 Mitarbeitende in 30 Arbeitsgruppen tätig, wovon 13 unabhängige Forschungsgruppen darstellen. Die Arbeitsschwerpunkte des HIH liegen im Bereich neurodegenerativer und entzündlicher Hirnerkrankungen, der Schlaganfallforschung, Epilepsien und der Erforschung der Grundlagen und Störungen von Wahrnehmung und Motorik. Zu den bedeutesten Forschungserfolgen des HIHs im Jahr 2022 zählt die Identifizierung bestimmter Proteine im Hirnwasser, die Rückschlüsse auf Entzündungsvorgängen bei Alzheimer -, Parkinson - und anderen neurodegenerativen Erkrankungen geben. Ein zweites Forschungshighlight war die Erkenntnis, dass wir Objekte in zentraler Blickrichtung sehr schlecht aus dem Kurzzeitgedächtnis abrufen können – obwohl wir diesen Teil des Gesichtsfeldes am schärfsten sehen.

Der im Jahr 2022 neu geschaffene N3-Bereich (Neurorehabilitation, Neuroprothetik und Neurotechnologie) soll das Hertie-Institut mit dem exzellenten Tübinger Forschungsumfeld im Bereich des maschinellen Lernens und der künstlichen Intelligenz verzahnen. Gemeinsam sollen innovative Ansätze für die Klinik entwickelt werden, wie etwa technische Assistenzsysteme für die Diagnostik und Therapieunterstützung.

Seit Sommer 2022 verstärkt Professorin Esther Kühn das HIH. Ihre unabhängige Forschungsgruppe „Translationale Bildgebung kortikaler Mikrostruktur“ wird mit einem ERC-Grant gefördert und untersucht die neuronalen Mechanismen, die gesunden und krankhaften Gehirnzuständen zu Grunde liegen, mittels hochauflösende Magnetresonanztomographie, kurz MRT.

In den Abteilungen sind zurzeit 21 Professorinnen und Professoren und fast 500 Mitarbeitende in 30 Arbeitsgruppen tätig. Die Gemeinnützige Hertie-Stiftung wendete bisher annähernd 70 Millionen Euro für das HIH auf und plant ihre Förderung fortzusetzen.

Das HIH, ein Modellprojekt für Public Private Partnership, hat auch im Jahr 2022 knapp 12 Millionen Euro an Drittmitteln eingeworben und mehr als 300 Veröffentlichungen in wissenschaftlichen Fachzeitschriften publiziert. Diese Zahlen belegen die exzellente wissenschaftliche Leistungsfähigkeit des Zentrums. In den letzten zwanzig Jahren hat die Gemeinnützige Hertie-Stiftung annähernd 70 Millionen Euro für das HIH aufgewendet und sie plant ihre Förderung fortzusetzen. Ein großer Meilenstein für das HIH war im Jahr 2022 die Zusage des Landes-Baden-Württemberg, dass es das Institut künftig dauerhaft mit zwei Millionen Euro zusätzlich pro Jahr fördern wird.

Die Verstetigung der Landesförderung rund zwanzig Jahre nach Gründung des Instituts belegt den herausragenden Beitrag des HIH für den Forschungsstandort Baden-Württemberg. Zusammen mit der weiteren Unterstützung durch die Gemeinnützige Hertie-Stiftung ermöglicht sie dem HIH die Umsetzung des Zukunftsplans „HIH 2030". Gemäß seiner Mission, Spitzenforschung und optimale Krankenversorgung zum Wohle der Erkrankten und Gesellschaft zu leisten, wird das HIH seine Forschungsstrukturen weiterzuentwickeln. Künftig wird es sich noch mehr der Entwicklung von Strategien zur Früherkennung, Prävention und Rehabilitation neurologischer Erkrankungen widmen und sich bei dem Ausbau seines Forschungsspektrums auf zwei Zukunftsfelder konzentrieren: der systembasierten Neuromedizin sowie der personalisierten Medizin.

Ein Höhepunkt des Jahres 2022 war der Festakt anlässlich des 20-jährigen Jubiläums des HIH. Als Gäste wurden unter anderem Wissenschaftsministerin Theresia Bauer, Helmholtz-Präsident Otmar D. Wiestler und TV-Moderator Frank Elstner begrüßt.

Tübingen ist einer von deutschlandweit sechs Spitzenstandorten des „Hertie Network of Excellence in Clinical Neuroscience". Das mit fünf Millionen Euro geförderte Netzwerk und Nachwuchsförderprogramm der Gemeinnützigen Hertie-Stiftung zielt darauf ab, im Bereich der klinischen Neurowissenschaften die Umsetzung von wissenschaftlichen Erkenntnissen in die klinische Praxis zu erleichtern. Auf der Grundlage hervorragender Beurteilungen durch ein Gremium internationaler Neurowissenschaftler und Kliniker wurde 2022 eine zweite Förderperiode bewilligt.

Prof. Dr. Thomas Gasser
Prof. Dr. Mathias Jucker
Prof. Dr. Holger Lerche
Prof. Dr. Markus Siegel
Prof. Dr. Dr. Ghazaleh Tabatabai
Prof. Dr. Ulf Ziemann

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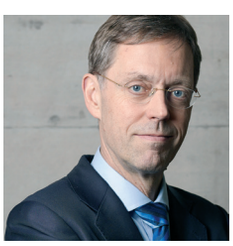
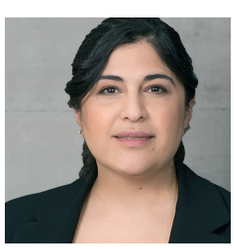


Prof. Dr. Thomas Gasser
Prof. Dr. Mathias Jucker
Prof. Dr. Holger Lerche


Prof. Dr. Markus Siegel
Prof. Dr. Dr. Ghazaleh Tabatabai
Prof. Dr. Ulf Ziemann

Dr. Astrid Proksch

University Hospital of Neurology

Clinical Staff

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

Jürgen Weber
(Deputy Head of Nursing Services)

Adriana Hurcikova
(Deputy Head of Nursing Services)

Simon Gotter
(Assistant Head of Nursing Services)

Olga Krämer
(Division Manager, Ward 42/43/45)

Chiara Kanz
(Deputy Division Manager, Ward 42/43/45)

Isaac Emwinghare
(Deputy Division Manager, Ward 42/43/45)

Gerda Weise
(Ward Manager, 44)

Annette Silber
(Deputy Ward Manager, Ward 44)

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

WARD 42/43/45

Paul Alacron
Diana Arko
Wilfred Barete
Luther Basa
Kathrin Bauer
Aida Berisha
Meike Besser
Önder Bilen
Nina Cutic Bozic
Irene Brady
Mark Canoy
Maida Eglenovic
Olga Degraf
Annette Eisele
Isaac Emwinghare
Rebecca Fais
Emanuele Frasca
Karola Froehlich
Tatjana Graz
Ricardo Abel Hernandez Nieves
Michael Heymann
Sevbenur Ibrahimova
Tobias Illhardt
Marina Jesinger
Britta Kallenberger
Corinna Kalmbach-Ftits
Eva Kern
Beate Kloster
Andrea Langmann
Carmela Lastimosa
Alix Flora Ma´Ane Mouafo
Renate Maier
Alisa Mansour-Tokovic
Larissa Monteiro de Souza
Mary Catherine Odon
Dorothee Pachollek
Selina Palamatcu
Klera Poci
Juliana Salten
Sarah Schneider
Justin Schwarz
Gudrun Siegl
Nicole Steiner
Birgit Weimar
Emma Witte
Stefanie Zanfardino

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Christine Bayer
Sophie Becker
Jerome Blancia
Jane Buo
Ludwig Casselmann
Kezang Choden
Jessica Deile
Ebrar Döger
Rebecca Dost

Fabian Fach
Majorie Fernandez
Alina Florenta
Daniel Fuente Friend
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Mustafa Hadzic
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Kathrin Haug
Lea Heinzelmann
Sigrid Herter
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Annapaola Imberti
Regina Johner
Navdeep Kaur
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Martin Köhler
Mareike Kohl
Lothar Kunz
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Dragana Milenkovic
Birgit Moryson
Petra Nipprasch
Simone Ochieng
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Christine Reuter
Claudia Romeikat
Jennifer Runft
Sanela Sandvoß
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Mirjam Schäfer
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Simon Schippmann
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Daniel Hess
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TECHNICIANS

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Ingrid Braun
(Neurocardiac Diagnostics)
Friedhelm Chmell
Anke Deutsch (EP)
Evelyn Dubois (CFS Chemistry)
Laura Feldkircher (EEG)
Johanna Keller (EEG)
Margarete Klein (Nurse)
Irina Köhnlein (Nurse)
Nathalie Ruckwied
(Neurosonography)
Veronika Serwotka (Nerve conduction)
Elke Stransky (CSF Chemistry)
Kathrin Vohrer (EEG, EP)
Julia Wittlinger
(Neurosonography, EP)
Barbara Wörner (EEG)

SECRETARIES

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Stefanie Rempp
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Birgit Peter
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HEAD OF THE DEPARTMENT

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Prof. Dr. Simon Greulich (Cardiologist)
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PD Dr. Annerose Mengel
Prof. Dr. Ulrike Naumann
PD Dr. Sven Poli, MSc
Dr. Jörn Pomper

SCIENTISTS/RESIDENTS

Dr. Adedolapo Kamaldeen Adeyemi
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Gabriel Barbu (until 07/2022)
Dr. David Baur
Dr. Paolo Belardinelli (5%)
Prof. Dr. Til Ole Bergmann (5%)
Dr. Corinna Blum
Dr. Pedro Caldana Gordon
Dr. Jutta Dünschede
Stefan Förster
Dr. Lena Geiger-Primo
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Dr. Andreas Jooß (since 07/2022)
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Dr. Gábor Kozák
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Dr. Anne Lieb
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Dr. Olivier Roy (since 08/2022)
Dr. Christoph Ruschil
Dr. Jennifer Sartor
Dr. Patricia Schwarz
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Dr. Vasileios Siokas (since 04/2022)
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Marcel Armbruster, technician
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Miriam Kirchhoff (Supervisor Prof. Dr. Ziemann)
Moritz Klawitter (until 07/2022)
(Supervisor Prof. Dr. Naumann)
Wala Mahmoud (Supervisor Prof. Dr. Ziemann)
Eric McDermott (Supervisor Prof. Dr. Ziemann)
Johanna Rösch (Supervisor Prof. Ulf Ziemann)
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Annika Spielmann (Supervisor Prof. Dr. Ziemann)
Catrina Thönnes (Supervisor PD Dr. Mengel)
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Lara Woitschach (Supervisor PD Dr. Kowarik)
Xueyu Yang (Supervisor PD Dr. Poli)
Jan Zurloh (Supervisors: PD Dr. Mengel)

