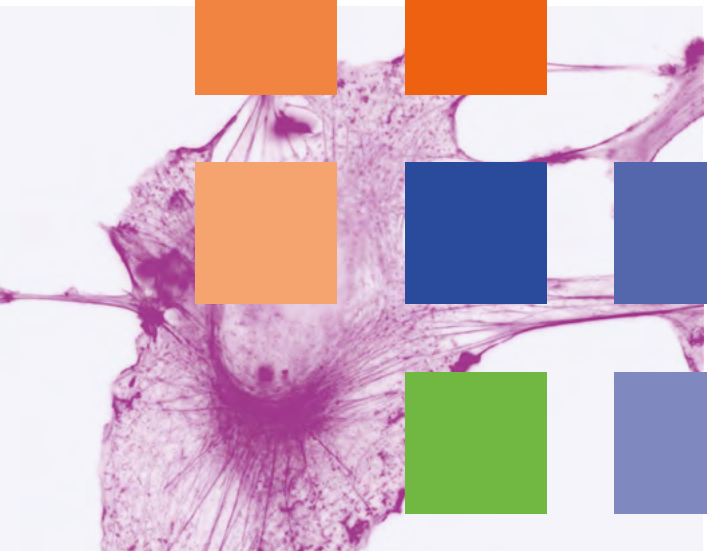

PROGRAM

16th Göttingen Meeting of the German Neuroscience Society March 26–29, 2025

NWG

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German Neuroscience Society

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Program

16th Göttingen Meeting of the German Neuroscience Society

40th Göttingen Neurobiology Conference

March 26 - 29, 2025

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Welcome Address

Dear colleagues, guests, and friends of neuroscience!

It is my great pleasure to welcome you to the 16th Göttingen Meeting of the German Neuroscience Society, which also marks the 40th Göttingen Neurobiology Conference. With over 1,000 participants from more than two dozen countries, including 15% from abroad, this meeting highlights the international spirit of neuroscience. It stands as a testament to our shared commitment to advancing knowledge and fostering collaboration across borders, especially during these challenging times.

Today, neuroscience and science at large face significant global challenges. Research funding cuts, such as those seen under the Trump administration, threaten innovation and progress. The war in Ukraine has devastated scientific infrastructure and displaced countless researchers, while ongoing conflicts in the Middle East strain efforts for peace and collaboration. These crises remind us that science does not exist in isolation – it is deeply connected to societal and political contexts. As neuroscientists, we have a unique responsibility: our research into human behavior, trauma, and resilience equips us with tools to foster empathy, understanding, and reconciliation in divided societies.

Germany and Europe play a critical role in addressing these challenges. Initiatives like EBRAINS Germany or the EU-wide ERA-NET NEURON demonstrate how robust research infrastructures and coordinated programs can advance neuroscience – from basic research to clinical applications. The European Commission's Horizon Europe framework has been instrumental in supporting research into brain disorders and fostering international collaboration. Similarly, German institutions (universities, grant agencies e.g. the DFG with its priority programs and collaborative research centers as well as the extra-university research centers of the Max Planck Society, the Helmholtz or Leibniz Associations) set benchmarks for interdisciplinary research and global partnerships.

This conference exemplifies the power of such networks. Over the next days, we will engage in dynamic discussions across 36 symposia, hear from seven internationally renowned plenary speakers, and explore groundbreaking research during poster sessions. I am particularly delighted to welcome many early-career scientists presenting their thesis work or postdoctoral projects. Your fresh ideas are essential for propelling our field forward. I encourage you to connect with peers and senior researchers alike – these interactions are the foundation of scientific progress.

Beyond the scientific program, this meeting is also a celebration of community. Take time to reconnect with colleagues over meals or explore Göttingen's welcoming atmosphere. Together, let us reaffirm our commitment to neuroscience as a force for knowledge and peace.

Looking ahead, I invite you to join us at the FENS Forum 2026 from July 4 to 8 in Barcelona, Spain -a key event for European neuroscience- and at our next Göttingen meeting in 2027, from March 17 to 20. Until then, let us continue championing international collaboration as scientists and global citizens dedicated to a better future.

Welcome to Göttingen –
let us make this conference an inspiring success!

Sincerely,
Frank Kirchhoff

Prof. Dr. Frank Kirchhoff
President of the German Neuroscience Society

Acknowledgements

The German Neuroscience Society (NWG) and the organizers of this meeting gratefully acknowledge the collaboration and the financial support of the following partners:

Bereich Zelluläre Neurobiologie
Georg-August-Universität Göttingen

***

Deutsche Forschungsgemeinschaft (DFG), Bonn

Gemeinnützige Hertie-Stiftung, Frankfurt/Main

Gertrud Reemtsma Stiftung, Munich

Herrmann und Lilly Schilling-Stiftung für medizinische Forschung im Stifterverband für die Deutsche Wissenschaft, Essen

Schram-Stiftung, Essen

***

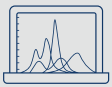
and Jochen Meier (Braunschweig)
for providing the cover figure.

life&brain

FROM GENES TO CELLS

Nucleic Acid Extraction

Genotyping



Data Analysis

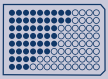
Epigenetic Analysis

Molecular Karyotyping

Proteomics

Next Generation Sequencing

Expression Analysis



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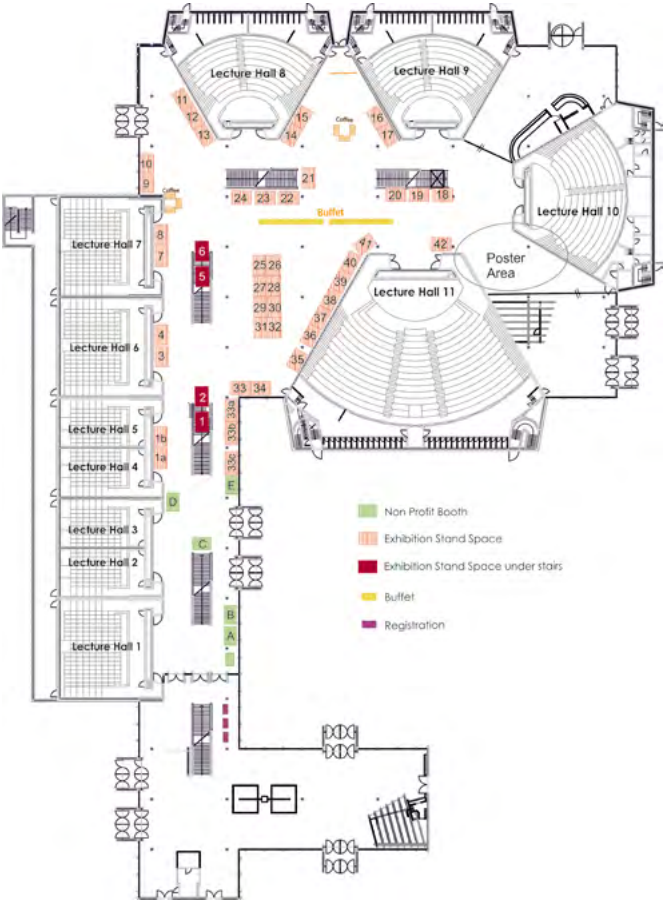
Exhibition Floor Plan
Ground Floor



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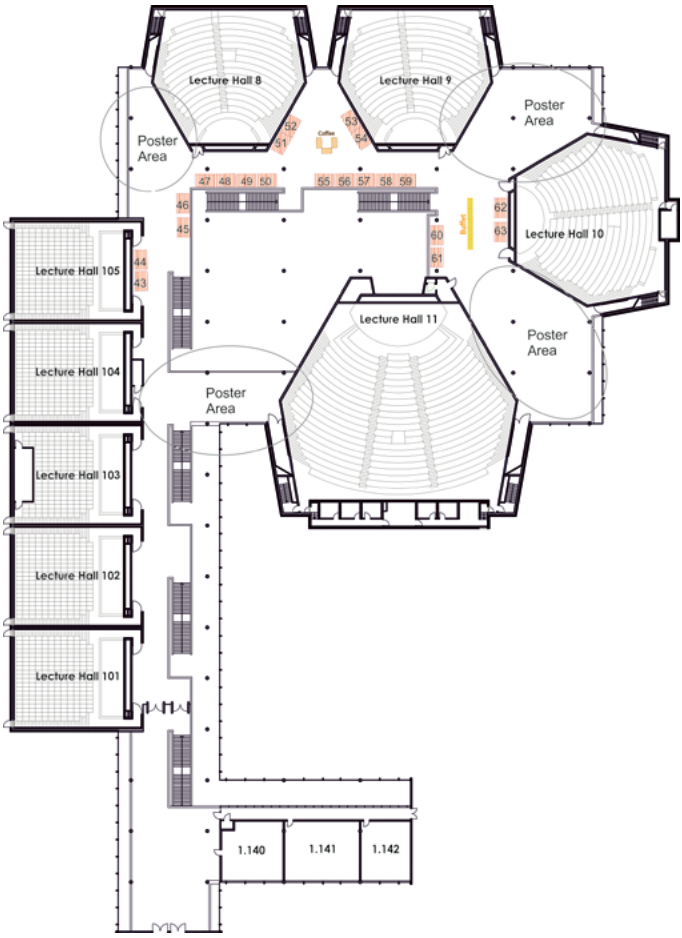
Exhibition Floor Plan
First Floor



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Award

Schilling-Research Award of the German Neuroscience Society 2025

This prize is awarded by the German Neuroscience Society for outstanding contributions in the field of brain research. The award supports young researchers up to 5 years after completion of their PhD or MD. The prize money amounts to 20.000 €. Qualified research is reflected in outstanding publications. The applicant can either work in a German laboratory or she/he is of German origin working abroad. The application can be submitted by the applicant her-/himself or the candidate can be nominated. Applications from all fields of neuroscience research are invited. Being a member of the German Neuroscience Society is not mandatory.
The prize was given for the first time in 2005 during the 6th conference of the German Neuroscience Society in Goettingen.

The two prize winners, Diane Rekow (Hamburg) and Lukas Kunz (Bonn) will present their work in a Plenary Lecture on Thursday March 27, between 8:00 and 9:00 h in Hall 11.

They each impressed the jury so much with their outstanding applications that the decision was made to split the prize for the first time in history.

Stifterverband
für die Deutsche Wissenschaft
Postfach 164460
45224 Essen

www.stifterverband.de

Young Investigator Stipends

Travel grants from the German Neuroscience Society

The following applicants were selected for a travel grant to attend the 16th Göttingen Meeting of the German Neuroscience Society (March 26 – 29, 2025) amounting to 300 Euros:

Jude Abeje (Berlin)
Quentin Brassart (Illkirch, France)
Özge Candemir (Jena)
Richmond Crisostomo (Freiburg)
Alexandra Großjohann (Leipzig)
Felix Jung (Stockholm, Sweden)
Akshay B. Kapadia (Nijmegen, Netherlands)
Nicole Kucharowski (Duesseldorf)
Lu Qin (Aachen)
Antonella D. Recchia (Roma, Itlay)
Hanna Semaan (Illkirch, France)
Anantu Sunil (Bonn)
Nadja Treiber (Erlangen)
Elizaveta Vylekzhanina (Freiburg i. Br.)
Leila Zarepour (Teheran, Iran)

Young Investigator Orals in a Symposium

Each symposium has one slot reserved for a Young Investigator Presentation. This was selected from the submissions by the organizer(s) of the symposia.

The following students/young postdocs were selected to give a short communication:

Deema Awad (Cologne, Germany) – Symposium S2
Alisa Bakhareva (Cologne, Germany) – Symposium S10
Quentin Brassart (Illkirch, France) – Symposium S33
Polina Bugaeva (Berlin, Germany) – Symposium S34
Weiqi Chen (Munich, Germany) – Symposium S26
Ram Dereddi (Heidelberg, Germany) – Symposium S18
Alice Despatin (Aachen, Germany) – Symposium S6
Brett A. Emery (Dresden, Germany) – Symposium S1
Artemis Gkinakou (Freising, Germany) – Symposium S35
Isabel Graf (Hamburg, Germany) – Symposium S4
Yannick Günzel (Konstanz, Germany) – Symposium S24
Shivani Hariharan (Frankfurt/Main, Germany) – Symposium S22
Zoe Jäckel (Freiburg, Germany) – Symposium S3
Sirin Liebscher (Wuerzburg, Germany) – Symposium S11
Akhila Mudunuri (Konstanz, Germany) – Symposium S19
Gesine Fiona Müller (Goettingen, Germany) – Symposium S8
Asima Nayak (Bonn, Germany) – Symposium S5
Moritz Nesseler (Aachen, Germany) – Symposium S31
Theresa Niedermeier (Munich, Germany) – Symposium S28
Charlotte C. Oldenburg (Hamburg, Germany) – Symposium S7
Kristina E. Ponimaskine (Hamburg, Germany) – Symposium S15
Muthu J.Prakash (Tuebingen, Germany) – Symposium S20
Antonella D. Recchia (Roma, Italy) – Symposium S30
Eva M. Robles Hernandez (Berlin, Germany) – Symposium S36
Johanna A. Schweizer (Basel, Switzerland) – Symposium S14
Rebecca Sienel (Munich, Germany) – Symposium S17
Katja Slangewal (Konstanz, Germany) – Symposium S29
Anna S. Tiefenbacher (Heidelberg, Germany) – Symposium S23
Chantal Wissing (Cologne, Germany) – Symposium S9

Young Investigator Orals in the Breaking News

The Breaking News Symposia are two sessions that also offer young scientists the opportunity to present their work in form of a talk and will be selected after the choice of the organisers for their own symposia.

The following students/young postdocs were selected to give a short communication:

– Symposium 12 –

Ali Mohammadi (Bonn, Germany)

Aaron L. Norman (Leipzig, Germany)

Rina Patel (Berlin, Germany)

Varsha Ramakrishna (Goettingen, Germany)

Carolin Schumacher (Goettingen, Germany)

Nina M. Schwarz (Konstanz, Germany)

Siran Sireci (Magdeburg, Germany)

Nadja Treiber (Erlangen, Germany)

Rui Wang (Hamburg, Germany)

Jiajun Zhang (Cologne, Germany)

– Symposium 13 –

Amina Abdelbaki (Cologne, Germany)

John C. Begley (Berlin, Germany)

Maxim Q. Capelle (Konstanz, Germany)

Aybeniz Cetin (Goettingen, Germany)

Kaoutar Elhabbari (Magdeburg, Germany)

Vera Evander (Magdeburg, Germany)

Carolin Gehr (Berlin, Germany)

Lena Jannasch (Tuebingen, Germany)

Jing Ma (Jülich, Germany)

Niccolò Milani (Berlin, Germany)

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Tel.: +49 30 9406 3336, Fax: +49 30 9406 2813
korthals@mdc-berlin.de / susanne.hannig@mdc-berlin.de

Homepage

www.nwg-goettingen.de

General Information

Venue

Central Lecture Hall Building (Zentrales Hörsaalgebäude, ZHG), Georg August University Göttingen, Platz der Göttinger Sieben 5, 37073 Göttingen

Conference Office

During the meeting the conference office is open on

Wednesday	March 26 from 8.00 to 20.00h
Thursday	March 27 from 7.30 to 20.00h
Friday	March 28 from 8.30 to 20.00h
Saturday	March 29 from 8.30 to 16.00h

Phone: +49 551 39 29595
E-Mail: korthals@mdc-berlin.de

Exhibition

The exhibition is open on

Wednesday	March 26 from 12.00 to 19.00h
Thursday	March 27 from 9.00 to 19.00h
Friday	March 28 from 9.00 to 14.30h

Public Transportation and Travel

The meeting site is only about ten minutes walk from the center of the city as well as from the central train station. Bus lines in front of the train station to the Campus are No. 21, 23, 41, 42, 150, 160 and 170. The bus stops are called 'Platz der Göttinger Sieben'.

Registration

On site registration will be available. Please pay in cash or by Visa/Mastercard.

Students must show a copy of their student identity card!
Registration fee ALL days:

EUR 310 - NWG or FENS **members**
EUR 390 - **non-members**

EUR 150 - **student members** of NWG or FENS
EUR 200 - **student non-members**

Registration fee PER day (max. 2 days):

EUR 90 - NWG or FENS **members**
EUR 120 - **non-members**

EUR 45 - **student members** of NWG or FENS
EUR 60 - **student non-members**

Map of Göttingen

The registration fee includes:
- free access to the scientific program
- congress folder
- proceedings as download
- light snack buffet with food and drinks at the meeting site on Wednesday, Thursday and Friday evening
- coffee breaks

Proceedings

The proceedings of the Göttingen Neuroscience Meeting 2025 are available as:

Supplement to Neuroforum 2025 VOLUME 31 ISSUE 1
e-ISSN 2363-7013

Food and Drinks

Lunch is available on the attendee's own expense from Wednesday to Friday in the Mensa in the same building. A light snack buffet before the last lecture will be offered free of charge on Wednesday, Thursday and Friday.

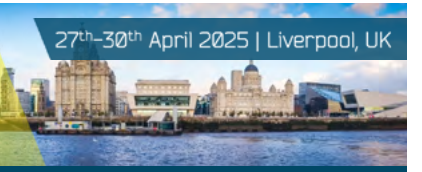
Coffee, tea, water and other drinks will be available free of charge throughout the Göttingen Meeting. Since the NWG fosters the idea that an event should leave the minimum CO_2 footprint possible, we strive to avoid the use of non-reusable cups as far as possible during the meeting. Thus, either bring along your own cup or buy a Göttingen Meeting Mug onsite (5 € for non-members, 3 € for members).

Internet Access

The building is equipped with WLAN. However, as extensive use of wireless usually slows down the internet connection drastically, we strongly recommend to download the program and the abstracts prior to the meeting on your mobile device or use also the printed version as program booklet.

Poster Presentations

Each poster will hang for one day. Posters with poster numbers containing A will hang on Wednesday, posters with poster numbers containing B will hang on Thursday, posters with poster numbers containing C will hang on Friday, and posters with poster numbers containing D will hang on Saturday (see also explanation on page 134).



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About the Festival

The International Festival of Neuroscience brings together clinicians, academics and industry leaders to share the highest quality research and create lasting connections.

In both its scientific programme and its breadth of attendees, BNA2025 celebrates the diversity and scientific excellence of our global neuroscience community.

Join us in Liverpool, a city known for its hospitality, musical and maritime history, culture and diversity.

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- Careers and Wellbeing Zones
- Public Engagement activities
- Training and Education
- Gain 26 CPD credits

BNA2025.org

Register Today

The presenting author of each poster is requested to be present at her/his poster during the poster session. The poster sessions are divided into odd and even serial numbers. Each poster is presented in two sessions of 45 min.

Posters with numbers containing A
Wednesday, March 26, 2025
(hanging of posters: before 13:00h)

13:00 - 13:45h odd serial numbers (e.g. T20-**1**A)
13:45 - 14:30h even serial numbers (e.g. T20-**2**A)

16:30 - 17:15h odd serial numbers (e.g. T20-**1**A)
17:15 - 18:00h even serial numbers (e.g. T20-**2**A)

(all posters must be removed before 20:00h)

Posters with numbers containing B
Thursday, March 27, 2025
(hanging of posters: before 9:00h)

09:00 - 09:45h odd serial numbers (e.g. T20-**1**B)
09:45 - 10:30h even serial numbers (e.g. T20-**2**B)

16:30 - 17:15h odd serial numbers (e.g. T20-**1**A)
17:15 - 18:00h even serial numbers (e.g. T20-**2**A)

(all posters must be removed before 20:00h)

Posters with numbers containing C
Friday, March 28, 2025
(hanging of posters: before 10:00h)

10:00 - 10:45h odd serial numbers (e.g. T20-**1**C)
10:45 - 11:30h even serial numbers (e.g. T20-**2**C)

16:30 - 17:15h odd serial numbers (e.g. T20-**1**A)
17:15 - 18:00h even serial numbers (e.g. T20-**2**A)

(all posters must be removed before 20:00h)

Posters with numbers containing D
Saturday, March 29, 2025
(hanging of posters: before 10:00h)

10:00 - 10:45h odd serial numbers (e.g. T20-**1**D)
10:45 - 11:30h even serial numbers (e.g. T20-**2**D)

13:30 - 14:15h odd serial numbers (e.g. T20-**1**A)
14:15 - 15:00h even serial numbers (e.g. T20-**2**A)

(all posters must be removed until 16:30h at the latest)

Please be aware that the registration number you received is NOT corresponding to your poster number.

You can easily find your poster using the online itinerary planner (www.nwg-goettingen.de/2025) or with the authors' index in this program booklet.

The optimal size of the poster is 1 x 1 m, posters DIN A0 portrait fit as well. Pins to hang your poster will be available.

Projection

The standard equipment in all lecture rooms is ONE PowerPoint projector.

We therefore have to ask you to present your talk without double projection. Please be so kind and save your presentation in PowerPoint on a USB stick.

Language

The official language of this meeting is English.

Insurance

The organizers do not take responsibility for individual medical, travel or personal insurance. Participants are advised to carry out their own insurance policies.

Electricity Supply

220 V - 50 Hz AC

Neuro-Party

Thursday, March 27rd

Come together after the scientific program at **9:00 pm**

Savoy Club Göttingen
www.club-savoy.de
Berliner Str. 5

Free entrance for all participants of the congress with badge, all others 7€.
– Happy hour from 9-10 pm –

NWG
NeuroWissenschaftliche Gesellschaft
German Neuroscience Society

Scientific Program

Tuesday, March 25, 2025

13:00 - 19:00 *Satellite Symposium (Sat1), Lecture hall, MPINAT City-Campus*
8th Schram Foundation Symposium „From molecular threads to brain networks: the evolutionary tapestry of cognition"
Chairs: Eugenio F. Fornasiero and Ben H. Cooper, Goettingen

Wednesday, March 26, 2025

08:30 - 11:30 *Satellite Symposium (Sat2), Historische Sternwarte/Observatorium, Georg-August-University Goettingen*
International Symposium Research Unit 5424 (DFG) „Modulation of olfaction"
Chairs: Veronica Egger, Ilona Grunwald Kadow and Silke Sachse, Regensburg, Bonn and Jena

09:00 - 11:45 *Satellite Symposium (Sat3), ZHG, Georg-August-University Goettingen, Hall 10*
GBM Study Group 'Molecular Neurobiology' - „The Gut-Brain Axis: Interplay of the Immune System, Barrier Integrity, and Enteric Nervous System in Brain Diseases"
Chairs: Jörg W. Bartsch and Stefan Kins Marburg and Kaiserslautern

12:00 - 13:00 **Plenary Lecture, Hall 11**
– Opening Lecture –
Frank Bradke, Bonn
Mechanisms of axon growth and regeneration
Chair: Frank Kirchhoff, Homburg

13:00 - 14:30 **Poster Session I: Posters A**
13:00 - 13:45 Odd serial numbers
13:45 - 14:30 Even serial numbers

14:30 - 16:30 **Symposia I (S1 - S6)**

14:30 - 16:30 *Symposium 1, Hall 8*
Assessing neuronal excitability and sensory neuron subclasses using Patch-Seq
Chairs: Angelika Lampert and Eckhard Friauf, Aachen and Kaiserslautern

14:30 - 16:30 *Symposium 2, Hall 102*
The endocrine brain: shaping women`s mental health during hormonal transitions
Chairs: Erika Comasco and Birgit Derntl, Uppsala (Sweden) and Tuebingen

14:30 - 16:30 *Symposium 3, Hall 104*
Prefrontal mechanisms of adaptive cognitive behaviors in health and disease
Chairs: Ilka Diester and Artur Schneider, Freiburg

14:30 - 16:30 *Symposium 4, Hall 105*
Current advances of extracellular vesicles in CNS-cell interaction and brain-periphery communication
Chairs: Eva-Maria Krämer-Albers and Christian Neri, Mainz and Paris (France)

14:30 - 16:30 *Symposium 5, Hall 103*
The role of co-proteinopathies in neurodegenerative diseases: bystander or disease driver?
Chairs: Evgeni Ponimaskin and Franziska Richter Assencio, Hanover

14:30 - 16:30 *Symposium 6, Hall 9*
Sensing LOOPS: cortico-subcortical interactions for adaptive sensing, perception and learning
Chairs: Markus Rothermel and Julio Hechavarria, Magdeburg and Frankfurt/Main

16:30 - 18:00 **Poster Session II: Posters A**
16:30 - 17:15 Odd serial numbers
17:15 - 18:00 Even serial numbers

18:00 - 19:00 **Light Snack Buffet** in the Foyer

19:00 - 20:00 **Plenary Lecture, Hall 11**
– Translational Neuroscience Lecture of the Gertrud Reemtsma Foundation –
Richard A. Andersen, Pasadena (USA)
Unlocking movement: helping paralyzed people with brain-machine interfaces
Chair: Mathias Bähr, Goettingen

Thursday, March 27, 2025

08:00 - 09:00 **Awarding and Lecture, Hall 11**
– Schilling Award Lecture –
Diane Rekow, Hamburg
Odors shape visual categorization in the human brain
and
Lukas Kunz, Bonn
Cellular mechanisms of spatial navigation in the human medial temporal lobe
Chair: Tatjana Tchumatchenko, Bonn

09:00 - 10:30 **Poster Session III: Posters B**
09:00 - 09:45 Odd serial numbers
09:45 - 10:30 Even serial numbers

10:30 - 12:30 **Symposia II (S7 - S12)**
10:30 - 12:30 *Symposium 7, Hall 9*
The 4th dimension of plasticity: extracellular matrix interplay with neurons and glia at the synapse
Chairs: Svilen Georgiev and Silvio Rizzoli, Goettingen

10:30 - 12:30 *Symposium 8, Hall 101*
A neurobiological and computational framework for understanding the complex sensory symptoms of autism
Chairs: Andreas Frick and Susanne Schmid, Bordeaux (France) and London (Canada)

10:30 - 12:30 *Symposium 9, Hall 105*
Neuronal circuits, energy state and eating disorders
Chairs: Rachel Lippert and Robert Chesters, Potsdam-Rehbrücke

10:30 - 12:30 *Symposium 10, Hall 104*
Sex, glia and disease: understanding sex-specific glia biology in health and disease
Chairs: Barbara Di Benedetto and Julia Schulze-Hentrich, Regensburg and Saarbruecken

10:30 - 12:30 *Symposium 11, Hall 8*
Wired for motion: perspectives on motor control
Chairs: Jonas Fisch and Lena Lion, junge Neurowissenschaftliche Gesellschaft

10:30 - 12:30 *Symposium 12, Hall 103*
Breaking News I
Chair: Marc Spehr, Aachen

12:30 - 13:30 **Lunch Break**

12:30 - 13:30 **Annual General Meeting of the NWG Hall 11**

12:30 - 13:30 Workshop I – Hall 102
TVV Workshop (Workshop on communicating animal research)
Animal research in Europe: How can neuroscience shape upcoming developments?
Roman Stilling (Tierversuche verstehen - TVV) and Nuno Miguel Gonçalves (European Animal Research Association - EARA), Muenster and London (UK)

13:30 - 14:30 **Meet the Companies** and their latest products & developments at the booths or in workshops

13:30 - 14:30 Workshop II – Hall 101
Bruker Nano
Multi-Scale Imaging: from Molecules to Organisms using Bruker Super-Resolution and Light Sheet Microscopy
Clemens Schneider and Jürgen Mayer, Berlin

13:30 - 14:00 Workshop III – Hall 103
LICORbio
Generation of reliable and reproducible Western blots and Protein Assay Data
Stefanie Merfort and Maria Ercu, Bad Homburg

13:30 - 14:30 Workshop IV – Hall 104
INNOPSYS
How to generate quantitative data from whole-brain IF imaging in record time?
Eric Dyrcz and Perrine Borel, Berlin and Toulouse (France)

13:30 - 14:30 Workshop V – Hall 105
Molecular Devices
Sensitive and Reliable: How the Spectral Optimization Wizard and AutoPMT can help you get the most out of your fluorescence experiments
Marie Pape-Bub, Wokingham (UK)

14:30 - 16:30 **Symposia III (S13 - S18)**

14:30 - 16:30 *Symposium 13, Hall 104*
Breaking News II
Chair: Ivan Manzini, Gießen

14:30 - 16:30 *Symposium 14, Hall 10*
Circuits for behavior: cross-species strategies for adaptation and plasticity
Chairs: Graziana Gatto and Jan Gründemann, Cologne and Bonn

14:30 - 16:30 *Symposium 15, Hall 102*
Building blocks of the brain: insights into CNS circuits and ultrastructure
Chairs: Matthias Haberl and Martina Schifferer, Berlin and Munich

14:30 - 16:30 *Symposium 16, Hall 8*
Big science, big challenges, and the diversity of life sciences - where does neuroscience go?
Chairs: Andreas Draguhn and Constanze Seidenbecher, Heidelberg and Magdeburg

14:30 - 16:30 *Symposium 17, Hall 103*
Mechanisms of reperfusion-failure after cerebral ischemia
Chair: Nikolaus Plesnila, Munich

14:30 - 16:30 *Symposium 18, Hall 105*
How the nervous system builds and maintains myelin
Chairs: Amit Agarwal and Minou Djannatian, Heidelberg and Munich

16:30 - 18:00 **Poster Session IV: Posters B**
16:30 - 17:15 Odd serial numbers
17:15 - 18:00 Even serial numbers

18:00 - 19:00 **Light Snack Buffet** in the Foyer
Reception hosted by the Hertie Foundation

19:00 - 20:00 **Plenary Lecture, Hall 11**
– Hertie Foundation Lecture –
Catherine Tallon-Baudry, Paris (France)
How interoception shapes cognition
Chair: Veronica Egger, Regensburg

Friday, March 28, 2025

09:00 - 10:00 **Plenary Lecture, Hall 11**
– Norbert Elsner Lecture –
Rui Costa, Seattle (USA)
Executing, reinforcing and refining actions
Chair: Gary Lewin, Berlin

10:00 - 11:30 **Poster Session V: Posters C**
10:00 - 10:45 Odd serial numbers
10:45 - 11:30 Even serial numbers

11:30 - 13:30 **Symposia IV (S19 - S24)**
11:30 - 13:30 *Symposium 19, Hall 101*
Visual processing in social behaviors
Chairs: Clara Ferreira, Johannes Larsch and Inês M.A. Ribeiro, Newcastle-upon-Tyne (UK), Lausanne (Switzerland) and Munich

11:30 - 13:30 *Symposium 20, Hall 8*
Investigating memory using human single-neuron recordings
Chairs: Alana Darcher and Ilona Vieten, Tuebingen and Bonn

11:30 - 13:30 *Symposium 21, Hall 103*
Social immunity as defense against diseases: from sensory biology to collective animal behavior
Chairs: Giovanni Galizia and Valerie Kuklovsky, Konstanz

11:30 - 13:30 *Symposium 22, Hall 104*
The listening brain: frontiers in auditory cognition and health
Chair: Marcus Jeschke, Goettingen

11:30 - 13:30 *Symposium 23, Hall 105*
Extracellular matrix alterations in aging and neurological diseases
Chairs: Egor Dzyubenko and Alexander Dityatev, Essen and Magdeburg

11:30 - 13:30 *Symposium 24, Hall 9*
Evolution of behavior: from genes to circuits
Chairs: James Lightfoot and Monika Scholz, Bonn

13:30 - 14:30 **Lunch Break** and **Workshops**

13:30 - 14:30 Workshop VI –
Hall 102 and 1.165 (consultations)
Deutsche Forschungsgemeinschaft Starting your research career - DFG funding programs and application procedures
Andreas Görlich, Melina Overhoff-Bühnen and Stephanie Wegener, Bonn

13:30 - 14:30 Workshop VII – Hall 103
IBRO
Why publish in society journals: Neuroscience, IBRO's journal, as a model
Francesca Cirulli, Roma (Italy)

14:30 - 16:30 **Symposia V (S25 - S30)**

14:30 - 16:30 *Symposium 25, Hall 102*
Multilevel human brain mapping and atlas as a tool connecting micro- and macro-structures
Chairs: Nataliia Fedorchenko and Alexey Chervonnyy, Duesseldorf

14:30 - 16:30 *Symposium 26, Hall 8*
Neural circuits for flexible social behavior
Chairs: Jan Clemens and Frederic Römschied, Oldenburg and Goettingen

14:30 - 16:30 *Symposium 27, Hall 104*
Brain organoids for modelling immune-neural interactions in epilepsy
Chair: Andreas G. Chiocchetti, Frankfurt/Main

14:30 - 16:30 *Symposium 28, Hall 101*
Early dysfunction of the locus coeruleus noradrenergic system in neurodegenerative diseases
Chairs: Sabine Liebscher and Lars Paeger Innsbruck (Austria) and Munich

14:30 - 16:30 *Symposium 29, Hall 9*
Neural circuits and decision strategies for behavioral trade-offs
Chairs: Madhura Ketkar, Carlotta Martelli and Luisa Ramirez, Goettingen and Mainz

14:30 - 16:30 *Symposium 30, Hall 105*
Glia-neuron interactions sculpting functional circuit architecture; insights from genetic animal models
Chairs: Christian Klämbt and Georgia Rapti, Muenster and Heidelberg

16:30 - 18:00 **Poster Session VI: Posters C**
16:30 - 17:15 Odd serial numbers
17:15 - 18:00 Even serial numbers

18:00 - 19:00 **Light Snack Buffet** in the Foyer

19:00 - 20:00 **Plenary Lecture, Hall 11**
– Armin Schram Lecture –
Michael Kreutz, Magdeburg
From synapse to nucleus and back again – communication over distance within neurons
Chair: Jochen Roeper, Frankfurt/Main

Saturday, March 29, 2025

09:00 - 10:00 **Plenary Lecture, Hall 11**
– Ernst Florey Lecture –
Amy Arnsten, New Haven (USA)
Successful translation of treatments for higher cognitive disorders from macaques to humans
Chair: Andreas Nieder, Tuebingen

10:00 - 11:30 **Poster Session VII: Posters D**
10:00 - 10:45 Odd serial numbers
10:45 - 11:30 Even serial numbers

11:30 - 13:30 **Symposia VI (S31 - S36)**
11:30 - 13:30 *Symposium 31, Hall 9*
From olfaction to emotions
Chairs: Sabine Krabbe and Tobias Ackels, Bonn

11:30 - 13:30 *Symposium 32, Hall 10*
Dendritic inhibition - role in network dynamics, memory and behavior
Chairs: Marlene Bartos and Jörg Geiger, Freiburg and Berlin

11:30 - 13:30 *Symposium 33, Hall 103*
Non-canonical contribution of oligodendrocyte precursors in brain circuits
Chairs: Xianshu Bai and Friederike Pfeiffer, Homburg and Tuebingen

11:30 - 13:30 *Symposium 34, Hall 104*
Modelling CNS recovery from autoimmune neurodegeneration
Chairs: Alexander Flügel and Djordje Miljković, Goettingen and Belgrade (Serbia)

11:30 - 13:30 *Symposium 35, Hall 105*
New perspectives on the locus coeruleus - noradrenergic activity during sleep and its role in memory function
Chairs: Oxana Eschenko and Sara Mednick, Tuebingen and Irvine (USA)

11:30 - 13:30 *Symposium 36, Hall 8*
Neuronal representation of space, directions and goals in insects and vertebrates
Chairs: Hannah Haberkern and Keram Pfeiffer, Wuerzburg

13:30 - 15:00 **Poster Session VIII: Posters D**
13:30 - 14:15 Odd serial numbers
14:15 - 15:00 Even serial numbers

15:00 - 16:00 **Plenary Lecture, Hall 11**
– Otto Creutzfeldt Lecture –
Iain D. Couzin, Konstanz
Geometric principles of spatial decision making: from neural dynamics to individual and collective behavior
Chair: Ansgar Bueschges, Cologne

16:00 **Departure**

Neurowissenschaftliche Gesellschaft e.V. (NWG)
German Neuroscience Society

The goal of the NWG is to support neuroscience in research and education and to represent neuroscience research within Germany and abroad. The society strives to create political awareness for the necessity of neuroscience research, keeps contact to national research programs and private foundations, supports the neuroscience programs in the European Community and is a partner for funding agencies and the industry.
The NWG favors interdisciplinary educational concepts in neuroscience and aims to spreading knowledge of neuroscience to the general public.

jNWG
The jNWG is a group of young scientists, sharing a will for proper representation of fellow young scientists in the German neuroscience community. Their aim is to get the offspring visible, wire up, gain experience in career development and stand up for the needs of young neuroscientists. Therefore they organize symposia, conferences, brain talks and many more.

Training Courses
NWG members are entitled to attend the training courses organized by the NWG free of charge or at significantly reduced rates.

Conferences
In the odd years the NWG organizes the Göttingen Meeting which is one of the largest national neuroscience meetings in Europe.

FENS
NWG members are FENS members as well and take advantage from the FENS benefits, such as lower registration fee for the FENS Forum, FENS stipends, FENS training opportunities and free online access to the European Journal of Neuroscience (EJN).

Stipends
The GNS offers stipends for the Göttingen Meeting, the FENS Forum, the Leopoldina symposia and supports the NeuroDoWo.

SfN Abstract slots
These abstract slots entitle NWG members to present a poster at the American Society for Neuroscience Meetings without being a SfN member, linked to a reduced registration fee.

Awards
The NWG presents several awards which honor neuroscientists in different stages of their career.

Email alerts
Members of the NWG receive an electronic newsletter announcing grants, calls for funding or awards and job adds monthly.

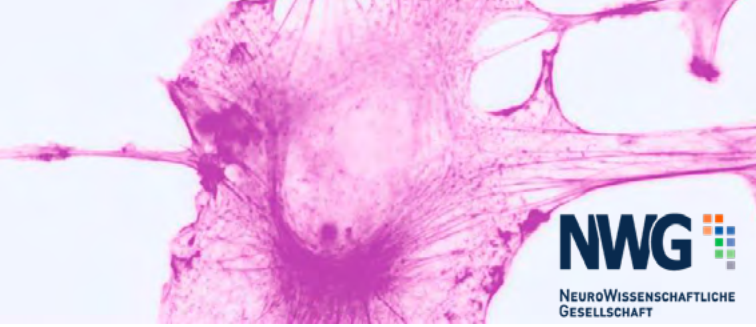
Website
The members' area on the website offers services for members such as job market, the membership directory or the online access to EJN and Neuroforum.