Clinical Studies

STROKE STUDIES

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

ASTRO-DE: Andexanet alfa: non- interventional study in Stroke units in Germany (DE)
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

Cerebral venous thrombosis (CVT) after COVID-19 vaccination international registry
Investigator: PD Dr. Sven Poli

Cerebral Venous Thrombosis after COVID-19 – an international multicenter patient registry
Investigator: PD Dr. Sven Poli

DOAC-IVT: Intravenous thrombolysis in patients with ischemic stroke taking direct oral anticoagulants – an international registry
Investigator: PD Dr. med. Sven Poli

DOAC-CVT: Direct Oral Anticoagulants for the treatment of Cerebral Venous Thrombosis
Investigator: PD Dr. med. Sven Poli

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

ENRICH-AF: Edoxaban for intracranial hemorrhage survivors with atrial fibrillation
Investigator: PD Dr. med. Sven Poli

ESCAPE-NEXT: A multicenter, randomized, double- blinded, placebo- controlled, parallel group, single- dose design to determine the efficacy and safety of nerinetide in participants with acute ischemic stroke undergoing endovascular thrombectomy excluding thrombolysis
Investigator: PD Dr. med. Sven Poli

FASTEST: rFVIIa for Acute Hemorrhagic Stroke Administered at earliest time trial
Investigator: PD Dr. med. Sven Poli

FIND-AF: Intensive heart rhythm monitoring to decrease ischemic stroke and systemic embolism – the Find- AF 2 study
Investigator: PD Dr. med. Sven Poli

German Stroke Registry
Investigator: PD Dr. Sven Poli

HEMALOB: Lobar intra-cerebral hemorrhage: Towards improved etiological diagnosis
Investigator: PD Dr. Sven Poli

ODEA-TIA: Optimal detection of atrial fibrillation in TIA
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

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

PROOF: Penumbral Rescue by Normobaric O=O Administration in Patients with Ischaemic Stroke and Target Mismatch ProFile: A Phase II Proof-of-Concept Trial
Investigator: PD Dr. Sven Poli

REVISION: Early Reperfusion therapy with intravenous alteplase for recovery of vision in acute central retinal artery occlusion (REVISION) – A double- blind randomized placebo- controlled phase III proof-of-concept trial
Investigator: PD Dr. Sven Poli

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

NEUROIMMUNOLOGY STUDIES

19366A Lu AG06466 (EudraCT:
2021-001230-18 / IND 151001):
Interventional, randomized, double-blind, placebo-controlled, parallel group, phase Ib study investigating the effects of Lu AG06466 for the treatment of spasticity in patients with multiple sclerosis
Investigator Prof. Dr. Ulf Ziemann

CLADQoL (MS700568):
CLADribine tablets – evaluation of Quality of Life
Investigator: PD Dr. Markus Kowarik

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, Prof. Dr. Ulf Ziemann

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

GN41791 FENtrepid (EudraCT-Nr 2019-003919-53):
A phase-III mulitcenter, randomized, double-blind, double-dummy, parallel-group study to evaluate the efficacy and safety of Fenebrutinib compared with Crelizumab in adult patients with primary progressive multiple sclerosis
Investigator Prof. Dr. Ulf Ziemann

GN41851 FENhance (EudraCT-Nr 2019-004857-10):
A phase-III mulitcenter, randomized, double-blind, double-dummy, parallel-group study to evaluate the efficacy and safety of Fenebrutinib compared with Teriflunomide in adult patients with relapsing multiple sclerosis
Investigator Prof. Dr. Ulf Ziemann

MS700568_0176 CLIP-5: A non-interventional, multicenter, observational study to evaluate effectiveness and safety of cladribine tablets (CT) in patients continuing treatment with cladribine tablets in year 5
Investigator: PD Dr. Markus Kowarik

Clinical Studies

NEUROIMMUNOLOGY STUDIES

Raise / Raise-XT (RA101495-02.301):
A phase-III, 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 Kowarik

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

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)

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

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 O=O 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

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 leaders: Dr. Brigitte Zrenner, Prof. Dr. Ulf Ziemann
Funding Institution: Medical Faculty, Anschubförderung Klinische Forschung (AKF), University Tübingen

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

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 multidimensional 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 Neurorehabilitation nach Schlaganfall durch personalisiertes EEG/EMG-Hirnzustand-gesteuertes Virtual Reality-Therapieparadigma
Project leader: Prof. Dr. Ulf Ziemann
Funding Institution: Federal Ministry of Education and Research (BMBF)

Third-Party Funding

NEW GRANTS

Immunoglobulin (Ig) repertoire analysis in multiple sclerosis patients treated with ofatumumab: in depth longitudinal characterization of Ig proteomics
Project leader: PD Dr. Markus Kowarik
Funding Institution: Novartis

Tumor specific cerebrospinal fluid (CSF) B cell response in cancer patients with CNS manifestation
Project leader: PD Dr. Markus Kowarik
Funding Institution: German Research Foundation (DFG)

ANNES: AmaNtadine for NeuroenhancEment in acute patients study - A prospective pilot proof of concept phase-IIb study in intensive and intermediate care unit patients
Project leaders: PD Dr. Katharina Feil, PD Dr. Annerose Mengel
Funding institution: Medical Faculty University Tübingen, AKF Program

DREAMS: Delir REduction by Administration of Melatonin in Stroke Patients
Project leader: PD Dr. Annerose Mengel
Funding institution: Medical Faculty University Tübingen, AKF Program Anschubfinanzierung

Einfluss der Glioblastom-induzierten perizytären Expression des EMT-Faktors SLUG auf die Tumor-Neoangiogenese – in vivo Untersuchungen
Project leader: Prof. Dr. Ulrike Naumann
Funding Institution: Medical Faculty, IZKF Promotionskolleg, University Tübingen

Nachweis des immunogenen Zelltods bei onkolytischer Virotherapie des Glioblastoms
Project leader: Prof. Dr. Ulrike Naumann
Funding Institution: Else Übelmesser-Stiftung

REVISION: Early Reperfusion therapy with intravenous alteplase for recovery of vision in acure central retinal artery occlusion (REVISION) – A double- blind randomized placebo-controlled phase-III proof-of-concept trial
Project leader: PD Dr. Sven Poli
Funding Institution: Federal Ministry of Education and Research (BMBF)

SMARTCOIL: Personalisierte therapeutische Hirnstimulation
Project leader: Prof. Dr. Ulf Ziemann
Funding Institution: Federal Ministry of Economy BW

Transcranial brain stimulation to study memory processing and synaptic plasticity during sleep
Project leaders: Prof. Dr. Ulf Ziemann, Prof. Til Ole Bergmann
Funding Institution: German Research Foundation (DFG)

Awards

Prof. Dr. Ulf Ziemann
Listing “Top Physicians 2022” (Guter Rat)

Prof. Dr. Ulf Ziemann
Focus Top Mediziner, Ärzteliste 2022, Multiple Sklerose

Prof. Dr. Ulf Ziemann
Clarivate Web of ScienceTM: “Highly Cited Researcher 2022“

Prof. Dr. Ulf Ziemann
Corresponding Member of the Cuban Academy of Science

Guest Researchers

Dr. Olli-Pekka Kahilakoski
Aalto University, Helsinki, Finland
Host: Prof. Dr. Ulf Ziemann

PhD Theses
(Completed in 2022)

Eric McDermott
The use of biosignals in personalized VR-based motor rehabilitation
Supervisor: Prof. Dr. Ziemann

Moritz Klawitter
XVir-N-31 based glioma oncovirotherapy and its combination with an immune checkpoint inhibition that targets PD-1/PD-L1: assessment of immune responses
Supervisor: Prof. Dr. Naumann

Medical Theses
(Completed in 2022)

Yeho-Irae Kim
Influence of dimethyl fumarate on functional magnetic resonance imaging markers of cortical resting state network connectivity in relapsing remitting multiple sclerosis in the first six months of treatment
Supervisor: Prof. Dr. Ziemann

Hannah Krämer
Einfluss von Dimethylfumarat auf fMRT-Marker kortikaler resting-state Netzwerkkonnektivität bei schubförmig remittierender Multipler Sklerose über einen Behandlungszeitraum von zwei Jahren
Supervisor: Prof. Dr. Ziemann

Michael Schlotterbeck
Charakterisierung CD20-positiver T-Zellen in Zellkultur und im zeitlichen Verlauf unter Ocrelizumab-Therapie bei Patienten mit Multipler Sklerose
Supervisor: PD Dr. Krumbholz

Master Theses
(Completed in 2022)

Deniz Bulgur
Validating the specificity of monoclonal antibodies derived from human cerebrospinal fluid B lymphocytes against autologous human metastatic melanoma using immunohistochemistry
Supervisor: PD Dr. Kowarik

Sandra Müssig
Untersuchungen zum Metabolismus Glioblastom-assoziierter Perizyten
Supervisor: Prof. Dr. Naumann

Bachelor Theses
(Completed in 2022)

Celia Hinrichs
Evaluating the tumour specificity of recombinant antibodies derived from cerebrospinal fluid B lymphocytes
Supervisor: PD Dr. Kowarik

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DEPUTY HEAD OF THE DEPARTMENT

Prof. Dr. Ludger Schöls

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Dr. Julia Fitzgerald
PD Dr. Christian Johannes Gloeckner (jointly with DZNE)
Prof. Dr. Philipp Kahle
Prof. Dr. Inga Liepelt-Scarfone
PD Dr. Rebecca Schüle
Prof. Dr. Matthis Synofzik
(jointly with Research Division Synofzik)
Prof. Dr. Daniel Weiß

AFFILIATED EXTERNAL GROUP LEADERS

Prof. Dr. Daniela Berg (until 03/2022)
Prof. Dr. Rejko Krüger

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Dr. Zofia Fleszar
Dr. Franca Fries
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Dr. Stefanie Hayer
Dr. Holger Hengel
Dr. Anna Hofmann
Dr. Francesca Izzi (jointly with DZNE)
Dr. Melanie Kellner
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Dr. Stefanie Lerche
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Ella Hilt (BF)
Marina Karakhanyan
Melanie Kraft
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Heike Müller (jointly with DZNE)
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Susanne Stimmler
Elke Stransky
Dr. Anna-Katharina von Thaler (BF)
Felix von Zweydorf (jointly with DZNE)
Ina Wolfstädter (jointly with DZNE; BF)
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PHD STUDENTS

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Catherine Thömmes
Nadine Weissert
Linus Wiora
Jishu Xu

MEDICAL DOCTORAL STUDENTS

Selda Akbas (BF)
Mario Auch (jointly with RD Synofzik)
Merit Bade (jointly with RD Synofzik)
Theresa Beyme
(jointly with RD Synofzik)
Andreas Boldt
Vera Borowski
Luca Braunger
Jan-Hinrich Busch (BF)
Gabriela Carvajal
Monique Dehnert (BF)
Lisanne Dormann
Karl Friedrich Ermisch (BF)
Sarah Gascon-Busquet (BF)
Ina Gehweiler
Julia Göddel-Sand
(jointly with RD Synofzik)
Judith Greiner
Kilian Gunkel
Elena Hager (BF)
Kim-Susann Hennefarth
Hanna Hentrich
Dominik Hermle (j. w. RD Synofzik)
Huong Giang Hoang (BF)
Sofie Kämereit (BF)
Malte Kampmeyer (BF)
Irenee Kanyiki
Kristina Kaufhold
(jointly with RD Synofzik)
Sarah Klatt
Annika Koch
Sebastian Kormeier (BF)
Sandra Lachenmaier (BF)
Jordana Maas
Julian Meinhardt (BF)
Julia Maren Ott
(jointly with RD Synofzik)
Monika Mosler
(jointly with RD Synofzik)
Hannah Müßler
Sascha Otterbein (BF)
Lea Rietschel (BF)
Johanna Roller
Pavel Saraykin (BF)
Anne-Sophie Schmitz
Patricia Schöpfer
Ester Soter (jointly with RD Synofzik)
Ulrike Sünkel (BF)
Inga Caroline Thielker
Marlene Topka
Maximilian Völker
Felix-Maximilian Weber TG
Sofie Weiss (BF)
Katarzyna Wojcik (BF)
Nicolas Zang

MASTER & BACHELOR STUDENTS

Elisabeth Bauer
Jennifer Bauer (BF)
Mariella Bosch
Lea Fischer
Veronica Giachin
Sophia Kieferle
Marius Kolodziej
Madeline Nagel
Marvin Noss
Katja Schach
Sandra Schepers
Jana Staib
Jasmin Treu

BUNDESFREIWILLIGEN-DIENSTLEISTERINNEN

Helen Alberth (until 08/2022; BF)
Lisa Sledz (until 08/2022; BF)
Frederik Tiede (BF)
Ecenur Yilmaz (BF)

Clinical Studies

PPMI 2.0 – 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 - Amendment 2+3:
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

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

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

ROCK-PD Study: Safety, Tolerability and Symptomatic Efficacy of the ROCK-Inhibitor Fasudil in Patients with Parkinson's Disease
Investigators: PD Dr. Kathrin Brockmann,
Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser

Prevent Dementia in GBA-associated PD:
Investigators: PD Dr. Kathrin Brockmann,
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
Inivestigators: Prof. Dr. Daniel Weiß,
Prof. Dr. Alireza Gharabaghi, Dr. Ebba Lohmann

Desensitize PD: Intestinal levodopa + entacapone therapy (Lecigon®) to support dopaminergic desensitization in Parkinson's desease
Investigator: Prof. Dr. Daniel Weiß

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. Matthis 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

Clinical Studies

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. Matthis Synofzik, PD Dr. Rebecca Schüle, Dr. Dr. Andreas Traschütz, Dr. Christoph Kessler

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. Matthis Synofzik, Dr. Winfried Ilg

Sporadic ataxia with adult onset: Natural history study (SPORTAX)
Investigators: Prof. Dr. Ludger Schöls, Prof. Dr. Matthis Synofzik, Prof. Dr. Thomas Klockgether (Bonn)

Autosomal-recessive and Early onset ataxia: Genetic basis and natural history (ARCA/EOA)
Investigators: Prof. Dr. Matthis Synofzik, Prof. Dr. Ludger Schöls

GENFI- Genetic Frontotemporal Dementia Initiative
Investigators: Prof. Dr. Matthis Synofzik

Solving the unsolved Rare Diseases (Solve RD)
Investigators: PD Dr. Rebecca Schüle, Prof. Dr. Matthis Synofzik, Prof. Dr. Ludger Schöls

Studying the prodromal and early phase of SPG4 (preSPG4)
Investigators: Dr. Tim Rattay, PD Dr. Rebecca Schüle, Prof. Dr. Ludger Schöls

Charakterisierung unwillkürlicher spontaner fokaler Muskelaktivität mittels bewegungssensitiver Magnetresonanz-Bildgebung und automatisierter Datennachverarbeitung
Investigators: Prof. Dr. Alexander Grimm, Prof. Dr. Fritz Schick, Prof. Dr. Ludger Schöls

A Pharmacokinetics and Safety Study of BIIB132 in Adults With Spinocerebellar Ataxia 3 (Phase 1 trial)
Sponsor: Biogen; Site investigator: Prof. Dr. Matthis Synofzik

Study of WVE-004 in Patients With C9orf72-associated Amyotrophic Lateral Sclerosis (ALS) or Frontotemporal Dementia (FTD) (FOCUS-C9) (Phase 1b/2a trial)
Sponsor: WAVE; Site investigator: Prof. Dr. Matthis Synofzik

1 Mutation 1 Medicine: An individualized n-of-1 ASO treatment of a patient with Ataxia teleangiectasia (experimenteller individueller Heilversuch)
Physicians: Prof. Dr. Matthis Synofzik, Dr. Andrea Bevot, Dr. Holm Graessner, Prof Dr. Rebecca Schüle

Third-Party Funding

ONGOING GRANTS

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

Roche Pasadena Studie 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

PPMI - Amendment 14 - Digital Biomarker Data Collection
Project leader: PD Dr. Kathrin Brockmann
Funding Institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

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

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)

Third-Party Funding

ONGOING GRANTS

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

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

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: Abott

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.

Studying the prodromal and early phase of SPG4 (preSPG4)
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 (CReATe) 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. Matthis 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. Matthis 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)

NEW GRANTS

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)

The Edmond J. Safra Fellowship in Movement Disorders
Project leaders: Prof. Dr. Thomas Gasser, PD Dr. Kathrin Brockmann
Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF-022-021)

ANR-DFG: Exploring immune-related pathways in familial forms of Parkinson's disease
Project leader: Dr. Dr. Michela Deleidi
Funding institution: German Research Fundation (DFG)

Third-Party Funding

NEW GRANTS

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)

GRK 2364: MOMbrane Phase II: 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

Identification of RNAs Disrupting TDP-43 Proteinopathy in ALS and FTD
Project leader: Dr. Jorge Garcia Morato
Funding institution: Karin Christiane Conradi Stiftungsfonds

Desensitize PD: Intestinal levodopa + entacapone therapy (Lecigon®) to support dopaminergic desensitization in Parkinson's disease
Investigator: Prof. Dr. Daniel Weiß
Funding institution: Stadapharm

Roche Pasadena Study BP39529 - Amendment 3:
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

ROCK-PD Study: Safety, Tolerability and Symptomatic Efficacy of the ROCK-Inhibitor Fasudal in Patients with Parkinson's Disease
Project leaders: PD Dr. Kathrin Brockmann, Prof. Dr. Inga Liepelt-Scarfone, Prof. Dr. Thomas Gasser
Funding institution: Technical University of Munich

Prevent Dementia in GBA-associated PD
Project leaders: PD Dr. Kathrin Brockmann, Prof. Dr. Thomas Gasser
Funding institution: Michael J. Fox Foundation for Parkinson's Research (MJFF)

PhD Theses
(Completed in 2022)

Jorge Garcia Morato
Role of Acetylation in TDP-43 Pathophysiology
Supervisor: Prof. Dr. Philipp Kahle

Lisa Schwarz
Miro1-mutant iPSC-derived Neurons reveal novel functions of Miro1 in mitochondrial respiration and dopamine handling
Supervisor: Dr. Julia Fitzgerald

Hui Liu
Genetic analysis of Parkinson's disease
Supervisor: Prof. Thomas Gasser

MD Theses
(Completed in 2022)

Monique Dehnert
Neurofilament light chain Protein im Liquor: Ein Biomarker für Demenz bei Parkinson?
Supervisor: PD Dr. Kathrin Brockmann

Sebastian Kormaier
Der Functional-Reach-Test in einer Kohorte von 1100 Personen mit und ohne Risikofaktoren für Neurodegeneration: Einflussfaktoren, Cut-off-Werte und Assoziation mit klinischen Symptomen und Sturzrisiko
Supervisor: Prof. Dr. Walter Mätzler

Ulrike Sünkel
Charakteristika von Dropouts in einer prospektiven longitudinalen Kohorten-Studie zur Früherkennung von Neurodegeneration
Supervisor: Prof. Dr. Daniela Berg

Master Theses
(Completed in 2022)

Elisabeth Bauer
Characterisation of PDGFRA in cell models of Parkinson's Disease
Supervisor: Dr. Julia Fitzgerald

Lea Fischer
The Effect of Oxysterols on Neurons and Glia in a Disease Model of SPG5
Supervisor: Prof. Dr. Ludger Schöls

Sandra Schepers
The Dynamics of Proteasomal and Autophagic Degradation in PINK1-Parkin Dependent Mitophagy
Supervisor: Prof. Dr. Philipp Kahle

Jasmin Treu
Lipid-based readout analysis in an iPSC-derived astrocyte model of HSP
Supervisor: Prof. Dr. Ludger Schöls

Conferences & Workshops

BMBF research retreat 'Ethical, legal and social aspects of human cerebral organoids and their governance in Germany, the U.K. and the U.S.A.'
Tübingen, 8-12 August 2022
Coordinator: Dr. Gardar Arnasson
Organizer Laboratory Visits: Julia Fitzgerald

Tübinger Therapietag Neurologie
Tübingen, 16 July 2022
Coordinator: Prof. Dr. Thomas Gasser,
PD Dr. Kathrin Brockmann
(together with colleagues from all departments)

Department of Neurology and Epileptology

Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Holger Lerche

GROUP LEADERS/ATTENDING PHYSICIANS

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
Prof. Dr. Yvonne Weber (partially affiliated)
Dr. Thomas Wuttke