Neuroforum
The journal is published online and offers review articles in German, reports on research programs and on funding opportunities, and the NWG news.

Outreach
Educational courses for school teachers are offered throughout the year.

Membership
The NWG has more than 2.200 members. Membership is available for everyone working in a field of neuroscience research or on related topics. Membership fee amounts to 30 Euro for students, and 70 Euro for seniors annually.

The NWG is the voice of neuroscientists working in Germany and of German neuroscientists working abroad. As a non-profit organization the NWG is a founding member of FENS and of the German Brain Council and represents German neuroscientists in the International Brain Research Organization (IBRO).



Vorstand der Amtsperiode 2025 - 2027:

Präsident: **Prof. Dr. Ansgar Büschges**
Vizepräsident: **Prof. Dr. Andreas Nieder**
Generalsekretär: **Prof. Dr. Gary Lewin**
Schatzmeisterin: **Prof. Dr. Christine R. Rose**
Ehrenpräsidentin: **Prof. Dr. Frank Kirchhoff**

Sektionssprecher*innen:

Computational Neuroscience
Prof. Dr. Tatjana Tchumatchenko

Entwicklungsneurobiologie/Neurogenetik
Prof. Dr. Frank Bradke

Junge NWG (jNWG)
Jonas Fisch

Klinische Neurowissenschaften
Prof. Dr. Sven Meuth

Kognitive Neurowissenschaften
Prof. Dr. Katharina von Kriegstein

Molekulare Neurobiologie
Prof. Dr. Tobias Böckers

Neuropharmakologie/-toxikologie
Prof. Dr. Franziska Richter Assencio

Systemneurobiologie
Prof. Dr. Ilka Diester

Verhaltensneurowissenschaften
Dr. Silke Sachse

Zelluläre Neurowissenschaften
Prof. Dr. Jochen Roeper

Geschäftsstelle:
Neurowissenschaftliche Gesellschaft e.V.
Max-Delbrück-Center für Molekulare Medizin in der Helmholtz-Gemeinschaft
Robert-Rössle-Str. 10 | 13092 Berlin-Buch | Germany
Tel.: 030 9406 3336 | Fax: 030 9406 2813 | Email: korthals@mdc-berlin.de

nwg-info.de

Plenary Lectures

Frank Bradke (Bonn, Germany) - P1
- Opening Lecture -
Mechanisms of axon growth and regeneration
Wednesday, March 26, 2025, 12:00 - 13:00 h

Richard A. Andersen (Pasadena, USA) - P2
- Translational Neuroscience Lecture of the Gertrud Reemtsma Foundation -
Unlocking movement: helping paralyzed people with brain-machine interfaces
Wednesday, March 26, 2025, 19:00 - 20:00 h

Diane Rekow (Hamburg, Germany) - P3
- Schilling Award Lecture -
Odors shape visual categorization in the human brain
Thursday, March 27, 2025, 8:00 - 8:30 h

Lukas Kunz (Bonn, Germany) - P4
- Schilling Award Lecture -
Cellular mechanisms of spatial navigation in the human medial temporal lobe
Thursday, March 27, 2025, 8:30 - 9:00 h

Catherine Tallon-Baudry (Paris, France) - P5
- Hertie Foundation Lecture -
How interoception shapes cognition
Thursday, March 27, 2025, 19:00 - 20:00 h

Rui Costa (Seattle, USA) - P6
- Norbert Elsner Lecture -
Executing, reinforcing and refining actions
Friday, March 28, 2025, 09:00 - 10:00 h

Michael Kreutz (Magdeburg, Germany) - P7
- Armin Schram Lecture -
From synapse to nucleus and back again – communication over distance within neurons
Friday, March 28, 2025, 19:00 - 20:00 h

Amy Arnsten (Paris, France) - P8
- Ernst Florey Lecture -
Successful translation of treatments for higher cognitive disorders from macaques to humans
Saturday, March 29, 2025, 09:00 - 10:00 h

Iain D. Couzin (Konstanz, Germany) - P9
- Otto Creutzfeldt Lecture -
Geometric principles of spatial decision making: from neural dynamics to individual and collective behavior
Saturday, March 29, 2025, 15:00 - 16:00 h

– All plenary lectures take place in hall 11. –

Otto Creutzfeldt Lecture

Who was Otto Creutzfeldt?

Otto Creutzfeldt was born in Berlin, Germany in 1927. He was the youngest son of Hans-Gerhard Creutzfeldt who described the Creutzfeldt-Jakob disease. He first studied humanities but soon switched to medicine and obtained his M.D. in the department of Richard Jung at Freiburg University in 1953. From 1953 and 1959 he was an assistant and trainee in physiology, neurophysiology, and neurology in Freiburg and in psychiatry in Bern, Switzerland. For two years he worked as a research anatomist at UCLA Medical School before he moved to the Max Planck Institute for Psychiatry in Munich in 1962, where he obtained his degree in clinical neurophysiology. In 1971 he became one of the nine directors of the Max Planck Institute for Biophysical Chemistry, as head of the Department of Neurobiology.

Otto Creutzfeldt was one of the pioneers of modern neurophysiology. He investigated the function of the visual cortex applying intracellular recording from cortical neurons and elucidated the neurophysiological principles of the EEG. He also made seminal contributions to the understanding of visual and speech cortices.

In 1973 he founded, together with Ernst Florey, the Göttingen "Neurobiologentagung". He was the mentor for a large number of neurobiologists: Nobel Prize winner Bert Sakmann, Henning Scheich, Wolf Singer, Heinz Wässle, to name a few, worked in his laboratory as doctoral students.

Otto Creutzfeldt (1927-1992)

Norbert Elsner Lecture

Who was Norbert Elsner?

Norbert Elsner was born in Hermsdorf, Poland in 1940 during the Second World War and grew up in Freudenberg in Southern Westfalia. He studied biology in Münster, Munich and Tuebingen where he met the neuroethologist Franz Huber. He followed Franz Huber to Cologne and completed his PhD thesis on "The neuromuscular basis of courtship in the grasshopper gomphocerippus rufus". After research stays in Kampala (Uganda) with Hugh Rowel, at the University of Copenhagen with Axel Michelsen, and at the University of Oregon with Graham Hoyle he did his habilitation in zoology at the University of Cologne in 1974. In 1978 he was appointed professor of zoology at the University of Göttingen, where he continued his research as the head of the department of neurobiology until his retirement in 2009.

Norbert Elsner's research focused on the acoustic communication in insects, especially grasshoppers. He investigated the neuronal and sensory basis of acoustic communication using different techniques such as laser vibrometry or electrophysiology.

Besides research, Norbert Elsner had many other interests. He organized the "Göttinger Neurobiologentagung" from 1982 to 2003. Henceforth the Goettingen meetings were under the auspice of the German Neuroscience Society. Between 1999 and 2010 he organized a series of public lectures, linking neuroscience to other scientific disciplines. The subjects of these lectures were published in nicely illustrated books which he edited himself. Norbert Elsner was a true polymath and a connoisseur of literature, music and theater who loved to inspire.

Norbert Elsner (1940-2011)

Armin Schram Lecture

Who was Armin Schram?

Armin Schram was born in 1929 in Prague, Czech Republic. He studied chemistry at the University of Vienna where he received his doctoral degree in chemistry in 1953. In the same year he joined the Deutsche Erdöl AG (from 1970 onwards "Deutsche Texaco AG"). Since 1968 he was a member of the managing board. During the seventies he was appointed as "General Manager International Refining" and spent two years in the US. Since 1979 he acted as CEO of the company. In 1988 the "Deutsche Texaco AG" was integrated into the RWE trust. Armin Schram became chair of the board of RWE Dea AG, a branch of the RWE responsible for the company's petrol and chemistry business. He also represented the company in the board of the "Stifterverband für die Deutsche Wissenschaft", a German Trust Foundation supporting science and research. Here he realized the importance of private commitment for basic research. All his life he had been interested in chemistry and biomedicine, and after his retirement in 1993 he finally found time to pursue his interests consequently. He was especially fascinated by brain research.

In 2000 he founded the Schram-Foundation with his private assets and with the goal to support research in basic neuroscience, especially in modern brain research. The aim of his foundation is to support research, which elucidates the molecular and cellular mechanisms of brain function, including information processing and learning & memory. The foundation capital amounts to 8.1 million Euro and the annual funding budget is about 400.000 Euro. In 2011 Armin Schram was elected as the first (and to date only) honorary member of the NWG.

Besides his interest for research and science Armin Schram was a passionate sailor and hunter and appreciated the company of people who shared his passion. He regularly participated in the NWG Göttingen Meetings and initiated the series of "Schram Symposia" as satellite events to the NWG biennial meetings. Aged 85, Armin Schram died in 2015 just a few weeks before the 4th Schram Symposium.

Armin Schram (1929-2015)

Ernst Florey Lecture

Who was Ernst Florey?

Ernst Florey was born in Salzburg, Austria in 1927. He studied philosophy, botany and zoology in Salzburg and Vienna. In 1950 he completed his PhD in neuropharmacology in Graz. As a postdoc he was awarded a Fulbright scholarship to work with Cornelis A.G. Wiersma at the California Institute of Technology on isolated crayfish stretch receptor neurons. After research stays in Göttingen, Wuerzburg and Montreal he was appointed professor at the University of Washington in Seattle in 1956. In 1969 he returned to Germany to the newly founded University of Konstanz where he investigated the biochemical properties of synapses and the effects of drugs until he was retired in 1992. From 1971 to 1972 he was president of the German Society of Zoology. In 1973 he founded, together with Otto Creutzfeldt, the Göttingen "Neurobiologentagung". Since 1982 he organized the Lindau Nobel Laureate Meetings at Lake Constance.

Ernst Florey discovered factor I as an agent causing inhibition, characterized as GABA in 1957. In the beginning there was doubt that GABA is indeed the transmitter substance of inhibitory neurons until it was recognized as the major inhibitory neurotransmitter in the mammalian brain. Ernst Florey was also the co-founder of the concept of neuromodulation.

Besides research, Ernst Florey was interested in philosophy and published books and essays on the history of science.

Ernst Florey (1927-1997)

Translational Neuroscience Lecture of the Gertrud Reemtsma Foundation

What is the Gertrud Reemtsma Foundation?

The Gertrud Reemtsma Foundation was established in 1989 by Gertrud Reemtsma. Gertrud Reemtsma's intension was to combine basic brain research with potential applications for the benefit of patients suffering from neurological diseases. The main goal of the Gertrud Reemtsma Foundation is to recognizing and rewarding international excellence in translational neuroscience that impacts human health by awarding the »International Prize for Translational Neuroscience« to outstanding neuroscientists and clinicians. The Foundation also supports speakers at neuroscience meetings as well as events for the next generation of neuroscientists and clinicians. The Gertrud Reemtsma Foundation is administered by the Max Planck Society as a trust.

TVV Workshop

Thursday, March 27, 2025
12:30 - 13:30, Lecture Hall 102

Animal research in Europe: How can neuroscience shape upcoming developments?

Roman Stilling (TVV) and Nuno Miguel Gonçalves (EARA), Muenster and London, UK

Neuroscience is one of the research fields most dependent on animal models. However, ongoing developments, especially in Europe, are increasing pressure on the scientific community to reduce or even eliminate the use of animals, contributing to growing uncertainty. The recent European Citizens' Initiative exposed the (neuro)scientific community's former lack of engagement and transparency, which has made it somewhat complacent and defensive and consequently ill-prepared to respond to this pressure.

Recently, however, international organisations are taking the issue more seriously and are collaborating to communicate more proactively with the public and policy makers about the necessity, regulation, and conditions of animal use in research.
Effective communication crucially depends on information provided by and visibility of all stakeholders in order to shape a well-informed and meaningful debate beyond academia. Thus, open and transparent communication on animal-based research from within the scientific community is essential.

This workshop provides background and updates on key national and international developments in animal research, highlighting activities of European stakeholders. Outreach and advocacy organisations such as the international European Animal Research Association (EARA) as well as neuroscience-focused institutions such as FENS or the European Brain Council foster openness and shape the public debate. We review existing initiatives – such as national Transparency Agreements – while exploring future actions, challenges, and opportunities for the neuroscience community, offering a forum for discussion.

Tierversuche verstehen
Eine Informationsinitiative der Wissenschaft

Bruker Nano

Thursday, March 27, 2025
13:30 - 14:30, Lecture Hall 101

Multi-Scale Imaging: from Molecules to Organisms using Bruker Super-Resolution and Light Sheet Microscopy

Clemens Schneider and Jürgen Mayer

This workshop consists of two parts: The first half will focus on Lightsheet systems, the second half on the Vutara VXL superresolution system.

LCS SPIM – Light Sheet Microscopy for Large Cleared Samples
Light sheet microscopy has become the state of the art methodology to address a wide variety of biological questions. Key features of this technique are the extremely minimized photo bleaching, the high-speed image acquisition, and the large imaging depth. Tissue clearing renders biological samples transparent, a prerequisite for optical imaging in large (e.g. mesoscopic) samples. The combination of cleared tissues with light sheet microscopy is an ideal synergy.
In this workshop, participants will learn about tissue clearing of large samples. Different imaging strategies will be discussed, ways to achieve the best image quality will be explored, and the whole pipeline from acquiring a tiled stack, processing (i.e. stitch) and visualizing the data will be exercised.

Vutara VXL - Superresolution Microscopy
Modern fluorescence microscopy applications need to be performed in natural environments of the structures of interest. This requires using large samples, like tissue slices or even whole model organisms. One of the main limitations of most superresolution microscopes is their weak ability to image structures in great depth of the sample.
The Bruker Vutara VXL system is different, as it allows to resolve structures in 3D at 20 nm resolution (or better) in up to 50 μm depth inside a biological sample. This is ideal for studying the distribution of pre- and postsynaptic proteins or the cytoskeleton architecture of cells in their native environment.
This part of the workshop will provide application examples from neurobiology and demonstrate the workflow from data acquisition to processing and analysis.

Clemens Schneider - Sales product Secialist
Jürgen Mayer - Product Manager and Sr. Application Specialist

LICORbio

Thursday, March 27, 2025
13:30 - 14:00, Lecture Hall 103

Generation of reliable and reproducible Western blots and Protein Assay Data

Stefanie Merfort and Maria Ercu

LICORbio is known for leading-edge instruments, meaningful innovation, proven value, and uncompromising data integrity. We're who scientists turn to when accuracy matters. If questions arise, we offer unparalleled support. In your search for order within the chaos, LICORbio is your constant.

"The brilliant signal-to-noise ratio in combination with the ability to truly quantify the data is really outstanding." (Geir Bjørkøy, University College of Sør-Trøndelag)

"The customer support is good and the companion products (secondary antibodies, etc.) work very well." (Susan Burks, National Center for Toxicological Research)

What is a quantitative Western Blot?
A quantitative Western Blot makes relative comparisons between different treatments possible. The goal of a quantitative Western is to accurately measure changes in protein expression.

Why do we need quantitative Western Blots?
Life-altering therapeutics. Increased crop yields. All of us want to make a difference with our life's work. Quantitative Westerns can be a powerful tool to advance discovery and make the world a better place.

Quantitative Western Blot and Protein Assay Requirements

The following topics will be addressed in our workshop:

- How to choose the best normalization strategy?
- How to find the combined linear range of detection for your proteins of interest?
- How to keep experimental variability as low as possible?

What steps can you take today to improve your Western Blot results?

LICORbio provides products, protocols, and support for Western blotting and protein assays that help reduce variability and increase replicability.

INNOPSYS

Thursday, March 27, 2025
13:30 - 14:30, Lecture Hall 104

How to generate quantitative data from whole-brain IF imaging in record time?

Eric Dyrcz and Perrine Borel

"Special attention should be paid when images are used for quantitative analysis, like colocalization studies, ratio imaging, deconvolution, and segmentation. In these cases, one should carefully characterize the field illumination." (Faklaris et al, Journal of Cell Biology, 2021)

Innopsys, a leader in the field of fluorescence scanners, recently launched InnoQuant, a next-generation whole slide fluorescence scanner offering:

- Simultaneous 4-color quantitative imaging with unmatched uniformity, and full slide width imaging in one pass
- Optical sectioning with laser scanning and PMT detection for high signal-to-noise ratio in immunofluorescence

InnoQuant scans independently of staining intensity, making it faster and more efficient than traditional widefield scanners. It is ideal for studying CNS cell arrangements, neurodegenerative and neurodevelopmental diseases. Its seamless integration into workflows ensures rapid access to quantitative results.

The following topics will be addressed:

- How to generate multichannel large field images with a perfect focus in record time?
- How to generate quantitative images to study brain sections labeled with immunofluorescence?

Our experts will guide you through the complete experience, from acquiring a multi-labeled mouse brain section to obtaining quantitative data compared to standard widefield microscopy techniques.

Molecular Devices

Thursday, March 27, 2025
13:30 - 14:30, Lecture Hall 105

Sensitive and Reliable: How the Spectral Optimization Wizard and AutoPMT can help you get the most out of your fluorescence experiments

Marie Pape-Bub - Applications Scientist
Molecular Devices UK Ltd.

Optimizing fluorescence measurements can be a daunting task, often requiring hours or even days to determine the best excitation and emission wavelength pairs and the optimal gain setting for your fluorescence detector. In this workshop, we will introduce you to two powerful tools that can transform your fluorescence research: the Spectral Optimization Wizard (SOW) and AutoPMT.

The Spectral Optimization Wizard (SOW) saves you valuable time by automatically finding the optimal wavelengths with the highest signal-to-noise ratio, scanning every possible excitation and emission wavelength combination. This ensures that you achieve the best results for your specific setup and chemical environment.

In addition to finding the right wavelength pair, it is crucial to set the correct gain for your photomultiplier tube (PMT) or detector. AutoPMT addresses this challenge by selecting the appropriate gain setting for each well on your plate, allowing you to measure the lowest and highest possible concentrations in the same run. This eliminates the need for diluting samples or repeatedly reading your plate, ultimately enhancing the flexibility and reliability of your assays.

Join us to discover how these innovative tools can help you maximize the dynamic range of your fluorescence measurements, ensuring sensitive and reliable results every time.

Don't miss this opportunity to learn how to get the most out of your fluorescence experiments and take your research to the next level.

MOLECULAR DEVICES

DFG Workshop

Friday, March 28, 2025
13:30 - 14:30, Lecture Hall 102
Consultations - Oeconomicum - Room 1.163

Starting your research career - DFG funding programs and application procedures

Andreas Görlich,
Melina Overhoff-Bühnen and Stephanie Wegener
DFG Head Office, Bonn

This workshop intends to introduce the German Research Foundation (DFG), its funding programs and the application and review procedures to researchers at an early stage of their scientific careers. Among others, we will cover research grants, the Emmy Noether- and the Heisenberg Program and will give valuable tips and tricks for a successful application, with a focus on grants in the neurosciences.

After the workshop, appointments for individual consultations are available. For further information on these, please refer to the announcements given on site.

Topics:

The DFG –
Germany´s largest research funding organization

DFG funding programs

Application and review procedures

News from the DFG

Discussion

Deutsche Forschungsgemeinschaft
German Research Foundation

Publishing Workshop

Friday, March 28, 2025
13:30 - 14:30, Lecture Hall 103

Why publish in society journals: *Neuroscience*, IBRO's journal, as a model

Francesca Cirulli, Roma, Italy

Scientific publishing has evolved significantly: while the rise of open access has made it easier than ever for the public to access research reports, this has not been followed by increased scientific quality. This session will deal with the changing landscape of scientific publishing, addressing the role of society journals in this changing world. In particular, we will address how these journals have an important mission: to keep the quality of published science high while, at the same time, ensuring diversity and inclusion of scientists from different backgrounds. In this workshop, we aim to engage the public, especially early-career researchers, in understanding the importance of publishing in society-owned journals, such as Neuroscience. In addition, we will discuss how they could become more actively involved in the editorial process.

The workshop will be facilitated by Neuroscience Chief Editor Francesca Cirulli:

- Opening remarks and introduction by the Session Chair
- Benefits of publishing in Society Journals
- The publishing process disclosed
- What is the publishing gap for researchers? How to get involved in the publishing process.
- Discussion with the public

INTERNATIONAL BRAIN IBRO RESEARCH ORGANIZATION

NEUROSCIENCE

Neuroscience - the flagship journal of IBRO.

Introductory Remarks to Satellite Symposium (Sat1)

8th Schram Foundation Symposium „From molecular threads to brain networks: the evolutionary tapestry of cognition"

Eugenio F. Fornasiero and Ben H. Cooper, Goettingen

The Schram Foundation, founded by Dr. Armin Schram, has been supporting basic neuroscience research for over 20 years. Traditionally held as a satellite event of the biennial meeting of the German Neuroscience Society, the 8th Schram Foundation Symposium will highlight recently funded projects, feature talks by former awardees, and host two distinguished keynote speakers who will enrich the scientific program. Reflecting the interdisciplinarity of modern neuroscience, the symposium will present state-of-the-art research on the functional nervous system, covering topics ranging from molecular mechanisms and synaptic dynamics to brain connectivity and epigenetic regulatory processes underlying cognition.
Seven leading researchers, each prominent in their respective fields, will provide unique insights into cellular, molecular, and network-level processes shaping brain function and behavior. The symposium will begin with a keynote lecture by Pawel Burkhardt (University of Bergen, Norway), whose research explores the evolution of synapses and traces the molecular and structural origins of these crucial structures. This will be followed by presentations from two fellows: Tomohisa Toda (FAU, Erlangen-Nürnberg), who investigates neurogenesis, brain epigenetics, and RNA biology; and Alessandro Filosa (Max Delbrück Center for Molecular Medicine, Berlin), who studies neuronal signaling and neuromodulation in zebrafish, with a focus on neuropeptidergic circuits involved in stress regulation. Further enriching the program, three previous awardees -Petra Wahle (RUB, Bochum), Britta Qualmann (Friedrich Schiller University, Jena), and Marlene Bartos (University of Freiburg)- will present research on neuronal development and function. Their talks will address activity-driven structural growth in cortical interneurons, the role of membrane dynamics in shaping neuronal functionality, and how dentate gyrus interneurons contribute to encoding contextual information.

The symposium will conclude with a keynote lecture by Anne Schäfer (MPI for Biology of Ageing, Cologne), who will discuss the operational principles of microglia-neuron circuits.

Attendance is complimentary.

Satellite Symposium (Sat1)

Tuesday, March 25, 2025
13:00 - 19:00, Lecture Hall, MPINAT City-Campus
(Hermann-Rein-Str. 3, Goettingen)

Chairs: Eugenio F. Fornasiero and Ben H. Cooper, Goettingen

13:00 **Welcome and Opening Remarks**
Eckart D. Gundelfinger, Magdeburg

13:10 Pawel Burkhardt, Bergen, Norway
THE DEEP EVOLUTIONARY ORIGINS OF NEURONS AND NERVOUS SYSTEMS

13:55 Tomohisa Toda, Erlangen-Nuremberg
LONG-LIVED RNAS IN THE MAMMALIAN BRAIN

14:25 Alessandro Filosa, Berlin
HYPOTHALAMIC NEUROPEPTIDERGIC CIRCUITS CONTROLLING STRESS

14:55 **Coffee Break and Poster Session**

15:50 Petra Wahle, Bochum
ACTIVITY-DEPENDENT GROWTH OF DENDRITES AND AXONS OF CORTICAL INTERNEURONS

16:20 Britta Qualmann, Jena
MEMBRANE SHAPING IN NEURONAL MORPHOGENESIS AND FUNCTION

16:50 Marlene Bartos, Freiburg
THE ROLE OF DENTATE GYRUS INTERNEURONS IN ENCODING CONTEXTUAL INFORMATION

17:35 **Coffee Break**

18:05 Anne Schäfer, Cologne
OPERATIONAL PRINCIPLES OF MICROGLIA-NEURON CIRCUITS

18:50 **Closing Remarks**
Dorothea Schulte, Frankfurt/Main

Introductory Remarks to Satellite Symposium (Sat2)

International Symposium Research Unit 5424 (DFG) „Modulation of olfaction"

Veronica Egger, Ilona Grunwald Kadow and Silke Sachse, Regensburg, Bonn and Jena

Hunger and reproduction are arguably the two most relevant drives in animal behaviour. Most species – from worms to insects to mammals – heavily rely on olfaction to follow these drives, i.e. to retrieve food and find suitable mating partners. Conversely, physiological states modulate odour perception according to the animal's needs, along with its actual state of general arousal. Our research unit FOR5424 is dedicated to recurrent network motifs that underlie such state-dependent modulation. This symposium features presentations from guest scientists that illuminate various aspects of modulation in olfaction and that, in line with the overall approach of our research unit, span distant animal models, from computational and developmental aspects to the modulation of olfactory perception and behaviour by the above exemplary fundamental state-dependent variables, metabolic state and reproductive drive.

This satellite symposium is supported by the DFG.

Registration (free of charge) for attendance of the symposium is required.

Satellite Symposium (Sat2)

Wednesday, March 26, 2025
8:30 - 11:30
Historische Sternwarte/Observatorium,
Georg-August-University Goettingen

Chairs: Veronica Egger, Ilona Grunwald Kadow and Silke Sachse, Regensburg, Bonn and Jena

08:30 Martin Nawrot, Cologne
OLFACTORY COMPUTATIONS

08:55 Ivan Manzini, Gießen
IN VIVO TIME-LAPSE IMAGING OF OLFACTORY RECEPTOR NEURON BIRTH, DIFFERENTIATION AND AXOGENESIS

09:20 Lisa Scheunemann, Berlin
SEROTONIN-DOPAMINE INTERPLAY BIASES APPETITIVE AND AVERSIVE OLFACTORY MEMORY IN *DROSOPHILA*

09:45 Coffee break

10:15 Paolo Giacobini, Lille, France
FROM SCENT TO ACTION: HOW GNRH NEURONS IN THE OLFACTORY BULB DRIVE SEX RECOGNITION AND REPRODUCTIVE BEHAVIOR IN MALE MICE

10:45 Celine Riera, Los Angeles, USA
OLFACTORY CIRCUITS IN THE CONTROL OF APPETITE AND ENERGY EXPENDITURE PROCESSES

Introductory Remarks to Satellite Symposium (Sat3)

GBM e.V. Study Group 'Molecular Neurobiology'

The Gut-Brain Axis: Interplay of the Immune System, Barrier Integrity, and Enteric Nervous System in Brain Diseases

Jörg W. Bartsch and Stefan Kins, Marburg and Kaiserslautern

The gut and brain engage in a sophisticated crosstalk through an elaborate network - the gut-brain axis. This bidirectional communication system comprises direct neural pathways via the vagus nerve, alongside indirect signaling through mobile immune cells and molecular messengers, including cytokines and hormones. With four excellent speakers, this symposium highlights some recent breakthroughs illuminating the contribution of the gut-brain axis to mechanisms that drive various proteinopathies, as exemplified by the role of α-synuclein in Parkinson's disease and ß-amyloid to Alzheimer's disease pathogenesis.

This satellite symposium is supported by the GBM e.V. and free of charge.

We warmly invite everyone to join us!

Satellite Symposium (Sat3)

Wednesday, March 26, 2025
9:00 - 11:45, Hall 10

Chairs: Jörg W. Bartsch and Stefan Kins,
Marburg and Kaiserslautern

09:00 **Welcome and Opening Remarks**
Jörg W. Bartsch/Stefan Kins

09:15 Sara Vieira-Silva, Mainz
QUANTITATIVE MONITORING OF THE ROLE OF THE MICROBIOME IN THE GUT-BRAIN AXIS

09:45 Jan Homolak, Tuebingen
INTERACTIONS OF CNS DRUGS AND HUMAN GUT MICROBIOTA IN THE CONTEXT OF THE GUT-BRAIN AXIS

10:15 Kristina Endres, Kaiserslautern
FROM BRAIN TO GUT - ALZHEIMER'S DISEASE FROM ANOTHER PERSPECTIVE

10:45 Friederike Zunke, Erlangen
THE ROLE OF α-SYNUCLEIN IN THE GUT-BRAIN PATHOLOGY OF PARKINSON'S DISEASE

11:15 **Discussion and Closing Remarks**
(All speakers and Organizers)

Introductory Remarks to Symposium 1

Assessing neuronal excitability and sensory neuron subclasses using Patch-Seq

Angelika Lampert and Eckhard Friauf, Aachen and Kaiserslautern

The molecular basis of intrinsic excitability is highly complex, driven by the diversity of neuronal ion channels and their alternative splicing.
In this symposium Shreejoy Tripathy will present a novel approach linking alternative splicing events with intracellular electrophysiological features using Patch-Seq, which combines electrophysiological and transcriptomic data. This method revealed that isoforms of the Shaw-related potassium channel gene, Kcnc1, are associated with firing rates and action potential widths due to their polarized targeting to distinct cellular compartments. These findings highlight novel regulation of neuronal excitability.
Angelika Lampert's group employed Patch-Seq and multimodal approaches to identify the molecular identity of human dermal sleeping nociceptors, a sensory neuron subclass linked to neuropathic pain, offering critical insights into their role in human neuropathic pain.
Cathryn Cadwell will discuss how Patch-seq in the mouse motor cortex revealed continuous and correlated molecular and morpho-electric landscapes, challenging the notion of transcriptomic cell types as discrete, homogenous entities. She will present insights into human cortical development and areal specification enabled by Patch-seq, highlighting its strengths and limitations for integrating multimodal datasets.
Brett Addison Emery combines spatially resolved transcriptomics with high-density microelectrode arrays to reveal causal links between gene expression and neural activity. Her findings offer insights into experience-dependent connectome and network dynamics in the hippocampal-cortical network.
Finally, Eckhard Friauf's talk focuses on the lateral superior olive (LSO), a brainstem hub for ascending and descending pathways. Using Patch-Seq in juvenile mice, his group identified two neuronal clusters distinguished by 353 differentially expressed genes, including those encoding Kv channels, transmitter-related proteins, and proteins for energy supply. The talk integrates findings from all presentations to address pros and cons of differentially expressed genes.

Symposium 1

Wednesday, March 26, 2025
14:30 -16:30, Lecture Hall 8

Chairs: Angelika Lampert and Eckhard Friauf, Aachen and Kaiserslautern

14:30 **Opening Remarks**

14:35 Shreejoy Tripathy, Toronto, Canada
ASSOCIATING ION CHANNEL ALTERNATIVE SPLICING WITH NEURONAL INTRINSIC ELECTROPHYSIOLOGICAL PROPERTIES USING PATCH-SEQ (S1-1)

15:00 Angelika Lampert, Aachen
MOLECULAR IDENTITY OF SLEEPING NOCICEPTORS REVEALED BY A MULTIMODAL PATCH-SEQ STUDY (S1-2)

15:25 Cathryn Cadwell, San Francisco, USA
AREAL SPECIFICATION OF EXCITATORY CORTICAL NEURONS IN THE HUMAN BRAIN (S1-3)

15:50 Brett Addison Emery, Dresden
MEA-SeqX: DECODING THE IMPACT OF RICH EXPERIENCE ON MULTISCALE HIPPOCAMPAL NETWORK DYNAMICS (S1-4)

16:05 Eckhard Friauf, Kaiserslautern-Landau
PATCH-SEQ IN THE AUDITORY SYSTEM – WHERE ASCENDING AND DESCENDING NEURONS MEET (S1-5)

Introductory Remarks to Symposium 2

The endocrine brain: shaping women`s mental health during hormonal transitions

Birgit Derntl and Erika Comasco, Tuebingen and Uppsala, Sweden

Throughout their lives, women experience hormonal transitions that impact brain plasticity, cognitive and emotional functions, and mental well-being. Key stages such as puberty, pregnancy, and menopause coincide with heightened vulnerability to mental disorders. Additionally, menstrual cycle fluctuations and hormonal contraception influence mental health and brain structure in different sub-groups of women. To better understand women's mental health and enable personalized treatments for hormone-related disorders, an integrative approach combining neuroimaging, behavioral, and physiological measures is essential to explore the effects of hormonal transitions on the brain and mental health.

This symposium will address hormonal transition periods and their clinical implications for mood and brain function. Deema Awad will explore how leptin, an adipocyte-derived hormone, influences feeding and sociosexual behaviors in a menstrual cycle-dependent manner in mice. Erika Comasco will discuss how selective progesterone receptor modulators (SPRM) affect mood and brain function in women. Ann-Christin Kimmig will present findings from a longitudinal study on how oral contraceptive initiation and discontinuation impact mental health and brain architecture. Emma Fransson will examine whether sensorimotor gating—measuring the automatic inhibition of motor responses to sensory events—can predict postpartum depression during pregnancy. Finally, Anna Denninger will focus on estradiol's role in modulating stress responses and psychological well-being post-menopause, a phase marked by a steep decline in estradiol levels.
This symposium provides valuable insights into how hormonal changes across a woman's life shape mental health and brain function, aiming to bridge gaps in clinical research and translation.

Symposium 2

Wednesday, March 26, 2025
14:30 -16:30, Lecture Hall 102

Chair: Birgit Derntl and Erika Comasco,
Tuebingen and Uppsala, Sweden

14:30 **Opening Remarks**

14:35 Deema Awad, Cologne
CONTRIBUTION OF LEPTIN SIGNALING TO THE SEX- AND ESTROUS CYCLE-DEPENDENT REGULATION OF ADAPTIVE BEHAVIORS (S2-1)

14:55 Erica Comasco, Uppsala, Sweden
NEURAL CORRELATES OF CYCLIC VS. STABLE PROGESTERONE LEVELS AND THEIR RELATION WITH MOOD (S2-2)

15:15 Ann-Christin Kimmig, Tuebingen
DECODING HORMONAL DYNAMICS: INSIGHTS INTO MENTAL HEALTH FROM ORAL CONTRACEPTIVE RESEARCH (S2-3)

15:35 Emma Fransson, Uppsala, Sweden
PREDICTING RISK OF POSTPARTUM DEPRESSION USING NEUROPHYSIOLOGICAL MEASURES (S2-4)

15:55 Anna Denninger, Tuebingen
BRAIN CHANGES AND STRESS REACTION AFTER MENOPAUSE - EXPLORING ESTROGEN'S ROLE (S2-5)

16:15 **Concluding Remarks and general Discussion**

Introductory Remarks to Symposium 3

Prefrontal mechanisms of adaptive cognitive behaviors in health and disease

Ilka Diester and Artur Schneider, Freiburg

Our environment is constantly evolving, making the ability to adapt to changing, challenging conditions essential. For informed decision-making, an organism must store and update information about the world and its interactions with it. The prefrontal cortex (PFC) plays a key role in these higher-order cognitive functions, including attention, working memory, strategy shifting, and inhibitory control. Its impairment is linked to various mental disorders, such as loss of impulse control and schizophrenia, underscoring its clinical significance. The symposium will thus transition from exploring functions to dysfunctions in the adult and developing brain.

Claudia Böhm will kick-off the symposium with the organization of task-relevant information in PFC. In a multi-phase spatial working memory task in rats, PFC cells structured task elements (e.g., locations, actions, phases) based on the task's logic.
Young Investigator Speaker Zoe Jäckel will further illuminate the role of rat PFC subareas in action control by presenting data obtained with a battery of techniques including optogenetics, electrophysiology, behavioral analysis, and fMRI.
Turning to PFC-related pathologies, M. Victoria Puig will show that dysfunctional prefrontal-hippocampal communication plays critical roles in cognitive impairment observed in schizophrenia, and the contribution of serotonin receptors to the modulation of prefrontal-hippocampal circuits.
Bringing developmental aspects into play, Paul G. Anastasiades will show how disruptions in postnatal synaptic maturation of the prefrontal cortex may contribute to a number of neuropsychiatric disorders, such as schizophrenia and autism.
Peter J. Uhlhaas will roundup the symposium by discussing cognitive deficits in schizophrenia that are linked to PFC dysfunction highlighting a disrupted excitation/inhibition balance, involving PV+ interneurons and AMPA/NMDA receptor activity. He will present oscillatory impairments in schizophrenia. These oscillations, maturing during adolescence, may underlie PFC-circuit development and contribute to psychosis onset.

The symposium is supported by the Research Unit FOR5159 "Resolving prefrontal flexibility".

Symposium 3

Wednesday, March 26, 2025
14:30-16:30, Lecture Hall 104

Chairs: Ilka Diester and Artur Schneider, Freiburg

14:30 Claudia Böhm, Berlin
ORGANIZATION OF TASK ELEMENTS INTO FUNCTIONAL MODULES IN PREFRONTAL CORTEX (S3-1)

14:55 Zoe Jäckel, Freiburg
PREFRONTAL ORCHESTRATION: A CORTICAL NETWORK FOR RODENT MOTOR INHIBITION (S3-2)

15:10 M. Victoria Puig, Barcelona, Spain
PREFRONTAL-HIPPOCAMPAL NEURAL DYNAMICS AS USEFUL BIOMARKERS OF COGNITIVE IMPAIRMENT AND RESCUE IN SCHIZOPHRENIA: ROLE OF SEROTONIN RECEPTORS (S3-3)

15:35 Paul G. Anastasiades, Bristol, UK
SYNAPTIC DEVELOPMENT OF PREFRONTAL AND SENSORY CORTICAL CIRCUITS (S3-4)

16:00 Peter J. Uhlhaas, Berlin
PREFRONTAL CORTEX AND COGNITIVE DYSFUNCTIONS IN SCHIZOPHRENIA: THE ROLE OF NEURAL OSCILLATIONS AND E/I-BALANCE PARAMETERS (S3-5)

16:25 **Discussion / Concluding Remarks**

Introductory Remarks to Symposium 4

Current advances of extracellular vesicles in CNS-cell interaction and brain-periphery communication

Eva-Maria Krämer-Albers and Christian Neri, Mainz and Paris (France)

Extracellular vesicles (EVs) were recently established as versatile signaling entities facilitating both short-range communication within the CNS and long-range communication between the CNS and the periphery. EVs are regulated by neural activity and are engaged in neuron-neuron and neuron-glia crosstalk in the developing brain as well as during neurodegeneration. The field is developing rapidly and we are only just beginning to understand the importance of signaling through EVs within the brain and also between the brain and peripheral organs.