SCIENTISTS/RESIDENTS

Murtadha Alshabaan (until 03/2022)
Dr. Christian Boßelmann
Maria-Sophie Breu
Dr. Dr. Randolph Helfrich
(Independent research group leader at the HIH)
Dr. Yiwen Li Hegner
Dr. Josua Kegele
Benedict Kleiser
Katharina Kneer
Dr. Cornelius Kronlage
Dr. Laura Kugler
Dr. Robert Lauerer-Braun
Dr. Stefanie Liebe
Dr. Yuanyuan Liu
Dr. Peter Müller
Filip Rosa
Dr. Andrea Santuy (until 09/2022)
Dr. Victoria Ruschil
Magdalena Schühle
Dr. Niklas Schwarz
Jan-Hendrik Stahl
Dr. Stephanie Straub
Sabine Thewes
Dr. Natalie Winter
Dr. Sophia Willikens

TECHNICAL STAFF/ ADMINISTRATION

Yvonne Brändle
Ana Fulgencio-Maisch
Christian Hengsbach
Myvledin Kameraj (since 10/2022)
Sabrina Kreiser
Heidrun Löffler
Anna Onyshchenko
Dominque Quetting

MD/PHD STUDENTS

Jacqueline Bahr
Maryam Erfanian Omidvar
Albina Farkhutdinova
Carolin Haag
Moritz Hanke
Stefano Iavarone
Raviteja Kotikalapudi
Caroline Kurth
Johanna Krüger
Nikolas Layer
Hang Lyu
Anjela Meyer
Daniela Miely
Jan Vincent Otte
Lorenz Over
Pauline Scheuber
Hannah Schwarz
Fabienne Stehle
Lukas Sonnenberg
Christina Stier
Betül Uysal
Nan Zhan

INTERNSHIPS

Elisabeth Brand
Supervisor: Dr. Ulrike Hedrich-Klimosch

Laura Heidiri
Supervisors: Dr. Ulrike Hedrich-Klimosch, Stefano Iavarone

Fabian Klopfer
Supervisors: Dr. Thomas Wuttke, Dr. Ulrike Hedrich-Klimosch

Clinical Studies

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

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

Clinical Studies

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 Nerventraumata
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 Willlikens, Julia Wittlinger, Debora Vittore-Welliong

MUSS – Muskelsummenscore zur Evaluierung der Muskelfibrose bei Neuropathien
Investigators: Prof. Dr. Alexander Grimm, Dr. Natalie Winter

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 Willlikens, 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 Willlikens, 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

PDY16744 - A Phase 2, multicenter, open-label, non-randomized, proof-of-concept study evaluating the efficacy, safety, and tolerability of BIVV020 in adults with chronic inflammatory demyelinating polyneuropathy (CIDP)
Investigator: Prof. Dr. Alexander Grimm

CENOR / 169(A)MD21350 - Retrospective study on the use of CENOBAMATE as adjunctive treatment in a cohort of patients suffering from epilepsy with Focal Onset Seizure (FOS) and enrolled into the Early Access Program (EAP) in Germany, France and UK
Investigator: Prof. Dr. Holger Lerche

Third-Party Funding

ONGOING GRANTS

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)

Entwicklung einer digitalen Behandlungsplattform (Clinical Decision Support System, CDSS) für Epilepsie Patienten
Project leader: Prof. Dr. Yvonne Weber
Funding Institution: Land Baden-Württemberg

Doktorandenstipendium – Projekte: Genetische Forschung Epilepsie
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)
First funding period (2019-2022)
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

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)

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

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

Third-Party Funding

ONGOING GRANTS

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

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 Sequenzing Data Sharing / ILAE Genomics
Project leader: Prof. Dr. Holger Lerche
Funding institution: International League Against Epilepsy (ILAE)

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

NEW GRANTS

PATE Stipendium - Gen-Set Burden Analysen von Ultra-Rare Varianten und krankheitsübergreifende Analysen in Exom-negativen entwicklungsabhängigen und epileptischen Enzephalopathien
Project coordinator: Dr. Josua Kegele
Funding institution: University of Tübingen

Untersuchung von Calcitonin Gene-Related Peptide als klinischer Biomarker in der Behandlung der Migräne
Project coordinator: Dr. Victoria Ruschil
Funding institution: Deutsche Migräne- und Kopfschmerzgesellschaft e.V. (DMKG)

Network dynamics of the electro-magnetic epileptic focus in patients with focal cortical dysplasia
Project leader: Dr. Yiwen Li Hegner (collaboration project with PD Dr. Marcel Heers from University Clinic Freiburg)
Funding Institution: German Research Foundation (DFG)

TreatION - New therapies for neurologic ion channel and transporter disorders
Coordinator: Prof. Dr. Holger Lerche
Funding institution: Federal Ministry of Education and Research (BMBF)
Second funding period (2022-2025)
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)
TP4: Pathophysiology and therapy of SCN8A and CACNA1G associated ataxia
Project leader: Dr. Yuanyuan Liu
(with Prof. Dr. Ludger Schöls, University of Tübingen)
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 K+ channelopathies
Project leaders: Dr. Niklas Schwarz, Prof. Dr. Holger Lerche

IZKF Stipendium
Project participants: Caroline Kurth, Jan Vincent Otte
Funding institution: University of Tübingen / IZKF

Conferences & Workshops

FOR-2715 – Annual Meeting
Aachen, 20-21 Ocotober 2022
Scientific coordinators: Prof. Dr. Holger Lerche, Prof. Dr. Yvonne Weber, Dr. Ulrike Hedrich-Klimosch

Awards

Ulrike Hedrich Klimosch, Dr. Stephan Lauxmann
HIH Paper of the Year Award
Hertie Institute for Clinical Brain Research

PhD Theses
(Completed in 2022)

Simone Seiffert
Genetic mechanisms of Developmental and Epileptic Encephalopathies (DEE)
Supervisors: Prof. Dr. Yvonne Weber

Mahmoud Koko Musa
Association of ultra-rare genetic variants with epilepsy
Supervisor: Prof. Dr. Holger Lerche

MD Theses
(Completed in 2022)

Robert Johannes Lauerer-Braun
Functional characterization of different epilepsy associated SCN2A and CACNA1E mutations
Supervisor: Prof. Dr. Holger Lerche

Philipp Justus Lührs
Elektrophysiologische Charakterisierung eines L1649Q FHM3 knock-in Mausmodells auf Einzelzell- und Netzwerkebene
Supervisor: Prof. Dr. Tobias Freilinger

Katrin Mohr
Multimodale Quellenlokalisation bei fokalen Epilepsien - ein Methodenvergleich
Supervisor: Prof. Dr. Holger Lerche

Charlotte Leonie Schubert
Nervenultraschall – Normwerte von Kleinkindern und Kindern im Alter von zwei bis sieben Jahren
Supervisor: Prof. Dr. Alexander Grimm

Pu Yan
Characterization of variants in the KCNQ5 gene associated with genetic generalized epilepsy
Supervisor: Prof. Dr. Holger Lerche

Department of Neurology and Interdisciplinary Neuro-Oncology

Clinical and Scientific Staff

HEAD OF THE DEPARTMENT

Prof. Dr. Dr. Ghazaleh Tabatabai

GROUP LEADERS/ ATTENDING PHYSICIANS

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

SCIENTISTS/RESIDENTS

Dr. Paula Bombach
Lucia Grosse
Dr. Isabel Gugel
Dr. Sophie Hirsch
Dr. Svenja Hucker
Dr. Sylvia Kurz
PD Dr. Susan Noell
Dr. David Rieger

PHD STUDENTS

Lara Häusser
Anke King
Laurence Kuhlburger
Foteini Tsiami
Bianca Walter

MEDICAL DOCTORAL STUDENTS

Yannik Bader
Björn Bayer
Mathias Damm
Aaron Falkner
Jens Gieger
Christopher Heinemann
Mona Hirt
Patricia Kempter
Natalya Korinetska
Lukas-Michael Kugler
Katja Macoustra
Louise Maise
Peter Paßlack
Leonard Schnabel
Felix Stange

TECHNICAL STAFF/ ADMINISTRATION

Dr. Susanne Beck
(Scientific Administration/Management)
Sigrid Baltes
Yeliz Donat
Sarah Hendel
Melina Hippler
Marion Jeric
Wilhelm Lang
Susanne Luginsland
Heike Pfrommer
Ute Walter
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 Olaptesed 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 multipeptide 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

Clinical Studies

NEUROONCOLOGY STUDIES RECRUITING TRIALS (OPEN FOR ENROLLMENT)

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

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

MecMeth/ NOA-24: Phase I/II trial of meclofenamate/ temozolomide combination therapy in relapsed MGMT-methylated glioblastoma
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: University Hospital Bonn

Trident EF32: A pivotal randopmized, open-label stufy of Optune® (TTFields, 200KHZ) concomitant with radiation therapy and temozolomide for the treatment of newly diagnosed glioblastoma.
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Novocure

TRACE: App-basierte Erfassung der Lebensqualität unter zielgerichteter Therapie
Investigator in Tübingen: Dr. Mirjam Renovanz
Sponsor: University Hospital Tübingen

TIGER PRO-Active: Use of TTFields in Germany in routine clinical care study PROgram - daily activity, sleep and neurocognitive functioning in newly diagnosed glioblastoma patients Study.
Investigator in Tübingen: Prof. Dr. Dr. Ghazaleh Tabatabai
Sponsor: Novocure

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 (Intellance 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 gliobastoma
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: Immatics GmbH, Tübingen

CeTeG/NOA09 (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

A functional genomics approach to define resistance mechanisms and synthetic lethal interactions of CDK4/6 inhibition in atypical teratoid rhabdoid tumors (ATRT)
Project leader: Dr. Daniel Merk
Funding institution: German Research Foundation (DFG)

Awards

Prof. Dr. Dr. Ghazaleh Tabatabai
Listing "Top physician 2022" (Brain Tumor Treatment)

MD Theses

(Completed in 2022)

Hannes Becker
Targeting the glioma-associated microenvironment in mouse models
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Elena Dangel
Einfluss der prolongierten Temozolomid-Erhaltungstherapie in der Primärbehandlung des höhergradigen Glioms auf das progressionsfreie Überleben und Gesamtüberleben
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Hulda Ewald
Die Veränderung von molekularen Markern im longitudinalen Krankheitsverlauf bei Glioblastomen
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Martin Korn
Retrospektive vergleichende longitudinale Analyse eines Patientenkollektivs mit multiplen rezidivierenden Meningeomen der WHO-Grade I-III
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Julia Rang
Stellenwert des operativen Eingriffs auf das Überleben nach Progression und Gesamtüberleben in der Progressionsbehandlung höhergradiger hirneigener Tumoren
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Master Theses