This symposium will highlight latest advancements at the interface of EV research and neuroscience, focusing on novel functional insights, technological developments and an improved understanding of brain-periphery interaction, including the gut-brain axis. The speakers will emphasize various aspects of EV signaling relevant to neurodegeneration, such as their role in synaptic pruning through microglial engulfment and spreading of tau pathology in Alzheimer's Disease. Furthermore, technological advances important for the discovery and detection of EV epitopes involved in EV function or potentially used as biomarkers of neurodegeneration will be presented. EVs interact with and can signal across CNS barriers. The speakers will critically discuss their latest findings and the impact of EVs on neuroinflammation and the mechanisms of interaction between gut microbiota and the brain.

The symposium is presented by representatives of the "EViNS" specific interest group (SIG) of the International Society of Extracellular Vesicles (ISEV), which aims at disseminating expert knowledge on EVs in the nervous system and strengthening interactions between EV-researchers and neuroscientists.

Symposium 4

Wednesday, March 26, 2025
14:30 - 16:30, Lecture Hall 105

Chairs: Eva-Maria Krämer-Albers and Christian Neri, Mainz and Paris (France)

14:30 **Opening Remarks**

14:35 Claudia Verderio, Milan, Italy
MICROGLIAL EVS TRAVELLING AT THE NEURON SURFACE: IMPLICATION IN THE DELIVERY OF EAT-ME SIGNALS TO THE SYNAPSE (S4-1)

15:00 Tsuneya Ikezu, Jacksonville, USA
PROTEOMIC PROFILING OF TAU INTERACTING MOLECULES IN BRAIN DERIVED EXTRACELLULAR VESICLES UNCOVER KEY MOLECULES CONTRIBUTING TO TAU PATHOLOGY SPREAD IN ALZHEIMER'S DISEASE (S4-2)

15:25 Isabel Graf, Hamburg
HIGH PURITY FLUORESCENCE-ACTIVATED VESICLE SORTING FOR ENRICHMENT OF EXTRACELLULAR VESICLE (BRAIN) SPECIFIC POPULATIONS (S4-3)

15:40 Stefan Momma, Frankfurt/Main
SCOPE AND FUNCTION OF EXTRACELLULAR VESICLE-BASED COMMUNICATION BETWEEN PERIPHERY AND CNS *IN VIVO* (S4-4)

16:05 Roosmarijn Vandenbroucke, Ghent, Belgium
EXTRACELLULAR VESICLES IN THE COMMUNICATION BETWEEN PERIPHERY AND BRAIN (S4-5)

Introductory Remarks to Symposium 5

The role of co-proteinopathies in neurodegenerative diseases: bystander or disease driver?

Evgeni Ponimaskin and Franziska Richter Assencio, Hanover

Proteinopathies encompass a diverse group of over 50 diseases marked by the accumulation of misfolded proteins leading to cellular dysfunction. Among the most devastating proteinopathies are neurodegenerative disorders such as Alzheimer's disease (AD), frontotemporal dementia (FTD), Parkinson's disease (PD), and Amyotrophic Lateral Sclerosis (ALS). Despite their prevalence, no curative or preventive strategies are currently available for these conditions. Neurodegenerative proteinopathies are typically categorized based on the dominant protein found in misfolded or aggregated form. In PD, for example, alpha-synuclein (aSyn) forms the primary component of Lewy bodies. Similarly, Tau protein predominates in AD and FTD, while TDP-43 inclusions are hallmark features in ALS.
This "one protein - one disease" paradigm is useful for classification but oversimplifies the complexity observed as these diseases progress. Increasingly, research shows that co-occurring proteinopathies are common, with multiple misfolded proteins contributing to pathogenesis and exacerbating disease progression. The prevalence of co-pathologies is reported at over 60% across different neurodegenerative diseases. These findings suggest that co-proteinopathies represent the rule rather than the exception. The extent and mechanisms by which co-pathologies influence disease severity and progression are still under investigation.

This symposium will shed light on the current understanding and future directions concerning co-pathologies in neurodegenerative diseases, focusing on their mechanisms and therapeutic implications. Tiago Outeiro, Yun Kyung Kim, Josephine Labus, Franziska Richter, and Asima Nayak will specifically explore the interplay of misfolded Tau, aSyn, and TDP-43 proteins. These proteins, usually soluble under normal conditions, can aggregate into neurotoxic oligomers and fibrils when influenced by increased levels, aberrant post-translational modifications, or changes in cellular homeostasis. This symposium will offer attendees a comprehensive overview of how co-proteinopathies may shape the pathophysiology and inform the development of therapeutic strategies.

Symposium 5

Wednesday, March 26, 2025
14:30 - 16:30, Lecture Hall 103

Chairs: Evgeni Ponimaskin and Franziska Richter Assencio, Hanover

14:30 **Opening Remarks**

14:35 Tiago Outeiro, Goettingen
FROM BIOLOGY TO CLASSIFICATION: UNDERSTANDING PARKINSON'S DISEASE AND RELATED SYNUCLEINOPATHIES (S5-1)

14:55 Yun Kyung Kim, Seoul, South Korea
FOUR-REPEAT TAU IN ATYPICAL PARKINSONISMS; STRATEGIES FOR COMBAT (S5-2)

15:15 Josephine Labus, Hanover
CELLULAR MECHANISMS DRIVING TAU AND TDP-43 AGGREGATION IN NEURODEGENERATIVE DISEASES (S5-3)

15:35 Franziska Richter, Hanover
ALPHA-SYNUCLEIN AND TAU IN PARKINSON'S DISEASE, BYSTANDERS OR PARTNERS-IN-CRIME? (S5-4)

16:05 Asima Nayak, Bonn
CHARACTERIZATION OF LEWY BODY-LIKE STRUCTURES IN CELLULAR SYSTEM AND PATIENT SAMPLES (S5-5)

16:15 **Discussion and concluding Remarks**

Introductory Remarks to Symposium 6

Sensing LOOPS: cortico-subcortical interactions for adaptive sensing, perception and learning?

Markus Rothermel and Julio Hechavarria, Magdeburg and Frankfurt/Main

This symposium aims to highlight recent progress in the understanding of cortico-subcortical interactions and their functions across species and sensory modalities. The symposium also aims to update the German Neuroscience Community about the work conducted by the DFG Priority Program SPP 2411 "Sensing LOOPS".

In the symposium we will discuss the idea that bidirectional interactions between cortical and subcortical brain areas (termed "cortico-subcortical loops") represent an important processing component that allows for adaptive sensing, occurring in the form of context-dependent neural processing, prediction, attention, learning, and plasticity. How exactly these forms of adaptive sensing are implemented at the neural level has only started to be understood, as our ability to record neural activity from multiple brain areas has immensely improved in recent years by the application of next-generation imaging and electrophysiological techniques. This symposium features outstanding researchers at different career stages working on different sensory systems and species but on the same problem: cortico-subcortical loops. Manahan-Vaughan (Bochum) will speak about context-dependent processing in the rodent somatosensory system; Krug (Magdeburg) will talk about cortico-subcortical connections in the primate brain; Despatin (Aachen) will speak about multisensory integration in the frontal cortex and superior colliculus; Jaramillo (Chicago) will discuss computational models for studying cortico-subcortical loops; and de Hoz (Berlin) will speak about cortico-subcortical networks for auditory processing. Together, these talks will deliver an overview of the experimental and theoretical methods available for studying cortico-subcortical brain loops and their functions.

Symposium 6

Wednesday, March 26, 2025
14:30 - 16:30, Lecture Hall 9

Chairs: Markus Rothermel and Julio Hechavarria, Magdeburg and Frankfurt/Main

14:30 **Welcome and Opening Remarks**
Markus Rothermel and Julio Hechavarria

14:35 Denise Manahan-Vaughan, Bochum
CONTEXT-DEPENDENT CORTICOFUGAL CONTROL BY THE SOMATOSENSORY CORTEX OF THALAMIC INFORMATION PROCESSING (S6-1)

15:00 Kristine Krug, Magdeburg
HIERARCHICAL AND RECIPROCAL CONNECTIONS FOR VISUAL COGNITION IN THE PRIMATE BRAIN (S6-2)

15:25 Alice Despatin, Aachen
MULTISENSORY INTEGRATION AND MODALITY-SPECIFIC DECISION-MAKING IN FRONTAL CORTEX AND SUPERIOR COLLICULUS (S6-3)

15:35 Jorge Jaramillo, Chicago, USA
A COMPUTATIONAL FRAMEWORK FOR SUBCORTICAL-CORTICAL INTERACTIONS IN COGNITION (S6-4)

16:00 Livia de Hoz, Berlin
THE SOUND OF NOISE IN CORTICO-SUBCORTICAL LOOPS (S6-5)

16:25 **Discussion and concluding Remarks**

SPP 2411
LOOPS

Introductory Remarks to Symposium 7

The 4th dimension of plasticity: extracellular matrix interplay with neurons and glia at the synapse

Svilen Georgiev and Silvio Rizzoli, Goettingen

Synaptic plasticity in the central nervous system (CNS) is a complex phenomenon, influenced by several cells, and a substantial number of molecular factors. Plasticity covers many events that lead to structural and functional alterations of synaptic morphology, which occur both in early development and after maturation, in response to learning and memory, or to brain injury. Alterations in plasticity affect cognitive brain functions and are major determinant in numerous brain disorders.
The major drivers of plasticity are pre- and postsynaptic sites of two adjacent neurons. Nevertheless, glial cells, once considered merely supportive, are now recognized as active participants in CNS plasticity. In addition, recent research has highlighted the crucial role of the extracellular matrix (ECM) in shaping neuronal connectivity and synaptic plasticity, thus introducing the concept of the tetrapartite synapse, formed by the pre- and postsynaptic compartments, assisted by glia and the ECM.
In recent years, emerging research has shown intricate processes wherein glial cells indirectly influence neuronal synapses through dynamic interactions with the ECM, consequently altering the functional properties of synapses. Understanding these nuanced interactions between neurons, glial cells and the ECM is imperative for elucidating the complex mechanisms governing CNS plasticity, and requires multidisciplinary approaches integrating diverse methodologies and technologies to dissect the sophisticated dynamics at play within the tetrapartite synapse.

This symposium aims to foster interdisciplinary discussions and collaborations, bringing together glia experts and prominent specialists from the field of ECM studies to further explore synaptic plasticity in the context of the tetrapartite synapse and its implications for neurological health and disease.

Symposium 7

Thursday, March 27, 2025
10:30 – 12:30, Lecture Hall 9

Chairs: Svilen Georgiev and Silvio Rizzoli, Goettingen

10:30 **Opening Remarks**

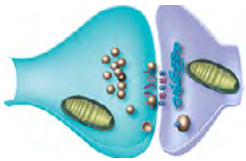
10:35 Dirk M. Hermann, Essen
EXTRACELLULAR MATRIX REMODELING IN THE ISCHEMIC BRAIN (S7-1)

11:00 Casper Hoogenraad, Utrecht, Netherlands
POLARIZED MICROTUBULE REMODELING TRANSFORMS THE MORPHOLOGY OF REACTIVE MICROGLIA AND DRIVES CYTOKINE RELEASE (S7-2)

11:25 Charlotte Catharina Oldenburg, Hamburg
MICROGLIAL-NEURONAL INTERACTIONS IN THE RECOVERY PHASE OF ISCHEMIC STROKE (S7-3)

11:40 Vincent Vialou, Paris, France
THE MATRICELLULAR PROTEIN HEVIN IN REWARD-RELATED PLASTICITY (S7-4)

12:05 Liliia Kushnireva, Rehovolt, Israel
STRUCTURE-FUNCTION ANALYSIS OF PNN IN HEALTH AND DISEASES
(S7-5)



SFB 1286 Quantitative Synaptology

Introductory Remarks to Symposium 8

A neurobiological and computational framework for understanding the complex sensory symptoms of autism

Andreas Frick and Susanne Schmid, Bordeaux (France) and London (Canada)

Atypical sensory perception affects most autistic individuals and significantly influences core symptoms like social challenges. This symposium presents translational research on sensory symptoms, covering preclinical and clinical insights into circuit alterations, computational changes, and network shifts.
Susanne Schmid will present her research on how auditory information processing and filtering are disrupted in the Cntnap2 knockout rat model of autism. Abnormalities in auditory processing are among the most commonly reported sensory challenges in autism, and Susanne will demonstrate how early developmental interventions may help mitigate these changes, potentially reversing some of the core symptoms of autism. Andreas Frick utilizes a novel vibrotactile perceptual decision-making task, coupled with neocortical activity measurements, to investigate the neural basis of atypical tactile perception in the Fmr1 knockout mouse model of autism. His findings uncover distinct subgroups of mice characterized by variability in tactile perception and corresponding neocortical changes and highlight the potential for targeted pharmacological interventions. Gesine Fiona Müller leverages the zebrafish model in combination with light-sheet microscopy to investigate whole-brain neural activity patterns across different developmental stages. Her research elucidates how neuronal ensembles contribute to the emergence of spontaneous behaviors during early postnatal development. Jean-Paul Noel explores the diversity of autism phenotypes and their biological underpinnings through the lens of computational psychiatry, which seeks to link varied clinical presentations to a set of disrupted underlying computations. Drawing on this framework, Jean-Paul presents data from three monogenetic mouse models of autism (Fmr1, Cntnap2, Shankb3), identifying a shared computational and neural deficit that suggests biological convergence. Katharina von Kriegstein presents findings on alterations in subcortical sensory pathways in autistic individuals. Using high spatial resolution functional magnetic resonance imaging, she demonstrates that autism is associated with changes in these pathways, particularly within the magnocellular division of the lateral geniculate nucleus. This supports the long-standing hypothesis of a 'magnocellular deficit' in autism, offering insights into the difficulties autistic individuals face with visual motion perception.

Symposium 8

Thursday, March 27, 2025
10:30 - 12:30, Lecture Hall 101

Chairs: Andreas Frick and Susanne Schmid,
Bordeaux (France) and London (Canada)

10:30 **Opening Remarks**

10:35 Susanne Schmid, London, Canada
DO EARLY AUDITORY PROCESSING DISRUPTIONS ASSOCIATED WITH AUTISM CAUSE HYPERREACTIVITY TO SOUND? (S8-1)

11:00 Andreas Frick, Bordeaux, France
NEURAL ALTERATIONS IN THE NEOCORTEX UNDERLIE TACTILE PERCEPTION CHANGES IN A MOUSE MODEL OF AUTISM (S8-2)

11:25 Gesine Fiona Müller, Goettingen
IN VIVO INVESTIGATION OF SPONTANEOUS NEURONAL ACTIVITY DURING ZEBRAFISH DEVELOPMENT USING LIGHT-SHEET MICROSCOPY (S8-3)

11:35 Jean-Paul Noel, Minneapolis, USA
ABERRANT UPDATING OF INTERNAL MODELS IN AUTISM (S8-4)

12:00 Katharina von Kriegstein, Dresden
ALTERATIONS IN SUBCORTICAL SENSORY PATHWAYS IN AUTISM (S8-5)

12:25 **Closing Remarks**

Introductory Remarks to Symposium 9

Neuronal circuits, energy state and eating disorders

Rachel Lippert and Robert Chesters, Potsdam-Rehbrücke

The brain is the central orchestrator of our eating behaviors; controlling our homeostatic need to eat, and our hedonic drive to eat. Understanding how the brain responds to differing energy states and the macronutrient composition of our food, whilst balancing competing physiological needs, is key to helping us understand how our eating behaviors are regulated. Through this we can gain insights in to the societal tendency towards obesity, as well as eating disorders.

In this symposium we bring together a collection of research programs from across the globe which focus on different aspects of the neuronal control of feeding. First, Robert Chesters will focus on the classical melanocortin system and present changes to the activity of melanocortin-3 receptor (MC3R) neurons of the paraventricular thalamus (PVT) during fasting and refeeding. Next, Chantal Wissing will show how competing physiological needs; eating, drinking, and socializing are regulated by neurons of the lateral hypothalamus. The remaining three speakers will then explore the diverse roles of the mesolimbic dopamine system in both homeostatic and hedonic feeding: James McCutcheon will demonstrate how protein restriction can alter neuronal activity, leading to altered dopaminergic signaling and macronutrient preference. Tim Gruber will highlight the epigenetic mechanisms responsible for hyperactivation of the midbrain dopamine neurons during binge eating of hyperpalatable foods. To conclude, Pierre Trifilieff will show us how dysregulated dopaminergic transmission in the nucleus accumbens can help explain the development of eating disorders.

Symposium 9

Thursday, March 27, 2025
10:30 - 12:30, Lecture Hall 105

Chairs: Rachel Lippert and Robert Chesters, Potsdam-Rehbrücke

10:30 **Opening Remarks**

10:35 Robert Chesters, Potsdam-Rehbrücke
MELANOCORTIN 3 RECEPTOR NEURON ACTIVITY ACROSS NIGHT AND DAY, FED AND FASTED (S9-1)

10:55 Chantal Wissing, Cologne
LATERAL HYPOTHALAMIC NEUROTENSIN-EXPRESSING NEURONS SHAPE THE BALANCE BETWEEN DRINKING, FEEDING AND SOCIALIZING (S9-2)

11:10 James McCutcheon, Tromsø, Norway
ALTERATIONS IN NEURAL ACTIVITY AND DOPAMINE RELEASE INDUCED BY SPECIFIC NUTRIENTS DURING TIMES OF NEED (S9-3)

11:30 Tim Gruber, Grand Rapids, USA
FOOD REWARD THRESHOLDS AND BINGE-EATING VULNERABILITY ARE EPIGENETICALLY DETERMINED BY Tet1DOSAGE IN DOPAMINE NEURONS (S9-4)

11:50 Pierre Trifilieff, Bordeaux, France
A MAIN ROLE FOR THE NUCLEUS ACCUMBENS IN ENERGY BALANCE: RELEVANCE FOR EATING DISORDERS (S9-5)

12:10 **Discussion and Concluding Remarks**

Introductory Remarks to Symposium 10

Sex, glia and disease: understanding sex-specific glia biology in health and disease

Barbara Di Benedetto and Julia Schulze-Hentrich, Regensburg and Saarbrücken

While it has been known for a long time that sex differences exist in the human brain, the consistency, causes and consequences of such dimorphic phenomena are poorly characterized and strongly debated. Masculinization of the brain is induced by the neonatal surge of male gonadal activity and organizes long-term brain architecture by structuring neuronal circuits to be activated by sexual functions after puberty.
Based on recent advancement in single cell-technologies, a systematic transcriptomic and epigenomic annotation of regional and cell type-specific sex differences in human brain anatomy is becoming apparent. Besides neuronal cell-types, glia cells seem to play a crucial role and glia cells and glial-neuron-interactions need to be further evaluated. Access to large genomic, transcriptomic, epigenomic and proteomic datasets will help to discriminate the differential impact of sex on various biological parameters. For decades, it has been observed that several neurodegenerative as well as stress-related disorders and psychiatric diseases have symptoms reported to be strongly influenced by biological sex. However, our understanding of whether and how sex might contribute to the development of distinct brain diseases is still in its early stages.

This symposium brings together speakers who will present novel insights about: 1) astrocytes: modulators of cortical synaptic sexual dimorphism in health and major depressive disorder (B. Di Benedetto); 2) the epigenome as a layer to drive sex-specific glia changes (J. Schulze-Hentrich); 3) prefrontal inputs to lateral hypothalamus to cope with stress (A. Bakhareva); 4) gender-specific computational glial cell models (K. Lenk); 5) omics analysis of sex differences in neurodegenerative disorders (E. Glaab).

As it requires a joint effort using physiological and system-level approaches to better understand the sex-specific role of glia cells in health and disease., we think that the present proposal discusses a timely and highly relevant topic of general interest for the glia scientific community.

Symposium 10

Thursday, March 27, 2025
10:30 - 12:30, Lecture Hall 104

Chairs: Barbara Di Benedetto and Julia Schulze-Hentrich, Regensburg and Saarbrücken

10:30 **Opening Remarks**

10:35 Barbara Di Benedetto, Regensburg
SEX DIFFERENCES IMPACT AN ASTROCYTE-MEDIATED SYNAPTIC ELIMINATION IN HEALTH AND MAJOR DEPRESSIVE DISORDER (S10-1)

10:55 Julia Schulze-Hentrich, Saarbrücken
THE FEMALE EPIGENOME: SEX-SPECIFIC EPIGENETIC PROFILES IN HEALTH AND DISEASE (S10-2)

11:15 Alisa Bakhareva, Cologne
A ROLE OF PREFRONTAL INPUTS TO LATERAL HYPOTHALAMUS AND THEIR NORADRENERGIC MODULATION IN COPING WITH STRESS (S10-3)

11:25 Kerstin Lenk, Graz, Austria
MIND THE GENDER GAP: CHARTING NEW TERRITORIES WITH COMPUTATIONAL GLIAL MODELS (S10-4)

11:55 Enrico Glaab, Belvaux, Luxembourg
COMPUTATIONAL ANALYSIS OF SEX DIFFERENCES IN OMICS DATA FOR ALZHEIMER'S AND PARKINSON'S DISEASE (S10-5)

12:15 **Discussion and Concluding Remarks**

Introductory Remarks to Symposium 11

Wired for motion: perspectives on motor control

Jonas Fisch and Lena Lion, junge Neurowissenschaftliche Gesellschaft

How does the nervous system enable precise movements, from navigating complex environments and manipulating objects to social interactions? The answers lie in the intricate organization of molecular, neuronal, and circuit-level mechanisms that control motor behavior. Motor control demonstrates the nervous system's ability to adapt and coordinate, and understanding the neural basis of movement reveals how the nervous system directs motor functions, from reflexes to voluntary actions. In this symposium, we will explore the underlying principles of motor control from the molecular architecture of individual neurons to neuronal circuits involved in feedback integration to an application-oriented approach of computer-brain interfaces to provide tactile sensation in prosthetic devices.

Dr. Irene Pallucchi will present her work on how functional subtypes of zebrafish motoneurons and V2a interneurons are reflected in their molecular architecture. Both MN and V2a IN cluster into three groups reflecting the speed circuit modules in spinal motor networks, which enable flexible motor actions. Sirin Liebscher follows with insights into neuronal pathways in *Drosophila melanogaster* that regulate walking behaviors. By combining optogenetics and intracellular recordings, she links neuronal activity to locomotion phases and multimodal inputs, revealing novel insights into circuits driving adaptive movement. Dr. Corinna Gebehart investigates *Drosophila* brain circuits for self-motion estimation. Combining electrophysiology, imaging, and connectivity studies to dissect the neural architecture of action selection, she identifies a network sensitive to angular motion that integrates signals across timescales for locomotion control and action selection. Focusing on sensory integration, Prof. Dr. Graziana Gatto examines how mouse spinal circuits relay sensory and descending inputs to generate reflexive and complex behaviors, employing optogenetics and neuro-mechanical modeling. Concluding the symposium, Dr. Giacomo Valle will discuss intracortical microstimulation in the somatosensory cortex, designing spatiotemporal stimulation patterns to restore natural touch in bionic hands.

This symposium is generously supported by 3Brain.

Symposium 11

Thursday, March 27, 2025
10:30 - 12:30, Lecture Hall 8

Chairs: Jonas Fisch and Lena Lion,
junge Neurowissenschaftliche Gesellschaft

10:30 **Opening Remarks**

10:35 Irene Pallucchi, Basel, Switzerland
MOLECULAR BLUEPRINTS FOR SPINAL CIRCUIT MODULES CONTROLLING LOCOMOTOR SPEED IN ZEBRAFISH (S11-1)

11:00 Sirin Liebscher, Wuerzburg
ELECTROPHYSIOLOGICAL CHARACTERIZATION OF CENTRAL BRAIN NEURONS CONTROLLING WALKING IN *DROSOPHILA* (S11-2)

11:15 Corinna Gebehart, Lisboa, Portugal
MULTILAYER CIRCUIT PROCESSING FOR SELF-MOTION ESTIMATION IN *DROSOPHILA* (S11-3)

11:40 Graziana Gatto, Cologne
SENSATION TO ACTION: A SPINAL PERSPECTIVE (S11-4)

12:05 Giacomo Valle, Gothenburg, Sweden
RESTORING TOUCH THROUGH A BRAIN INTERFACE: SPATIO-TEMPORAL PATTERNING OF MICROSTIMULATION OF HUMAN SOMATOSENSORY CORTEX (S11-5)

Introductory Remarks to Symposium 12

Breaking News I

Marc Spehr, Aachen

Students had the choice to either register with a poster presentation or apply for an oral communication. The program committee has selected the young investigator presentations from these submissions and assigned them either to a symposium or to the Breaking News symposia.

For the 4th time, the NWG will award three prizes (500, 300, 200 €) for student participants at the Göttingen Meeting 2025 - the **Breaking News' Best Paper Awards.**

The prizes will be given to three young scientists who present the best talks in the Breaking News Symposia. Criteria for selection are the novelty of the findings which are presented and their potential impact on future research and the quality of the presentation, both the speech and the slides. A jury will pick the awardees, and the awards will be announced and bestowed during the conference after the last lecture on Saturday.

The following students were selected to give a short communication in Symposium 12 – Breaking News I:

10:30 **Opening Remarks**

10:35 Rui Wang, Hamburg
ALL-OPTICAL INVESTIGATION OF THE ROLE OF CAMKII ON LONG-TERM PLASTICITY IN THE HIPPOCAMPUS (S12-1)

10:45 Varsha Ramakrishna, Goettingen
VISUAL ENCODING BY RETINAL GANGLION CELLS IN OPTOGENETIC MODELS FOR VISION RESTORATION(S12-2)

10:55 Aaron Lorenzo Norman, Leipzig
CRITERIA FOR IDENTIFICATION AND ACCURATE QUANTIFICATION OF SPINAL MOTOR NEURONS IN HEALTHY AND DISEASE MOUSE MODELS (S12-3)

Symposium 12

Thursday, March 27, 2025
10:30 - 12:30, Lecture Hall 103

Chair: Marc Spehr, Aachen

11:05 Carolin Schumacher, Goettingen
EXPERIENCE- AND STATE-DEPENDENT ADAPTATION OF EATING BEHAVIOR BY BDNF-EXPRESSING LATERAL HYPOTHALAMIC POPULATIONS (S12-4)

11:15 Nina May Schwarz, Konstanz
APPETITE FOR AGGREGATION: HOW STARVATION FUELS LOCUST SOCIAL LIFE (S12-5)

11:25 **Break**

11:35 Ali Mohammadi, Bonn
A NOVEL AI-BASED TOOL FOR REAL-TIME USV DETECTION AS UNBIASED MARKERS OF DISTINCT SOCIAL INTERACTIONS (S12-6)

11:45 Siran Sireci, Magdeburg
FUNCTIONAL CHARACTERIZATION OF TARGET-DEFINED MTCS IN OLFACTORY INFORMATION PROCESSING (S12-7)

11:55 Nadja Treiber, Erlangen
EFFECTS OF ADOLESCENT STRESS ON SYNAPTIC TRANSMISSION AND PLASTICITY IN THE ADULT MOUSE DENTATE GYRUS (S12-8)

12:05 Jiajun Zhang, Cologne
IDENTIFICATION, ORGANIZATION, AND CONNECTOMICS OF MONOAMINERGIC NEURONS IN THE ADULT *DROSOPHILA* BRAIN (S12-9)

12:15 Rina Patel, Berlin
OPTOGENETIC CONTROL OF MITOCHONDRIA IN PV+ INTERNEURONS ALTERS CA1 FUNCTION (S12-10)

12:25 **Concluding Remarks**

Introductory Remarks to Symposium 13

Breaking News II

Ivan Manzini, Gießen

Students had the choice to either register with a poster presentation or apply for an oral communication. The program committee has selected the young investigator presentations from these submissions and assigned them either to a symposium or to the Breaking News symposia.

For the 4th time, the NWG will award three prizes (500, 300, 200 €) for student participants at the Göttingen Meeting 2025 - the **Breaking News' Best Paper Awards.**

The prizes will be given to three young scientists who present the best talks in the Breaking News Symposia. Criteria for selection are the novelty of the findings which are presented and their potential impact on future research and the quality of the presentation, both the speech and the slides. A jury will pick the awardees, and the awards will be announced and bestowed during the conference after the last lecture on Saturday.

The following students were selected to give a short communication in Symposium 13 – Breaking News II:

14:30 **Opening Remarks**

14:35 Lena Jannasch, Tuebingen
COGNITIVE BIASES INFLUENCE NUMEROSITY JUDGMENTS IN MACAQUES AND CROWS (S13-1)

14:45 John Carl Begley, Berlin
PRIMARY NEURONAL CELL CULTURE IN AMBIENT CO_2 (S13-2)

14:55 Jing Ma, Juelich
DECREASED SYNAPTIC DENSITY IN SLEEP DEPRIVED MICE WITH [18F] SYNVEST-1 PET IMAGING (S13-3)

Symposium 13

Thursday, March 27, 2025
14:30 - 16:30, Lecture Hall 104

Chair: Ivan Manzini, Gießen

15:05 Kaoutar Elhabbari, Magdeburg
CHARACTERIZATION OF SOMATOSTATIN-EXPRESSING NEURONS IN THE ANTERIOR OLFACTORY NUCLEUS: MORPHOLOGICAL DIVERSITY AND FUNCTIONAL IMPLICATIONS (S13-4)

15:15 Maxim Quirijn Capelle, Konstanz
BEHAVIORAL ALGORITHMS OF ONTOGENETIC SWITCHING IN LARVAL AND JUVENILE ZEBRAFISH PHOTOTAXIS (S13-5)

15:25 **Break**

15:35 Vera Evander, Magdeburg
TRANSCRIPTOMIC DECODING OF THE LOCUS COERULEUS REGION IDENTIFIES DIFFERENTIAL VULNERABILITY IN AN EARLY STAGE MOUSE MODEL OF PARKINSON'S DISEASE (S13-6)

15:45 Carolin Gehr, Berlin
RETINAL INPUT INTEGRATION IN EXCITATORY AND INHIBITORY NEURONS IN THE MOUSE SUPERIOR COLLICULUS *IN VIVO* (S13-7)

15:55 Amina Abdelbaki, Cologne
SPATIOTEMPORAL DEEP LEARNING PIPELINE FOR DECODING STIMULUS-DRIVEN WHOLE-BRAIN CALCIUM IMAGING (S13-8)

16:05 Niccolò Milani, Berlin
EXTRAEMBRYONIC SOURCE OF SEROTONIN INVOLVED IN NEURODEVELOPMENT (S13-9)

16:15 Aybeniz Cetin, Goettingen
DEFINING THE ROLES OF PV AND VIP NEURONS IN TEXTURE DISCRIMINATION OF MICE VIA CHEMOGENETICS (S13-10)

16:25 **Concluding Remarks**

Introductory Remarks to Symposium 14

Circuits for behavior: cross-species strategies for adaptation and plasticity

Graziana Gatto and Jan Gründemann, Cologne and Bonn

Animal behavior is shaped by internal state and environmental challenges. Animals continuously plan and update their actions in balance with internal state needs and under consideration of environmental constraints such as physical hurdles, nutrient availability, social pressure or predatory risk. Adaptation strategies modify behavior at different levels and time scales, shaping plans, actions and predictions based on dynamic interactions of distributed neuronal circuits that are species-specific or evolutionary conserved.

This symposium will address how diverse species including *Drosophila*, mice and mole-rats adapt behavioral strategies and how these processes map onto activity dynamics and plasticity of neuronal circuits and brain-wide networks. We will focus on recent conceptual and methodological advances in our understanding of state-dependent behavioral adaptation and the underlying neuronal circuits. Ilona Grunwald Kadow will delineate the neural underpinnings of how brain-body communication in fruit flies modulates decision-making in light of innate immune and glia signaling. Johanna Schweizer will discuss the dynamics of context-dependent extinction learning that enables update of associative memories without behavioral expression in the fruit fly. Pascal Malkemper, leveraging *in vivo* hippocampal recordings during spatial navigation in total darkness, will present how African mole-rats use a magnetic sense to navigate intriguing underground labyrinths. Tatiana Korotkova will describe how leptin-receptor and neurotensin-expressing neurons in lateral hypothalamus regulate feeding, social interactions and mating behaviors. Finally, Simon Musall will discuss how experience adapts the robustness of task-specific activity and the number of choice-selective neurons when mice learn multisensory tasks with increasing complexity using wide-field cortical imaging. In summary, this symposium will delineate across species how local and global neuronal circuit and network computations impact state-dependent adaptation of behavior and survival in complex environments.

This symposium is supported by the iBehave Network of the Land Nordrhein-Westfalen.

Symposium 14

Thursday, March 27, 2025
14:30 - 16:30, Lecture Hall 10

Chairs: Graziana Gatto and Jan Gründemann, Cologne and Bonn

14:30 **Opening Remarks**

14:35 Ilona Grunwald Kadow, Bonn
NEURAL CIRCUITS OF CONTEXT-DEPENDENT BEHAVIOR IN FLIES (S14-1)

15:00 Johanna Aurelia Schweizer, Basel, Switzerland
INTEGRATION OF INFORMATION IN THE ABSENCE OF ACTION IN *DROSOPHILA* (S14-2)

15:15 Pascal Malkemper, Bonn
TOWARDS THE NEURAL BASIS OF THE MAGNETIC SENSE IN SUBTERRANEAN MOLE-RATS: BEHAVIOR AND RECORDINGS (S14-3)

15:40 Tatiana Korotkova, Cologne
SIMPLE PLEASURES: REGULATION OF SOCIAL AND FEEDING BEHAVIORS BY LATERAL HYPOTHALAMIC NEURONAL POPULATIONS (S14-4)

16:05 Simon Musall, Jülich
EXPERIENCE-DEPENDENT MODULATION OF CORTICAL CIRCUITS FOR PERCEPTION AND BEHAVIOR (S14-5)

Introductory Remarks to Symposium 15

Building blocks of the brain: insights into CNS circuits and ultrastructure

Matthias Haberl and Martina Schifferer, Berlin and Munich

Form and function of neurons are closely intertwined, both for neural circuit wiring but also for the neuronal ultrastructure. Our comprehension of the principles that govern the structural organization in the brain has advanced significantly over the last decade with the help of critical technological innovation and optimization. In particular volume electron microscopy (vEM) has enabled the reconstruction of larger neuronal circuits and revealed subcellular morphology. However, the complexity and scale of the neuronal structure and their circuits continue to elude us in many ways, still leaving crucial gaps in our understanding of randomness, controlled organization, and cell type specificity of neuronal circuit wiring and intracellular ultrastructure.

In this symposium the speakers will provide new insights into CNS circuits and ultrastructure. We will also show how these findings have been enabled by cutting-edge technological developments in the fields of vEM, ultra-high throughput electron microscopy and correlative light- and electron microscopy (CLEM). The speakers will show exciting new findings from meticulously constructed 3D cellular maps, synapses and neuronal wiring diagrams, across the brains of different species (fish, rodent and marmoset brain), revealing common features and differences across different cell types and species, in health and pathology. Our goal is to share how novel technical approaches help to reveal ultrastructural building blocks of the nervous system.

Symposium 15

Thursday, March 27, 2025
14:30 - 16:30, Lecture Hall 102

Chair: Matthias Haberl and Martina Schifferer, Berlin and Munich

14:30 **Opening Remarks**

14:35 Kevin Briggman, Bonn
GAUSS-EM: GUIDED ACCUMULATION OF ULTRATHIN SERIAL SECTIONS WITH A STATIC MAGNETIC FIELD FOR VOLUME ELECTRON MICROSCOPY OF WHOLE BRAINS (S15-1)

15:00 Martina Schifferer, Munich
ARRAY TOMOGRAPHY: TRAILS TO DISCOVERY IN NEUROPATHOLOGY (S15-2)

15:25 Kristina Ponimaskine, Hamburg
CLUSTERED POSTSYNAPTIC DENSITY DYNAMICS IN CA1 HIPPOCAMPAL NEURONS (S15-3)

15:35 Yoshiyuki Kubota, Okazaki, Japan
MICROCIRCUITS IN THE MARMOSET PREFRONTAL CORTEX ANALYZED WITH LARGE VOLUME ELECTRON MICROSCOPY (S15-4)

16:00 Matthias Haberl, Berlin
ORGANIZATION PRINCIPLES OF THE NEURONAL ULTRASTRUCTURE REVEALED WITH VOLUME ELECTRON MICROSCOPY (S15-5)

16:25 **Discussion and Concluding Remarks**

Introductory Remarks to Symposium 16

Big science, big challenges, and the diversity of life sciences – where does neuroscience go?

Andreas Draguhn and Constanze Seidenbecher, Heidelberg and Magdeburg

Neuroscience figures prominently within the scientific community, public funding organizations and societal discourse. This may be due to two reasons: (1) the biological foundations of behavior, emotions and cognition are at the heart of our self-understanding as human beings; (2) our aging societies are in growing need of innovative medical tools to prevent and treat neurodegenerative disorders.
Despite the impressive scientific dynamics, major neuroscientific concepts (e.g., memory, cognition, representation, consciousness) are used in loosely defined and heterogeneous ways. There is also little discourse about the structure of neuroscientific arguments, e.g., the precise meaning of claims for causality, the relation between findings at different system levels, the explanatory role of computer models and similarities between brains and IT artefacts. At the same time, 'big science' has entered the field of neurosciences with large-scale projects generating unprecedented amounts of data and creating hopes for transformative progress in basic research and medical applications. This recent development changes the scientific landscape and raises important questions on the co-existence of individual, hypothesis-driven projects and industrial-scale research programs.