(Completed in 2022)

Linda Paul
Identification of essential miRNA genes in human cancer cell lines using CRISPR/Cas9 knockout screens
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Bachelor Theses

(Completed in 2022)

Helen Hohenthanner
CRISPR/Cas9 knockout screens targeting miRNAs in different cancer cell lines
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Ghazal Mohseni Kouchesfahani
Identifying Relevant miRNA & Protein-Coding Genes for Growth of embryonal Tumors with Multilayered Rosettes via CRISPR/Cas9 Knockout Screens
Supervisor: Prof. Dr. Dr. Ghazaleh Tabatabai

Conferences & Workshops

Neurooncology Tübingen Curriculum

Radiotherapy dose concepts for skull base tumors
Dr. Elgin Hoffmann, Universitätsklinikum Tübingen
17 January 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Die Rolle der Perfusionsbildgebung in der Neuroonkologie
Dr. Vivian Richter, Universitätsklinikum Tübingen
25 April 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Management strategies for low-grade gliomas
Dr. Felix Behling, Universitätsklinikum Tübingen
16 May 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

CeTeG-Studie:
Aktuelle Erkenntnisse und künftige Strategien
Prof. Dr. Ulrich Herrlinger, Universitätsklinikum Bonn
20 June 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Ausgewählte aktuelle klinische Studien in der Neuroonkologie
Prof. Dr. Dr. Ghazaleh Tabatabai,
Universitätsklinikum Tübingen
18 July 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

The tumor microenvironment: a therapeutic target?
Dr. Lisa Sevenich, Georg-Speyer Haus,
Institut für experimentelle Therapie, Frankurt
17 October 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Temozolomide in IDH1-wildtype glioma: Everything over the heap!?
Prof. Dr. Wolfgang Wick, Universitätsklinikum Heidelberg
21 November 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Nuclear medicine applications for brain tumors – status quo and future perspectives
Prof. Dr. Marcos Tatagiba, Universitätsklinikum Tübingen
19 December 2022
Coordinator: Prof. Dr. Dr. Ghazaleh Tabatabai

Department of Neural Dynamics and Magneto-encephalography

Clinical and Scientific Staff

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Prof. Dr. Markus Siegel

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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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Hongyu Lu
Tobias Ludwig
Katrina Quinn
Clara Rastelli
Giulia Righetti
Florian Sandhäger
Jan Schlüsener
Davide Sometti
Vera Voigtländer

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Bianca Layer
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Martin Metzger
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Ema Zezelic

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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

Cortico-subcortical motifs of neuronal spike-field coupling
Investigators: Andrea Ibarra Chaoul, Prof. Dr. Markus Siegel

Sequence motifs of rhythmic cortical activity
Investigators: Paul Hege, Prof. Dr. Markus Siegel

Large-scale neuronal dynamics of value based decision-making
Investigators: Jungmin Lee, Dr. Qinglin Li, 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, Aleksejs Timcenko, 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

Clinical Studies

Cortical dynamics of perceptual inference
Investigators: Katrina Quinn, Ema Zezelic, 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

Neuronal dynamics and predicts during natural dynamic vision
Investigators: Dr. Antonino Greco, Prof. Dr. Markus Siegel

Large-scale cortical information transfer during sensorimotor decision-making
Investigators: Dr. Joachim Bellet, Prof. Dr. Markus Siegel

OPM-based magnetomyography in health and disease
Investigators: Hongyu Lu, Haodi Yang, Siyu Li, Tim Brümmer, Fridos Bouraima, Chrystina Sorrentino, Nadja Knoke, Dr. Justus Marquetand, SangYeob Baek, Davide Sometti, Dr. Antonino Greco, Dr. Nima Noury, Dr. Thomas Middelmann, 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 Middelmann, 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. 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, Erika Wagner, Hui Chen, 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

Biological motion and social cognition
Investigators: Julian Kubon, Valentina Romagnano, Dr. Alexander Sokolov, Prof. Dr. Christoph Braun, Prof. Dr. Marina Pavlova

Spatial hearing in cochlear impant users: a multisensory training approach
Investigators: SangYeob Baek, Lorenzo Semeia, Bianca Layer, Martin Metzger, Dr. Li Hegner, Prof. Dr. Christoph Braun

Neurophysiological assessment of the subcortical and cortical processiong in the auditory system
Investigators: Carolin Schnabel, Patrick Semle, 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

Optically pumped magnetoencephalography: multichannel recordings of magnetic brain activity
Investigators: Konrad Dapper, Hongyu Lu, Prof. Dr. Marlies Knipper, Prof. Dr. Christoph Braun, Prof. Dr. Markus Siegel

Time and space perception in active touch
Investigators: Davide Sometti, Yvonne Qu, Prof. Dr. Christoph Braun

Creative strategies: Investigating neural similarity between semantic search strategies and the exploration-exploitation dilemma
Investigators: Clara Rastelli, Prof. Dr. Christoph Braun, Prof. Dr. Markus Siegel

Structural and functional characterization of the visual pathway in retinitis pigmentosa
Investigators: Giulia Righetti, Prof. Dr. Christoph Braun, Dr. Yiwen Li Hegner

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)

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)

Myoquant – Integrierte Quantenoptische Magnetometer für Magnetomyographie auf der ISS
Project leaders: Dr. Justus Marquetand,
Dr. Thomas Middelmann, Prof. Dr. Markus Siegel
Funding institution: German Aerospace Center (DLR)

NEW GRANTS

Quantum sensors for neurodiagnostics and prosthesis control
Project leaders: Dr. Justus Marquetand, Dr. Leonardo Gizzi,
Dr. Urs Schneider, Prof. Dr. Markus Siegel
Funding institution: Cluster4Future QSens (BMBF)

PhD Theses

(Completed in 2022)

Marcus Siems
Neuronal phase- and amplitude-coupling in the healthy and diseased 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

Carina Bergmann
Desirée Brösamle
Lena Erlebach
Lisa Häsler
Nina Hermann
Stephan Käser
Dr. Deborah Kronenberg-Versteeg
Ping Liu
Dr. Jörg Odenthal
Dr. Vasiliki Pangiotakopoulou
Christine Rother (until 08/22)
Dr. Angelos Skodras
Dr. Matthias Staufenbiel
Marleen Veit
Dr. Jessica Wagner
Marc Welzer
Ying Xu
Dr. Xidi Yuan

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Dr. Susanne Gräber-Sultan
Dr. Anna Hofmann
Elke Kuder-Buletta
Oliver Preische

MASTER STUDENTS

Sarah Hornfeck
Eleanor Schaber

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)

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)

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

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. 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

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 α-synuclein 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

NEW GRANTS

Summer & Winter Schools im Rahmen der Exzellenzstrategie
Project leader: Dr. Deborah Kronenberg-Versteeg
Funding institution: University of Tübingen

CSF neuroinflammatory signature in Alzheimer's disease and related proteopathies
Project leader: Stephan Käser, Prof. Dr. Mathias Jucker
Funding institution: Cure Alzheimer's Fund

Zusammenarbeit HIH und ICM im Bereich Biomarker-Veränderungen bei neurodegenerativen Erkrankungen wie der Alzheimer- und Parkinsonerkrankung
Project leader: Prof. Dr. Mathias Jucker, Stephan Käser
Funding institution: Hertie Foundation

Aging and neurodegeneration in a human brain tissue model
Project leader: Dr. Deborah Kronenberg-Versteeg
Funding institution: Chan Zuckerberg Initiative (CZI)

Developing medin amyloid as a therapeutic target
Project leader: Dr. Jonas Neher
Funding Institution: Anonymous Industry Partner

PhD Scholarship
Project leader: Marleen Veit
Funding Institution: Hans und Ilse Breuer Foundation

PhD Theses

(Completed in 2022)

Ping Liu
Transcriptional signatures of microglial innate immune memory in models of Parkinson's and Huntington's disease
Supervisor: Dr. Jonas Neher

Christine Rother
Impact of amyloid-β reduction on secondary pathological changes in transgenic mouse lines modelling Alzheimer-like pathology
Supervisor: Prof. Dr. Mathias Jucker

Master Theses

(Completed in 2022)

Sarah Hornfeck
Establishment of highly multiplexed imaging targeting glial activation markers in mouse models of cerebral proteopathies
Supervisors: Prof. Dr. Mathias Jucker, Stephan Käser

Eleanor Schaber
Investigating Approaches for the Native Isolation of Amyloid-β
Supervisor: Prof. Dr. Mathias Jucker

Conferences & Workshops

Winter School „Stem cells for disease modeling and regeneration"
Tübingen, 27-29 June 2022
Coordinator: Dr. Deborah Kronenberg-Versteeg

Independent Research Groups

INDEPENDENT RESEARCH GROUPS WITHIN THE RESEARCH AREA NEUROREHABILITATION, NEUROPROSTHETICS AND NEUROTECHNOLOGY

Computational Sensomotorics
Motor Control Modeling Laboratory
Active Perception Laboratory
Systems Neurophysiology Laboratory

INDEPENDENT RESEARCH GROUPS

Section for Neuropsychology
Translational Imaging of Cortical Microstructure
Section for Translational Genomics of Neurodegenerative Diseases
Cognitive Neurology
Neuropsychology of Action
Oculomotor Laboratory

INDEPENDENT JUNIOR RESEARCH GROUPS

Human Intracranial Cognitive Neurophysiology
Molecular Brain Development
Neuron-Glia Interactions

Computational Sensomotorics

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Martin Giese

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Dr. Albert Mukovskiy

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Alessandro Salatiello
Jens Seemann
Jesse St-Amand
Michael Stettler
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Jochen Fokuhl
Georg Reich
Tim Schäfer
Simon Schaub

STUDENT ASSISTANTS

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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, Prof. Dr. Martin Giese, Prof. Dr. Ludger Schöls, Prof. Dr. Matthis Synofzik

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 Telephsychotherapie 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)
***P**roject leader: Prof. Dr. Martin A. Giese*
Funding institutions: Human Frontier Science Program Organization (HFSPO), Cyber Valley Research Fund Board (RFB)

Conferences & Workshops

Mobility outcomes for clinical trials in cerebellar ataxia: the route from the clinic to daily life
Symposium at the 8th International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM)
Keystone, Colorado, USA, 21-24 June 2022
Coordinators: Dr. Winfried Ilg, Fay Horak