The symposium will unite renowned neuroscientists and science publishers to discuss these recent developments from different perspectives. Petra Ritter (Berlin) will illustrate how integration of multi-modal data is used to construct digital twins which reveal new insights into brain dynamics and function. Alison Abbott (Munich) will draw on different examples to highlight the challenges and advantages that big data offers to journalists looking for reliable narratives. Finally, Peter Stern (Cambridge) will address the recent exponential increase in mega-scale science projects and discuss the resulting new opportunities and challenges.
We hope that the symposium will reinforce awareness for recent developments in neuroscience and trigger fruitful discussions during the event and beyond.

We dedicate this symposium to our late colleague Yves Frégnac, who has made fundamental contributions to the critical discourse on modern neurosciences. His voice will be missed.

Symposium 16

Thursday, March 27, 2025
14:30 - 16:30, Lecture Hall 8

Chairs: Andreas Draguhn and Constanze Seidenbecher, Heidelberg and Magdeburg

14:30 **Welcome and Opening Remarks**

14:35 Andreas Draguhn, Heidelberg
IN MEMORY OF YVES FRÉGNAC – A CRITICAL MIND IN THE SCIENCE OF THE MIND (S16-1)

14:45 Petra Ritter, Berlin
AN INTERDISCIPLINARY AND THEORY DRIVEN APPROACH TO INTEGRATE MULTIPLE DATA SOURCES THAT INFORM BRAIN FUNCTION ACROSS BIOLOGICAL SCALES (S16-2)

15:15 Alison Abbott, Munich
COMMUNICATING NEUROSCIENCE IN THE ERA OF BIG DATA (S16-3)

15:45 Peter Stern, Cambridge, UK
NEUROSCIENCE – PAST DEVELOPMENTS AND EMERGING TRENDS (S16-4)

16:15 **Discussion and Concluding Remarks**

Introductory Remarks to Symposium 17

Mechanisms of reperfusion-failure after cerebral ischemia

Nikolaus Plesnila, Munich

Ischemic stroke causes brain damage not only during the ischemic period but, counterintuitively, also after recanalization of the occluded artery. As more and more stroke patients receive recanalization therapy, prevention of reperfusion injury may have great clinical potential. Unfortunately, the underlying mechanisms are not fully understood.

Traditionally, the so-called "no reflow phenomenon" has been thought to be one of the main processes contributing to reperfusion injury. "No reflow" describes a process in which cerebral microcirculation is obstructed during ischemia and recanalization is unable to restore microvascular flow. A plethora of processes have been discussed as responsible for no reflow after ischemic stroke, mainly based on histopathological analysis at a single postmortem time point. Recently, however, high-resolution microscopy and MR imaging technologies have become available that allow longitudinal imaging of the cerebral microcirculation with low invasiveness in the living brain during and after cerebral ischemia. The current symposium aims to summarize these recent findings and provide evidence that reperfusion failure may be caused by microvascular constriction, may be a delayed phenomenon, and may be closely related to neuroinflammation and cerebral edema formation, processes that are amenable to therapeutic intervention. Therefore, reperfusion failure may represent a valid therapeutic target in ischemic stroke.

Symposium 17

Thursday, March 27, 2025
14:30 - 16:30, Lecture Hall 103

Chairs: Nikolaus Plesnila, Munich

14:30 **Opening Remarks**

14:35 Turgay Dalkara, Ankara, Turkey
ROLE OF PERICYTES IN INCOMPLETE RE-PERFUSION AFTER CEREBRAL AND RETINAL ISCHEMIA (S17-1)

15:00 Leif Østergaard, Aarhus, Denmark
THE IMPACT OF CAPILLARY FUNCTION ON TISSUE OXYGENATION DURING ISCHEMIA AND REPERFUSION (S17-2)

15:25 Joshua Shrouder, Munich
ROLE OF PERICYTES FOR REPERFUSION FAILURE AFTER ISCHEMIC STROKE *IN VIVO* (S17-3)

15:50 Rebecca Sienel, Munich
BREATHING NEW LIFE INTO STROKE THERAPY: THE ANTI-INFLAMMATORY POWER OF INHALED NITRIC OXIDE (S17-4)

16:05 Nikolaus Plesnila, Munich
REPERFUSION FAILURE FOLLOWING RECANALIZATION AFTER ISCHEMIC STROKE (S17-5)

Introductory Remarks to Symposium 18

How the nervous system builds and maintains myelin

Amit Agarwal and Minou Djannatian, Heidelberg and Munich

Oligodendrocytes produce myelin, a crucial lipid-rich membrane that enhances signal conduction and shapes neuronal networks. They produce vast amounts of membrane in a well-orchestrated steps including wrapping, expansion and stabilization of the sheath, which is fundamental to ensure proper myelin formation and function. While myelin has long been considered static once it is deposited on axons, we now know that myelin formation and maintenance are dynamic processes influenced by neuronal activity, and require continuous turnover even in the adult and ageing brain.

This symposium explores recent advances in understanding myelin formation, fine-tuning, maintenance, and regulation in the CNS, utilizing mouse and zebrafish model systems, and different scales of imaging techniques, from *in vivo* optical imaging to 3D electron microscopy.

The topics will provide a glimpse of the new knowledge gathered over the last few years and our evolving understanding of myelin plasticity and its importance in CNS function and disease.

Symposium 18

Thursday, March 27, 2025
14:30 - 16:30, Lecture Hall 105

Chairs: Amit Agarwal and Minou Djannatian, Heidelberg and Munich

14:30 **Opening Remarks**

14:35 Rafael Gois Almeida, Edinburgh, UK
NON-SYNAPTIC GLUTAMATE TRANSFER BETWEEN AXONS AND OLIGODENDROCYTES REGULATES MYELINATION *IN VIVO* – INSIGHTS FROM ZEBRAFISH (S18-1)

15:00 Minou Djannatian, Munich
ADHESION PROTEINS SYNERGISTICALLY REGULATE MYELIN FORMATION (S18-2)

15:25 J. Bradley Zuchero, Stanford, USA
CELL BIOLOGICAL MECHANISMS OF MYELIN TUNING AND DYNAMICS (S18-3)

15:50 Ram Dereddi, Heidelberg
OLIGODENDROCYTE MECHANOTRANSDUCTION CHANNEL TMEM63A FINE-TUNES MYELIN SHEATH GEOMETRY (S18-4)

16:05 Wiebke Möbius, Goettingen
MYELIN TURNOVER, MAINTENANCE AND DISEASE: INSIGHT FROM ELECTRON MICROSCOPY AND 3D IMAGING BY FIB-SEM (S18-5)

Introductory Remarks to Symposium 19

Visual processing in social behaviors

Clara Ferreira, Johannes Larsch and Inês M.A. Ribeiro, Newcastle-upon-Tyne (UK), Lausanne (Switzerland) and Munich

Coordination among animals, ranging from dyadic interactions to collective motion in groups, relies on sensory detection of social signals. While olfactory communication has traditionally taken a centre stage in studies of intraspecific interactions, recent advances in experimental designs uncovered visual features as potent social cues in several animal species. Biological motion is a special class of visual cues emerging from stereotypic movements of animals that has been described as a universal life detector. Recent work implicates biological motion as a key driver of complex tasks such as recognition of conspecifics and inference of emotional states. This provides exciting entry points to investigate the underlying neural circuits that detect biological motion to guide social behaviors.

This symposium explores principles of visual processing of social motion signals across social behaviours and the animal kingdom from flies and fish to primates and humans, using diverse methodological approaches. We will examine visual cues that elicit social responses and discuss how such complex stimuli can be deconstructed experimentally to access to the neural circuits for sensory processing. Akhila Mudunuri will set the scene on social behavior, characterizing sensory information that underlies the decision to group or disperse. Clara Ferreira will report on how flies of both sexes use social motion cues in a predation context to infer safety/threat. Johannes Larsch will present how changes in the perception of visual cues in affiliative behaviours in zebrafish relate to individual differences in behavior. Winrich Freiwald will discuss the neural circuits and mechanisms underlying the perception of facial dynamics in macaques. Finally, Marina Pavlova will provide an overview of the roles for visual cues in reading face and body language in humans. By exploring visually-guided interactions across levels of complexity and species, this symposium will highlight widespread, if understudied, perceptual mechanisms underlying social behaviours.

Symposium 19

Friday, March 28, 2025
11:30 - 13:30, Lecture Hall 101

Chairs:
Clara Ferreira, Johannes Larsch and Inês M.A. Ribeiro, Newcastle-upon-Tyne (UK), Lausanne (Switzerland) and Munich

11:30 **Opening Remarks**

11:35 Akhila Mudunuri, Konstanz
SOCIAL DISTANCING: GROUP BEHAVIOR AND THE UNDERLYING NEURAL CIRCUITS IN *DROSOPHILA MELANOGASTER* LARVAE (S19-1)

11:50 Clara Ferreira, Newcastle upon Tyne, UK
SEX DIFFERENCES IN MODULATION OF DEFENSIVE BEHAVIOURS BY SOCIAL MOTION (S19-2)

12:15 Johannes Larsch, Lausanne, Switzerland
NEURAL CIRCUITS FOR SOCIAL AFFILIATION IN ZEBRAFISH (S19-3)

12:40 Winrich Freiwald, New York, USA
FROM FACE PERCEPTION TO SOCIAL COGNITION (S19-4)

13:05 Marina Pavlova, Tuebingen
SEX, TIME AND THE SOCIAL BRAIN (S19-5)

Introductory Remarks to Symposium 20

Investigating memory using human single-neuron recordings

Alana Darcher and Ilona Vieten, Tuebingen and Bonn

Memory underpins a wide range of cognitive processes and unfolds across various timescales. As a phenomenon, memory is often stratified by duration of storage and additionally by content, with explicit memory categorized as either semantic or episodic. In this symposium, we will present new insights into the single-neuron correlates of human memory. Our understanding of the neural mechanisms of memory at the single-cell level is driven by observations of functionally specialized cell types in the medial temporal lobe, in particular concept cells, place cells, and grid cells. The interplay between these groups of neurons and the precise mechanisms through which they interface with the various facets of memory remain an open topic of investigation.

This symposium focuses broadly on two questions: 1) What roles do single neurons in the human medial temporal play in the formation and retrieval of memories? 2) What is the relationship between single neurons and patterns of population activity or local field potentials during memory formation and retrieval? To this end, J. Daume will discuss how hippocampal dynamics, particularly persistent activity and theta–gamma phase–amplitude coupling, support the control of working memory maintenance as well as long-term memory formation at the level of single neurons. S. Mackay will present experimental evidence for hippocampal indexing and discuss the role of concept cells as the building blocks of episodic memory. I. Vieten will describe the effects of attention on concept neurons and differences between the regions of the medial temporal lobe. M.J. Prakash will discuss the role of gamma oscillations in encoding and maintenance during sequential memory. A. Darcher will show how single-neuron activity and population activity differentially process the semantic content of a novel full-length movie and how these differences could relate to emergent stimulus tuning.

Symposium 20

Friday, March 28, 2025
11:30 - 13:30, Lecture Hall 8

Chairs: Alana Darcher and Ilona Vieten,
Tuebingen and Bonn

11:30 **Opening Remarks**

11:35 Jonathan Daume, Los Angeles, USA
HIPPOCAMPAL SINGLE-NEURON DYNAMICS IN WORKING MEMORY MAINTENANCE AND LONG-TERM MEMORY FORMATION (S20-1)

12:00 Sina Mackay, Bonn
THE ROLE OF CONCEPT CELLS IN MEMORY FORMATION (S20-2)

12:25 Ilona Vieten, Bonn
ATTENTIONAL MODULATION OF SINGLE-UNIT ACTIVITY IN THE HUMAN MEDIAL TEMPORAL LOBE (S20-3)

12:50 Muthu Jeyanthi Prakash, Tuebingen
THE ROLE OF GAMMA OSCILLATIONS IN STIMULUS ENCODING AND MEMORY MAINTENANCE DURING A SEQUENTIAL MEMORY TASK IN THE HUMAN MEDIAL TEMPORAL LOBE(S20-4)

13:00 Alana Darcher, Tuebingen
DECODING MOVIE CONTENT FROM NEURONAL POPULATION ACTIVITY IN THE HUMAN MEDIAL TEMPORAL LOBE (S20-5)

13:25 **Concluding Remarks**

Introductory Remarks to Symposium 21

Social immunity as defense against diseases: from sensory biology to collective animal behavior

Giovanni Galizia and Valerie Kuklovsky, Konstanz

Eusocial insect colonies are highly challenged with diseases posing a major threat for their survival. Consequently, they have evolved collective immune defenses referred to as "social immunity." Social immunity are behavioral, organizational and physiological adaptations to prevent pathogen infection and transmission. They include removing pathogens from nest mates (allogrooming), increasing nest temperature (social fever), removal of diseased brood (hygienic behavior) and wound care among others. A central aspect for the defense against pathogens is the identification of either the pathogen directly or of diseased individuals. Many studies suggest that diseased individuals are identified by hygienic bees via olfactory cues, although the identification of the specific odorants which the bees are detecting remain sparse. Furthermore, several research groups successfully bred highly hygienic colonies indicating a genetic component to hygienic behavior. However, the proximate mechanisms that underlie various aspects of social immunity remain understudied. Future research will be essential to understanding the underlying neuronal circuits and neurotransmitters associated with the perception and processing of disease-associated olfactory cues.

This symposium will address the general concept of social immunity in eusocial insect societies and illustrate the diverse aspects of these collective behaviors. We wish to clarify the complex interplay between different topics of biology including sensory biology, biochemistry, neurobiology, and evolutionary biology. This symposium includes lessons in sensory neurobiology by elucidating the implications of viral influence on perception in honey bees (Michael Simone-Finstrom), the molecular basis of hygienic behaviors in honey bees with the use of omics (Leonard Foster) and lessons from chemical ecology (Fanny Mondet) by studying how chemical detection triggers Varroa-sensitive hygiene in honey bees. Finally, the wound care behavior of ants will shed light on evolutionary aspects associated with social immunity (Erik T. Frank).

Symposium 21

Friday, March 28, 2025
11:30 - 13:30, Lecture Hall 103

Chairs: Giovanni Galizia and Valerie Kuklovsky, Konstanz

11:30 **Opening Remarks**

11:35 Michael Simone-Finstrom, Baton Rouge, USA
SOCIAL IMPLICATIONS OF VIRUSES ON GUSTATORY, OLFACTORY AND VISUAL PERCEPTION AND DIETARY CHOICES IN HONEY BEES (S21-1)

12:00 Leonard Foster, Vancouver, Canada
UNDERSTANDING AND SELECTIVELY BREEDING FOR SOCIAL IMMUNITY BEHAVIOURS IN HONEY BEES USING PROTEOMICS & GENOMICS (S21-2)

12:25 Fanny Mondet, Avignon, France
CONTRIBUTIONS OF CHEMICAL ECOLOGY TO A BETTER UNDERSTANDING OF SOCIAL IMMUNITY IN THE HONEY BEE (S21-3)

12:50 Erik T. Frank, Wuerzburg
EVOLUTION OF SOCIAL WOUND CARE BEHAVIOURS IN ANTS (S21-4)

13:15 **Discussion and Concluding Remarks**

Introductory Remarks to Symposium 22

The listening brain: frontiers in auditory cognition and health

Marcus Jeschke, Goettingen

This symposium aims to provide a comprehensive overview of the current state and future directions of research in auditory cognition with an emphasis on neural processes underlying these phenomena. The central theme revolves around understanding how the brain processes auditory information, bridging the gap between basic neuroscience and clinical implications. Speakers will present research from both animal models as well as human experiments to highlight the diversity of auditory processing as well as to allow for cross-fertilization. As hearing impairment has been identified as the most important predictor for dementia, one key topic will be to highlight the role of hearing loss for auditory cognition.

This symposium will feature an exciting array of presentations, including an in-depth look at auditory cognition in non-human primates using innovative, automated systems; an exploration of the connection between hearing and cognition through the lens of an autism mouse model; an examination of the brain states and traits that characterize the listening mind; a discussion of the cognitive changes observed before and after cochlear implant treatment and a look at the fascinating role of the cerebellum in listening and vocalizing. Together, these presentations promise to provide comprehensive insights into the forefront of auditory cognition research, offering new perspectives on the neural basis of hearing and its profound impact on cognitive health.

Symposium 22

Friday, March 28, 2025
11:30 - 13:30, Lecture Hall 104

Chairs: Marcus Jeschke, Goettingen

11:30 **Opening Remarks**

11:35 Angelika Illg, Hanover
RELATIONSHIP BETWEEN HEARING LOSS, COGNITIVE ABILITIES AND DEPRESSIVE SYMPTOMS IN CI USERS WITH UNI- AND BILATERAL HEARING LOSS (S22-1)

12:00 Jonas Obleser, Luebeck
STATES AND TRAITS OF THE LISTENING BRAIN (S22-2)

12:25 Shivani Hariharan, Frankfurt
CEREBELLAR ACTIVITY PREDICTS VOCALIZATION IN FRUIT BATS (S22-3)

12:35 Marlies Knipper, Tuebingen
THE LINK BETWEEN HEARING AND COGNITION - WHAT CAN WE LEARN FROM AN AUTISM MOUSE MODEL? (S22-4)

13:00 Marcus Jeschke, Goettingen
EXPLORING AUDITORY COGNITION IN NON-HUMAN PRIMATES WITH AUTOMATIC, HOME CAGE BASED SYSTEMS (S22-5)

13:25 **Concluding Remarks**

Introductory Remarks to Symposium 23

Extracellular matrix alterations in aging and neurological diseases

Egor Dzyubenko and Alexander Dityatev, Essen and Magdeburg

Emerging evidence indicates the pivotal role of the extracellular matrix (ECM) in neuroplasticity and brain homeostasis, presenting a promising yet underexplored target for innovative therapies. This symposium will explore the role of ECM changes during aging and neurological disorders, including Alzheimer's disease (AD), epilepsy, and stroke.

The brain ECM is a network of polysaccharides, proteoglycans, and link proteins that regulates synaptic plasticity, axonal guidance, and neuroinflammatory signaling. Dysregulation of ECM components underlies pathology in aging and neurological diseases. Egor Dzyubenko will present superresolution microscopy data revealing how transient ECM reorganization supports inhibitory synapse remodeling and motor recovery after stroke in mice. He will also discuss how ECM affects astrocytic and microglial cell function.

Federico Soria will demonstrate how aging- or pathology-induced ECM upregulation affects microglia motility, showing recent evidence from *in vivo* two-photon microscopy and 3D cultures with tunable ECM stiffness. Alexander Dityatev will further discuss the role of ECM in microglial modulation and mechanosensitive signaling. His team found that ECM is involved in complement-mediated synapse elimination by microglia in aged mice. In addition, he will present a novel ECM-dependent mechanism of synaptic plasticity involving mechanosensitive Piezo1 receptors, p38 kinase, and NMDA receptors.

ECM also critically regulates cognition and brain homeostasis in humans. Constanze Seidenbecher will present her research on perisynaptic ECM molecules as potential factors in neurological disorders, showing recent findings in human CSF and AD postmortem brains as well as from animal models of epilepsy.

Interestingly, extracellular Aß protein that is central for AD exhibits antimicrobial activities through binding to viral glycoproteins. Anna Sophie Tiefenbacher will show her recent data demonstrating the role of Aß in the autophagy-mediated cellular defense against viral infection.

This symposium will deepen current understanding of ECM-mediated mechanisms in aging and disease, fostering collaborations and innovative therapeutic approaches.

Symposium 23

Friday, March 28, 2025
11:30 - 13:30, Lecture Hall 105

Chairs: Egor Dzyubenko and Alexander Dityatev, Essen and Magdeburg

11:30 **Opening Remarks**

11:35 Egor Dzyubenko, Essen
INTERACTIONS BETWEEN THE EXTRACELLULAR MATRIX, GLIA, AND SYNAPSES IN STROKE RECOVERY (S23-1)

12:00 Federico N. Soria, Leioa, Spain
MICROGLIA DYNAMICS ARE AFFECTED BY HYALURONAN STRUCTURE AND DISTRIBUTION IN HEALTH AND DISEASE (S23-2)

12:25 Alexander Dityatev, Magdeburg
INTERPLAY BETWEEN NEURAL EXTRACELLULAR MATRIX, MICROGLIA AND SYNAPSES IN ADULT AND AGED MICE (S23-3)

12:50 Constanze Seidenbecher, Magdeburg
DYSREGULATION OF HYALURONAN-BASED ECM IN EPILEPSY, ALZHEIMER'S DISEASE, AND ALS (S23-4)

13:15 Anna Sophie Tiefenbacher, Heidelberg
ROLE FOR AMYLOID BETA AS AN ANTIMICROBIAL PEPTIDE THAT ENHANCES AUTOPHAGY IN RESPONSE TO HSV1 INFECTION IN A 3D-NEURONAL CELL CULTURE MODEL (S23-5)

13:25 **Concluding Remarks**

Introductory Remarks to Symposium 24

Evolution of behavior: from genes to circuits

James Lightfoot and Monika Scholz, Bonn

Behavioural evolution is shaped by the interplay between genetic factors and neural circuitry. The genetic changes can influence behavioural traits through alterations to a multitude of different processes including modifications to neurotransmitter systems, receptor sensitivity, and synaptic connectivity all of which determine the neural circuit properties. These changes are also under natural selection and ultimately it is the behavioural adaptations that enhance an organism's fitness which become fixed and drive evolutionary change. Importantly, understanding the evolutionary events underpinning changing behavioural phenotypes has been previously complicated by a focus on a limited number of standard model species for neurobiological research. Fortunately, recent technological advancements have resulted in the emergence of new model systems which have facilitated the comparative studies necessary to understand the mechanisms and evolutionary origins of behavioural diversity.

Numerous evolutionary behavioural studies are exploring comparative species developed alongside existing model systems such as nematodes, flies and mice in order to exploit the wealth of knowledge in these organisms. Additionally, researchers are also developing species representing previously unexplored phyla to understand specific facets of their behaviour and its evolution. Accordingly, in the symposia we will cover both of these aspects. This includes exploring the shared and unqiue circuits underlying the evolution of parental care behaviors in diverse poison frog species (Eva K Fischer, UC Davis). Using *Drosophilids*, we will examine the evolution of olfactory circuits in these species (Christoph Giez, Francis Crick Institute). We will discuss feeding behavioural diversity and the evolution of predation using the nematodes *Caenorhabditis elegans* and *Pristionchus pacificus* (Monika Scholz, MPI for Neurobiology of Behavior). In locusts we will investigate their food seeking abilities (Yannick Günzel, University of Konstanz). Finally, we will discuss the evolution of complex innate behaviours through the web building of orb-weaving spiders (Andrew Gordus, Johns Hopkins University).

Symposium 24

Friday, March 28, 2025
11:30 - 13:30, Lecture Hall 9

Chairs: James Lightfoot and Monika Scholz, Bonn

11:30 **Opening Remarks**

11:35 Eva Fisher, Davis, USA
MECHANISMS OF BEHAVIORAL EVOLUTION: LESSONS FROM POISON FROGS (S24-1)

12:00 Christoph Giez, London, UK
CELLULAR AND MOLECULAR MECHANISMS UNDERLYING THE EVOLUTION OF CENTRAL NEURAL CIRCUITS AND BEHAVIOUR (S24-2)

12:25 Monika Scholz, Bonn
PREDATORY AGGRESSION IN NEMATODES EVOLVED THROUGH ADAPTATIONS TO NORADRENERGIC CIRCUITS (S24-3)

12:50 Yannick Günzel, Konstanz
CROWDED AND HUNGRY LOCUSTS: FINDING FOOD IN SMELLY SWARMS (S24-4)

13:05 Andrew Gordus, Baltimore, USA
UNTANGLING THE WEB OF BEHAVIORS USED IN SPIDER ORB-WEAVING (S24-5)

Introductory Remarks to Symposium 25

Multilevel human brain mapping and atlas as a tool connecting micro- and macro-structures

Nataliia Fedorchenko and Alexey Chervonnyy, Duesseldorf

To understand how cognitive networks are related to the organization of the brain, and which areas and nuclei are part of a network, atlases are essential. Over the past decades, different types of brain atlases have been developed. However, many of them only provide information about the brain surface based on sulci and gyri patterns, while subcortical structures, which are important hubs of large-scale networks, are not adequately represented. In addition, sulci and gyri do mostly not reflect borders of cortical areas, which are only visible at microscopical resolution. Inter-individual differences, which are massive in humans compared to standard model species, provide another challenge for human brain mapping.
The Julich Brain Atlas addresses such questions. It contains cytoarchitectonic probabilistic maps of 227 areas and nuclei and is freely accessible via the EBRAINS research platform. EBRAINS allows the linking of different brain maps covering a broad range of modalities and spatial scales and provides data and tools according to the FAIR principles. Atlas data is available in three different template spaces (MNI Colin 27, ICBM 2009c, and the BigBrain). While the first two are frequently used in neuroimaging research and clinical applications, the BigBrain is an important tool when high spatial resolution is required.
In our symposium, speakers will present (1) the concept of multi-modal and multi-scale brain mapping and the role of the Julich Brain Atlas to study cognitive functions and brain diseases, (2) how the siibra toolsuite can be used to connect atlas data with the results from other imaging experiments, to retrieve data for own experiments or to use them for modelling and simulation, and (3) how ultra-high resolution data from the cellular and subcellular level of brain organization can be integrated in order to add spatial context. These keynotes will be complemented by short communications from two young researchers presenting the mapping process of the hypothalamus and subdivisions of Broca's region.

It is hoped that the symposium will demonstrate how high-resolution, multi-level brain mapping, coupled with advanced methods, can improve our understanding of structure-function relationships and advance studies of brain connectivity, function, and pathology.

Symposium 25

Friday, March 28, 2025
14:30 - 16:30, Lecture Hall 102

Chairs: Nataliia Fedorchenko and Alexey Chervonnyy, Duesseldorf

14:30 **Opening Remarks**

14:35 Katrin Amunts, Duesseldorf
BRAIN ARCHITECTURE – FROM CELLS TO ORGAN (S25-1)

15:05 Timo Dickscheid, Juelich
BRIDGING DIFFERENT LEVELS OF BRAIN ORGANIZATION USING THE SIIBRA TOOLSUITE (S25-2)

15:35 Tim Salditt, Goettingen
MULTI-SCALE NEUROIMAGING WITH SYNCHROTRON RADIATION: VOLUME DATA FOR THE BRAIN ATLAS, AND ALSO FOR FUTURE CONNECTOMICS? (S25-3)

16:05 Alexey Chervonnyy, Duesseldorf
HIGH-RESOLUTION 3D MAPPING OF THE HUMAN HYPOTHALAMUS AND ITS SUBDIVISIONS (S25-4)

16:15 Nataliia Fedorchenko, Duesseldorf
HIGH-RESOLUTION 3D MAPPING WITHIN AREAS 44 AND 45 – NEW CYTOARCHITECTONIC SUBDIVISIONS IN BROCA'S REGION (S25-5)

16:25 **Concluding Remarks**

Introductory Remarks to Symposium 26

Neural circuits for flexible social behavior

Jan Clemens and Frederic Römschied, Oldenburg and Goettingen

Most animals are social: They live in groups and coordinate behavior with conspecifics in dyadic interactions (mating, aggression, parenting) or larger groups (hierarchies, swarms). Social behaviors are driven by sensory cues emitted by other animals but are also modified through learning. However, investigating sensory processing and learning in the context of social behavior is inherently difficult because, in most cases, the mutual interactions between individuals and the resulting sensory experience are beyond experimental control. How the orchestrated activity of neural circuits results in complex social behavior is therefore largely unknown.

This symposium will showcase young researchers that employ novel experimental and computational tools for analyzing neural activity during social interactions in an integrated manner. The participants cover a broad range of model systems and social behaviors: From an analysis of circuits for processing social cues in larval and adult flies, over studies of neural circuits for vocal learning and production in songbirds, to multi-modal processing for social interactions in primates. These issues are approached using a diverse set of techniques including functional imaging, machine-learning based behavioral analyses, optogenetics, and connectomics.

By bringing together a diverse group of researchers and approaches, we hope to identify common principles of social neuroscience and to foster an exchange of ideas and concepts across fields.

Symposium 26

Friday, March 28, 2025
14:30 - 16:30, Lecture Hall 8

Chairs: Jan Clemens and Frederic Römschied, Oldenburg and Goettingen

14:30 **Opening Remarks**

14:35 Daniela Vallentin, Seewiesen
NEURAL MECHANISMS OF VOCAL LEARNING AND PRODUCTION IN SONGBIRDS (S26-1)

15:00 Katrin Vogt, Konstanz
SENSORY CIRCUITS UNDERLYING SOCIAL CONTEXT-DEPENDENT DECISION-MAKING IN *DROSOPHILA* LARVAE (S26-2)

15:25 Weiqi Chen, Munich
NEURAL CIRCUITS REGULATING AVOIDANCE AND TRACKING (S26-3)

15:35 Julia Sliwa, Paris, France
COMPARING HUMAN AND MONKEY NEURAL CIRCUITS FOR PROCESSING SOCIAL SCENES (S26-4)

16:00 Frederic Römschied, Goettingen
EFFECTS OF SOCIAL EXPERIENCE ON NEURAL FUNCTION IN *DROSOPHILA* (S26-5)

16:25 **Concluding Remarks**

Introductory Remarks to Symposium 27

Brain organoids for modelling immune-neural interactions in epilepsy

Andreas G. Chiocchetti, Frankfurt/Main

Epilepsy is a central nervous system (CNS) disorder hallmarked by seizures and abnormal brain activity. Current anti-seizure drugs block seizures in only ~70% of patients, do not address the underlying pathology and do not impact the progression of the disorder. Hippocampal sclerosis (HS) as well as malformations of cortical development (MCD) such as focal cortical dysplasia (FCD) and lissencephaly as well as low-grade epilepsy-associated tumors (LEAT) such as ganglioglioma are among the most frequent causes for pharmacoresistant focal epilepsy. All these types of brain lesions harbor innate and adaptive immune cell infiltrations which likely contribute to and modulate their epileptogenicity

Understanding the specific mechanisms involved in the interaction of immune cells and cells of the brain parenchyma for the generation and progression of seizures and epilepsy in these disorders will allow the development of novel drugs that modify the process of epileptic neural network transformation itself.

Human induced pluripotent stem cells (hiPSCs) reprogrammed from patient somatic cells have proven as powerful tool to model human diseases including epilepsies. Platforms in which neurons, astrocytes, oligodendrocytes and microglia derived from healthy or diseased subjects mature in a single system represent a robust method to model human brain disorders.

In this symposium we will discuss the potentials and pitfalls of using hiPSC-derived glioneuronal cell cultures (2D) and brain organoids (3D) to address role the development and mechanisms of epileptic neural network aberration and the role of immune-neural interactions therein.

Symposium 27

Friday, March 28, 2025
14:30 - 16:30, Lecture Hall 104

Chair: Andreas G. Chiocchetti, Frankfurt/Main

14:30 **Opening Remarks**
Andreas G. Chiocchetti and Nico Melzer

14:35 Nico Melzer, Duesseldorf
STUDYING IMMUNE-NEURAL INTERACTIONS IN A MODEL OF T-CELL DRIVEN HIPPOCAMPAL SCLEROSIS: PITFALLS AND TRANSLATIONAL VALUE (S27-1)

15:00 Denise Haslinger, Frankfurt
IN VITRO MODELLING OF MATERNAL IMMUNE ACTIVATION (MIA) IN CEREBRAL ORGANOIDS (S27-2)

15:25 Andrea Rossi, Duesseldorf
GENOME-EDITING TO MODEL SELECTIVE SOMATIC MUTATIONS ASSOCIATED WITH FOCAL EPILEPTOGENIC LESIONS (S27-3)

15:50 Julia Ladewig, Mannheim
OMICS INSIGHTS INTO LIS1-PATIENT-DERIVED CEREBRAL ORGANOIDS UNRAVEL NOVEL MOLECULAR PATHWAYS UNDERLYING DISEASE SEVERITY AND SUGGEST THERAPEUTIC STRATEGIES (S27-4)

16:15 **Discussion / Concluding Remarks**

Introductory Remarks to Symposium 28

Early dysfunction of the locus coeruleus noradrenergic system in neurodegenerative diseases

Sabine Liebscher and Lars Paeger, Innsbruck (Austria) and Munich

The brainstem's Locus Coeruleus (LC) is the main noradrenergic (NA, or norepinephrinergic) nucleus and the sole source of NA to almost the entire forebrain. Through its complex afferents and efferent projections, the LC contributes to a vast number of physiological functions, including sleep-wake cycle, attention, arousal, memory formation, motivation, sensory processing and energy homeostasis. Early LC-NA degeneration is now widely accepted as a prominent feature of various neurodegenerative diseases and involved in a plethora of disease symptoms. The selective and early vulnerability of the NA system, however, remains a conundrum. Current work underscores the relevance of LC integrity as an early biomarker and offers critical insight into disease pathophysiology to identify novel therapeutic targets.

In this symposium we will present recent findings in rodents and humans linking LC- NA dysfunction to neurodegeneration typical of Alzheimer's disease (AD) and Amyotrophic lateral sclerosis (ALS). The session will feature latest research from Csaba Adori presenting unprecedented large-scale-3D cytoarchitectural analysis of the human LC covering tau-pathology stages Braak 0 to 6. Theresa Niedermeier will then demonstrate a link between tauopathy and *in vivo* mitochondrial transport deficits and functional deterioration in LC-NA axons in the cortex of mice.
Lars Paeger will share novel findings on the role of LC-NA system degeneration in the manifestation of early olfactory impairment in mice and humans in prodromal AD. As ageing is the most striking risk factor for dementia, Dorothea Hämmerer, will further discuss the possibility to image LC integrity in humans as a function of ageing and its relationship to cognitive performance. Evidence for a critical role of early, selective LC-NA dysfunction in humans and mouse models of another neurodegenerative disease, namely ALS, will be presented by Caroline Rouaux. Collectively, the symposium will highlight the crucial role of the NA system in neurodegeneration and will delineate its downstream cellular and network mechanisms, underlying disease symptoms and fueling the degenerative process per se.

Symposium 28

Friday, March 28, 2025
14:30 -16:30, Lecture Hall 101

Chairs: Sabine Liebscher and Lars Paeger, Innsbruck (Austria) and Munich

14:30 Csaba Adori, Stockholm, Sweden
CYTOARCHITECTURE AND CELLULAR TAU PATHOLOGY OF THE HUMAN LOCUS COERULEUS – PERICOERULEAR COMPLEX REVEALED BY 3D IMAGING (S28-1)

14:55 Theresa Niedermeier, Munich
IN VIVO IMAGING OF MITOCHONDRIAL TRANSPORT ACROSS NEURONAL CELL TYPES REVEALS TAU-MEDIATED DYSFUNCTION IN THE LOCUS COERULEUS (S28-2)

15:10 Lars Paeger, Munich
EARLY LOCUS COERULEUS SYSTEM DEGENERATION UNDERLIES OLFACTORY DYSFUNCTION IN ALZHEIMER'S DISEASE (S28-3)

15:35 Dorothea Hämmerer, Innsbruck, Austria
PROBING THE NORADRENERGIC SYSTEM TO INVESTIGATE EARLY STAGES OF ALZHEIMER'S DISEASE (S28-4)

16:00 Caroline Rouaux, Strasbourg, France
LOCUS COERULEUS AND CENTRAL NORADRENALINE TARGETING TO COUNTERACT CORTICAL HYPEREXCITABILITY IN AMYOTROPHIC LATERAL SCLEROSIS (S28-5)

16:25 **Discussion and Concluding Remarks**

Introductory Remarks to Symposium 29

Neural circuits and decision strategies for behavioral trade-offs

Madhura Ketkar, Carlotta Martelli and Luisa Ramirez, Goettingen and Mainz

Animals, including humans, often must choose between conflicting behavioral strategies. For example, a foraging individual can decide to either keep exploiting a familiar location with limited food resources or explore other unknown but potentially richer locations. Such decision implies an added risk, such as that of starvation or predator encounters, leading to the emergence of an exploration-exploitation trade-off. Similar trade-offs exist across different behavioral contexts, from defensive behaviors, such as freezing or escaping, to thriving behaviors such as satisfying hunger or sexual drive. Optimal choices under such conflicting scenarios require animals to evaluate their options within the specific context, therefore integrating information from different neuronal circuits in a flexible and conditional manner. While these trade-offs have been extensively observed from humans to insects, the neuronal mechanisms underlying this complex decision making remain poorly understood.

This symposium will highlight recent advances in understanding how brains decide between competing behavioral choices. Bringing insights from different behavioral contexts, the speakers will discuss the neuronal principles underlying behavioral trade-offs in rodent, fish and fly brains. Carolina Rezaval will present her findings revealing a state-dependent dopamine filter system in the male *Drosophila* brain that balances threat perception and the drive to mate. Jean-Baptiste Masson will discuss a modelling approach that explores the link between the central nervous system and the body of a fly larva that implements a behavioral choice. In the young investigator talk, Katja Slangewal will show how the visual system of zebrafish integrates conflicting streams of information to form a unique behavioral decision. Mehran Ahmadlou will present neuronal mechanisms in mice that regulate the choice between exploratory, perseverative and disengaged behavioral strategies. Lastly, combining social foraging data and theoretical insights, Lisa Blum-Moyse will present a novel modelling framework that can generate testable hypotheses and guide experimental designs to study foraging decisions.

The symposium will receive financial support from SPP2205.

Symposium 29

Friday, March 28, 2025
14:30 -16:30, Lecture Hall 9

Chairs: Madhura Ketkar, Carlotta Martelli and Luisa Ramirez, Goettingen and Mainz

14:00 **Opening Remarks**

14:35 Carolina Rezaval, Birmingham, UK
FROM STIMULUS TO ACTION: HOW THE BRAIN BALANCES REPRODUCTIVE AND SURVIVAL NEEDS (S29-1)

15:00 Jean-Baptiste Masson, Paris, France
EMBODIED NEUROAI: DECISION MAKING WITH *DROSOPHILA* LARVA (S29-2)

15:25 Katja Slangewal, Konstanz
NEURAL BASIS OF VISUAL INFORMATION INTEGRATION AND DECISION MAKING IN LARVAL ZEBRAFISH (S29-3)

15:35 Mehran Ahmadlou, London, UK
A SUBCORTICAL SWITCHBOARD FOR CONTROLLING EXPLORATORY, PERSEVERATIVE, AND DISENGAGED STATES (S29-4)

16:00 Lisa Blum-Moyse, Konstanz
THEORETICAL MODELS OF SOCIAL FORAGING (S29-5)

SPP 2205
Evolutionary optimization of neuronal processing

Introductory Remarks to Symposium 30

Glia-neuron interactions sculpting functional circuit architecture; insights from genetic animal models

Christian Klämbt and Georgia Rapti, Muenster and Heidelberg

The cellular and molecular architecture of neural circuits relies on the orchestrated interactions of its components, neurons and glial cells. Macroglial cells, the neuroectoderm-derived lineage sisters of neurons, compose a large part of all bilaterian nervous systems, including humans and classical genetic model organisms. Like neurons, glial cells are highly specialized cells with diverse cell fates, and intricate shapes. Importantly, glial cells show manifold interactions with neurons and greatly influence their development, differentiation, and function. Glial cell biology, physiology or gene expression are also among the earliest features disrupted in neurodevelopmental disorders, neurodegenerative disease and aging. However, mechanisms underlying glia cell development and neuron-glia interactions towards patterning circuit architecture have been long understudied and often remain elusive. Glial cells were long thought to be passive circuit components providing metabolic support to neurons and tools to study their non-metabolic roles were sparse. Nowadays, glial cells are under intense investigation and they emerge as essential engineers of circuit architecture, contributing to neuronal birth, pathfinding, and connectivity, neuronal homeostasis, circuit activity, animal behavior and aging.

This symposium will explore how fundamental aspects of glial biology, including gene expression and molecular organization, cell differentiation and architecture, cell signaling, and interactions of glial cells with neurons and the extracellular matrix are deployed to pattern the heterogeneous architecture and dynamic functions of neural circuits. The speakers will highlight important progress made in these fronts, and discuss current mechanistic understandings, while presenting various experimental settings in invertebrate models (*C. elegans, Drosophila*) and in vertebrate systems. A particular focus will be given to the use of sophisticated genetic and genomics tools combined with advanced microscopy to decipher the mechanism underlying the dynamics of *in vivo* neuron-glia interactions in their intact environment. By integrating information across diverse genetic model organisms, we will highlight unique examples and shared biological principles at the center of glia-neuron interactions.

Symposium 30

Friday, March 28, 2025
14:30 - 16:30, Lecture Hall 105

Chairs: Christian Klämbt and Georgia Rapti, Muenster and Heidelberg

14:30 **Opening Remarks**
Christian Klämbt and Georgia Rapti

14:35 Georgia Rapti, Heidelberg
GLIAL CELLS, INTEGRATORS OF NEURAL CIRCUIT ARCHITECTURE THROUGHOUT LIFE: INSIGHTS FROM *C. ELEGANS* (S30-1)

15:00 Vilaiwan Fernandes, London, UK
EXPLORING THE RELATIONSHIP BETWEEN GLIAL MORPHOLOGIES AND TRANSCRIPTOMES (S30-2)

15:25 Christian Klämbt, Muenster
INFLUENCE OF GLIAL CELLS IN POSITIONING VOLTAGE-GATED ION CHANNELS ALONG *DROSOPHILA* AXONS (S30-3)

15:50 Antonella Damiana Recchia, Roma, Italy
PHARMACOLOGICAL TARGETING OF SMOOTHENED RECEPTOR AS A PROMISING APPROACH TO ENHANCE OLIGODENDROCYTE DIFFERENTIATION (S30-4)

16:02 German Sumbre, Paris, France
RADIAL ASTROCYTE SYNCHRONIZATION MODULATES THE VISUAL SYSTEM DURING BEHAVIORAL-STATE TRANSITIONS (S30-5)

16:27 **Closing Remarks**

Introductory Remarks to Symposium 31

From olfaction to emotion

Sabine Krabbe and Tobias Ackels, Bonn

Olfaction, the sense of smell, serves as a primal conduit for emotional and behavioural responses. Unlike other senses that are processed through the thalamus before reaching the cortex, olfactory signals have a direct pathway to the brain's limbic system, which is involved in emotion, memory, and motivation. This direct link underpins the ability of odours to elicit immediate and potent emotional responses, often more so than auditory or visual cues. For instance, the detection of a predator scent can trigger an instant fear response, mobilizing the body for a fight-or-flight reaction. Similarly, the detection of conspecific odour cues such as pheromones plays a crucial role in social and reproductive behaviours, and can decrease responses to aversive stimuli within social contexts. However, the pathways transmitting olfactory information to limbic brain areas are still poorly characterised. In this symposium, we will present recent efforts aiming to dissect the neural circuits that link olfaction with emotional functions. We will focus on neural pathways connecting the olfactory bulb to the amygdala, a central hub for emotional processing in the brain.

Tobias Ackels (University of Bonn) will speak about how odour dynamics can be detected and integrated by the olfactory system to guide behaviour. Moritz Nesseler (RWTH Aachen University) in his selected talk will then present his PhD work on how odour information of the main and accessory olfactory bulb is integrated in the amygdala. Dan Rokni (Hebrew University, Israel) will address connectivity and functional properties of Nucleus of the Lateral Olfactory Tract (NLOT) neurons in the context of aversive learning. Sabine Krabbe (DZNE Bonn) will present work on the behavioural role of interconnected amygdala circuits for emotional states. Hannah Hochgerner (Technion, Israel) will discuss neuronal cell types in the mouse amygdala and their transcriptional diversity in aversive learning.

Symposium 31

Saturday, March 29, 2025
11:30 - 13:30, Lecture Hall 9

Chairs: Sabine Krabbe and Tobias Ackels, Bonn

11:30 **Opening Remarks**

11:35 Tobias Ackels, Bonn
MICE NAVIGATE THE ODOUR LANDSCAPE USING PLUME TEMPORAL DYNAMICS (S31-1)

12:00 Moritz Nesseler, Aachen
POTENTIAL INTEGRATION OF MAIN AND ACCESSORY OLFACTORY SYSTEM INFORMATION IN THE MOUSE AMYGDALA (S31-2)

12:15 Dan Rokni, Jerusalem, Israel
THE NUCLEUS OF THE LATERAL OLFACTORY TRACTS IS A CENTER FOR ODOR-EMOTION INTERACTIONS (S31-3)

12:40 Sabine Krabbe, Bonn
FUNCTIONAL DIVERSITY OF INHIBITORY AMYGDALA MICROCIRCUITS (S31-4)

13:05 Hannah Hochgerner, Haifa, Israel
NEURONAL TYPES IN THE MOUSE AMYGDALA AND THEIR TRANSCRIPTIONAL STATES IN FEAR MEMORY (S31-5)

Introductory Remarks to Symposium 32

Dendritic inhibition – role in network dynamics, memory and behavior

Marlene Bartos and Jörg Geiger, Freiburg and Berlin

The encoding of information in cortical networks markedly depends on the morphological and physiological properties of pyramidal cell dendrites as the cardinal points for the convergence of afferent inputs. They have the ability to integrate and potentially amplify synaptic inputs. Thus, dendrites play a key role in the processing and encoding of afferent information. These properties are controlled by synaptic inhibition, provided by the various GABAergic inhibitory cell types targeting specific compartments of pyramidal cell dendrites. Consequently, dendrite-targeting interneurons will affect various aspects of encoding of information on the level of individual cells and neuronal populations in a target-specific manner. In the here proposed symposium, we aim to highlight recent experimental and computational advances in the role of dendritic inhibition in modulating the representation of environmental and sensory information in neuronal networks of the hippocampus and neocortex, respectively, and its influence on the execution of behavior.

This symposium will bridge between *in vivo*, *in vitro* and computational studies to highlight new insights on the role of the various dendrite-targeting interneurons including somatostatin (SOM)-expressing and neuron-derived neurotrophic factor (NDNF)-positive interneurons on cortical single cell and network dynamics. The proposed speakers utilized a breadth of advanced experimental techniques including whole-cell and single unit recordings as well as 2-Photon population imaging in behaving animals, optogenetics, quantitative behavioral and computational analysis to obtain the here presented results on the role of dendritic inhibition in shaping the spatial and temporal activity of single cells and cell populations during learning for the representation of space, context and thread perception.

Symposium 32

Saturday, March 29, 2025
11:30 - 13:30, Lecture Hall 10

Chairs: Marlene Bartos and Jörg Geiger,
Freiburg and Berlin

11:30 **Opening Remarks**

12:05 Johannes Letzkus, Freiburg
TOP-DOWN CONTROL OF THREAT MEMORY THROUGH NEOCORTICAL LAYER (S32-1)

12:30 Matthew Larkum, Berlin
THE CONTRIBUTION OF DENDRITIC INHIBITION TO CORTICAL NETWORK DYNAMICS (S32-2)

12:55 Marlene Bartos, Freiburg
DENDRIT INHIBITION SHAPES ENCODING OF SPACE AND CONTEXT IN THE DENTATE GYRUS OF BEHAVING MICE (S32-3)

13:20 Panayiota Poirazi, Hellas, Greece
INHIBITORY CONTROL OF CIRCUIT DYNAMICS BY DENDRITE-TARGETING INTERNEURONS - INSIGHTS FROM COMPUTATIONAL MODELS (S32-4)

13:25 **Discussion / Concluding Remarks**

Introductory Remarks to Symposium 33

Non-canonical contribution of oligodendrocyte precursors in brain circuits

Xianshu Bai and Friederike Pfeiffer, Homburg and Tuebingen

In the central nervous system (CNS), oligodendrocyte precursor cells (OPCs) are recognized as the progenitors responsible for the generation of oligodendrocytes, pivotal for myelination. Extensive research has shed light on the mechanisms underlying OPC proliferation and differentiation into mature myelin-forming oligodendrocytes. Recent advances in the field indicates that OPCs are key players in various CNS processes that go beyond producing oligodendrocytes. OPCs guide migrating interneurons during development, regulate the neuronal circuitry, mediate angiogenesis and even exhibit phagocytic properties connected to immune responses. Moreover, although we are just beginning to understand these various processes, it is possible that they exert multifaceted control over neuronal function and neural circuits, primarily through direct interactions with neurons.

In this symposium, we will unveil fresh insights into molecular mechanisms illustrating how OPCs respond to and modulate changes in neuronal activity, both in healthy conditions and during diseases. Additionally, OPCs' interaction with interneurons during embryonic brain development to facilitate brain expansion will be addressed and new insights into the crucial role of OPCs in shaping axonal maturation during developmental stages will be presented. Variations in the potential of OPCs to differentiate into oligodendrocytes during developmental stages and in disease will be discussed. The symposium aims to offer a comprehensive view of how OPCs influence neural circuits and brain function, focusing on their molecular mechanisms, but not only with regard to their primary role in myelin formation.

Symposium 33

Saturday, March 29, 2025
11:30 - 13:30, Lecture Hall 103

Chairs: Xianshu Bai and Friederike Pfeiffer,
Homburg and Tuebingen

11:30 **Opening Remarks / RWD introduction**

11:40 Laurent Nguyen, Liège, Belgium
NEURO-GLIA CROSSTALK SHAPES BRAIN MORPHOGENESIS ACROSS SPECIES (S33-1)

12:05 Tim Czopka, Edinburgh, UK
HOW NEURONAL CONNECTIVITY IS SHAPED BY OLIGODENDROCYTE PRECURSOR CELLS (S33-2)

12:30 Quentin Brassart, Illkirch, France
RXRG REGULATES BRAIN OLIGODENDROGENESIS DURING KEY EVENTS OF LIFE (S33-3)

12:40 Friederike Pfeiffer, Tuebingen
CHANGES IN OPC-NEURON INTERACTIONS IN THE HIPPOCAMPUS UPON INCREASED NEURONAL ACTIVITY (S33-4)

13:05 Xianshu Bai, Homburg
OLIGODENDROCYTE PROGENITOR CELLS FACILITATE EXOCYTOSIS OF NEURONAL LYSOSOMES (S33-5)

Introductory Remarks to Symposium 34

Modelling CNS recovery from autoimmune neurodegeneration

Alexander Flügel and Djordje Miljković, Goettingen and Belgrade (Serbia)

Multiple sclerosis, neuromyelitis optica spectrum disorder (NMOSD) and MOG antibody-associated diseases (MOGAD) are autoimmune diseases of the CNS. They are characterized by chronic inflammation of the nervous tissue, which regularly leads to irreversible structural damage of the central nervous system. Typical of these diseases are a destruction of the myelin, a disturbance in neuronal processes and ultimately progressive, (currently) irreversible neurodegeneration. While some fundamentals of the inflammatory pathogenesis of the diseases are already understood and several therapeutic strategies have been developed to curb the inflammation, it has so far been difficult to influence the progressive destruction of the neuronal tissue. An essential key to the development of therapeutic neuroprotective approaches is the inclusion of appropriate experimental models. Scientists working on such models will present their data at this symposium. The aim of their studies is to define checkpoints which determine the transition of the CNS inflammation to neurodegeneration and hereby to develop preventive strategies or to trigger regeneration of the injured CNS tissue.

The symposium will give researchers interested in this field of neuroscience the opportunity to discuss the possibilities of improving current approaches to studying neurodegeneration in animal models of chronic autoimmune CNS diseases.

Symposium 34

Saturday, March 29, 2025
11:30 - 13:30, Lecture Hall 104

Chairs: Alexander Flügel and Djordje Miljković, Goettingen and Belgrade (Serbia)

11:30 **Opening Remarks**

11:35 Mikael Simons, Munich
METABOLIC CONTROL OF THE REGENERATIVE POTENTIAL IN AUTOIMMUNE CNS LESIONS (S34-1)

12:00 Florence Bareyre, Munich
REORGANIZATION OF NEURONS INTO CIRCUITS AS A CHECKPOINT OF CNS RECOVERY AFTER TRAUMATIC AND AUTOIMMUNE LESIONS (S34-2)

12:25 Polina Bugaeva, Berlin
IMMUNOPHENOTYPING OF THE BRAIN AFTER RECURRENT ISCHEMIC STROKE IN MICE (S34-3)

12:40 Arianna Merlini, Goettingen
THE ROLE OF THE MENINGES IN AUTOIMMUNE CNS INFLAMMATION (S34-4)

13:05 Djordje Miljković, Belgrade, Serbia
ADJUVANT-FREE EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS AS A MODEL TO STUDY BRAIN INFLAMMATION AND NEURODEGENERATION (S34-5)

Introductory Remarks to Symposium 35

New perspectives on the locus coeruleus - noradrenergic activity during sleep and its role in memory function

Oxana Eschenko and Sara Mednick, Tuebingen and Irvine (USA)

This symposium is devoted to renewed interest in the impact of noradrenergic neuromodulation during sleep. Pioneering work revealed greatly reduced activity of the brain stem noradrenergic nucleus Locus Coeruleus (LC-NE) during sleep and directed the focus of research toward the role of LC-NE during vigilant states. However, already earlier studies highlighted the importance of noradrenergic transmission during unconscious (or 'offline') states like sleep; these findings were consistent with a facilitatory role of LC-NE for synaptic plasticity. Recently, the role of LC-NE during sleep has been reconsidered opening up new perspectives on the LC-NE involvement in sleep-mediated memory consolidation. The speakers will share the latest advances on the LC-NE as a regulator of the brain state, sleep microarchitecture, autonomic function, and sleep-mediated memory consolidation. Artemis Gkinakou will highlight the role of sleep in vocal learning. Oxana Eschenko will speak about the coordinated firing of the LC-NE neurons with forebrain oscillations implicated in memory consolidation. Anita Lüthi and Celia Kjærby will share how methodological advancements enabled monitoring of NE release at a fine temporal scale and revealing distinctive fluctuations of LC-NE activity during sleep; this LC-NE activity dynamics is implemented in the regulation of the sleep architecture and memory performance. Our final speaker, Sofie Smith Jacobsen will present the results of a collaboration with Sara C. Mednick and highlight the role of the LC-NE system in coupling the autonomic and central nervous system in human sleep. Sofie will also share new evidence of the interaction between autonomic activity and memory consolidation during sleep in mice and compare the findings in humans and rodents. All speakers will present experimental evidence that interference with the natural LC-NE rhythmicity caused a disturbance in the sleep cycle and memory. Based on highly coherent results from multimodal experimental work in animals and humans, we will suggest the functional significance of these novel findings in health, aging, and disease. The clinical use of noradrenergic drugs makes the assessment of the effect of medication on cognitive functions of high importance. Despite some obvious health benefits, the pharmacological alteration of NE levels may, as a side effect, impair patients' mental states.

Symposium 35

Saturday, March 29, 2025
11:30 - 13:30, Lecture Hall 105

Chairs: Oxana Eschenko and Sara Mednick, Tuebingen and Irvine (USA)

11:30 **Opening Remarks**

11:35 Artemis Gkinakou, Freising
UNRAVELLING THE ROLE OF SLEEP IN VOCAL LEARNING (S35-1)

11:45 Oxana Eschenko, Tuebingen
THE ACTIVITY DYNAMICS OF THE LOCUS COERULEUS NORADRENERGIC NEURONS DURING SLEEP AND ITS ROLE IN SYSTEMS-LEVEL MEMORY CONSOLIDATION (S35-2)

12:10 Anita Lüthi, Lausanne, Switzerland
LOCUS COERULEUS ACTIVITY FLUCTUATIONS IN MOUSE NON-REM SLEEP: COORDINATORS OF BRAIN AND PERIPHERAL RHYTHMS, GATEKEEPERS OF THE NON-REM-REM SLEEP CYCLE, CULPRITS OF SLEEP DISRUPTIONS (S35-3)

12:35 Celia Kjærby, Copenhagen, Denmark
THE ROLE OF NOREPINEPHRINE-DRIVEN SLEEP MICROSTRUCTURE ON COGNITIVE PERFORMANCE IN HEALTH AND DISEASE (S35-4)

13:00 Sofie Smith Jacobsen, Copenhagen, Denmark // Sara C. Mednick, Irvine, USA
OF MICE AND MEN: AUTONOMIC ACTIVITY THAT SUPPORT MEMORY CONSOLIDATION DURING SLEEP (S35-5)

13:25 **Concluding Remarks**

Introductory Remarks to Symposium 36

Neuronal representation of space, directions and goals in insects and vertebrates

Hannah Haberkern and Keram Pfeiffer, Wuerzburg

The ability of animals to orient in space is the most fundamental and vital prerequisite for any goal-directed behavior. It is therefore of paramount importance to understand the underlying neuronal mechanisms. Across the animal kingdom, circuits for spatial orientation must support similar computations: 1. They have to hold a representation of the orientation of the animal's head with respect to an external frame of reference. 2. They must provide some measurement of distance travelled and/or velocity. 3. They need to hold a representation of distance and direction of a goal. 4. They have to constantly compare direction and distance of a goal to distance and direction travelled. While the number of neurons in insect and vertebrate brains differ by orders of magnitude, research in recent years has highlighted that the networks that underlie spatial orientation share many functional and anatomical properties between these groups. To deeper explore these commonalities and possible differences in the processing of spatial information in vertebrates and insects, we bring together researchers working on such diverse species as monarch butterflies, fruit flies, zebra fish and mice.

Our selected talks span not only multiple species, but also different stages of processing required for goal-directed navigation. In the first talk, we will learn how goal directions are encoded in the brain of monarch butterflies (Jerome Beetz, University of Wuerzburg, Germany). The second talk explains how the *Drosophila* brain calculates a stable goal direction from stochastic stimuli, like odor plumes (Katherine Nagel, NYU, USA). We then explore how sensory stimuli feed into the corresponding network in zebra fish (Ruben Portugues, TUM, Germany). Next, Eva María Robles Hernández will talk about how remapping of place cells, i.e. the change of firing patterns of place cells in different environments, is affected in a mouse model of Alzheimer's Disease. The final talk illustrates the importance of the interplay between excitatory and inhibitory information in shaping the head direction signal in mice (Adrian Duszkiewicz, University of Stirling, UK). By illuminating different aspects of spatial orientation in a variety of species, we hope to illustrate how comparable behavioral requirements lead to similar neural circuits and processing and to stimulate exchange and collaborations between researchers in the field across species borders.

Symposium 36

Saturday, March 29, 2025
11:30 - 13:30, Lecture Hall 8

Chairs: Hannah Haberkern and Keram Pfeiffer, Wuerzburg

11:30 **Opening Remarks**

11:35 Bianca Jaske, Wuerzburg
TEMPERATURE COMPENSATION IN MOTION-SENSITIVE NEURONS OF THE BUMBLEBEE CENTRAL BRAIN (S36-1)

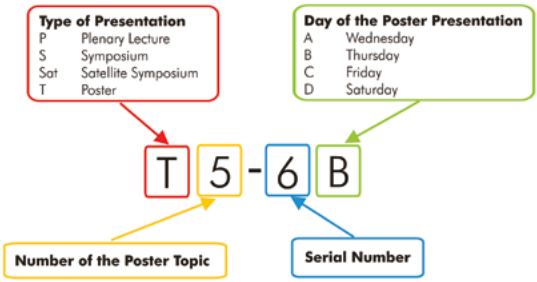
12:00 Katherine Nagel, New York, USA
NEURAL CIRCUIT MECHANISMS FOR WORKING MEMORY AND EVIDENCE INTEGRATION DURING OLFACTORY NAVIGATION (S36-2)

12:25 Ruben Portugues, Munich
HOW LARVAL ZEBRAFISH ORIENT AND MOVE IN SPACE (S36-3)

12:50 Eva María Robles Hernández, Berlin
EVALUATION OF CA3 PLACE CELL REMAPPING IN THE APP/PS1 MODEL MOUSE OF ALZHEIMER'S DISEASE (S36-4)

13:05 Adrian Duszkiewicz, Stirling, UK
ORIGIN OF INHIBITORY TUNING IN THE RODENT HEAD-DIRECTION CORTEX (S36-5)

Explanation of Abstract Numbers



There are two poster sessions on each day of the conference. The posters will hang all day long. Poster with poster numbers ending with an A are displayed on Wednesday, poster with a poster number ending with a B are displayed on Thursday, posters with a poster number ending with a C are displayed on Friday and posters with a poster number ending with a D are displayed on Saturday.

Each poster session (90 min) is divided into two parts with 45 min: odd and even serial numbers. In the first part of the first session of a day posters with odd serial numbers will be discussed. In the second 45 min of the first session of a day posters with even serial numbers will be discussed.

In the second session of a day posters with odd serial poster numbers will be discussed again in the first 45 min and in the second 45 min of the same session posters with even serial numbers will be discussed once more.

Example

T21-2B
T = poster to a poster topic
21 = the poster topic is No. 21, i.e. "Motor Systems"
2 = serial number (even number, i.e. 45 min of the second part of the session)
B = indicates the day, i.e. Thursday

This means:
Poster T21-2B is a poster belonging to the topic "Motor Systems" and is presented on:

Thursday, March 27, 2025
09:45 -10:30 h and 17:15 -18:00 h in the poster area 21.

Poster Topics

Poster Topic	Wednesday	Thursday	Friday	Saturday
T1: Stem cells, neurogenesis and gliogenesis	T1-1A – T1-3A	T1-1B – T1-3B	T1-1C – T1-2C	T1-1D – T1-3D
T2: Axon and dendrite development, synaptogenesis	T2-1A – T2-3A	T2-1B – T2-4B	T2-1C – T2-3C	T2-1D – T2-3D
T3: Developmental cell death, regeneration and trans-plantation	T3-1A	no poster contribution	no poster contribution	no poster contribution
T4: Neurotransmitters, retrograde messengers and cytokines	T4-1A – T4-3A	T4-1B – T4-2B	T4-1C – T4-2C	no poster contribution
T5: G Protein-linked and other receptors	no poster contribution	T5-1B – T5-2B	T5-1C	T5-1D – T5-2D
T6: Ligand-gated, voltage-dependent ion channels and transporters	T6-1A – T6-4A	T6-1B – T6-4B	T6-1C – T6-4C	T6-1D – T6-4D

Poster Topic	Wednesday	Thursday	Friday	Saturday
T7: Synaptic transmission, pre- and postsynaptic organization	T7-1A – T7-7A	T7-1B – T7-7B	T7-1C – T7-8C	T7-1D – T7-7D
T8: Synaptic plasticity, LTP, LTD	T8-1A – T8-5A	T8-1B – T8-6B	T8-1C – T8-5C	T8-1D – T8-6D
T9: Glia, glia-neuron interactions	T9-1A – T9-8A	T9-1B – T9-7B	T9-1C – T9-7C	T9-1D – T9-7D
T10: Aging and developmental disorders	T10-1A – T10-5A	T10-1B – T10-4B	T10-1C – T10-4C	T10-1D – T10-4D
T11: Alzheimer's, Parkinson's and other neuro-degenerative diseases	T11-1A – T11-10A	T11-1B – T11-10B	T11-1C – T11-11C	T11-1D – T11-10D
T12: Neuroimmunology, inflammation and neuro-protection	T12-2A – T12-3A	T12-1B – T12-3B	T12-1C – T12-4C	T12-1D – T12-3D
T13: Cognitive, emotional, behavioral state disorders and addiction	T13-1A – T13-3A	T13-1B – T13-2B	T13-1C – T13-2C	T13-1D – T13-2D

Poster Topic	Wednesday	Thursday	Friday	Saturday
T14: Vision: invertebrates	T14-1A – T14-4A	T14-1B – T14-4B	T14-1C – T14-3C	T14-1D – T14-3D
T15: Vision: retina and subcortical pathways	T15-1A – T15-2A	T15-1B – T15-2B	T15-1C – T15-3C	T15-1D – T15-3D
T16: Vision: striate and extrastriate cortex, eye movement and visuomotor processing	T16-1A	T16-1B – T16-2B	T16-1C – T16-2C	T16-1D – T16-2D
T17: Auditory mechanoreceptors, vestibular, cochlea, lateral line and active sensing	T17-1A – T17-3A	T17-1B – T17-3B	T17-1C – T17-3C	T17-1D – T17-2D
T18: Auditory system: subcortical and cortical processing	T18-1A – T18-6A	T18-1B – T18-7B	T18-1C – T18-7C	T18-1D – T18-6D
T19: Chemical senses: olfaction, taste, others	T19-1A – T19-7A	T19-1B – T19-8B	T19-1C – T19-8C	T19-1D – T19-8D
T20: Somatosensation: touch, temperature, proprioception, nociception	T20-1A – T20-2A	T20-1B – T20-2B	T20-1C – T20-2C	T20-1D – T20-2D

Poster Topic	Wednesday	Thursday	Friday	Saturday
T21: Motor systems	T21-1A – T21-5A	T21-1B – T21-5B	T21-1C – T21-6C	T21-1D – T21-6D
T22: Homeostatic and neuroendocrine systems, stress response	T22-1A – T22-5A	T22-1B – T22-5B	T22-1C – T22-4C	T22-1D – T22-4D
T23: Neural networks and rhythm generators	T23-1A – T23-7A	T23-1B – T23-6B	T23-1C – T23-7C	T23-1D – T23-7D
T24: Attention, motivation, emotion and cognition	T24-1A – T24-7A	T24-1B – T24-6B	T24-1C – T24-7C	T24-1D – T24-7D
T25: Learning and memory	T25-1A – T25-9A	T25-1B – T25-8B	T25-1C – T25-9C	T25-1D – T25-8D
T26: Computational neuroscience	T26-1A – T26-4A	T26-1B – T26-5B	T26-1C – T26-5C	T26-1D – T26-5D
T27: Techniques and demonstrations	T27-1A – T27-7A	T27-1B – T27-6B	T27-1C – T27-5C	T27-1D – T27-6D

T1: Stem cells, neurogenesis and gliogenesis

Wednesday

T1-1A BENEFICIAL EFFECTS OF VOLUNTARY RUNNING UPON ADULT NEUROGENESIS DEPENDS ON THE LEVELS OF AVAILABLE BDNF IN THE BRAIN
Monique Klausch, Viola von Bohlen und Halbach, Oliver von Bohlen und Halbach, Greifswald

T1-2A ELUCIDATING SYNGAP1 ISOFORM FUNCTIONS IN HUMAN NEURODEVELOPMENT USING CEREBRAL ORGANOIDS
Ivanna Kupryianchyk-Schultz, Daniel Bauersachs, Ralf Kühn, Manuel Irimia, Sarah Shoichet, Agnieszka Rybak-Wolf, Berlin

T1-3A HIGH-THROUGHPUT KNOCKDOWN SCREENING FOR MODIFIERS OF NEURONAL MORPHOLOGY IN PATIENT-DERIVED NEURONS
Selene Lickfett, Carmen Menacho, Markus Schülke, Andrea Rossi, Sidney Cambridge, Alessandro Prigione, Duesseldorf

Thursday

T1-1B ADULT NEUROGENESIS IN THE MOUSE VOMERONASAL ORGAN
Lena Terlau, Aachen

T1-2B SYSTEMATIC ANALYSIS OF THE TRANSCRIPTOME AND PROTEOME OF HUMAN IPSCS DURING DIFFERENTIATION INTO CORTICAL NEURONS
Shreejoy Tripathy, Toronto, Canada

T1-3B BAF COMPLEX MODULATES MGE-DERIVED GABAERGIC NEURON DEVELOPMENT
Xiaoyi Mao, Eman Abbas, M Sadman Sakib, Pauline Antonie Ulmke, Tonatiuh Pena Centeno, Linh Pham, Joachim Rosenbusch, Jochen F. Staiger, Andre Fischer, Huu Phuc Nguyen, Tran Tuoc, Goettingen

Friday

T1-1C MOLECULAR MAPPING OF THE NEUROECTODERM ACROSS PHYLA – CONSERVATION AND DIVERGENCE OF BRAIN REGIONS BETWEEN INSECTS AND VERTEBRATES
Gregor Bucher, Nico Posnien, Vera Hunnekuhl, Goettingen

T1-2C OLFACTORY NEURON REGENERATION IN ADULT *DROSOPHILA*
Ismael Fernández-Hernández, Eric Hu, Michael A. Bonaguidi, André Fiala, Goettingen

Saturday

T1-1D C-TERMINAL BINDING PROTEIN 1 IS REQUIRED FOR ADULT HIPPOCAMPAL NEUROGENESIS
Burcu Sucu, Neeraja Suresh, Nader Mounzer, Bartomeu Perelló-Amorós, Renato Frischknecht, Anna Fejtová, Erlangen

T1-2D THE ROLE OF MAST3 IN NEURODEVELOPMENT AND DISEASE
Carolina Rodrigues Duro, David Anthony Keays, Planegg-Martinsried

T1-3D *IN VITRO* MODELS TO EXPLORE MECHANISMS OF HYPOXIA RESISTANCE IN THE NAKED MOLE-RAT
Paraskevi Kakouri, Alice Rossi, Oscar Sanchez-Carranza, Severine Kunz, Gary R. Lewin, Berlin

T2: Axon and dendrite development, synaptogenesis

Wednesday

T2-1A INPUT SYNAPSE DISTRIBUTION ON THE DENDRITES OF AN ENSEMBLE OF FIVE *DROSOPHILA* FLIGHT MOTONEURONS
Lion Huthmacher, Carsten Duch, Mainz

T2-2A BASAL FOREBRAIN CHOLINERGIC INNERVATION OF THE VISUAL CORTEX DURING POSTNATAL DEVELOPMENT IN CHAT-CRE TRANSGENIC MICE
Jude Ijuo Abeje, David Cabrera-Garcia, Christian Lohmann, Berlin

T2-3A A COMPARATIVE STUDY OF NEURONAL ARCHITECTURE IN THE CAUDATE NUCLEUS: INSIGHTS FROM CAMELS AND HUMANS
Sami Zaqout, Juman Almasaad, Ziad Bataineh, Doha, Qatar

Thursday

T2-1B 3D MAPPING OF PARVALBUMIN INTERNEURON-DERIVED CORTICO-STRIATAL AXONAL PROJECTIONS
Hadiseh Hosseinnia, Maria Lehning, Andrew Octavian Sasmita, Clarissa Menschel, Patrick Spisse, Robert Fledrich, Kristina Lippmann, Markus Morawski, Ruth M. Stassart, Markus H. Schwab, Leipzig

T2-2B SPECTRAPLAKIN INTERACTS WITH MTOCS TO ORGANIZE DENDRITIC MICROTUBULES
Sebastian Rumpf, Matthew Davies, Neeraja Sanal, Ulrike Gigengack, Ines Hahn, Muenster

T2-3B H-RAS INDUCES EXUBERANT *DE NOVO* DENDRITIC PROTRUSION GROWTH IN MATURE NEURONS REGARDLESS OF CELL TYPE
Sarah Krüssel, Ishana Deb, Seungkyu Son, Gabrielle Ewall, Minhyeok Chang, Hey-Kyoung Lee, Won Do Heo, Hyung-Bae Kwon, Mannheim

T2-4B CYCLASE-ASSOCIATED PROTEIN: AN ACTIN REGULATOR WITH MULTIPLE NEURONAL FUNCTIONS
Marco Rust, Sharof Khudayberdiev, Cara Schuldt, Anika Heinze, Felix Schneider, Marburg

Friday

T2-1C DYNAMIC STRUCTURAL PLASTICITY DETERMINES DEVELOPMENTAL MATURATION OF THE COCHLEAR INNER HAIR CELL RIBBON SYNAPSE
Roos Anouk Voorn, Noboru Komiyama, Vladan Rankovic, Seth Grant, Christian Vogl, Innsbruck, Austria

T2-2C THE METHYLATION-INDEPENDENT ROLE OF THE DNA METHYLTRANSFERASE 1 ON NEURONAL DEVELOPMENT AND INTRACELLULAR TRAFFICKING
Georg Pitschelatow, Cathrin Bayer, Philip Wolff, Jana Egner-Walter, Claudia Palacios, Christoph Hamacher, Ke Zuo, Mineko Kengaku, Paolo Carloni, Marc Spehr, Geraldine Zimmer-Bensch, Aachen

T2-3C CHEMOGENETIC AND OPTOGENETIC MODULATION OF CORTICAL PYRAMIDAL CELLS INFLUENCES AXONAL PATTERN FORMATION
Ina Köhler, Adriana Rehm, Burak Ceylan, André Haase, Steffen Gonda, Petra Wahle, Bochum

Saturday

T2-1D INTERACTIONS OF ANTIBODIES TO *TREPONEMA PALLIDUM* WITH THE COLLAPSIN RESPONSE MEDIATING PROTEIN CRMP1 LEAD TO IMPAIRED NEURITE OUTGROWTH IN SIMA NEUROBLASTOMA CELLS
Bernhard Reuss, Goettingen

T2-2D ROLE OF TYPE I INTERFERON RECEPTOR IN BRAIN DEVELOPMENT
Luisa Demuth, Shirin Hosseini, Kristin Michaelsen-Preusse, Martin Korte, Braunschweig

T2-3D EXPRESSION OF SYNAPTIC PROTEINS AND DEVELOPMENT OF DENDRITIC SPINES IN FETAL AND POSTNATAL NEOCORTEX OF THE PIG, THE EUROPEAN WILD BOAR *SUS SCROFA*.
Eric Sobierajski, Katrin Czubay, Marc-André Schmidt, Sebastian Wiedenski, Sarah Rettschlag, Christa Beemelmans, Christoph Beemelmans, Petra Wahle, Bochum

T3: Developmental cell death, regeneration and transplantation

Wednesday

T3-1A HISTONE DEACETYLASE 8 (HDAC8) CONTROLS HYPOXIA-INDUCED CONVERSION OF SENSORY SCHWANN CELLS INTO REPAIR CELLS
Nadège Hertzog, Mert Duman, Maëlle Bochud, Valérie Brügger-Verdon, Maren Gerhards, Félicia Schön, Franka Dorndecker, Robert Fledrich, Ruth M. Stassart, Devanarayanan Sankar, Joern Dengjel, Sofía Raigón López, Claire Jacob, Mainz

Thursday

no poster contribution

Friday

no poster contribution

Saturday

no poster contribution

T4: Neurotransmitters, retrograde messengers and cytokines

Wednesday

T4-1A HOW ORGANELLE COMMUNICATION SHAPES NEURON FUNCTION: TRIPLE ORGANELLE CONTACT SITES
Margret Bülow, Darla Patricia Dancourt Ramos, Marie König, Eleni Brüggemann, Nicole Kucharowski, Duesseldorf

T4-2A UNLOCKING SLEEP: THE ADENOSINE SYSTEM'S ROLE IN ZALEPLON'S MECHANISM
Jelena Martinovic, Marina Zaric Kontic, Ivana Gusevac Stojanovic, Dunja Drakulic, Ivana Grkovic, Natasa Mitrovic, Belgrade, Serbia Montenegro

T4-3A PEROXISOME-GOLGI INTERACTION IN NEUROPEPTIDE SECRETION
Nicole Kucharowski, Marie König, Margret H. Bülow, Duesseldorf

Thursday

T4-1B EXAMINING CYMBOPOGON CITRATUS POTENTIAL FOR SYNAPTIC FUNCTION THROUGH AMPA RECEPTOR MODULATION
Belal Rahhal, Nablus, Palestine

T4-2B EXTRACELLULAR PH IS BRAIN STATE DEPENDENT
Verena Untiet, Zuzanna Bojarowska, Yang Xue, Felix Beinlich, Nicolas Cesar Petersen, Hajime Hirase, Maiken Nedergaard, Copenhagen, Denmark

Friday

T4-1C CORTICAL SEROTONIN AND THE ROLE OF THE 5-HT3 RECEPTOR
Patricia Przibylla, Christina Buetfering, Jakob von Engelhardt, Mainz