PhD Theses

(Completed in 2022)

Bingshuo Li
Depicting Transcranial Magnetic Stimulation from a Neuronal Perspective
Supervisors: Prof. Dr. Cornelius Schwarz, Dr. Alia Benali

Bachelor Theses

(Completed in 2022)

Lisa Neumann
Activity-independent classification of emotional stress in children with obsessive-compulsive disorder
Supervisors: Prof. Dr. Martin A. Giese, Dr. W. Ilg

Lukas Gehre
Entwicklung eines Systems zur mobilen Ganganalyse mit auditivem online Feedback für neurologische Bewegungsstörungen
Supervisors: Prof. Dr. Martin A. Giese, Dr. W. Ilg

Moritz Fesseler
Methoden zur automatisierten Erkennung von neurologischen Bewegungsstörungen aus Alltagsvideos
Supervisors: Prof. Dr. Martin A. Giese, Dr. W. Ilg

Motor Control Modeling Laboratory

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

PD Dr. Daniel Häufle

PHD DOCTORAL STUDENTS

Matthew Araz
Fabio Izzi
Junya Inoue
Christian Niethammer
Pierre Schumacher

MD DOCTORAL STUDENTS

Felix Jung

MASTER STUDENTS

Colin Halupczok
Daniel Höglinger
Robin Neubaur
Lukas Vosse

BACHELOR STUDENTS

Jan Kerner
Marina Reichl

INTERNSHIPS

Malte Hendrikson
Maria Sapounaki
Johanna Sellhorn-Timm
Valerie Wendt

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

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

Master Theses

(Completed in 2022)

Colin Halupczok
Synchronous multi-modal recording in daily activities: Towards user intention detection models
Supervisor: PD Dr. Daniel Häufle

Daniel Höglinger
Comparing Muscle and Torque Actuators in Deep Reinforcement Learning for Robotics
Supervisor: PD Dr. Daniel Häufle

Robin Neubaur
Muskel-Skelett-Modell zur Vorhersage von Sehnen-Kontaktkräften im Karpaltunnel: Vergleich mit in-vivo Messungen
Supervisor: PD Dr. Daniel Häufle

Bachelor Theses

(Completed in 2022)

Jan Kerner
Simulating Multijoint Upper Limb Movement in Multiple Dimensions Using the Equilibrium Point Control Approach
Supervisor: PD Dr. Daniel Häufle

Marina Reichel
Gait changes reveal gradual progression in the longitudinal study of prodromal hereditary spastic paraplegia type 4
Supervisor: PD Dr. Daniel Häufle

Active Perception Laboratory

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Ziad Hafed

SCIENTISTS/RESIDENTS

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TECHNICAL STAFF/ADMINISTRATION

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PHD DOCTORAL STUDENTS

Matthias P. Baumann
Anna Denninger
Tatiana Malevich
Tong Zhang
Yue Yu

MD DOCTORAL STUDENTS

Marlene Mathis

MASTER STUDENTS

David Menrath
Carlotta Trottenberg

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)

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

Ritu Roy Chowdhury
Kalpana Gupta
May-Li Silva Prieto
Yuyao Sun

MD DOCTORAL STUDENTS

Yuechen Zhang

MASTER/BACHELOR STUDENTS

Harry Antony
Harivignesh Ganesan
Lilli Rötzer

INTERNSHIPS

Harry Antony
Harivignesh Ganesan

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)

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)

PhD Theses

(Completed in 2022)

Bingshuo Li
Development of a complete method for in vivo electrophysiological investigation of transcranial magnetic stimulation in rodents
Supervisor: Prof. Dr. Cornelius Schwarz

Bachelor Theses

(Completed in 2022)

Lilli Rötzer
Investigating neutral associations in mice via sensory preconditioning
Supervisor: Prof. Dr. Cornelius Schwarz

Section for Neuropsychology

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Dr. Hans-Otto Karnath

SCIENTISTS/RESIDENTS

PD Dr. Axel Lindner
Dr. Tamara Matuz

TECHNICAL STAFF/ADMINISTRATION

Ina Baumeister

PHD DOCTORAL STUDENTS

Francesko Molla
Lisa Röhrig
Hannah Rosenzopf
Stefan Smaczny
Britta Stammler
Sofia Wöhrstein

MD DOCTORAL STUDENTS

Dana Babin
Jacob Clausen
Joel C. Marques
Dominik Wabersich

MASTER STUDENTS

Georgios Angelou
Tamara Kessler
Annika Liebelt
Sarah Trillsam
Lorena Witzl

INTERNSHIPS

Kirsit Isabelle Brandes
Katrin Maria Brotzer
Leon Hager
Charlotte Kost
Immanuel Scholz

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)

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

Master Theses

(Completed in 2022)

Tamara Kessler
Gender Differences in Acute Neglect Patients
Supervisor: Prof. Hans-Otto Karnath

Nina Röhm
Boosting Working Memory in Cognitive Aging:The Bilateral Field Advantage in visual verbal Working Memory
Supervisor: Prof. Hans-Otto Karnath

Sarah Trillsam
Group or element? Neural Correlates of the Ternus Illusion
Supervisor: PD Dr. Axel Lindner

Lorena Witzl
Action Inhibition: The change of planned motor control regarding to penalty and reward system
Supervisor: PD Dr. Axel Lindner

Bachelor Theses

(Completed in 2022)

Samuela-Esther Aliman
Validierung des Open Window Neglect-Tests
Supervisor: Prof. Hans-Otto Karnath

Leonie Behle
Sensory attenuation vs. subjective agency for auditory action-outcomes
Supervisors: Prof. Hans-Otto Karnath, PD Dr. Axel Lindner

Sara Kuppe
After-effect of magneto-vestibula stimulation in healthy participants
Supervisor: Prof. Hans-Otto Karnath

Lena Stöckl
Movement Amplituude vs. Movement Direction: Improving Self-Action Percepiton in the Interior Dimension throug a Vibrotactile Cue
Supervisor: PD Dr. Axel Lindner

Eva Vennemann
Megacognition in agency - How sure are you that a movement is actually yours?
Supervisor: PD Dr. Axel Lindner

Translational Imaging of Cortical Microstructure

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Esther Kühn

SCIENTISTS

Dr. Susanne Stoll

TECHNICAL STAFF/ADMINISTRATION

Elisabeth Artner
Celine Spannagl

Third-Party Funding

NEW GRANT

EU Horizon 2020 ERC Starting Grant: Body Memory
Project leader: Prof. Dr. Esther Kühn
Funding institution: EU

Section for Translational Genomics of Neurodegenerative Diseases

Clinical and Scientific Staff

HEAD OF THE RESEARCH DIVISION

Prof. Dr. Matthis Synofzik

SCIENTISTS/RESIDENTS

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

TECHNICAL STAFF/ADMINISTRATION

Lisa Graf, M.Sc.
Tanja Heger
Doreen Müller
Selina Reich, M.Sc.
Madeleine Wacker, M.Sc.

PHD DOCTORAL STUDENTS

Vaibhavi Kadam, M.Sc.
Clemens Lochmann, M.Sc.

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. Matthis 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. Matthis Synofzik et al.

PREPARE GENESIS- a global ataxia NGS consortium for collaborative gene-identification in hereditary ataxias
Investigators: Prof. Stephan Zuchner (Miami), Prof. Dr. Matthis Synofzik

Autosomal-recessive and Early onset ataxia: Genetic basis and natural history (ARCA/EOA)
Investigators: Prof. Dr. Matthis 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. Matthis 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. Matthis Synofzik, Dr. David Mengel, Dr. Carlo Wilke

Solving the unsolved Rare Diseases (Solve-RD)
Investigators: PD Dr. Rebecca Schüle, Prof. Dr. Matthis Synofzik, Prof. Dr. Ludger Schöls

Sporadic ataxia with adult onset: Natural history study (SPORTAX)
Investigators: Prof. Dr. Ludger Schöls, Prof. Dr. Matthis Synofzik, Prof. Dr. Thomas Klockgether (Bonn)

Section for 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. Matthis Synofzik, Dr. Winfried Ilg

Detecting PreAtaxia: A mixed challenge strategy to identify ataxia at its preclinical stage
Investigators: Prof. Dr. Matthis Synofzik, Dr. Winfried Ilg

SPEECH-Atax: A randomised delayed entry trial of intensive home-based speech therapy in spinocerebellar ataxias
Investigators: Prof. Dr. Matthis 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. Matthis Synofzik, Dr. Christoph Kessler, Dr. Carlo Wilke

RFC1 Natural History Study (RFC1-NHS)
Investigators: Prof. Dr. Matthis Synofzik, Dr. Dr. Andreas Traschütz

A Pharmacokinetics and Safety Study of BIIB132 in Adults with Spinocerebellar Ataxia 3 (Phase 1 trial)
Sponsor: Biogen
Site investigator: Prof. Dr. Matthis Synofzik

Study of WVE-004 in Patients With C9orf72-associated Amyotrophic Lateral Sclerosis (ALS) or Frontotemporal Dementia (FTD) (FOCUS-C9) (Phase 1b/2a trial)
Sponsor: WAVE
Site investigator: Prof. Dr. Matthis Synofzik

1 Mutation 1 Medicine: an individualized n-of-1 ASO treatment of a patient with Ataxia teleangiectasia (experimenteller individueller Heilversuch)
Physicians Prof. Dr. Matthis Synofzik, Dr. Andrea Bevot, Dr. Holm Graessner, Prof Dr. Rebecca Schüle

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. Matthis 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. Matthis Synofzik
Funding institution: Stiftung Hoffnung

GENFI-prox: Defining measures of proximity to symptom onset in the GENetic Frontotemporal dementia Initiative
Project leader: Prof. Dr. Matthis Synofzik
Funding institution: European Union JPND program/BMBF

PROSPAX: an integrated multimodal progression chart in spastic ataxias (EJP consortium)
Project leaders: Prof. Dr. Matthis Synofzik, PD Dr. Rebecca Schüle
Funding institution: European Union EJP RD program/DFG

Neurofilament Light Chain as an individual stratification and treatment-response blood biomarker for SCA3
Project leader: Prof. Dr. Matthis Synofzik
Funding institution: 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. Matthis Synofzik, Prof. Dr. Helene Puccio (Lyon)
Funding institution: European Union EJP RD program/BMBF

Else Kröner Forschungskolleg Tübingen: Gen, Mechanismus, Therapie (PRECISE.net)
Project leaders: Prof. Dr. Matthis Synofzik, PD Dr. Rebecca Schüle, Prof Dr. Holger Lerche
Funding institution: Else-Kröner Fresenius Stiftung