T4-2C DISSECTING DOPAMINE DEFICIENCY: DEVELOPMENTAL, PHYSIOLOGICAL AND BEHAVIORAL CHARACTERIZATION OF CATECHOLAMINE-FREE ZEBRAFISH LARVAE
Susana Paredes-Zúñiga, Rebecca Peters, Kristine Østevold, Gerard Arrey, Dennis Frank, Wolfgang Driever, Freiburg

Saturday

no poster contribution

T5: G Protein-linked and other receptors

Wednesday

no poster contribution

Thursday

T5-1B INVESTIGATION OF DOPAMINE AND SEROTONIN RECEPTORS AND THEIR HETEROMERS USING GPCR-BASED FLUORESCENT SENSORS
Ponlawit Wisomka, Nik Meisterernst, Andreas Reiner, Bochum

T5-2B DECODING OCTOPAMINE'S ROLE IN *DROSOPHILA MELANOGASTER*: A BEHAVIORAL AND MOLECULAR STUDY OF TROJAN EXON MUTANTS
Alexandra Großjohann, Marvin Hahmann, Andreas S. Thum, Leipzig

Friday

T5-1C THE OPTOGENETIC POTENTIAL OF THE ANOMALOUS GI/O-COUPLED VERTEBRATE ANCIENT OPSIN FROM THE FLASHLIGHT FISH ANOMALOPS KATOPTRON
Lennard Rohr, Philip Althoff, Ori Berman, Caroline Naber, Caroline Güers, Melanie Mark, Peter Soba, Alexander Gottschalk, Moran Shalev-Benami, Till Rudack, Ida Siveke, Stefan Herlitze, Bochum

Saturday

T5-1D MICROGLIAL-NEURONAL INTERACTIONS IN THE RECOVERY PHASE OF ISCHEMIC STROKE
Charlotte Catharina Oldenburg, Marie-Luise Brehme, Lynn Bitar, Tim Magnus, Thomas G. Oertner, Hamburg

T5-2D EXPRESSION OF CIRL1 AND CIRL3 ADHESION GPCRS IN THE DORSAL ROOT GANGLIA IN DIFFERENT PERIPHERAL NEUROPATHY MODELS
Mariam Medhat Sobhy Atalla, Maria Georgalli, Abdulrahman Sawalma, Annemarie Sodmann, Robert Blum, Heike Rittner, Wuerzburg

T6: Ligand-gated, voltage-dependent ion channels and transporters

Wednesday

T6-1A DISTINCT SUBCELLULAR COMPARTMENTALIZATION OF KV4.3 CHANNELS IN THE HIPPOCAMPAL CA1 INTERNEURONS AND ITS IMPACT ON THE PERISOMATIC INHIBITION
Laxmi Kumar Parajuli, Shantanu Durgvanshi, Nithya Sethumadhavan, Marco Ross, Akos Kulik, Claudio Elgueta, Freiburg Im Breisgau

T6-2A TRPV4 CHANNELS MEDIATE NA^+ INFLUX AND PROMOTE CELLULAR ATP LOSS DURING ENERGY DEPRIVATION IN MOUSE CORTEX
Nils Pape, Christine R. Rose, Duesseldorf

T6-3A STRUCTURAL AND FUNCTIONAL INSIGHTS INTO GLUK2/GLUK5 KAINATE RECEPTOR GATING
Laura Moreno Wasielewski, Alexa Strauss, Nandish Khanra, Sophie Lenze, Joel Meyerson, Joshua Levitz, Andreas Reiner, Bochum

T6-4A MOLECULAR DETERMINANTS OF CESIUM- AND GLYCINE-DEPENDENT GLYCINE RECEPTOR ACTIVATION
Steffen Fricke, Magnus Harnau, Elina Zeller, Jochen Meier, Braunschweig

Thursday

T6-1B PROBING THE ROLE OF ION CHANNEL DEGENERACY FOR ROBUST NEURONAL EXCITABILITY
Selina Hilgert, Carsten Duch, Stefanie Ryglewski, Mainz

T6-2B EFFECTS OF ENERGY DEPRIVATION ON CELLULAR ATP LEVELS AND ION HOMEOSTASIS IN HUMAN CORTICAL BRAIN ORGANOID SLICES (CBOS)
Louis Anton Neu, Laura Petersilie, Sonja Heiduschka, Nils Pape, Alessandro Prigione, Christine R. Rose, Duesseldorf

T6-3B CIRCADIAN AND ULTRADIAN RHYTHMS IN THE SPONTANEOUS ACTIVITY OF INSECT OLFACTORY RECEPTOR NEURONS
Aditi Vijayan, Mauro Forlino, Katrin Schröder, Huleg Zolmon, Martin Garcia, Monika Stengl, Kassel

T6-4B INVESTIGATION OF GLUTAMATE ACCUMULATION AND NEURONAL DEPOLARIZATION IN METABOLIC STRESS CONDITIONS
German Lauer, Tim Ziebarth, Hanna Praast, Andreas Reiner, Bochum

Friday

T6-1C PHARMACOLOGICAL INHIBITION OF $CA_V2.1$-α2δ1 INTERFACE SUPPRESSES NEURONAL FIRING AND REDUCES SYNAPTIC DENSITY IN HIPPOCAMPAL NETWORK
Arthur Bikbaev, Corinna Werkmann, Lea Wazulin, Lea Driesang, Abderazzaq El Khallouqi, Ana Carolina Palmeira do Amaral, Martin Heine, Mainz

T6-2C ALLOSTERIC MODULATION OF $GABA_AR$ BY SESQUITERPENES REPRESENTING A DISTINCT FRACTION IN VOLATILE OILS AND PLANT EXTRACTS
Julian Leopold Nausester, Anna-Lena Wießler, Christian Boehm, Andrea Buettner, Carmen Villmann, Wuerzburg

T6-3C A SECRETED PROTEIN CONTROLS SURFACE EXPRESSION OF A POSTSYNAPTIC ION CHANNEL
Sven Kuspiel, Dominik Wiemuth, Stefan Gründer, Aachen

T6-4C CKAMP59 (AKA SHISA7) IS PROBABLY AN AUXILIARY SUBUNIT OF THE AMPA RECEPTOR COMPLEX
Benedikt Grünewald, Samy Al-Qut, Alexander Hammen, Jakob von Engelhardt, Mainz

Saturday

T6-1D TRANSIENT NEONATAL HYPEREXCITABILITY INDUCES PERSISTENT NETWORK ALTERATIONS IN *SCN2A* P.A263V MOUSE MODEL OF EPILEPSY
Yana Reva, Katharina Ulrich, Hanna Oelßner, Daniil Kirianov, Mohamad Samehni, Birgit Engeland, Ricardo Melo Neves, Dirk Isbrandt, Bonn

T6-2D DECODING REELIN'S IMPACT ON CHOLINERGIC SIGNALING: A NOVEL PERSPECTIVE ON NEURAL MODULATION
Marie-Luise Kümmel, Eckart Förster, Max Wulf, Katrin Marcus-Alic, Bochum

T6-3D MODULATION OF RAT AND HUMAN ACID-SENSING ION CHANNEL 3 BY THE THYROID HORMONE T3
Lu Qin, Dominik Wiemuth, Stefan Gründer, Aachen

T6-4D PRELIMINARY STUDY OF ANALGESIC EFFECT OF BUMETANIDE ON NEUROPATHIC PAIN IN PATIENTS WITH SPINAL CORD INJURY*a*
Leila Zarepour, Tehran, Iran

T7: Synaptic transmission, pre- and postsynaptic organization

Wednesday

T7-1A THE IMPACT OF CAR ON GLUTAMATERGIC SYNAPSES
Jacobo Lopez Carballo, René Jüttner, Michael Gotthardt, Berlin

T7-2A PRESYNAPTIC ATP DECREASES DURING PHYSIOLOGICAL-LIKE ACTIVITY
Stefan Hallermann, Isabelle Straub, Lukas Kunstmann, Felipe Baeza-Lehnert, Gerardo Gonzalez, Karl Schoknecht, Daniel Gitler, Johannes Hirrlinger, Leipzig

T7-3A REGULATION OF MITOCHONDRIAL CA^{2+} HOMEOSTASIS AND NEURONAL ACTIVITY BY MITOCHONDRIAL FISSION FACTOR IN AGRP NEURONS
Gagik Yeghiazaryan, Almudena del Río-Martín, Marie H. Solheim, Paul Mirabella, Tamara Sotelo-Hitschfeld, Corinna Bauder, Hong Jiang, Weiyi Chen, Paul Klemm, Lukas Steuernagel, Alain J. de Solís, Henning Fenselau, F. Thomas Wunderlich, Jens C. Brüning, Peter Kloppenburg, Köln

T7-4A ADOLESCENT ALCOHOL DRINKING COMPROMISES EXCITATION/INHIBITION BALANCE IN ADULT MOUSE DENTATE GYRUS GRANULE CELLS
Fang Zheng, Christian Alzheimer, Erlangen

T7-5A A SPECIFIC ASSOCIATION OF PRESYNAPTIC K^+ CHANNELS WITH CA^{2+} CHANNELS UNDERLIES K^+ CHANNEL-MEDIATED REGULATION OF GLUTAMATE RELEASE
Byoung Ju Lee, Won-Kyung Ho, Seungbok Lee, Seoul, Korea (South)

T7-6A ELUCIDATING THE NANO-ARCHITECTURE OF THE PRESYNAPTIC PROTEOME
Siqi Sun, Berlin

T7-7A CHARACTERISATION OF MAGI-FAMILY SYNAPTIC SCAFFOLDING PROTEINS IN HUMAN IPSC DERIVED NEURONS
Doris Lau, Maximilian Borgmeyer, Julia Knocks, Lukas Einhäupl, Tomas Fanuza, Christian Wozny, Nina Wittenmayer, Hamburg

Thursday

T7-1B THE ROLE OF STIM AND ORAI VARIANTS IN NEUROTRANSMISSION
Lukas Jarzembowski, Kathrin Förderer, Priska Degro, Kathrin-Lisa Laius, Jeanette Andres, Dalia Alansary, Barbara A. Niemeyer, Homburg

T7-2B THE COXSACKIEVIRUS AND ADENOVIRUS RECEPTOR - A NEW TARGET FOR IMPROVED SYNAPTIC TRANSMISSION
Giuliano Andrea Ballacchino, René Jüttner, Michael Gotthardt, Berlin

T7-3B OCTOPAMINE-INDUCED DIACYLGLYCEROL SIGNALING RAPIDLY ENRICHES ACTIVE ZONE WITH UNC13 FOR ENHANCED PRESYNAPTIC SIGNALING
Keagan Scott Chronister, Natalie Blaum, Tina Ghelani, Thiago C. Moulin, Livia Ceresnova, Stephan Sigrist, Alexander M. Walter, Copenhagen, Denmark

T7-4B CHARACTERIZING THE INTERFACE OF BIOMOLECULAR CONDENSATES AT THE SYNAPSE
Johannes Vincent Tromm, Christian Hoffmann, Gennadiy Murastov, Takahiro Nagao, Taka Tsunoyama, Chinyere Logan, Aleksandar Matkovic, Akihiro Kusumi, Yusuke Hirabayashi, Dragomir Milovanovic, Bonn

T7-5B THE SNARE PROTEIN SNAP25A IS INTRINSICALLY DISORDERED AND HIGHLY DYNAMIC IN ITS PRE-FUSION CONFORMATION
Nils-Alexander Lakomek, Tobias Stief, Katharina Vormann, Sophia Werner, Duesseldorf

T7-6B ROLE OF SYNAPTOTAGMIN 7 IN REGULATING PRESYNAPTIC FUNCTION AT THE *DROSOPHILA* NEUROMUSCULAR JUNCTION
Jashar Arian, Selina Hilgert, Mainz

T7-7B ALTERNATIVE *CACOPHONY* SPLICE ISOFORMS MEDIATE FAST VERSUS GRADED SYNAPTIC TRANSMISSION IN *DROSOPHILA*
Tobias Rinas, Veronica Pampanin, Stefanie Ryglewski, Mainz

Friday

T7-1C NEURONAL MEMBRANE SHAPE REGULATION THROUGH INTERPLAY OF THE CYTOSKELETON AND BAR-DOMAIN PROTEINS
Agata Witkowska, Clara Grosse, Cicek Kanar, Milena Roth, Leonie Rommel, Berlin

T7-2C CONTROLLING THE FORMATION OF MOLECULAR NANOCLUSTERS IN THE POSTSYNAPSE
Nahid Safari Lemjiri, Christian Tetzlaff, Goettingen

T7-3C NEUROMODULATION OF THE ENDBULB OF HELD TO BUSHY CELL SYNAPSE IN THE COCHLEAR NUCLEUS BY SEROTONIN AND NOREPINEPHRINE
Maria Boykova Groshkova, Theocharis Alvanos, Yumeng Qi, Yunfeng Hua, Tobias Moser, Goettingen

T7-4C ANALYSIS OF THE FUNCTION OF NLGN2 AT DIFFERENT GABAERGIC SYNAPSE SUBTYPES IN THE MPFC
Tamara Ritter, Holger Taschenberger, Dilja Krüger-Burg, Mainz

T7-5C DYNAMIC INTERACTIONS BETWEEN PRESYNAPTIC CALCIUM CHANNEL SUBUNITS
Corinna Werkmann, Artur Bikbaev, Hanna Kern, Markus Missler, Stefanie Ryglewski, Martin Heine, Mainz

T7-6C FUNCTIONAL AND MORPHOLOGICAL CHARACTERIZATION OF VIP+/CHAT+ NEURONS MAY ACT AS "DISINHIBITORS" IN L2/3 OF MOUSE BARREL CORTEX
Hala Nam, Martin Möck, Mirko Witte, Jochen Staiger, Goettingen

T7-7C CELLULAR CALCIUM LOADING IN HUMAN CORTICAL BRAIN ORGANOID SLICES (CBOS) EXPOSED TO ISCHEMIC CONDITIONS
Laura Petersilie, Karl W. Kafitz, Sonja Heiduschka, Joel Sean Elliot Nelson, Louis Anton Neu, Stephanie Le, Alessandro Prigione, Christine R. Rose, Duesseldorf

T7-8C 3D MINFLUX COMBINED WITH DNA-PAINT REVEALS THE ORIENTATION AND ARRANGEMENT OF BASSOON AT THE ACTIVE ZONE OF HIPPOCAMPAL NEURONS
Florelle Domart, Evelyn Garlick, Isabelle Jansen, Ulf Matti, Thomas Dresbach, Goettingen

Saturday

T7-1D SPATIO-TEMPORAL DYNAMICS OF LATERAL NA+ DIFFUSION IN APICAL DENDRITES OF MOUSE CA1 PYRAMIDAL NEURONS
Joel Sean Elliot Nelson, Jan Meyer, Niklas J. Gerkau, Karl W. Kafitz, Ghanim Ullah, Fidel Santamaria, Christine R. Rose, Duesseldorf

T7-2D A MODEL INVESTIGATION OF SYNAPTIC TRANSMISSION TUNED VIA THE UNC13 PROTEIN
Magdalena Springer, Stephan Sigrist, Martin Paul Nawrot, Cologne

T7-3D SYNAPSIN CONDENSATES ARE MOLECULAR BEACONS FOR ACTIN ORGANIZATION AT THE SYNAPTIC BOUTON
Christian Hoffmann, Akshita Chhabra, Aleksandr A. Korobeinikov , Jakob Rentsch, Linda Kokwaro, Gerard Aguilar Perez, Luka Gnidovec, Johannes Vincent Tromm, Jaqulin N. Wallace, Cristina Román-Vendrell, Emma C. Johnson, Branislava Rankovic, Eleonora Perego, Sarah Köster, Silvio O. Rizzoli, Helge Ewers, Jennifer R. Morgan, Dragomir Milovanovic, Berlin

T7-4D ESTIMATES OF QUANTAL SYNAPTIC PARAMETERS IN LIGHT OF MORE COMPLEX VESICLE POOL MODELS
Grit Bornschein, Simone Brachtendorf, Hartmut Schmidt, Leipzig

T7-5D MUNC13-3 TIGHTENS VESICLE DOCKING AT A CENTRAL SYNAPSE
Robert Jacobi, Maximilian Zettner, Martin Pauli, Christian Stigloher, Anna-Leena Sirén, Manfred Heckmann, Kristina Lippmann, Wuerzburg

T7-6D DEFINING THE ELECTROCHEMICAL PROPERTIES OF SYNAPTIC CONDENSATES
Agustin Mangiarotti, Elias Sabri, Johannes Vincent Tromm, Christian Hoffmann, Aleksandar Matkovic, Rumiana Dimova, Dragomir Milovanovic, Berlin

T7-7D COMPARING THE CA^{2+}-BINDING KINETICS OF SYNAPTOTAGMIN 1 AND 2 AT CORTICAL SYNAPSES
Simone Brachtendorf, Grit Bornschein, Abdelmoneim Eshra, Jens Eilers, Stefan Hallermann, Hartmut Schmidt, Leipzig

T8: Synaptic plasticity, LTP, LTD

Wednesday

T8-1A ALTERED INHIBITORY CIRCUITS: THE EFFECTS OF ITBS900 ON GABAERGIC SYNAPSES IN CA1 PYRAMIDAL NEURONS
Ramya Rama, Martin Mittag, Peter Jedlicka, Andreas Vlachos, Freiburg

T8-2A EXPERIENCE-DEPENDENT MODULATION OF OXYTOCIN NEURONS DURING POSTPARTUM
Kaya Melissa Baumert, Charlotte Marry Burns, Amelie Kühler, Silvana Valtcheva, Cologne

T8-3A CALCIUM MEDIATED PRESYNAPTIC HOMEOSTATIC PLASTICITY AT THE *DROSOPHILA* NMJ
Lea Marie Deneke, Carsten Duch, Mainz

T8-4A POSTSYNAPTIC CAMP SIGNALING DOES NOT INDUCE LTP AT HIPPOCAMPAL SYNAPSES
Oana M. Constantin, Christine E. Gee, Thomas G. Oertner, Hamburg

T8-5A AN IPSC DERIVED HUMAN NEURONAL 3D MODEL SYSTEM FOR STUDYING DENDRITIC SPINE PATHOLOGY IN PSYCHIATRIC DISEASE
Elisanna Theodosia Menachili, Valeria Almeida, Marierose Mina, Sabrina Galinski, Moritz Rossner, Volker Scheuss, Munich

Thursday

T8-1B ALL-OPTICAL INVESTIGATION OF THE ROLE OF CAMKII ON LONG-TERM PLASTICITY IN THE HIPPOCAMPUS
Rui Wang, Michaela Schweizer, Julia Kaiser, Christian Schulze, Christine E. Gee, Thomas G. Oertner, Hamburg

T8-2B PLASTICITY OF ELECTRICAL SYNAPSES BETWEEN L1 INTERNEURONS IN THE MEDIAL PREFRONTAL CORTEX
Elizaveta Vylekzhanina, Luca Habelt, Christian Cameron de Abos y Padilla, Ilka Diester, Philippe Coulon, Freiburg

T8-3B THE ROLE OF MECHANICS FOR NEURONAL PLASTICITY
Ezgi Erterek, Jana Bachir Salvador, Stephanie Möllmert, Renato Frischknecht, Erlangen

T8-4B MARKING ACTIVE NEURONS USING IMMEDIATE EARLY GENES: FOS VS NPAS4
Marie E. Wiesenhavern, Andreas Franzelin, Christine E. Gee, Thomas G. Oertner, Hamburg

T8-5B THE ROLE OF THE ENDOPLASMIC RETICULUM IN SYNAPTIC PLASTICITY
Kelsey G. Zingg, Christine E. Gee, Thomas G. Oertner, Hamburg

T8-6B ROLE OF NEURONAL ACTIVITY ON MICROGLIA-MEDIATED SYNAPSE REFINEMENT AND CIRCUIT STABILIZATION FOLLOWING INCOMPLETE SPINAL CORD INJURY
Fritz Kagerer, Nina Heinrichs, Almir Aljovic, Florence Bareyre, Munich

Friday

T8-1C CASEIN KINASE 2 CONTROLS FUNCTIONAL AND STRUCTURAL SYNAPTIC PLASTICITY AT THE *DROSOPHILA* NMJ
Lena Maria Lion, Zeeshan Mushtaq, Jan Pielage, Kaiserslautern

T8-2C MAPPING MULTISITE NETWORK-WIDE SYNAPTIC TRANSMISSION AND LTP IN THE HIPPOCAMPAL NETWORK
Shahrukh Khanzada, Xin Hu, Brett Addison Emery, Hayder Amin, Dresden

T8-3C DIURNAL VARATIONS IN THE CONTRIBUTION OF MGLU5 RECEPTORS TO HIPPOCAMPAL SYNAPTIC PLASTICITY
Janna Maria Aarse, Denise Manahan-Vaughan, Bochum

T8-4C MECHANISMS FOR ACTIVITY DEPENDENT ADJUSTMENTS OF QUANTAL SIZE AT THE *DROSOPHILA* NMJ
Kristina Vanessa Kolb, Carsten Duch, Mainz

T8-5C FREQUENCY-DEPENDENT SYNAPTIC PLASTICITY AND NMDAR SUBUNIT CONTENT ARE DISTINCT IN SUPRA- AND INFRAPYRAMIDAL BLADE OF THE DENTATE GYRUS IN FREELY BEHAVING ANIMALS
Christina Strauch, Juliane Böge, Olena Shchyglo, Valentyna Dubovyk, Denise Manahan-Vaughan, Bochum

Saturday

T8-1D REPETITIVE MAGNETIC STIMULATION INDUCED SYNAPTIC PLASTICITY RELIES ON COOPERATIVE PRE- AND POSTSYNAPTIC ACTIVATION.
Christos Galanis, Maximilian Lenz, Mohammadreza Vasheghani Farahani, Andreas Vlachos, Freiburg

T8-2D FUNCTIONAL AND MOLECULAR MECHANISMS UNDERLYING PLASTICITY-MEDIATED CNS RECOVERY AFTER SPINAL CORD INJURY IN ADULTHOOD AND AGING
Adna Smajkan, Julie Fourneau, Hannah Peedle, Florence M. Bareyre, Munich

T8-3D MODULATION OF ACTIVITY-DEPENDENT SYNAPTIC PLASTICITY BY THE AMPAR INTERACTING-PROTEIN PRRT2
Eric Jacobi, Muhammad Aslam, Jakob von Engelhardt, Mainz

T8-4D INTERACTION OF ACTIN DYNAMICS AND SPINE GEOMETRY AS A SYNAPTIC TAG
Mitha Thomas, Michael Fauth, Goettingen

T8-5D EFFECTS OF ADOLESCENT STRESS ON SYNAPTIC TRANSMISSION AND PLASTICITY IN THE ADULT MOUSE DENTATE GYRUS
Nadja Treiber, Fang Zheng, Christian Alzheimer, Erlangen

T8-6D DENDRODENDRITIC INHIBITION OF MITRAL CELLS
Joel Kappen, Daniela Hirnet, Christian Lohr, Hamburg

T9: Glia, glia-neuron interactions

Wednesday

T9-1A DENDRITIC ATP RELEASE MEDIATES CELL TYPE-SPECIFIC NEURON-TO-ASTROCYTE COMMUNICATION
Jennifer Bostel, Antonia Beiersdorfer, Kristina Losse, Natalie Rotermund, Kristina Schulz, Janina Sophie Popp, Christine Gee, Daniela Hirnet, Christian Lohr, Hamburg

T9-2A CHEMOGENETIC ACTIVATION OF GQ IN MICROGLIA LEADS TO DEFICITS IN SYNAPTIC PLASTICITY AND NEURONAL COMMUNICATION
Marie-Luise Brehme, Oana Constantin, Zhen Yuan, Paul J. Lamothe-Molina, Laura Laprell, Fabio Morellini, Thomas G. Oertner, Hamburg

T9-4A SEX AND SIZE SPECIFIC DIFFERENCES IN THE EXTRACELLULAR VESICLE CARGO OF OLIGODENDROCYTE PROGENITOR CELLS IN RESPONSE TO HYPEROXIC STRESS
Donna Elizabeth Sunny, Elke Hammer, Rabea Schlüter, Stephan Michalik, Uwe Völker, Matthias Heckmann, Greifswald

T9-5A ACTIVATION OF PRIMARY SOMATOSENSORY CORTEX ASTROCYTES TRIGGERS LONG-TERM MECHANICAL HYPERALGESIA
Rangel Leal Silva, Antonio Gonzalez, Ilknur Çoban, Abhirup Dutta, Khaleel Alhalaseh, Alexander Groh, Amit Agarwal, Heidelberg

T9-6A THE ROLE OF N-ACETYL ASPARTATE IN AXO-GLIAL SIGNALING FOR METABOLIC SUPPORT
Lina Sophie Komarek, Julia Edgar, Klaus-Armin Nave, Goettingen

T9-7A MECHANISM OF IMPAIRED COGNITIVE FUNCTION FOCUSING OLIGODENDROCYTE ACTIVITY
Shiho Kunishima, Daisuke Kato, Bai Xianshu, Jinglei Cheng, Frank Kirchhoff, Hiroaki Wake, Nagoya, Aichi, Japan

T9-8A LIFE-LONG MYELINATION CAN BE DESCRIBED BY RATES OF MYELIN ADDITION AND REMOVAL
Sebastian Timmler, Claudia Pama, Cagla Kaya, Hendrik Miessner, Rana Eser, Yuting Li, Benjamin Simons, Ragnhildur Thora Karadottir, Cambridge, United Kingdom

Thursday

T9-1B DELETION OF THY-1 INDUCES A DISTINCT PARTIALLY ACTIVATED ASTROCYTE PHENOTYPE IN MICE
Juliane Loui, Ute Krügel, Ulrike Winkler, Anja Reinert, Dorit John, Johannes Hirrlinger, Anja Saalbach, Leipzig

T9-2B INTERACTIONS OF OLIGODENDROCYTE PRECURSOR CELLS AND DOPAMINERGIC NEURONS IN THE MOUSE SUBSTANTIA NIGRA
Ying Sun, Julia C. Fitzgerald, Frederek Reinecke, Elisabeth Bauer, Friederike Pfeiffer, Tuebingen

T9-3B ROLE OF BDNF/TRKB AND PRO-BDNF/P75^{NTR} SIGNALING IN MODULATING THE MICROGLIA FUNCTIONAL STATE IN THE AGING BRAIN
Yesheng Sun, Alexandra Theurer, Marta Zagrebelsky, Martin Korte, Braunschweig

T9-4B PURINERGIC CALCIUM SIGNALING IN ASTROCYTES OF THE MOUSE MEDIAL PREFRONTAL CORTEX
Victoria Camel, Jennifer Bostel, Christian Lohr, Antonia Beiersdorfer, Hamburg

T9-5B IMPACT OF TWO-WEEK REPETITIVE MAGNETIC STIMULATION ON MICROGLIA ACTIVITY AND NEURONAL PLASTICITY
Paolo d`Errico, Christos Galanis, Claudio Elgueta, Dimitrios Kleidonas, Andreas Vlachos, Freiburg

T9-6B SEX-SPECIFIC MOLECULAR AND CELLULAR PHENOTYPES OF PAIN RESOLUTION IN A RAT MODEL FOR NEUROPATHIC PAIN
Felicitas Schlott, Annemarie Sodmann, Beate Hartmannsberger, Alexander Brack, Heike Rittner, Robert Blum, Wuerzburg

T9-7B DEVELOPMENTAL AND NEUROINFLAMMATORY CHANGES IN GLUTAMATE AND ADENOSINE RECEPTOR-MEDIATED CA2+ SIGNALING IN ASTROCYTES OF THE OLFACTORY BULB
Fatemeh Mohammadpour, Kiana Samad-Yazdtchi, Antonia Beiersdorfer, Charlotte Schubert, Daniela Hirnet, Manuel Friese, Christian Lohr, Hamburg

Friday

T9-1C NAV1.2 EXPRESSION IN OLIGODENDROGLIAL CELLS
Constanza Bravo Rossainz Baez, Mariapia Grassia, Dirk Isbrandt, Friederike Pfeiffer, Tuebingen

T9-2C PHARMACOLOGICAL TARGETING OF SMOOTHENED RECEPTOR AS A PROMISING APPROACH TO ENHANCE OLIGODENDROCYTE DIFFERENTIATION
Antonella Damiana Recchia, Alessandra Dominicis, Vincenzo Maria D`amore, Tommaso Fabiano, Luciana Marinelli, Francesco Saverio Di Leva, Antonella Ragnini-Wilson, Roma, Italy

T9-3C THE IMPACT OF SEROTONERGIC SIGNALING ON ASTROCYTE FUNCTION AND MORPHOLOGY
Andre Zeug, Markus P. Schirmer, Evgeni G. Ponimaskin, Franziska E. Müller, Hanover

T9-4C A ROLE OF NAD IN GLIAL SUPPORT FOR AXONAL INTEGRITY
Shuying Mao, Klaus Armin Nave, Goettingen

T9-5C EFFECTS OF LPS-INDUCED INFLAMMATORY SIGNALING ON INTRINSIC CALCIUM ACTIVITY OF MOUSE AND HUMAN ASTROCYTES
Franziska E. Müller, Evgeni G. Ponimaskin, Andre Zeug, Hanover

T9-6C CELL-CELL AND CELL-MATRIX INTERACTION OF BREAST TUMOR CELLS WITH BRAIN CELLS IN A 3D HYDROGEL-BASED MATRIX
Esra Türker, Jessica Faber, Mateo S. Andrade Mier, Nicoletta Murenu, Gregor Lang, Silvia Budday, Natascha Schaeffer, Reiner Strick, Pamela Strissel, Carmen Villmann, Wuerzburg

T9-7C MYELINATION GENERATES ABERRANT ULTRASTRUCTURE THAT IS RESOLVED BY MICROGLIA
Minou Djannatian, Swathi Radha, Ulrich Weikert, Shima Safaiyan, Christoph Wrede, Cassandra Deichsel, Georg Kislinger, Agata Rhomberg, Thorben Ruhwedel, Douglas Campbell, Tjakko van Ham, Bettina Schmid, Jan Hegermann, Wiebke Möbius, Martina Schifferer, Mikael Simons, Munich

Saturday

T9-1D CROSSTALK OF α_1-NORADRENERGIC CA^{2+} AND CAMP SIGNALING IN ASTROCYTES OF THE MURINE OLFACTORY BULB
Jessica Sauer, Franz Lennart Schmidt, Antonia Beiersdorfer, Daniela Hirnet, Christine E. Gee, Christian Lohr, Hamburg

T9-2D DEVELOPMENTAL PROFILE OF OLIGODENDROCYTE ARRANGEMENT, IDENTIFICATION AND MORPHOLOGY IN NUCLEI OF THE SUPERIOR OLIVARY COMPLEX
Christina Pätz-Warncke, Alina C. Zacher, Melissa Grabinski, Laura Console-Meyer, Felix Felmy, Hanover

T9-3D ASTROCYTIC CAMP INCREASES ATP RELEASE FREQUENCY IN HIPPOCAMPAL SLICES
M. Carolina Pinto, Oana M. Constantin, Thomas G. Oertner, Christine E. Gee, Hamburg

T9-4D DYNAMIC TRANSCELLULAR MOLECULAR EXCHANGE: A NOVEL VIEW ON EXTRACELLULAR MATRIX REMODELING
Svilen Veselinov Georgiev, Silvio O. Rizzoli, Goettingen

T9-5D SYNAPTIC REORGANIZATION AND PERISYNAPTIC ASTROCYTE PLASTICITY AT SPINES OF PYRAMIDAL NEURONS IN THE MOTOR CORTEX DURING A SIMPLE MOTOR TASK
Yoshiyuki Kubota, Mohammed Youssef, Yuri Yanagawa, Shobha Upreti, Jearin Sohn, Estilla Toth, Chris Salmon, Yasuo Kawaguchi, Okazaki, Japan

T9-6D LOCAL DIFFERENCES IN BASELINE NA^+ SHAPE ASTROCYTIC K^+ UPTAKE BY THE NKA
Jan Meyer, Sara Eitelmann, Karl W. Kafitz, Christine R. Rose, Duesseldorf

T9-7D DEVELOPMENT OF MYELINATION IN GLOBULAR BUSHY CELLS
Laurin Teich, Lars Kunz, Benedikt Grothe, Planegg

T10: Aging and developmental disorders

Wednesday

T10-1A MECHANISMS OF THE MAST1-ASSOCIATED MEGA-CORPUS CALLOSUM SYNDROME
Patrick Heisterkamp, Maria-Fernanda Martinez-Reza, Alexandra Catalina Vilceanu, Heidemarie Genßler, Martin Heß, David Anthony Keays, Planegg

T10-2A THE ROLE OF MAST2 IN NEURODEVELOPMENT AND DISEASE
Alexandra Catalina Vilceanu, Tabea Sophie Wabnitz, David Anthony Keays, Munich

T10-3A EXPLORING COGNITIVE-MOTOR DUAL-TASKING: NEUROIMAGING INSIGHTS INTO BEHAVIORAL VARIABILITY BETWEEN YOUNG AND OLDER ADULTS
Yan Deng, AmirHussein Abdolalizadeh, Tina Schmitt, Christiane Thiel, Oldenburg

T10-4A CAN EARLY POSTNATAL ENVIRONMENT RESCUE IMPAIRED AUDITORY PROCESSING AND SENSORIMOTOR GATING IN A GENETIC RAT MODEL FOR AUTISM SPECTRUM DISORDER?
Susanne Schmid, Ella Doornaert, Brian Allman, London, Canada

T10-5A OLIGODENDROCYTE MECHANOTRANSDUCTION CHANNEL TMEM63A FINE-TUNES MYELIN SHEATH THICKNESS IN THE CENTRAL NERVOUS SYSTEM
Ram Dereddi, Frederic Fiore, Darshana Kalita, Clement Verkest, Felipe Bodaleo Torres, Thorben Ruhwedel, Angela Wirth, Anthony Hill, Annarita Patrizi, Wiebke Möbius, Stefan G. Lechner, Marc Freichel, Amit Agarwal, Heidelberg

Thursday

T10-1B ALTERED TOPOGRAPHY AND ENSEMBLE ACTIVITY IN AUDITORY CORTEX OF *FMR1* KNOCKOUT MICE
Jan J. Hirtz, Simon L. Wadle, Tamara Ritter , Tatjana T. X. Wadle, Kaiserslautern

T10-2B INVESTIGATING MITOCHONDRIAL ABNORMALITIES IN A MOUSE MODEL OF RETT SYNDROME
Laura van Agen, Michael Müller, Goettingen

T10-3B DNMT1-MEDIATED REGULATION OF INHIBITORY INTERNEURON MIGRATION AFFECTS CORTICAL ARCHITECTURE AND FUNCTION
Philip Wolff, Julia Reichard, Jian Du, Can Bora Yildiz, Jenice Linde, Severin Graff, Simon Musall, Geraldine Zimmer-Bensch, Aachen

T10-4B INVESTIGATING TGFβ SIGNALLING IN CHOROIDAL ENDOTHELIAL CELLS USING IMMORTALIZED PRIMARY CELL CULTURES
Bianka Brunne, Luca Rüter, Wolfgang Lezou, Jakob Sebastian Bernhard, Barbara Braunger, Hamburg

Friday

T10-1C EXTRAEMBRYONIC SOURCE OF SEROTONIN INVOLVED IN NEURODEVELOPMENT
Niccolò Milani, Laura Boreggio, Alexander Mordhorst, Stephanie Gonçalves, Raisa Brito Santos, Fatimunnisa Qadri, Natalia Alenina, Michael Bader, Berlin

T10-2C IMPAIRED AUDITORY MATURATION AND ITS INVOLVEMENT IN AUDIOGENIC SEIZURE SUSCEPTIBILITY IN A MOUSE MODEL OF FRAGILE X SYNDROME
Dorit Möhrle, Wenyue Xue, Jun Yan, Ning Cheng, Calgary, Canada

T10-3C THERAPEUTIC EFFICACY IS SIGNIFICANTLY IMPROVED WITH BILATERAL VS. UNILATERAL INTRACEREBROVENTRICULAR DRUG APPLICATION IN A RODENT MODEL OF ABSENCE EPILEPSY
Rosa Beatriz Rojas , Anna-Sophia Buschhoff, Elke Edelmann, Peer Wulff, Kiel

T10-4C NOVEL THERAPEUTIC OPTIONS FOR *KCNA2*-RELATED EPILEPSY
Elisabeth Marianne Mechtild Brand, Peter Müller-Wöhrstein, Thomas Ott, Holger Lerche, Ulrike B. S. Hedrich, Tuebingen

Saturday

T10-1D PATHOPHYSIOLOGICAL MECHANISMS OF EPILEPTOGENESIS IN A MOUSE MODEL OF DRAVET SYNDROME.
Albina Farkhutdinova, Nikolas Layer, Edueni Erharhaghen, Peter Müller-Wöhrstein, Friederike Pfeiffer, Ulrike Hedrich-Klimosch, Holger Lerche, Thomas Wuttke, Tuebingen

T10-2D FRAGILE X MICE SHOW CONTEXT-DEPENDENT DEFICITS IN VOCAL BEHAVIOUR DURING OPPOSITE SEX INTERACTION
Ursula Koch, Julia Freitag, Thorsten Michael Becker, Virginia Baatz, Daniel Breslav, Leon Marquardt, Berlin

T10-3D A SANDWICH OF GLIOBLASTOMA CELLS AND A BRAIN TISSUE SLICE: AN *IN VITRO* MODEL TO EXPLORE INTERACTIONS OF TUMOUR CELLS WITH NEURAL TISSUE
Maurice Meseke, Benjamin Schwindenhammer, Igor Jakovzwski, Ramon Rebstock, Firat Acur, Marie-Luise Kümmel, Eckart Förster, Bochum

T10-4D TRANSCRIPTOMIC INSIGHTS INTO EPILEPTOGENESIS IN A *KCNA2* LOSS-OF-FUNCTION MOUSE
Peter Müller-Wöhrstein, Hayri Calap, Elisabeth Brand, Nikolas Layer, Thomas Ott, Holger Lerche, Thomas Wuttke, Ulrike B. S. Hedrich, Tuebingen

T11: Alzheimer's, Parkinson's and other neurodegenerative diseases

Wednesday

T11-1A CONSTITUTIVE ACTIVITY OF SEROTONIN RECEPTOR 5-HT4R IN THE CONTEXT OF NEURODEGENERATIVE DISEASES
Lukas Eilers, Alina Brüge, Cara Grün, Frauke Bahr, Saskia Borsdorf, Josephine Labus, Andre Zeug, Evgeni G. Ponimaskin, Hanover

T11-2A EXAMINING ACCUMULATION RATE OF NEUROMELANIN IN THE LOCUS COERULEUS AS A CRITICAL FACTOR FOR NEURODEGENERATION
Csilla Novák, Andrés Jaramillo Flautero, Cristian Ariel González-Cabrera, Ernesto Durán, Miquel Vila, Matthias Prigge, Magdeburg

T11-3A COMMON CELLULAR RESPONSES TO ROTENONE AND HELICOBACTER PYLORI AFFECTING ALPHA-SYNUCLEIN
Marzieh Ehsani, Kiel

T11-4A GLUTAMATERGIC NEUROTOXICITY IN MCOPS12: A DISEASE CAUSED BY MUTATIONS IN VITAMIN A RECEPTOR
Hanna Semaan, Jean-Marc Strub, Christine Schaeffer-Reiss, Wojciech Krezel, Illkirch, France

T11-5A SUPPRESSING OF LARGE-VESSEL SIGNAL TO IMPROVE VOXEL-WISE ANALYSIS OF QUANTITATIVE SUSCEPTIBILITY MAPPING (QSM) MR IMAGES
Björn Hendrik Schott, Renat Yakupov, Joram Soch, Anni Richter, Goettingen

T11-6A NI²N - NETWORK FOR INTERDISCIPLINARITY AND INNOVATION IN NEURODEGENERATION RESEARCH: A NETWORKING PROJECT TO PROMOTE PROGRESSIVE MULTIDIMENSIONAL RESEARCH CONCEPTS
Fazilet Bekbulat, Timo Löser, Christian Behl, Mainz

T11-7A NETWORK MECHANISMS OF EPILEPTOGENESIS IN A MOUSE MODEL OF HCN1 DEVELOPMENTAL AND EPILEPTIC ENCEPHALOPATHIES
Viktoriia Shumkova, Jacquelin Kasemir, Dirk Isbrandt, Bonn

T11-8A MEMORY PROCESSING IN THE MAMMILLARY BODY IN A MOUSE MODEL OF ALZHEIMER'S DISEASE
Melika Kashizenuzi, Marla Yasmin Witt, Lara Chirich Barrerira, Gina Marie Krause, Anja M. Oelschlegel, Katarzyna M. Grochowska, Michael R. Kreutz, Anne Albrecht, Anne Petzold, Oliver Barnstedt, Magdeburg

T11-9A ASSESSING GASTROINTESTINAL ALTERATIONS IN PARKINSON`S DISEASE THROUGH STOOL ANALYSIS: INDICATIONS OF INCREASED INFLAMMATION
Martin Weidenfeller, Verena Schmitt, Sophie Korkisch, Alexandra Cosma-Grigorov, Franz Marxreiter, Mario Zeiss, Patrick Süß, Martin Regensburger, Stefan Wirtz, Wei Xiang, Jürgen Winkler, Erlangen

T11-10A PREDICTING FUTURE COGNITIVE DECLINE USING NOVEL FMRI-BASED BIOMARKERS IN PRECLINICAL ALZHEIMER'S DISEASE
Laura Bertram, Joram Soch, Anni Richter, Jasmin Kizilirmak, Hartmut Schütze, Frederic Brosseron, Luca Kleineidam, Christoph Laske, Oliver Peters, Josef Priller, Anja Schneider, Alfredo Ramirez, Stefan Teipel, Jens Wiltfang, Frank Jessen, Miranka Wirth, Michael Wagner, Emrah Düzel, Björn Hendrik Schott, Goettingen

Thursday

T11-1B CA3 HIPPOCAMPAL REGION DRIVES EPILEPTOGENESIS IN AN SCN2A (P.A263V) MOUSE MODEL
Daniil Kirianov, Yana Reva, Birgit Engeland, Michela Barboni, Tony Kelly, Heinz Beck, Stephan Marguet, Dirk Isbrandt, Bonn

T11-2B THE NETWORK-WIDE IMPACT OF PALLIDAL DEEP BRAIN STIMULATION IN GENERALIZED DYSTONIA
Denise Franz, Fabiana Santana-Kragelund, Stefanie Perl, Malin Kotyra, Henning Bathel, Marco Heerdegen, Angelika Richter, Jens Starke, Konstantinos Spiliotis, Rüdiger Köhling, Rostock

T11-3B SPREADING DEPOLARIZATIONS EXHAUST NEURONAL ATP IN A MODEL OF CEREBRAL ISCHEMIA
Karl Schoknecht, Felipe Baeza-Lehnert, Johannes Hirrlinger, Jens P. Dreier, Jens Eilers, Leipzig

T11-4B SYNAPTIC DYSFUNCTION AND P53 ACTIVATION CAUSE CEREBELLAR CIRCUIT PATHOLOGY IN SPINAL MUSCULAR ATROPHY
Florian Gerstner, Sandra Wittig, Christian Menedo, Sayan Ruwald, Leonie Sowoidnich, Gerardo Martin Lopez, Chloe Grzyb, Livio Pellizzoni, Charlotte Jane Sumner, Christian Marc Simon, Leipzig

T11-5B PRESYNAPTIC APP PROTEOLYSIS: A DOUBLE-EDGED SWORD OF EXCITOTOXICITY AND COMPENSATORY RESPONSES
Akshay Bhupendra Kapadia, Ezgi Daskin, Anne-Sophie Hafner, Nijmegen, Gelderland, Netherlands

T11-6B ANALYSIS OF PRESYNAPTIC ACTIVE ZONE DISASSEMBLY IN DIFFERENT MODELS OF NEURODEGENERATION
Maximilian Goy, Marlene Barth, Jan Pielage, Kaiserslautern

T11-7B *IN VIVO* IMAGING OF MITOCHONDRIAL TRANSPORT ACROSS NEURONAL CELL TYPES REVEALS TAU-MEDIATED DYSFUNCTION IN THE LOCUS COERULEUS
Theresa Niedermeier, Paul Feyen, Lars Paeger, Jochen Herms, Munich

T11-8B DYSFUNCTION OF PROPRIOCEPTIVE SENSORY SYNAPSES IS A PATHOGENIC EVENT AND THERAPEUTIC TARGET IN MICE AND HUMANS WITH SPINAL MUSCULAR ATROPHY
Leonie Sowoidnich, Christian Marc Simon, N. Delestree, J. Montes, F. Gerstner, E. Carranza, J.M. Buettner, John G. Pagiazitis, G. Prat-Ortega, S. Ensel, S. Donadio, J.L. Garcia, P. Kratimenos, W.K. Chung, Charlotte Jane Sumner, L.H. Weimer, E. Pirondini, M. Capogrosso, Livio Pellizzoni, D.C. De Vivo, G.Z. Mentis, Leipzig

T11-9B TRANSCUTANEOUS VAGUS NERVE STIMULATION (TVNS) AS A THERAPEUTIC APPROACH TOWARDS THE FUNCTIONAL DETERIORATION OF THE LOCUS COERULEUS – NORADRENERGIC SYSTEM
Aleksandra Gritskova, Kaushik More, Cristian Ariel González-Cabrera, Andres Jaramillo Flautero, Matthew Betts, Matthias Prigge, Magdeburg

T11-10B EFFECTS OF OPTOGENETIC INHIBITION OF PARVALBUMINERGIC STRIATAL INTERNEURONS ON EXTRACELLULAR LEVELS OF NEUROTRANSMITTERS IN DYT1 KNOCK-IN MICE
Jakob Marx, Susen Becker, Lisa Höfert, Angelika Richter, Anja Schulz, Leipzig

Friday

T11-1C RESIDENT MACROPHAGE-LIKE CELLS ARE ACTIVATED IN BRAIN BARRIER STRUCTURES OF APP/PS1 MALE MICE.
Annarita Patrizi, Valentina Scarpetta, Marco Sassoè-Pognetto, Elena Marcello, Heidelberg

T11-2C HIPPOCAMPAL LOW FREQUENCY STIMULATION ALLEVIATES FOCAL SEIZURES, MEMORY IMPAIRMENTS AND SYNAPTIC PATHOLOGY IN EPILEPTIC MICE
Piret Kleis, Enya Paschen, Andrea Djie-Maletz, Andreas Vlachos, Carola A. Haas, Ute Häussler, Freiburg

T11-3C COMPARATIVE ANALYSIS OF NAVIGATION ABILITY AND SHORT-TERM MEMORY BINDING AS POTENTIAL EARLY DIAGNOSTIC MARKERS FOR ALZHEIMER'S DISEASE: AN EVOLUTIONARY PERSPECTIVE
Eva Christine Gellert, Younes Adam Tabi, Katharina Helzel, Dorothee Neufeldt, Thorsten Bartsch, Kiel

T11-4C HOW DOES AUTOPHAGY COPE WITH SPECIFIC SYNAPTIC NEEDS? CONSEQUENCES IN BRAIN HEALTH AND DISEASE
Sandra Fausia Soukup, Leioa, Spain

T11-5C THE ROLE OF TDP-43 AS A CO-PROTEINOPATHY IN ALZHEIMER'S DISEASE: ASSOCIATIONS WITH TAU PATHOLOGY AND DISEASE PROGRESSION
Amrei Purwien, Nike von Borcke, Yvonne Bouter, Goettingen

T11-6C CELLULAR MECHANISMS UNDERLYING PROGRESSIVE NEURODEGENERATION: INSIGHTS FROM THE *DROSOPHILA* NEUROMUSCULAR JUNCTION.
Marlene Barth, Maximilian Goy, Jan Pielage, Kaiserslautern

T11-7C EXPRESSION OF ENDOCANNABINOID RECEPTOR 1 IS REDUCED IN THE BRAIN OF ALZHEIMER'S DISEASE PATIENTS
Nike von Borcke, Amrei Purwien, Henrike Hasecke, Yvonne Bouter, Goettingen

T11-8C EVALUATION OF CA3 PLACE CELL REMAPPING IN THE APP/PS1 MODEL MOUSE OF ALZHEIMER'S DISEASE
Eva Maria Robles Hernandez, Solene Escoffier, Maxi Blei, Jill Dorozalla, Rina Patel, Matthias Haberl, Silvia Viana Da Silva, Berlin

T11-9C MEASURING AND MANIPULATING NEURON EXCITABILITY IN A TDP-43 BASED MODEL OF AMYOTROPHIC LATERAL SCLEROSIS
Freya Thurn, Jonas Peper, Silvan Hürkey, Lena Lörsch, Axel Methner, Marion Silies, Mainz

T11-10C MOTOR NEURON PATHOLOGY DRIVES SPINAL CIRCUIT DEFECTS AND PHENOTYPE OF A MOUSE MODEL FOR SPINAL MUSCULAR ATROPHY WITH RESPIRATORY DISTRESS TYPE 1
Christian Marc Simon, Katharina Sophie Apel, Margarita Koehler-Sanchez, Florian Gerstner, Aaron Lorenzo Norman, Leonie Sowoidnich, Nathanael Otte, Marie Luise Stephan, Sibylle Jablonka, Leipzig

T11-11C BREAKING SOCIAL BONDS: HOW LC DEGENERATION COULD IMPACT SOCIAL BEHAVIOR IN PARKINSON'S PROGRESSION
Anbarasi Pugazandhi, Diana Municchi, Cristian Ariel González-Cabrera, Matthias Prigge, Magdeburg

Posters

Saturday

T11-1D EFFECTS OF LONG-TERM THIETHYLPERAZINE TREATMENT ON ALZHEIMER'S PATHOLOGY IN TG4-42 MICE
Lisa Katharina Ruoff, Irina Wanda Helene Bänfer, Thomas Bayer, Jens Wiltfang, Yvonne Bouter, Goettingen

T11-2D EFFECTS OF LOW DOSE Δ9-TETRAHYDROCANNABINOL (THC) ON ALZHEIMER'S DISEASE PATHOLOGY IN 5XFAD MICE
Marzieh Enayati, Jannek Moritz Wagner, Yvonne Bouter, Goettingen

T11-3D NEURONAL EXCITABILITY IN ENTORHINAL CORTEX LAYER II PYRAMIDAL NEURONS REGULATES TAU PROPAGATION IN EARLY STAGE OF ALZHEIMER'S DISEASE
Seiko Ikezu, Arun Reddy Ravula, Stephanie Radhakishun, Justice Ellison, Nibedita Basu Ray, Brendan Gibbs, Tsuneya Ikezu, Jacksonville, USA

T11-4D EARLY DISEASE-MODIFYING TREATMENT IN A MOUSE MODEL OF PARKINSON'S DISEASE: EXERCISE DEMONSTRATES ITS POTENTIAL
Leonie Susan Baldauf, Malte Feja, Milos Stanojlovic, Julia Hankel, Christian Visscher, Eva Schäffer, Daniela Berg, Franziska Richter, Hanover

T11-5D NEUROPROTECTIVE EFFECTS OF LYCOPENE: MODULATION OF OXIDATIVE STRESS, NEUROINFLAMMATION, AND TRYPTOPHAN PATHWAY METABOLITES IN *IN VITRO* AND *IN VIVO* MODELS
Shital Panchal, Pallav Gandhi, Ahmedabad, India

T11-6D MOLECULAR IMAGING OF ALPHA-SYNUCLEIN AS A PATH TOWARDS PARKINSON'S DISEASE DIAGNOSIS
Donatus Krah, Goettingen

T11-7D VASCULAR PATHOLOGY INDUCED BY ALPHA-SYNUCLEIN OVEREXPRESSION RENDERS THE BRAIN TISSUE MORE VULNERABLE TO BACTERIAL ENDOTOXINS
Kristina Lau, Anna-Sophia Hartke, Christopher Käufer, Franziska Richter, Hanover

T11-8D INVESTIGATIONS ON PROTEINOPATHIES ALONG THE GUT-BRAIN AXIS IN DOGS
Diana Voitsekhovych, Kristina Lau, Ivo Wiesweg, Nina Meyerhoff, Georg Byethien, Andreas Beineke, Holger Volk, Franziska Richter, Hanover

T11-9D BRAIN REGION-SPECIFIC AND SYSTEMIC TRANSCRIPTOMIC DYSREGULATION IN A HUMAN ALPHA-SYNUCLEIN OVEREXPRESSING RAT MODEL
Vivien Hoof, Olaf Riess, Nicolas Casadei, Julia Schulze-Hentrich, Thomas Hentrich, Saarbrücken

T11-10D ELECTROPHYSIOLOGICAL AND NEUROCHEMICAL EFFECTS OF THE KYNURENIC ACID ANALOGUE SZR104 IN PHYSIOLOGICAL CONDITIONS AND CEREBRAL ISCHAEMIA: INSIGHTS FROM *IN VITRO* MODELS
Evelin Fehér, Nóra Gödör, Tamás Farkas, Szeged, Hungary

T12: Neuroimmunology, inflammation and neuroprotection

Wednesday

T12-2A SEPSIS INDUCES OLIGODENDROCYTE DYSFUNCTION, CHANGES IN NEURAL PATHWAYS AND BRAIN BARRIER ALTERATIONS
Nina Hahn, Martin Bens, Christian Geis, Jena

T12-3A SEX-SPECIFIC NEURONAL AUTOPHAGY DISRUPTION AND HYPERPHOSPHORYLATION AFTER NEUROTROPIC IAV INFECTION
Lea Gabele, Shirin Hosseini, Kristin Michaelsen-Preusse, Nele Rieke, Christian Sieben, Martin Korte, Braunschweig

Thursday

T12-1B FROM AUTOANTIBODIES TO NEUROPATHIC PAIN: A CASCADE CAUSED BY ANTI-CASPR2 AUTOANTIBODIES
Margarita Habib, Anna-Lena Wießler, Patrik Fischer, Maximilian Koch, Annemarie Sodmann, Felicitas Schlott, Kathrin Doppler, Carmen Villmann, Wuerzburg

T12-2B EXPERIMENTAL SAH REVEALS DIFFERENCES IN CBF AND CBO IN DISTINCT VASCULAR COMPARTMENTS FOR VARYING INJECTION VELOCITIES AND FLUIDS
Katrin Becker, Ute Lindauer, Catharina Conzen-Dilger, Bonn

T12-3B CIRCULAR RNA CIRCKLHL2 MODULATES TBI RESPONSE INFLUENCING THE BDNF PATHWAY
Francesco Roselli, Marica Pagliarini, Zhenghui Li, Florian olde Heuvel, Ulm

Friday

T12-1C BLOOD-BRAIN BARRIER INTEGRITY AND SEXUAL DIMORPHISMS DURING MACROPHAGE INVASION OF THE *DROSOPHILA* NERVOUS SYSTEM
Dominik Funke, Bente Winkler, Simone Rey, Christian Klämbt, Muenster

T12-2C IMMUNOHISTOCHEMICAL INVESTIGATION OF THE COMPONENTS OF THE BLOOD-BRAIN BARRIER IN A MOUSE MODEL FOR MULTIPLE SCLEROSIS
Hannah Gäb, Greta Hartmann, Hanna Hartwig, Anne-Wienke Nissen, Charlotte Schubert, Manuel Friese, Daniela Hirnet, Christian Lohr, Hamburg

T12-3C MICROGLIAL ACTIVATION AND COMPLEMENT DYSREGULATION IN SEPSIS-ASSOCIATED ENCEPHALOPATHY (SAE)
Özge Candemir, Nina Hahn, Ha-Yeun Chung, Jonathan Wickel, Stephan Steinke, Michael Hust, Christine Skerka, Christian Geis, Jena

T12-4C MACROPHAGE INVASION INTO THE DROSOPHILA BRAIN REQUIRES JAK/STAT DEPENDENT MMP ACTIVATION IN THE BLOOD-BRAIN BARRIER
Bente Winkler, Dominik Funke, Christian Klämbt, Muenster

Saturday

T12-1D C3 AND CD14 MODULATE DIFFUSE BUT NOT FOCAL NEUROINFLAMMATION IN TBI ASSOCIATED WITH POLYTRAUMA
Marica Pagliarini, Fan Sun, Zongren Zhao, Markus Huber-Lang, Francesco Roselli, Ulm

T12-2D EFFECTS OF THE CANNABINOIDS 2-ARACHIDONYLGLYCEROL AND WIN 55,212-2 ON PRIMARY ISOLATED ASTROCYTIC CULTURES AND ASTROCYTIC-MICROGLIAL CO-CULTURES
Franziska Vieregge, Tim Hohmann, Chalid Ghadban, Candy Rothgänger-Strube, Urszula Hohmann, Faramarz Dehghani, Halle

T12-3D MODULATION OF GLIAL INFLAMMATORY REACTIONS BY GPR55
Annika Hensel, Chalid Ghadban, Candy Rothgänger-Strube, Urszula Hohmann, Tim Hohmann, Faramarz Dehghani, Halle (Saale)

T13: Cognitive, emotional, behavioral state disorders and addiction

Wednesday

T13-1A INVESTIGATING BEHAVIOURAL OUTCOMES OF EARLY LIFE STRESS: INSIGHTS FROM A RODENT MODEL
Luna Strauch, Pinja Hillman, Claudia Böhm, Berlin

T13-2A ADOLESCENT-SPECIFIC ACCELERATION OF SOCIAL SEAR EXTINCTION THROUGH SOCIAL REWARD SYSTEM
Sukwon Lee, Daegu, Korea (South)

T13-3A HIGH CONSUMPTION OF L-PROLINE INDUCES DEPRESSION-LIKE-BEHAVIOR IN *DROSOPHILA MELANOGASTER*
Josefine Hoffmann, Burkhard Poeck, Roland Strauss, Mainz

Thursday

T13-1B OXIDATIVE AND CHRONIC MILD STRESS INDUCE DEPRESSION-LIKE BEHAVIOR IN *DROSOPHILA MELANOGASTER*
Helen Marie-Antoinette Holvoet, Burkhard Poeck, Roland Strauss, Mainz

T13-2B CONSEQUENCES OF ADOLESCENT SOCIAL TRAUMA ON SOCIAL BEHAVIOUR AND NEURONAL CIRCUITRIES
Melanie Kabas, Leopold Kinzel, Anna Bludau, Inga D. Neumann, Regensburg

Friday

T13-1C IMPACT OF STRESS AND DEPRESSION ON THE REGULATION OF ACTIN-BINDING PROTEINS IN THE MURINE HIPPOCAMPUS
Constanze Wenzel, Jonas Cornelius, Kristin Michaelsen-Preusse, Martin Korte, Braunschweig

T13-2C THE IMPACT OF SOCIAL BUFFERING ON MODULATING SOCIAL FEAR: BEHAVIORAL AND SEX-SPECIFIC INSIGHTS IN MICE
Elif Salur, Iulia Zoicas, Angelika Schmitt-Böhrer, Wuerzburg

Saturday

T13-1D VARIABLE LIGHT EXPOSURE DIFFERENTIALLY ALTERS MIDBRAIN DOPAMINE EXPRESSION AND BEHAVIORS IN A RODENT MODEL OF DEPRESSION
Xiongpeng Weng, Volker Arnd Coenen, Máté Daniel Döbrössy, Freiburg

T13-2D ACUTE MODULATION OF NEURONAL NETWORKS BY MEDIAL FOREBRAIN BUNDLE DBS IN AN ANIMAL MODEL OF DEPRESSION: FOCUS ON GAMMA OSCILLATIONS
Artur Fornol, Lisa Ratz, Yixin Tong, Joana Pereira, Lidia Miguel Telega, Volker Arnd Coenen, Máté Daniel Döbrössy, Freiburg im Breisgau

T14: Vision: invertebrates

Wednesday

T14-1A MULTI-SCALE ANALYSIS OF SWARM INITIATION AND COLLECTIVE BEHAVIOR IN LOCUSTS.
Daniele Carlesso, Sercan Sayin, Vishwanath Varma, Iain D. Couzin, Einat Couzin-Fuchs, Konstanz

T14-2A SENSORY AND COGNITIVE RULES OF LOCUST COLLECTIVE MOTION
Sercan Sayin, Einat Couzin-Fuchs, Inga Petelski, Mohammad Salahshour, Chi-Yu Lee, Jacob M. Graving, Liang Li, Oliver Deussen, Gregory A. Sword, Iain D. Couzin, Konstanz

T14-3A DIFFERENTIAL FEATURE EXTRACTION IN FIRST ORDER VISUAL INTERNEURONS IS ACHIEVED VIA DISTINCT CELLULAR AND CIRCUIT PROPERTIES
Neel Wagh, Katja Sporar, Junaid Akhtar, Marion Silies, Mainz

T14-4A INFLUENCE OF TEMPERATURE ON MOTION PROCESSING IN THE CENTRAL BRAIN OF BUMBLEBEES
Bianca Jaske, Keram Pfeiffer, Wuerzburg

Thursday

T14-1B DEGENERATE CONNECTIVITY EXPLAINS FUNCTIONAL PROPERTIES OF VISUAL CIRCUITRY.
Juan Felipe Vargas Fique, Sebastian Molina-Obando, Marion Silies, Mainz

T14-2B CHARACTERIZING NAVIGATIONAL STRATEGIES IN *DROSOPHILA* IN RESPONSE TO VARYING VISUAL STIMULI
Romita Trehan, Hannah Julia Martina Haberkern, Wuerzburg

T14-3B NEURAL PATHWAYS AND COMPUTATIONS THAT ACHIEVE STABLE CONTRAST PROCESSING TUNED TO NATURAL SCENES.
Burak Gür, Luisa Ramirez, Jacqueline Cornean, Freya Thurn, Sebastian Molina-Obando, Marion Silies, Basel, Switzerland

T14-4B HETEROGENEITY OF SYNAPTIC CONNECTIVITY IN THE FLY VISUAL SYSTEM – CAUSES AND CONSEQUENCES
Jacqueline Cornean, Lena Lörsch, Sebastian Molina-Obando, Marion Silies, Mainz

Friday

T14-1C LINKING VISUAL SYSTEM ANATOMY TO NEURONAL FUNCTION IN THE *DROSOPHILA* MOTION-DETECTION SYSTEM
Pradeepkumar Trimbake, Camille Guillermin, Miriam Henning, Marion Silies, Mainz

T14-2C EMERGENCE OF FUNCTIONAL DIVERSITY IN THE PERIPHERAL VISUAL PATHWAY FOR THE ENCODING OF NATURALISTIC STIMULI
Luisa Ramirez, Marion Silies, Julijana Gjorgjieva, Mainz

T14-3C NEURAL MECHANISMS FOR A STABLE HEAD DIRECTION ESTIMATE IN DYNAMIC, NATURALISTIC VISUAL ENVIRONMENTS
Hannah Julia Martina Haberkern, Shivam Chitnis, Marcella Noorman, Philip Hubbard, Tobias Goulet, Ann Hermundstad, Vivek Jayaraman, Wuerzburg

Saturday

T14-1D LINKING ENVIRONMENTAL STRUCTURE AND SOCIAL BEHAVIOR: A CASE STUDY ON THE DEVELOPMENT OF SOCIAL PHENOTYPES IN THE DESERT LOCUST
Madhansai Narisetty, Sercan Sayin, Yvonne Hertenberger, Ahmed El Hady, Einat Couzin-Fuchs, Konstanz

T14-2D SPATIO-CHROMATIC VISUAL PROCESSING IN *DROSOPHILA*
Roshni Pillai, Julia Maria Strauß, Marion Silies, Christopher Schnaitmann, Mainz

T14-3D THE DESERT LOCUST STARTLE RESPONSE: LINKING DESCENDING NEURONS AND BEHAVIORAL DYNAMICS
Hannes Kübler, Yannick Günzel, Einat Couzin-Fuchs, Konstanz

T15: Vision: retina and subcortical pathways

Wednesday

T15-1A BEHAVIOURAL STUDIES OF VISION DEGENERATION IN THE RD10 MICE MODEL
Anna-Lena Linke, Bochum

T15-2A VISUAL ENCODING BY RETINAL GANGLION CELLS IN OPTOGENETIC MODELS FOR VISION RESTORATION
Varsha Ramakrishna, Tim Gollisch, Goettingen

Thursday

T15-1B SHORT-TERM PLASTICITY OF RETINAL GANGLION CELL INPUTS TO THE DLGN DEPENDS ON RETINOGENICULATE SYNAPSE STRENGTH
Irene Santini, Florian Hetsch, Sonia Ruggieri, Eric Jacobi, Christina Buetfering, Jakob von Engelhardt, Mainz

T15-2B MODELING SPATIAL CONTRAST SENSITIVITY IN RESPONSES OF PRIMATE RETINAL GANGLION CELLS TO NATURAL MOVIES
Shashwat Sridhar, Michaela Vystrcilová, Alexander Ecker, Tim Gollisch, Goettingen

Friday

T15-1C CORTICAL FEEDBACK ALTERS POPULATION ACTIVITY TO IMPROVE SENSORY CODING DURING BEHAVIOR
Augustine (Xiaoran) Yuan, Wiktor Mlynarski, Laura Busse, Planegg-Martinsried

T15-2C PROTEIN-LIPID BINDING PROPERTIES IMPLICATE PICCOLINO IN SYNAPTIC VESICLE TETHERING AT PHOTORECEPTOR RIBBON SYNAPSES
Michalina Gadomska, Julia Breuer, Hanna Ehnis, Sina Zobel, Renato Frischknecht, Anna Fejtová, Hanna Regus-Leidig, Johann Helmut Brandstätter, Kaspar Gierke, Erlangen

T15-3C AMPA RECEPTOR DESENSITIZATION DECREASES INPUT AND RESPONSE GAIN IN THE LATERAL GENICULATE NUCLEUS
Sonia Ruggieri, Tim Gollisch, Jakob von Engelhardt, Mainz

Saturday

T15-1D KNOCKING OUT THE TECTOFUGAL PATHWAY IN A BIRD – THE ROLE OF AP-2δ IN DEVELOPMENT
Stefan Weigel, Falk Brönnle, Yujunyu Zhang, Hicham Sid, Benjamin Schusser, Harald Luksch, Freising

T15-2D NEURAL BASIS OF VISUAL INFORMATION INTEGRATION AND DECISION-MAKING IN LARVAL ZEBRAFISH
Katja Slangewal, Max Capelle, Florian Kämpf, Armin Bahl, Konstanz

T15-3D CONTRAST ADAPTATION IN STIMULUS ENCODING BY RETINAL GANGLION CELLS
Robert Haret, Tim Gollisch, Goettingen

T16: Vision: striate and extrastriate cortex, eye movement and visuomotor processing

Wednesday

T16-1A REOCCURRING ON-GOING ACTIVATION STATES IN LOCAL FIELD POTENTIALS FROM HUMAN VISUAL CORTEX
Udo Ernst, Enrique Gabriel Tabilo Romero, David Rotermund, Fabrizio Grani, Eduardo Fernández Jover, Bremen

Thursday

T16-1B NEURAL REPRESENTATION OF COLOR IN THE PIGEON VISUAL WULST
Simon Nimpf, Ann Kotkat, Andreas Genewsky, Laura Busse, David Anthony Keays, Planegg-Martinsried

T16-2B TO FOLLOW OR NOT TO FOLLOW: STATE-DEPENDENT MODULATION AND INVERSION OF THE OPTOMOTOR RESPONSE IN LARVAL ZEBRAFISH
Sydney A. Hunt, Ashrit Mangalwedhekar, Armin Bahl, Konstanz

Friday

T16-1C SYNGAP1 KNOCK DOWN LEADS TO PRECOCIOUS CLOSURE OF THE CRITICAL PERIOD FOR OCULAR DOMINANCE PLASTICITY IN THE MOUSE VISUAL CORTEX
Siegrid Löwel, Ariadna Sunyer, Paloma Huguet, Subhodeep Bhattacharya, Oliver Schlüter, Goettingen

T16-2C THE ROLE OF OREXIN/HYPOCRETIN NEUROPEPTIDES FOR VISION AND VISUAL PLASTICITY IN MICE
Cornelia Schöne, Jaya Sowkyadha Sathiyamani, Paloma Huguet, Tejas Shaji Nair, Oliver Schlüter, Siegrid Löwel, Goettingen

Saturday

T16-1D TOPOGRAPHIC PROJECTIONS FROM PULVINAR TO DORSAL AND VENTRAL SUBDIVISIONS OF AREA LIP IN THE MACAQUE
Sascha A. L. Ziegler, Bashir Ahmed, Andrew J. Parker, Kristine Krug, Magdeburg

T16-2D A BRAIN-WIDE SCREEN REVEALS A PREFERENCE FOR VISUAL OBJECTS IN THE SPATIAL NAVIGATION SYSTEM THAT REFINES HEAD DIRECTION CODING
Dominique Siegenthaler, Henry Denny, Johanna Mayer, Sofia Skromne Carrasco, Adrien Peyrache, Stuart Trenholm, Emilie Macé, Goettingen

T17: Auditory mechanoreceptors, vestibular, cochlea, lateral line and active sensing

Wednesday

T17-1A DOPAMINERGIC MODULATION OF HABITUATION IN THE MECHANO-SENSORY SYSTEM IN LARVAL ZEBRAFISH
Nils Lukas Brehm, Wolfgang Driever, Johann H. Bollmann, Freiburg

T17-2A PROBING THE IMPACT OF THE TRANSCRIPTION FACTOR RUNX1, INVOLVED IN SPIRAL GANGLION NEURON SUBTYPE SPECIFICATION, ON AFFERENT SYNAPTIC TRANSMISSION AND NEURAL FIRING PROPERTIES
Leon Bösche, Lejla Soše, Nare Karagulyan, Nicola Strenzke, Brikha Shrestha, Tobias Moser, Goettingen

T17-3A PARALEMMIN-3 – AN ESSENTIAL CONSTITUENT OF THE SUBMEMBRANE CYTOSKELETON OF AUDITORY HAIR CELLS
Christian Vogl, Victoria Christine Halim, Christina Ullrich, Iman Bahader, Makoto F. Kuwabara, Dennis Derstroff, Kathrin Kusch, Nicola Strenzke, Dominik Oliver, Carolin Wichmann, Manfred W. Kilimann, Innsbruck, Austria

Thursday

T17-1B EVALUATING THE SPREAD OF EXCITATION WITH RED LIGHT OPTOGENETIC STIMULATION OF THE AUDITORY NERVE THROUGH COMPUTER SIMULATIONS AND IN-VIVO ELECTROPHYSIOLOGY
Elisabeth Koert, Jonathan Götz, Anna Vavakou, Niels Albrecht, Bettina Wolf, Tobias Moser, Goettingen

T17-2B IN-SILICO FRAMEWORK FOR BENCHMARKING OPTOGENETIC HEARING RESTORATION
Lakshay Khurana, Petr Nejedly, Daniel J. Jagger, Lukasz Jablonski, Tobias Moser, Goettingen

T17-3B EVALUATING THE UTILITY OF VIRTUAL-CHANNEL-BASED SOUND-TO-NEURON STIMULATION STRATEGY FOR FUTURE OPTOGENETIC COCHLEAR IMPLANTS
Lukasz Jablonski, Antonia Klobe, Lakshay Khurana, Tobias Moser, Gerwald Lichtenberg, Lukasz Jablonski, Goettingen

Friday

T17-1C EVALUATION OF OPTOGENETIC THERAPY FOR HEARING RESTORATION IN RODENT MODELS OF SENSORINEURAL HEARING LOSS
Victoria Hunniford, Maria Zerche, Bettina Wolf, Kathrin Kusch, Thomas Mager, Tobias Moser, Göttingen

T17-2C FROM SOUND TO MOVEMENT: THE NEURAL BACKBONE OF THE ACOUSTIC STARTLE REFLEX
Jan Frederik Ahrend, Jana Erlmoser, Christian Vogl, Innsbruck, Austria

T17-3C A MINIMAL MAGNETOSENSORY CIRCUIT IN THE PIGEON BRAIN
Spencer Balay, Gregory C. Nordmann, Simon Nimpf, Lukas Landler, E. Pascal Malkemper, David Anthony Keays, Munich

Saturday

T17-1D ASSESSMENT OF GLUTAMATERGIC QUANTAL TRANSMISSION INSUFFICIENCY IN SENSORY VESTIBULAR FUNCTIONING
Ruchi Rajesh Modgekar, Mohona Mukhopadhyay, Aizhen Yang-Hood, Kevin K. Ohlemiller, Maolei Xiao, Mark Warchol, Suh Jin Lee, Rebecca Seal, Susan Maloney, Carla Yuede, Mark Rutherford, Tina Pangrsic, Goettingen

T17-2D INVESTIGATING THE NEURAL CORRELATES OF THE MAGNETIC SENSE IN THE PIGEON
Marco Numi, Simon Nimpf, David Anthony Keays, Planegg

T18: Auditory system: subcortical and cortical processing

Wednesday

T18-1A HEARING MORE THAN SOUND – SHINING A LIGHT ON SOMATOSENSORY BRAINSTEM PROJECTIONS TO THE AUDITORY MIDBRAIN
Falk Brönnle, Aaron Benson Wong, Rotterdam, Netherlands

T18-2A IMPROVED TEMPORAL PROCESSING IN THE INFERIOR COLLICULUS OF MICE LACKING THE EXTRACELLULAR MATRIX PROTEIN BREVICAN
Simone Kurt, Gerhard Bracic, Mira Türknetz, Jutta Engel, Homburg

T18-3A AUDITORY COMPETITION OR BINAURAL DECORRELATION? A COMPARISON BETWEEN MIDBRAIN SPACE MAPS IN THE BARN OWL
Roland Ferger, Andrea J. Bae, José L. Peña, Bronx, USA

T18-4A ORIGINS OF THE AUDITORY BRAINSTEM RESPONSE (ABR) IN MICE: SOURCE LOCALIZATION WITH MULTICHANNEL TOPOGRAPHIC EEG
Xue Wang, Andrej Kral, Rüdiger Land, Hanover

T18-5A THE FUNCTION OF FRONTAL SUBCORTICAL PROJECTIONS DURING MULTISENSORY TASK LEARNING
Nilufar Nojavan Lahiji, Irene Lenzi, Björn Kampa, Simon Musall, Aachen

T18-6A IMPACT OF SUB-LETHAL DOSAGES OF THE INSECTICIDE FLUPYRADIFURONE ON THE ASCENDING AUDITORY INTERNEURONS IN THE CRICKET BRAIN
Marcelo Christian, Manuela Nowotny, Stefan Schöneich, Jena

Thursday

T18-1B CENTRAL COMPENSATION OF NEURAL RESPONSES TO COCHLEAR SYNAPTOPATHY CAN BE SUPPORTED BY DENDRITIC SPINE REMODELING THROUGH ELEVATED CGMP LEVELS
Joana Ibrahim-Bacha, Dila Calis, Morgan Hess, Csaba Haraszti, Stefan Fink, Michele Jacob, Peter Ruth, Lukas Rüttiger, Marlies Knipper, Wibke Singer, Tuebingen

T18-2B INVESTIGATION OF THE INTERACTION OF STRESS HORMONE RECEPTORS AND BDNF FOR HEARING FUNCTION IN THE ANIMAL MODEL MOUSE
Leonas Adam, Joana Ibrahim-Bacha, Wibke Singer, Marlies Knipper, Lukas Rüttiger, Tuebingen

T18-3B IMPACT OF OTOFERLIN MUTATION ON SPONTANEOUS AND SOUND EVOKED SGN ACTIVITY
Abigail Trebilcock, Han Chen, Fritz Benseler, Nils Brose, Tobias Moser, Goettingen