Charting the neurodevelopmental stage of ARSACS (NeurodevARSACS): A cross-species longitudinal characterization of the early molecular changes in the brain, CSF and blood
Project leaders: Prof. Dr. Matthis Synofzik, Dr. David Mengel
Funding institution: Fondation de l'Ataxie Charlevoix, Saguenay

NEW GRANTS

Klinische und subklinische neuronale Schädigung bei Long-COVID: Stratifizierung, Prädiktion und Verlaufs-Monitoring durch ultrasensitive blutbasierte Biomarker (NeuroLongCOV)
Project leaders: Prof. Dr. Matthis Synofzik, Dr. David Mengel
Funding institution: Ministerium für Wissenschaft, Forschung und Kunst, Baden-Württemberg

EVIDENCE-RND _EXTENSION - 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. Matthis Synofzik, PD Dr. Rebecca Schüle
Funding institution: European Union EJP RD program

Conferences & Workshops

Ataxia Global Initiative 2022
Dallas, 4-5 November 2022
Scientific coordinators: Prof. Dr. Matthis Synofzik, Prof. Dr. Thomas Klockgether, Dr. Holm Graessner

Guest Researcher

Dr. Christoph Linnemann
University of Basel
Host: Prof. Dr. Matthis Synofzik

Cognitive Neurology

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Hans-Peter Thier

SCIENTISTS/RESIDENTS

Dr. Peter Dicke
Dr. Akshay Markanday (until 01/2022)
Dr. Dr. Silvia Spadacenta

TECHNICAL STAFF/ADMINISTRATION

Rüdiger Berndt
Dr. Friedemann Bunjes
Dagmar Heller-Schmerold

PHD DOCTORAL STUDENTS

Ian Chong
Marius Görner
Junja Inoue
Lilei Peng
Masih Shafiei
Ramona Siebert

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

Using marmosets to study the cognitive control of joint attention (TH 425/17-1)
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 2022)

Mohammad Shams Ahmar
The neural substrate of action selection and initiation
Supervisor: Prof. Dr. Hans-Peter Thier

MD Theses

(Completed in 2022)

Marie-Sophie Breu
Neuronale Grundlagen der kognitiven Kontrolle des Blickfolgereflexes
Supervisor: Prof. Dr. Hans-Peter Thier

Julian Messner
Ein Verlust des Abgleichs von Bewegungsgeschwindigkeit und Dauer beeinträchtigt die Präzision bei Patienten mit degenerativen Kleinhirnerkrankungen
Supervisor: Prof. Dr. Hans-Peter Thier

Neuropsychology of Action

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

PD Dr. Marc Himmelbach

PHD DOCTORAL STUDENTS

Francesko Molla

MD DOCTORAL STUDENTS

Luise Engelmann
Leonie-Isabelle Reinermann

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. Matthis Synofzik, Prof. Dr. Dr. Hans-Otto Karnath

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: Federal Ministry of Education and Research (BMBF)

NEW GRANTS

PROFILplus: flexMath – Einführung modular kombinierbarer, videobasierter Lehr-Lern-Einheiten zur studiengangsübergreifenden Vermittlung mathematischer Kenntnisse und Fertigkeiten
Project leader: PD Dr. Marc Himmelbach
Funding institution: Medical Faculty, University of Tübingen

Conferences & Workshops

First CIVIS tripartite Symposium – Aix-Marseille – Rome – Tübingen
Online, 21 January 2022
Scientific coordinators: Prof. Dr. Santiago Rivera, Prof. Dr. Pascal Durbec, PD Dr. Marc Himmelbach

2nd Bilateral Neuroscience Symposium Tübingen – Aix-Marseille
Tübingen, 3 Jun 2022
Scientific coordinators: Prof. Dr. Cornelius Schwarz, PD Dr. Marc Himmelbach

Oculomotor Laboratory

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Prof. Dr. Uwe Ilg

MD DOCTORAL STUDENTS

Saskia Rabe

BACHELOR STUDENTS

Kerstin Jacobson
Jana Kimmich

BUNDESFREIWILLINGENDIENST

Jona Göltenboth
Ömer Öztürk (since 09/22)

Third-Party Funding

ONGOING GRANTS

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

MD Theses

(Completed in 2022)

Julian Messner
Ein Verlust des Abgleichs von Bewegungsgeschwindigkeit und Dauer beeinträchtigt die Präzision bei Patienten mit degenerativen Kleinhirnerkrankungen
Supervisor: Prof. Dr. Uwe Ilg

Master Theses

(Completed in 2022)

Naemi Broß
Untersuchung zur Quantifizierung der Scheinbewegung in der Spine Drift Illusion
Supervisor: Prof. Dr. Uwe Ilg

Lara Lutz
Der Einsatz digitaler Medien im Biologieunterricht: Auswirkungen der COVID-19-Pandemie auf den Biologieunterricht
Supervisor: Prof. Dr. Uwe Ilg

Bachelor Theses

(Completed in 2022)

Vanessa Vida
Ein Besuch im Schülerlabor Neurowissenschaften – Auswirkungen auf das allgemeine Wissenschafts-verständnis von Schülerinnen und Schülern
Supervisor: Prof. Dr. Uwe Ilg

Amira Taha
Aufmerksamkeitsverlagerung vor Sakkaden
Supervisor: Prof. Dr. Uwe Ilg

Tobias Froeba
Charakteristika von Blickbewegungen in Prosakkaden- und Antisakkadenparadigma
Supervisor: Prof. Dr. Uwe Ilg

Paul Vialkowitsch
GUI development of neural networks-based algorithm for the detection of cerebellar complex spikes
Supervisor: Prof. Dr. Uwe Ilg

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
Dr. Jomas Terlau

PHD DOCTORAL STUDENTS

Mariana Lomeli
Gabriela Iwama (from 09/2022)
Isabel Raposo
Jan Weber

MD DOCTORAL STUDENTS

Markus Kopf

MASTER STUDENTS

Gabriela Iwama (until 09/2022)

Master Thesis

(Completed in 2022)

Gabriela Iwama
Seeing What You Believe: Cognitive Mechanisms of Flexible Integration of Priors in Visual Decisions
Supervisor: Dr. Dr. Randolph Helfrich

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

Junior Research Group Plus
Project leader: Dr. Dr. Randolph Helfrich
Funding institution: Medical Faculty, University of Tübingen

NEW GRANTS

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)

ClinbrAIn: 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

Walter Benjamin Fellowship
Project leaders: Dr. Frank van Schalkwijk, Dr. Dr. Randolph Helfrich
Funding institution: German Research Foundation (DFG)

Molecular Brain Development

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Dr. Simone Mayer

SCIENTISTS/RESIDENTS

Theresa Kagermeier
Kseniia Sarieva
Zeynep Yentür

TECHNICAL STAFF/ADMINISTRATION

Katharina Becker
Elisabeth Gustafsson

STUDENT RESEARCH ASSISTANTS

Ezgi Atay
Felix Hildebrand
Christina Kulka

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.

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

NEW GRANTS

PCH2cure: revealing disease mechanisms to cure PCH2
Project leader: Dr. Simone Mayer
Funding institution: Chan Zuckerberg Initiative (CZI) - Patient-Partnered Collaborations for Rare Neurodegenerative Disease

Add-on Fellowship for Interdisciplinary Life Science
Project leader: Kseniia Sarieva
Funding institution: Joachim Herz Foundation

Bachelor Thesis

(Completed in 2022)

Felix Hildebrand
Modeling the effects of maternal immune activation on fetal cortical development with induced pluripotent stem cell-derived neural precursor cells
Supervisors: Dr. Simone Mayer, Kseniia Sarieva

Neuron-Glia Interactions

Clinical and Scientific Staff

HEAD OF THE RESEARCH GROUP

Dr. Nicolas Snaidero

PHD DOCTORAL STUDENTS

Shahrzad Askari
(co-supervised with Prof. Misgeld, TUM)
Katharina Eichenseer
(co-supervised with Prof. Misgeld, TUM)
Laura Flüter
Zi Huang
Nasser Karmali

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. Nicolas Snaidero
Funding institution: German Research Foundation (DFG)

Fast scanning two photon microscope with confocal unit for intravital and reflectance imaging (DFG Art. 91b GG)
Responsible spokesperson: Dr. Nicolas Snaidero
Funding institutetion: German Research Foundation (DFG)

Hertie Network of Excellence in Clinical Neuroscience
Project leader: Dr. Nicolas Snaidero
Funding institution: Hertie Foundation

HIH Management

Management Staff

ADMINISTRATIVE DIRECTOR

Dr. Astrid Proksch, Master of Management (MZSG)

ADMINISTRATIVE ASSISTANCE

Sabine Steimle
Fatma Silberberger

CONTROLLING

Anja Reiber

COMMUNICATION

Dr. Mareike Kardinal (Head of Communications)
Natalie Adler (Student Assistance)

COORDINATOR TÜBINGEN NEURO CAMPUS

Silke Dutz

Publications and Student Training in 2022

List of Publications in 2022

(In alphabetical order)

Peer-Reviewed Articles

Adesoji OM, Schulz H, May P, Krause R, **Lerche H**, Nothnagel M, Epilepsies ICC (2022) Benchmarking of univariate pleiotropy detection methods applied to epilepsy. *Human Mutation* 43:1314-32

Ahring PK, Liao VWY, Gardella E, Johannesen KM, Krey I, Selmer KK, Stadheim BF, Davis H, Peinhardt C, **Koko M**, Coorg RK, Syrbe S, Bertsche A, Santiago-Sim T, Diemer T, Fenger CD, Platzer K, Eichler EE, **Lerche H**, Lemke JR, Chebib M, Moller RS (2022) Gain-of-function variants in GABRD reveal a novel pathway for neurodevelopmental disorders and epilepsy. *Brain* 145:1299-309

Altmann A, Ryten M, Di Nunzio M, Ravizza T, Tolomeo D, Reynolds RH, Somani A, Bacigaluppi M, Iori V, Micotti E, Di Sapia R, Cerovic M, Palma E, Ruffolo G, Botia JA, Absil J, Alhusaini S, Alvim MKM, Auvinen P, Bargallo N, Bartolini E, Bender B, Bergo FPG, Bernardes T, Bernasconi A, Bernasconi N, Bernhardt BC, Blackmon K, Braga B, Caligiuri ME, Calvo A, Carlson C, Carr SJA, Cavalleri GL, Cendes F, Chen J, Chen S, Cherubini A, Concha L, David P, Delanty N, Depondt C, Devinsky O, Doherty CP, Domin M, **Focke NK**, Foley S, Franca W, Gambardella A, Guerrini R, Hamandi K, Hibar DP, Isaev D, Jackson GD, Jahanshad N, Kalviainen R, Keller SS, Kochunov P, **Kotikalapudi R**, Kowalczyk MA, Kuzniecky R, Kwan P, Labate A, Langner S, Lenge M, Liu M, **Martin P**, Mascalchi M, Meletti S, Morita-Sherman ME, O'Brien TJ, Pariente JC, Richardson MP, Rodriguez-Cruces R, Rummel C, Saavalainen T, Semmelroch MK, Severino M, Striano P, Thesen T, Thomas RH, Tondelli M, Tortora D, Vaudano AE, Vivash L, Podewils F, Wagner J, Weber B, Wiest R, Yasuda CL, Zhang GH, Zhang JS, ENIGMA-Epilepsy Working Group, Leu C, Avbersek A, EpiPGX Consortium, Thom M, Whelan CD, Thompson P, McDonald CR, Vezzani A, Sisodiya SM (2022) A systems-level analysis highlights microglial activation as a modifying factor in common epilepsies. *Neuropathology and Applied Neurobiology* 48:15

Antal A, Luber B, Brem AK, Bikson M, Brunoni AR, Cohen Kadosh R, Dubljevic V, Fecteau S, Ferreri F, Floel A, Hallett M, Hamilton RH, Herrmann CS, Lavidor M, Loo C, Lustenberger C, Machado S, Miniussi C, Moliadze V, Nitsche MA, Rossi S, Rossini PM, Santarnecchi E, Seeck M, Thut G, Turi Z, Ugawa Y, Venkatasubramanian G, Wenderoth N, Wexler A, **Ziemann U**, Paulus W (2022) Non-invasive brain stimulation and neuroenhancement. *Clinical Neurophysiology Practice* 7:146-65

Antikainen E, Njoum H, Kudelka J, Branco D, Rehman RZU, Macrae V, Davies K, Hildesheim H, Emmert K, **Reilmann R**, Janneke van der Woude C, Maetzler W, Ng WF, O'Donnell P, Van Gassen G, Baribaud F, Pandis I, Manyakov NV, van Gils M, Ahmaniemi T, Chatterjee M (2022) Assessing fatigue and sleep in chronic diseases using physiological signals from wearables: A pilot study. *Frontiers in Physiology* 13:968185

Appeltshauser L, Messinger J, Starz K, Heinrich D, Brunder AM, Stengel H, Fiebig B, Ayzenberg I, Birklein F, Dresel C, Dorst J, Dvorak F, **Grimm A**, Joerk A, Leypoldt F, Maurer M, Merl P, Michels S, Pitarokoili K, Rosenfeldt M, Sperfeld AD, Weihrauch M, Welte GS, Sommer C, Doppler K (2022) Diabetes Mellitus Is a Possible Risk Factor for Nodo-paranodopathy With Antiparanodal Autoantibodies. *Neurology: Neuroimmunology & Neuroinflammation* 9:7

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Book Chapters

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List of Student Training in 2022

(In alphabetical order)

Lectures

(Summer Term/Winter Term)

Basic Neurobiology
Prof. Dr. Philipp Kahle (coordinator and lecturer), Dr. David Baur, 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)

Cellular and Molecular Neuroscience
Dr. Alia Benali
Graduate Training Centre of Neuroscience

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 Kowarik
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, 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

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
(E21; S05VMEDTEC10)
PD Dr. Christian Johannes Gloeckner, Prof. Dr. Marius Ueffing, Dr. Mohamed Ali Jarboui (both Institute for Ophthalmic Research), Prof. Dr. Rainer Lehmann (Department of Clinical Chemistry & Pathobiochemistry)
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

Neuroglia
Dr. Jonas Neher, Dr. Deborah Kronenberg-Versteeg, Dr. Friederike Pfeiffer
Graduate Training Centre of Neuroscience

Neurointensive Care
PD Dr. Katharina Feil, PD 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. Markus Siegel, Prof. Dr. Andreas Bartels
Graduate Training Centre of Neuroscience

QB4 Infections & Immunology
PD Dr. Markus Kowarik
Medical Faculty

QB7 Geriatrics
Prof. Dr. Daniel Weiß, Prof. Dr. Gerhard Eschweiler
Medical Faculty

QB7 Geriatric Medicine
Prof. Dr. Matthis Synofzik, Prof. Dr. Gerhard Eschweiler
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

Lectures

(Summer Term/Winter Term)

Ringvorlesung Wissenschaflichkeit (Neuroscience)
Prof. Dr. Mathias Jucker, 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

Sensory Systems II: Auditory and remaining
Dr. Alia Benali, Prof. Dr. Christoph Braun, Prof. Dr. Anthony Gummer, Prof. Dr. Horst Herbert, Prof. Dr. Francois Paguet-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)

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. Matthis 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

Clinical Neurophysiology
Dr. Pascal Martin
Medical Faculty

Clinical Pathological Case Conference (CPC)
Prof. Dr. Manuela Neumann (Dept. of Neuropathology, UKT),
Prof. Dr. Matthis Synofzik
Medical Faculty

Clinic, Diagnosis and Therapy of Inflammatory Diseases of the Nervous System
PD Dr. Felix Bischof
Medical Faculty

Computational Motor Control and Rehabilitation Robotics
PD Dr. Daniel Häufle
Graduate Training Centre of Neuroscience

Current Issues in Systems Neuroscience
Prof. Dr. Peter Thier
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. Daniel Weiß, Prof. Dr. Gerhard W. Eschweiler (UKT),
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

Hertie Lunch Seminar
Prof. Dr. Uwe Ilg
Medical Faculty

Human Robot Interaction
PD Dr. Daniel Häufle
Faculty of Science (Informatics)

iKliC
Prof. Bornemann, PD Dr. Markus Krumbholz,
PD Dr. Markus Kowarik, PD Dr. Sven Poli et al.
Medical Faculty

iKliC Deep Brain Stimulation
Prof. Dr. Daniel Weiß
Medical Faculty

iKliC HNO, Neurootologie
Dr. Tobias Albrecht, Dr. Jörn Pomper, Dr. Stephan Wolpert
Medical Faculty

iKliC 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 (GTCNEURO)
Dr. Dr. Saskia Biskup, Dr. Julia Fitzgerald,
PD Dr. Christian Johannes Gloeckner
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

Seminars and Courses

(Summer Term/Winter Term)

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: Behavioral and Neural Systems
Prof. Dr. Ziad Hafed
Graduate Training Centre of Neuroscience

Lab Rotations: Cellular and Molecular Neurosciences
Dr. Julia Fitzgerald, Prof. Dr. Philipp Kahle, Dr. Simone Mayer, Prof. Dr. Ludger Schöls
Graduate Training Centre of Neuroscience

Lab Rotations: Molecular Medicine
Prof. Dr. Ulrike Naumann
Masters Program "Molecular Medicine", Medical Faculty

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 Biology Practical Course
Prof. Dr. Philipp Kahle
Curriculum Experimental Medicine

Molecular Neuro-Oncology and Neuro-Immunology
Prof. Dr. Ulrike Naumann, PD Dr. Markus Kowarik
Medical Faculty

Motion in Human and Machine
PD Dr. Daniel Häufle, Prof. Syn Schmitt (University of Stuttgart), Prof. Tamim Asfour (KIT Karlsruhe)
Graduate Training Centre of Neuroscience

Neurocognitive disorders
Prof. Dr. Inga Liepelt-Scarfone
Faculty of Science (Psychology)

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, Prof. Dr. Tobias Freilinger, Prof. Dr. Alexander Grimm, PD Dr. Markus Kowarik, Dr. Ebba Lohmann, PD Dr. Annerose Mengel, PD Dr. Sven Poli, PD Dr. Mirjam Renovanz, Prof. Dr. Ludger Schöls, PD Dr. Rebecca Schüle, Prof. Dr. Matthis 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

Personalisierte Medizin (Wahlpflichtmodul)
Prof. Dr. Dr. Ghazaleh Tabatabai (coordinator and lecturer), Dr. Daniel Merk
Curriculum Molecular Medicine

Physiologisches Praktikum
Prof. Dr. Uwe Ilg
Faculty of Medicine (Hebammenwissenschaften)

Practical Course Electrophysiology
Prof. Dr. Cornelius Schwarz. Dr. Alia Benali
PhD program Experimental Medicine

Practical Electrophysiology
Prof. Dr. Cornelius Schwarz. Dr. Christine Pedroarena
Graduate Training Centre of Neuroscience

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. Matthis 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)

Therapy Seminar of the Neurological Clinic
PD Dr. Kathrin Brockmann, Prof. Dr. Thomas Gasser, Prof. Dr. Holger Lerche, PD Dr. Rebecca Schüle, Prof. Dr. Matthis Synofzik, Prof. Dr. Dr. Ghazaleh Tabatabai, Prof. Dr. Peter Thier, Prof. Dr. Ulf Ziemann,
Medical Faculty

Tübinger Lernportfolio Medizin
PD Dr. Katharina Feil, Dr. Ebba Lohmann, PD 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 Mammalians
Dr. Nicolas Snaidero
Medical Faculty

Seminars and Courses

(Summer Term/Winter Term)

TüRex project: Classification of functional effects of variants in the NaV1.1 sodium channel gene.
Dr. Ulrike Hedrich-Klimosch
Medical Faculty

TüRex project: Collection of pharmacological studies on a specific voltage-gated sodium channel NaV1.6
Dr. Yuanyuan Liu
Medical Faculty

TüRex project: Einfluss von genetischen Varianten in einem Kaliumkanalgen auf die dendritische Morphologie menschlicher Neurone
Dr. Ulrike Hedrich-Klimosch, Dr. Niklas Schwarz
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: Funktionelle Genomanalysen zur Identifizierung neuer Therapieansätze in der Neuroonkologie
Dr. Daniel Merk
Medical Faculty

TüRex project: Kultivierung von menschlichen Hirnschnitten als organotypische ex-vivo Plattform
Dr. Thomas Wuttke
Medical Faculty

TüRex project: Mitochondria Outside In
Dr. Julia Fitzgerald
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: Rehabilitation and sport interventions in glioma patients
PD Dr. Mirjam Renovanz
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. Matthis 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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