T18-4B AUDITORY CORTEX EXTRACELLULAR MATRIX DENSITY IS INCREASED IN MONGOLIAN GERBILS WITH TINNITUS
Konstantin Tziridis, Holger Schulze, Erlangen

T18-5B STIMULUS ONSET CONTRIBUTIONS TO SPEECH COMPREHENSION
Lukas Rüttiger, Jakob Schirmer, Konrad Dapper, Stephan Wolpert, Marjoleen Wouters, Katharina Bader, Wibke Singer, Etienne Gaudrain, Deniz Baskent, Sarah Verhulst, Christoph Braun, Matthias Munk, Ernst Dalhoff, Marlies Knipper, Tuebingen

T18-6B USE OF OPM-MEG FOR AUDITORY RESEARCH
Rodrigo Andrés Donoso-San Martín, Stephan Wolpert, Stefan Fink, Markus Siegel, Paul H. Delano, Christoph Braun, Lukas Rüttiger, Marlies Knipper, Tuebingen

T18-7B CHARACTERIZATION OF SOUND EVOKED RESPONSES IN NEURONS OF THE INLL
Nikolaos Kladisios, Felix Felmy, Hanover

Friday

T18-1C MULTIFUNCTIONAL ORGANIZATION OF THE COMPUTATIONAL MAP OF TARGET DISTANCE IN BATS
Ali Roustazadeh, Uwe Firzlaff, Freising

T18-2C SOUND PROCESSING IN INSECTS - TEMPORAL CODING AND FORWARD MASKING IN SPIKING RESPONSES
Moritz Zenker, Manuela Nowotny, Annette Stange-Marten, Jena

T18-3C CEREBELLAR ACTIVITY PREDICTS VOCALIZATION IN FRUIT BATS
Shivani Hariharan, Eugenia González Palomares, Susanne S. Babl, Luciana López-Jury, Julio Cesar Hechavarría, Frankfurt am Main

T18-4C CENTRAL PROCESSING OF OPTICAL HEARING IN THE ANTEROVENTRAL COCHLEAR NUCLEUS.
Sabina Nowakowska, Antoine Huet, Goettingen

T18-5C DEVELOPMENTAL REFINEMENT OF BIOPHYSICAL PROPERTIES OF NEURONS IN THE INLL
Kathrin Deborah Wicke, Felix Felmy, Hanover

T18-6C COMPARATIVE PHYSIOLOGY OF ACTION POTENTIAL GENERATION IN NEURONS OF THE MNTB
Laura Console-Meyer, Felix Felmy, Hanover

T18-7C NEURONAL ACTIVITY PATTERNS IN AUDITORY CORTEX UNDERLYING ECHOLOCATION AND COMMUNICATION CALLS IN BATS
Susanne Stefanie Babl, Julio Cesar Hechavarría, Frankfurt am Main

Saturday

T18-1D NEURONAL REPRESENTATION OF VOCALISATIONS IN THE FRONTAL AUDITORY FIELD AND THE DORSAL AUDITORY CORTEX OF THE BAT PHYLLOSTOMUS DISCOLOR
Uwe Firzlaff, Sonja C. Vernes, Stephen G. Hörpel, Freising

T18-2D EVALUATION OF LED-BASED MULTICHANNEL OPTICAL COCHLEAR IMPLANTS FOR REFINED BIONIC STIMULATION OF THE AUDITORY SYSTEM
Niels Albrecht, Fadhel El May, Elisabeth Koert, Anna Vavakou, Bettina Wolf, Patrick Ruther, Tobias Moser, Göttingen

T18-4D ROLE OF CORTICAL AND SUBCORTICAL REGIONS IN LEARNING SOUND STATISTICS
Irene Onorato, David McAlpine, Livia de Hoz, Berlin

T18-5D STATISTICAL LEARNING IN AUDITORY CORTEX AND HIPPOCAMPUS
Xing Xiao, Livia de Hoz, Hanover

T18-6D ADVANCING OPTOGENETIC HEARING RESTORATION THROUGH CROSS-MODAL OPTIMIZATION
Anna Vavakou, Bettina Wolf, Kathrin Kusch, Thomas Mager, Patrick Ruther, Alexander Ecker, Tobias Moser, Göttingen

T19: Chemical senses: olfaction, taste, others

Wednesday

T19-1A SNMP1 IS CRUCIAL FOR THE DETECTION OF BOTH PHEROMONES AND PLANT ODORANTS IN THE DESERT LOCUST *SCHISTOCERCA GREGARIA*
Joris Lehmann, Johanna Libnow, Maryam Khosravian, Jürgen Krieger, Jörg Fleischer, Halle (Saale)

T19-2A EARLY DEVELOPMENT OF THE PRIMARY OLFACTORY CENTRES AND THEIR NEUROCHEMISTRY IN *CARCINUS MAENAS* AND OTHER MALACOSTRACAN CRUSTACEANS
Johanna A. Seegel, Katja Kümmerlen, Lisa Riehemann, Sophie Raspe, Gabriela Torres, Steffen Harzsch, Greifswald

T19-3A MECHANOSENSORY RESPONSES TO AUDITORY STIMULATION RECORDED AT AN EARLY PROCESSING STAGE IN THE STICK INSECT BRAIN
Iob Lambertus Eisele, Volker Dürr, Martin Strube-Bloss, Bielefeld

T19-4A LINKING NEURONAL MODULATION AND BEHAVIOURAL RESPONSES DURING OLFACTORY-VISUAL LEARNING IN HONEYBEES
Athil Althaf Aliyam Veetil Zynudheen, Wolfgang Rössler, Martin Strube-Bloss, Bielefeld

T19-5A CORRELATING MOUSE HEAD-MOTIONS WITH ODOR PLUME-ENCOUNTERS IN AN OLFACTORY-GUIDED NAVIGATION TASK
Mohammad F. Tariq, Scott C. Sterrett, Sidney Moore, Veronica Egger, David J. Perkel, David H. Gire, Regensburg

T19-6A FUNCTIONAL SEGREGATION OF TASTE QUALITIES IN THE ZEBRAFISH BRAINSTEM VAGAL LOBE IS GENERATED AND SHARPENED LOCALLY
Sigrun Korsching, Günes Birdal, Cologne

T19-7A CHARACTERISATION OF A HUNGER STATE-DEPENDENT SWITCH IN OLFACTORY RESPONSE BEHAVIOR
Hari Pradeep Narayanan, Katrin Vogt, Konstanz

Thursday

T19-1B COLUMNAR PROCESSING IN THE RODENT OLFACTORY BULB: 3D CHARACTERIZATION OF A PUTATIVE NEUROANATOMICAL CORRELATE OF GLOMERULAR UNITS
Israt Jahan, Veronica Egger, Regensburg

T19-2B CIRCUIT MECHANISMS CONTROLLING STATE-DEPENDENT FOOD INTAKE IN *DROSOPHILA*
Lara Lederle, Rouven Lukas Ziegler, Janina Brückner, Anna-Lena Eckes, Xinyu Liu, Jan Pielage, Kaiserslautern

T19-3B CA^{2+} TRANSIENTS IN BASAL DENDRITES OF RAT OLFACTORY BULB GRANULE CELLS
Manon Leygnier, Max Müller, Veronica Egger, Regensburg

T19-4B SYNERGISTIC OLFACTORY NERVE INPUT AND CHOLINERGIC NEUROMODULATION ACTIVATE ERK IN RAT OLFACTORY BULB VASOPRESSIN CELLS
Nicolas Reichardt, Lisa Kindler, Esteban Pino, Michael Lukas, Hajime Suyama, Veronica Egger, Regensburg

T19-5B AMBROS – ASSAY FOR MODULAR BEHAVIORAL RESEARCH ON ODOR AND SMELL
Fabian Quicken, Simon Hüppelshäuser, Christopher Wiesbrock, Marc Spehr, Aachen

T19-6B DISSECTING NEURONAL CIRCUITS UNDERLYING OLFACTORY SENSORY PRECONDITIONING IN *DROSOPHILA*
Yogesh Gadgil, André Fiala, Göttingen

T19-7B INFLAMMATORY RESPONSE IN OLFACTORY SYSTEMS WITH EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS
Taekyun Shin, Jeju, Korea (South)

T19-8B MODULATION OF OLFACTORY BULB LFP ACTIVITY BY HDB CHOLINGERGIC AND GABAERGIC PROJECTIONS.
Yu Jiang, Daniela Brunert, Erik Böhm, Markus Rothermel, Magdeburg

Friday

T19-1C FUNCTIONAL CHARACTERIZATION OF TARGET-DEFINED MTCS IN OLFACTORY INFORMATION PROCESSING
Siran Sireci, Kim Le, Daniela Brunert, Jan Mayland, Franziska Richter, Pablo Chamero-Benito, Markus Rothermel, Magdeburg

T19-2C EVOLUTION OF OLFACTORY CIRCUITS IN THE PANDAN-SPECIALIST *D. ERECTA*
Sinziana Pop, Hui Gong, Zofia Ziolkowska, Lucia L. Prieto-Godino, London, United Kingdom

T19-3C SOCIAL DISTANCING: GROUP BEHAVIOR AND THE UNDERLYING NEURAL CIRCUITS IN *DROSOPHILA MELANOGASTER* LARVAE
Akhila Mudunuri, Katrin Vogt, Konstanz

T19-4C EXPRESSION OF OLFACTORY PROTEINS IN TARSAL NEURONS OF THE DESERT LOCUST *SCHISTOCERCA GREGARIA*
Natalie-Danielle Feige, Maryam Gholamhosseinpour, Jörg Fleischer, Jürgen Krieger, Halle (Saale)

T19-5C CELLULAR DIVERSITY IN THE MOUSE ACCESSORY OLFACTORY BULB: A MULTIDIMENSIONAL APPROACH TO DESCRIBE SINGLE CELL TYPES.
Andres Hernandez-Clavijo, Uday Rangaswamy, Remo Sanges, Marc Spehr, Aachen

T19-6C IDENTIFICATION OF CORE GENES OF CLOCK-CONTROLLED PHEROMONE TRANSDUCTION IN MANDUCA SEXTA
Yajun Chang, Huleg Zolmon, Monika Stengl, Kassel

T19-7C PROCESSING OF BEHAVIORALLY RELEVANT ODORS IN THE POSTERIOR TUBERCULUM OF ZEBRAFISH: BRIDGING OLFACTORY INPUTS WITH BEHAVIORAL OUTPUTS
Thomas Offner, Bethan Jenkins, Thomas Frank, Göttingen

T19-8C STATE-DEPENDENT MODULATION OF ODOR VALENCE AND SOCIAL BEHAVIOUR VIA THE MAIN OLFACTORY PATHWAY
Jana Marie Sleeboom, Ilona Grunwald Kadow, Annika Cichy, Bonn

Saturday

T19-1D STIMULUS-DEPENDENT SIGNAL MODULATION IN MOUSE OLFACTORY SIGNAL TRANSDUCTION
Victoria K. Switacz, Daniela R. Drose, Marc Spehr, Aachen

T19-2D CONSERVED MOLECULAR SIGNATURES IN HYGRO- AND THERMOSENSORY NEURONS OF THE TWO DIPTERAN SPECIES *D. MELANOGASTER* AND *AE. AEGYPTI*
Kristina Corthals, Ganesh Giri, Johan Reimegård, Allison Churcher, Anders Enjin, Lund, Sweden

T19-3D ANALYSIS OF NEURONAL MORPHOLOGY IN THE MOUSE BED NUCLEUS OF THE ACCESSORY OLFACTORY TRACT AND MEDIAL AMYGDALA
Leonie Büsching, Moritz M. Nesseler, Marc Spehr, Aachen

T19-4D REPRESENTATION AND TRANSFORMATION OF TEMPORALLY COMPLEX ODOURS IN THE MOUSE OLFACTORY SYSTEM
Anantu Sunil, Dyutika Banerjee, Anantha Padmanabhan, Shambhavi Phadnis, Tobias Ackels, Bonn

T19-5D AN OLFACTORY SOCIAL LANGUAGE IN THE NAKED MOLE-RAT?
Mohammed A. Khallaf, Berlin

T19-6D IMPACT OF DEVELOPMENTAL TEMPERATURE ON *D. MELANOGASTER'S* OLFACTORY CIRCUIT ASSEMBLY AND BEHAVIOR
Leticia Leandro Batista, Pascal Züfle, Ana Sofia de Castro Brandao, Giovanni D`Uva, Christian Daniel, Carlotta Martelli, Mainz

T19-7D A FUNCTIONAL AND MOLECULAR ATLAS OF THE ZEBRAFISH OLFACTORY BULB: CONNECTING TRANSCRIPTIONAL DIVERSITY TO BEHAVIORAL RESPONSE
Oded Mayseless, Basel, Switzerland

T19-8D ANTERIOR OLFACTORY NUCLEUS: AN INTRINSICALLY MECHANOSENSITIVE RELAY FOR OLFACTION?
Athanasios Balomenos, Sampurna Chakrabarti, Wenhan Luo, Rosalba Olga Proce, Giovanna Ielacqua, Valérie Bégay, Mireia Pampols Perez, Annette Hammes-Lewin, Hanna Hörnberg, Gary R. Lewin, Berlin

T20: Somatosensation: touch, temperature, proprioception, nociception

Wednesday

T20-1A NAVIGATION WITH TOUCH
Wenhan Luo, Sampurna Chakrabarti, Lin Wang, Mohammed Ali, Gary R. Lewin, Berlin

T20-2A NOCICEPTION IN SHARKS – AN ANALYSIS OF PERIPHERAL SENSORY NERVES.
Sampurna Chakrabarti, Athanasios Balomenos, Jasmin Klich, Severine Kunz, Vera Schlüssel, Andrew Gillis, Gary R. Lewin, Berlin

Thursday

T20-1B ROLE OF LEG-CAMPANIFORM SENSILLA IN *DROSOPHILA MELANOGASTER* ADAPTIVE WALKING
Ricardo Custódio, Anna Pierzchlinska, E. Axel Gorostiza, Till Bockemühl, Gesa F. Dinges, Kai Feng, Ansgar Büschges, Cologne

T20-2B THERMAL ENCODING BY GABAERGIC INTERNEURONS IN THE POSTERIOR INSULAR CORTEX
Gamze Güney, Mikkel Vestergaard, Mario Carta, James Poulet, Berlin

Friday

T20-1C ADVANCED BEHAVIORAL PHENOTYPING IN *DROSOPHILA MELANOGASTER* TO ESTABLISH A MODEL FOR INHALATION TOXICOLOGY FOR VOLATILE ORGANIC COMPOUNDS
Vincent Richter, David Leuthold, Lara Weber, Nils Klüver, Andreas S. Thum, Leipzig

T20-2C LOAD SENSORS IN THE FRUIT FLY: DETAILED ANALYSIS OF ARBORISATION PATTERNS
Anna Pierzchlinska, Gesa F. Dinges, Erica Ehrhardt, Till Bockemühl, Kai Feng, Julija Semionova, Sweta Agrawal, Tomke Stürner, Greg Jefferis, Kei Ito, Ansgar Büschges, Cologne

Saturday

T20-1D WHISKER-MEDIATED CATEGORIZATION OF EXTERNAL SPACE IN HEAD-FIXED MICE
Shubhi Pal, Camille Mazo, Naoya Takahashi, Berlin

T20-2D ESTABLISHMENT OF A HUMAN INDUCED PLURIPOTENT STEM CELL-BASED *IN VITRO* MODEL FOR THE INVESTIGATION OF SEX-SPECIFIC DIFFERENCES IN MIGRAINE PATHOPHYSIOLOGY
Oliver Dräger, Wilfried Witte, Angelique Grell, Melanie Kuhlmann, Susanna Alexandrow, Erhard Wischmeyer, Beatrice A. Nossek, Bielefeld

T21: Motor systems

Wednesday

T21-1A UNRAVELLING THE NEURAL CONTROL OF FORWARD AND BACKWARD STEPPING OF AN INSECT LEG
Angelina Ruthe, Philipp Rosenbaum, Silvia Daun, Ansgar Büschges, Cologne

T21-2A ROLE OF PRETECTAL DOPAMINERGIC NEURONS DURING SPONTANEOUS LOCOMOTION IN ZEBRAFISH
Shagnik Chakraborty, Wolfgang Driever, Johann H. Bollmann, Freiburg

T21-3A PHARMACOLOGICAL ANALYSIS UNVEILS SIMILARITIES IN LOAD PROCESSING BETWEEN TWO JOINTS IN TWO STICK INSECT SPECIES
Matthias Gruhn, Mascha Driesch, Anna Haberkorn, Christopher Körsgen, Ansgar Büschges, Cologne

T21-4A CHOLINERGIC MODULATION OF STRIATAL SYNAPTIC TRANSMISSION AFTER SHORT- AND LONG-TERM DEEP BRAIN STIMULATION OF THE ENTOPEDUNCULAR NUCLEUS IN AN ANIMAL MODEL OF PAROXYSMAL DYSTONIA
Marco Heerdegen, Fabiana Santana-Kragelund, Denise Franz, Stefanie Perl, Anika Lüttig, Henning Bathel, Angelika Richter, Rüdiger Köhling, Rostock

T21-5A PREDICTION OF DYSTONIC ATTACKS IN A HAMSTER MODEL OF DYSTONIA VIA SINGLE-CHANNEL EEG
Valentin Neubert, Rahul Bordoloi, Monique Zwar, Olaf Wolkenhauer, Rüdiger Köhling, Rostock

Thursday

T21-1B CARRION CROWS LEARN TO USE STICK-TOOLS WITH HIGH EFFICIENCY AND SKILL
Felix W. Moll, Julius Würzler, Andreas Nieder, Tuebingen

T21-2B BRAIN-WIDE LATENT POPULATION ACTIVITY INTEGRATES ACTION AND GOAL EXPECTATION
Yangfan Peng, Carl Lindersson, Sasha Tinelli, Jeffrey Stedehouder, Rahul S. Shah, Armin Lak, Charlotte J. Stagg, Andrew Sharott, Berlin

T21-3B DESCENDING CONTROL OF WALKING DIRECTION IN *DROSOPHILA*
Jan M. Ache, Sander Liessem, Fathima Mukthar Iqbal, Aleyna Meric, E. Axel Gorostiza, Federico Cascino-Milani, Till Bockemühl, Ansgar Büschges, Stefan Dahlhoff, Wuerzburg

T21-4B ANALYZING INDIVIDUAL LOCOMOTION BEHAVIOR IN *DROSOPHILA* LARVAE
Marit Praetz, Luis Garcia-Rodriguez, Christian Klämbt, Muenster

T21-5B SLEEP DISRUPTION IMPROVES PERFORMANCE IN SIMPLE OLFACTORY AND VISUAL DECISION-MAKING TASKS
Paula Pflitsch, Nadine Oury, Kumaresh Krishnan, William Joo, Declan G. Lyons, Maxim Capelle, Kristian Herrera, Armin Bahl, Jason Rihel, Florian Engert, Hanna Zwaka, Magdeburg

Friday

T21-1C MUSCLE CONTROL OF MULTI-MODAL COURTSHIP SIGNALS IN *DROSOPHILA*
Melanie Stenger, Elsa Steinfath, Kimia Alizadeh, Jan Clemens, Göttingen

T21-2C VOCAL STRATEGIES FOR TERRITORIAL DEFENSE AND MATE ATTRACTION IN NIGHTINGALES
Niels Hein, Giacomo Costalunga, Daniela Vallentin, Seewiesen

T21-3C SYMMETRY BREAK AND LEG SPECIFIC ROLES DURING CURVE WALKING IN *DROSOPHILA*
Ezequiel Axel Gorostiza, Divya Sthanu Kumar, Ricardo Custódio, Nino Mancini, Till Bockemühl, Kei Ito, Salil Bidaye, Ansgar Büschges, Cologne

T21-4C AUDITORY FEEDBACK INFLUENCES SYLLABLE REPETITION IN BIRDSONG
Jacqueline Laura Göbl, Dmitry Kobak, Lena Veit, Tuebingen

T21-5C SOCIAL CONTEXT AFFECTS ADAPTIVE SONG SEQUENCE LEARNING IN SONGBIRDS
Lioba Fortkord, Lena Veit, Tuebingen

T21-6C PARALLEL SENSORIMOTOR PATHWAYS CONTROL LANDING IN *DROSOPHILA*
Sander Liessem, Samuel Asinof, Aljoscha Nern, Marissa Sumathipala, Han S. J. Cheong, Tess Oram, Mert Erginkaya, Chris J. Dallmann, Gwyneth M. Card, Jan M. Ache, Wuerzburg

Saturday

T21-1D REAL-TIME SEGMENTATION AND CLASSIFICATION OF BIRDSONG SYLLABLES FOR LEARNING EXPERIMENTS
Nils Riekers, Lena Veit, Tuebingen

T21-2D KINEMATICS OF WALKING INITIATION IN *DROSOPHILA MELANOGASTER*
Fabian Jakobs, Moritz Haustein, Till Bockemühl, Ansgar Büschges, Cologne

T21-3D KINEMATIC SYNERGIES OF LEG STEPPING IN WALKING FRUIT FLIES, *DROSOPHILA MELANOGASTER*
Moritz Haustein, Ansgar Büschges, Till Bockemühl, Cologne

T21-4D SPEED-RELATED CHANGES IN KINEMATIC VARIABILITY IN WALKING *DROSOPHILA* IN THE CONTEXT OF STABILITY AND INTERLEG COORDINATION
Till Bockemühl, Vincent Godesberg, Ansgar Büschges, Cologne

T21-5D STRUCTURE-FUNCTION ANALYSIS OF CELL TYPES MEDIATING COROLLARY DISCHARGE SIGNALING IN LARVAL ZEBRAFISH
Katharina Lischka, Johann H. Bollmann, Freiburg

T21-6D ANALYSIS OF THE LOCAL SEARCH BEHAVIOR IN *DROSOPHILA MELANOGASTER* LARVAE
Jessica Kromp, Tilman Triphan, Andreas S. Thum, Leipzig

T22: Homeostatic and neuroendocrine systems, stress response

Wednesday

T22-1A NEUROPHYSIOLOGICAL MECHANISMS OF BAD FOOD DECISIONS.
Samantha Aurich, Ulrike S. Franke, Nikita Komarov, Simon Sprecher, Peter Kovacs, Dennis Pauls, Leipzig

T22-2A IMPAIRED SATIETY MECHANISMS IN OBESITY: DISRUPTED PVHMC4R NEURON ACTIVITY DURING FEEDING AND FASTING
Marta Porniece, Jessica Baker, Charlotte Ausfahl, Stephen X. Zhang, Mark L. Andermann, Boston, USA

T22-3A NEURAL SUBSTRATES IN THE POSTPARTUM BRAIN FOR FLEXIBLE MATERNAL CARE
Mingyu Yang, Silvana Valtcheva, Cologne

T22-4A IMPACT OF THYROID HORMONE TRANSPORTERS MCT8/OATP1C1 ON HIPPOCAMPAL NEUROTRANSMISSION AND SEIZURE SUSCEPTIBILITY.
Andrea Alcaide Martin, Steffen Mayerl, Essen

T22-5A A ROLE OF PREFRONTAL INPUTS TO LATERAL HYPOTHALAMUS AND THEIR NORADRENERGIC MODULATION IN COPING WITH STRESS
Alisa Bakhareva, Anne Petzold, Tatiana Korotkova, Cologne

Thursday

T22-1B LEPTIN RECEPTOR-EXPRESSING CELLS OF THE LATERAL HYPOTHALAMUS REGULATE ADAPTIVE BEHAVIORS UNDER ANXIOGENIC CONDITIONS
Rebecca Figge-Schlensok, Anne Petzold, Nele Hugger, Alisa Bakhareva, Chantal Wissing, Tatiana Korotkova, Cologne

T22-2B STRESS, GENDER AND PROLACTIN – IMMUNOFLUORESCENCE DIFFERENCES IN RAT LACTROTROPHS.
Zuraiha Waffa, Abeer El Emmam Dief, Elena V. Sivukhina, Antje Prohaska, Gustav F. Jirikowski, Veronika M. Gebhart, Jena

T22-3B NEURON TYPE SPECIFIC NORADRENERGIC MODULATION IN THE PARAVENTRICULAR NUCLEUS OF THE HYPOTHALAMUS
Debora Fusca, Andreas C. Klein, Jon M. Resch, Henning Fenselau, Peter Kloppenburg, Cologne

T22-4B THE PROTEOMIC PROFILE OF THE MIDBRAIN PERIAQUEDUCTAL GRAY: IMPACT OF SEX AND SOCIAL CONTEXT
Elena Kutsarova, Kristina Desch, Petros Chalas, Imke Wüllenweber, Jakob Meier-Credo , Eloah de Biasi, Genesis Rosiles, Julian D. Langer, A. Vanessa Stempel, Frankfurt am Main

T22-5B HYPOTHALAMIC-THALAMIC PATHWAYS ENABLE LEPTIN-SENSITIVE REGULATION OF SOCIAL AND SEXUAL BEHAVIOURS
Anne Petzold, Rebecca Figge-Schlensok, Deema Awad, Tatiana Korotkova, Göttingen

Friday

T22-1C EXPERIENCE- AND STATE-DEPENDENT ADAPTATION OF EATING BEHAVIOR BY BDNF-EXPRESSING LATERAL HYPOTHALAMIC POPULATIONS
Carolin Schumacher, Mingyu Yang, Silvana Valtcheva, Tatiana Korotkova, Anne Petzold, Göttingen

T22-2C NEW METHODS TO MEASURE RISK OF PERINATAL DEPRESSION
Allison Eriksson, Andreas Frick, Marcus Grueschow, Emma Fransson, Uppsala, Sweden

T22-3C CONTRIBUTION OF LEPTIN SIGNALING TO THE SEX- AND ESTROUS CYCLE-DEPENDENT REGULATION OF ADAPTIVE BEHAVIORS
Deema Awad, Rebecca Figge-Schlensok, Tatiana Korotkova, Anne Petzold, Cologne

T22-4C REGULATION OF THYROID HORMONE GATEKEEPER GENES ON TANYCYTES BY MODULATING HORMONES OF THE HPT AXIS
Akila Chandrasekar, Paula Marie Schmidtlein, Lena Kleindienst, Sebastian Abele, Frauke Spiecker, Markus Schwaninger, Helge Müller-Fielitz, Lübeck

Saturday

T22-1D NEURONAL CIRCUITRIES UNDERLYING SEPSIS INDUCED ADAPTATION OF FEEDING BEHAVIOR AND LOCOMOTION IN *DROSOPHILA MELANOGASTER*
Thomas Dieter Riemensperger, Fabienne Reh, Lennart Baumeister, Torben Gläser, Kei Ito, Cologne

T22-2D COORDINATED CONTROL OF FEEDING AND METABOLISM THROUGH RECIPROCAL ACTIVITY OF AGRP AND POMC NEURONS
Jan E. Radermacher, Fynn R. Eggersmann, Alain J. de Solís, Almudena del Río-Martín, Weiyi Chen, Lukas Steuernagel, Corinna A. Bauder, Donald A. Morgan, Anna-Lena Cremer, Michael Sué, Maximilian Germer, Christian Kukat, Stefan Vollmar, Heiko Backes, Kamal Rahmouni, Jens C. Brüning, Peter Kloppenburg, Cologne

T22-3D UNDERSTANDING THE ROLE OF INSULIN SIGNALING IN THE CHOROID PLEXUS
Marleen Trapp, Aurica Ritter, Annarita Patrizi, Heidelberg

T22-4D INVESTIGATING GALANIN FUNCTION IN STRESS AND ANXIETY REGULATION
Purba Kashyap, Laura Corradi, Suphansa Sawamiphak, Alessandro Filosa, Berlin

T23: Neural networks and rhythm generators

Wednesday

T23-1A INTERHEMISPHERIC SYNAPTIC INPUTS TO NEOCORTICAL PYRAMIDAL CELLS WITH DENDRITIC VERSUS SOMATIC AXON ORIGIN
Martin Both, Aline Pannier, Tina Sackmann, Andreas Draguhn, Heidelberg

T23-2A EXPLORING NEURONAL ORGANISATION IN THE POSTERIOR SLOPE NEUROPIL OF THE *DROSOPHILA MELANOGASTER* BRAIN
Hannah Jones, Sandor Kovacs, Kei Ito, Cologne

T23-3A NETWORK INTEGRATION OF NEURONS WITH DIFFERENT (SOMATIC VS. DENDRITIC) AXON ORIGIN: A COMPUTATIONAL MODELLING APPROACH
Livia Marina Klostermann, Andreas Draguhn, Martin Both, Heidelberg

T23-4A MOTOR CONTROL OF MULTI-MODAL COURTSHIP SIGNALS IN *DROSOPHILA*
Bjarne Luca Schultze, Melanie Stenger, Kimia Alizadeh, Jan Clemens, Oldenburg

T23-5A A NEW APPROACH TO PHASE-AMPLITUDE COUPLING (PAC) MEASUREMENT: DISTINGUISHING PHASE AND TEMPORAL DISPERSION
Marjan Nosouhi, Moein Esghaei, Stefan Treue, Tehran, Iran

T23-6A IDENTIFICATION AND CHARACTERIZATION OF BRAIN AND DESCENDING NEURONS CONTROLLING ADAPTIVE WALKING IN *DROSOPHILA*
Fathima Mukthar Iqbal, Federico Cascino-Milani, Jens Goldammer, Hannah Volk, Chris J. Dallmann, Kei Ito, Jan M. Ache, Wuerzburg

T23-7A ROLE OF THE $P2Y_1$ RECEPTOR IN PROCESSING OF OLFACTORY SIGNALS
Shiva Shahmorad, Christian Lohr, Daniela Hirnet, Hamburg

Thursday

T23-1B SENSORY FILTERING DURING SLEEP REGULATION
Davide Raccuglia, Cedric Beat Brodersen, Johannes Wibroe, Raquel Suárez-Grimalt, Jörg Geiger, Lorna May Shakespeare, David Owald, Berlin

T23-2B SYNCHRONIZATION BETWEEN THE HIPPOCAMPUS AND THE THALAMIC NUCLEUS REUNIENS ACCOMPANIES SPATIAL DECISION MAKING.
Tristan Baumann, Oxana Eschenko, Tuebingen

T23-3B CHRONIC OPTOGENETIC STIMULATION HAS THE POTENTIAL TO SHAPE THE COLLECTIVE ACTIVITY OF NEURONAL CELL CULTURES
Cyprian Sebastian Adler, Friedrich Schwarz, Julian Vogel, Christine Stadelmann, Fred Wolf, Manuel Schottdorf, Andreas Neef, Goettingen

T23-4B INDUCED RESPIRATORY DYSFUNCTION BY FOCAL STIMULATION OF SPECIFIC BRAIN AREAS - IMPLICATIONS FOR SUDEP
Moritz Jung, Jennifer Bauer, Henner Koch, Yvonne Weber, Markus Rothermel, Magdeburg

T23-6B NEURONAL CIRCUITS FOR FLEXIBLE VISUOMOTOR TRANSFORMATIONS IN THE FLY BRAIN
Mert Erginkaya, Chris J. Dallmann, Sander Liessem, Jan M. Ache, Wuerzburg

Friday

T23-1C LACTATE UTILIZATION ALTERS SHARP WAVE-RIPPLE NETWORKS ACTIVITY IN MOUSE HIPPOCAMPAL SLICES
Babak Khodaie, Lennart Söder, Andrea Lewen, Amr Elgez, Alexei V. Egorov, Oliver Kann, Heidelberg

T23-2C TRANSCRIPTIONFACTORS CLK AND CYC DIFFERENTIALLY PARTICIPATE IN THE CIRCADIAN CLOCK OF THE MADEIRA COCKROACH *RHYPAROBIA MADERAE*
Huleg Zolmon, Patrick Przybylla, Romy Freund, Monika Stengl, Kassel

T23-3C LARGE SCALE REMODELING OF THE *DROSOPHILA* NOCICEPTIVE CIRCUIT DURING METAMORPHOSIS
Samuel Matthew Frommeyer, Dominik Nöhring, Sebastian Rumpf, Muenster

T23-4C NEONATAL PREFRONTAL EFFERENT IS BEHAVIORALLY RELEVANT BUT SHOW DIFFERENTIAL DEVELOPMENTAL TRAJECTORIES
Guoming Tony Man, Hamburg

T23-5C FUNCTIONS OF THE NEUROPEPTIDE PDF IN THE COCKROACH CIRCADIAN CLOCK NETWORK
Anna C Schneider, Monika Stengl, Kassel

T23-6C BRAIN CIRCUITS THAT CONTROL WALKING SPEED AND HALTING IN *DROSOPHILA*
Chris J. Dallmann, Fathima Mukthar Iqbal, Sirin Liebscher, Hannah Soyka, Hannah Volk, Edda Sauer, Sander Liessem, Mert Erginkaya, Jens Goldammer, Kei Ito, Jan M. Ache, Wuerzburg

T23-7C ELECTROPHYSIOLOGICAL CHARACTERIZATION OF CENTRAL BRAIN NEURONS CONTROLLING WALKING IN *DROSOPHILA*
Sirin Liebscher, Fathima Mukthar Iqbal, Hannah Soyka, Chris J. Dallmann, Sophie Dejosez, Sander S. Liessem, Jan M. Ache, Wuerzburg

Saturday

T23-1D PREFRONTAL-HIPPOCAMPAL NEURAL DYNAMICS AS USEFUL BIOMARKERS OF COGNITIVE IMPAIRMENT AND RESCUE IN SCHIZOPHRENIA: ROLE OF SEROTONIN RECEPTORS
M. Victoria Puig, Thomas Gener, Cristina Lopez-Cabezon, Sara Hidalgo-Nieves, Barcelona, Spain

T23-2D GAMMA FREQUENCY TUNES NA^+ CHANNEL AVAILABILITY AND THEREBY INCREASES DENDRITIC EXCITABILITY IN CORTICAL PYRAMIDAL NEURONS
Michael Gutnick, Nadav Astman, Oron Kotler, Yana Khrapunsky, Ilya Fleidervish, Rehovot, Israel

T23-3D DE NOVO ASSEMBLY OF A FUNCTIONAL NEURONAL CIRCUIT IN EMBRYOS OF AN ANCESTRAL METAZOAN
Christopher Noack, Sebastian Jenderny, Jörg Wittlieb, Lisa-Marie Hofacker, Ornina Merza, Christoph Giez, Urska Repnik, Marc Bramkamp, Karlheinz Ochs, Thomas C. G. Bosch, Kiel

T23-4D DISTINCT CONNECTIVITY PATTERNS ALONG THE ANTERIOR-POSTERIOR AXIS OF THE PIRIFORM CORTEX
Saule Nabiyeva, Sebastian H. Bitzenhofer, Hamburg

T23-5D A DISTINCT HYPOTHALAMUS-HABENULA CIRCUIT GOVERNS RISK PREFERENCE
Dominik Groos, Anna Maria Reuss, Peter Rupprecht, Tevye Stachniak, Christopher Lewis, Shuting Han, Adrian Roggenbach, Oliver Sturman, Yaroslav Sych, Martin Wieckhorst, Johannes Bohacek, Theofanis Karayannis, Adriano Aguzzi, Fritjof Helmchen, Zurich, Switzerland

T23-6D CELL TYPE AND MOLECULAR ARCHITECTURE OF THE PIGEON BRAIN
Thamari Neranjana Kapuruge, Gregory C. Nordmann, Spencer Balay, Siebe van Manen, David Anthony Keays, Planegg-Martinsried

T23-7D INTERACTIONS OF A SLEEP-CONTROL CENTRE WITH A NEURAL CIRCUIT USED FOR NAVIGATION IN *DROSOPHILA*
Lea Kristin Ballenberger, Gero Miesenböck, Oxford, United Kingdom

T24: Attention, motivation, emotion and cognition

Wednesday

T24-1A TOP-DOWN CONTROL OF DOPAMINE LEARNING SIGNALS IN THE AMYGDALA
Wulf Haubensak, Lars Kopel, Dominic Kargl, Dow Glikman, Vienna, Austria

T24-2A DEVELOPMENTAL TRAJECTORIES OF PREFRONTAL ACTIVITY PATTERNS DURING WORKING-MEMORY PERFORMANCE IN MICE
Jastyn A. Pöpplau, Johanna K. Kostka, Ileana L. Hanganu-Opatz, Hamburg

T24-3A PROJECTION SPECIFIC INFORMATION CODING IN FRONTAL CORTICAL NETWORKS.
Irene Lenzi, Alice Despatin, Nilufar Nojavan Lahiji, Moritz M. Nesseler, Luca Koenig, Marc Spehr, Björn Kampa, Simon Musall, Aachen

T24-4A ANATOMICAL ORGANIZATION OF GENETICALLY-DEFINED PREFRONTAL PROJECTIONS TO SENSORY CORTICES
Felix Jung, Loran Heymans, Xiao Cao, Marie Carlén, Stockholm, Sweden

T24-5A LATERAL SEPTAL NEURONAL POPULATIONS PLAY COMPLEMENTARY ROLES IN REGULATING SOCIAL AND FEEDING BEHAVIORS
David Keller, Francisco J. de los Santos, Robson Scheffer Teixeira, Letizia Moscato, Hanna Elin van den Munkhof, Haena Choi, Tatiana Korotkova, Cologne

T24-6A CHARACTERIZATION OF OXYTOCIN RECEPTOR-EXPRESSING NEURONS IN THE MEDIAL SEPTUM OF MICE
Laura Stangl, Inga D. Neumann, Rohit Menon, Regensburg

T24-7A NUMBER SELECTIVE SENSORIMOTOR NEURONS IN MONKEY PREFRONTAL AND INTRAPARIETAL CORTICES
Laura Elisa Seidler, Stephanie Westendorff, Andreas Nieder, Tuebingen

Thursday

T24-1B ELECTROPHYSIOLOGICAL CORRELATES OF SELECTIVE AUDITORY SPATIAL ATTENTION: EFFECTS OF INTRANASAL OXYTOCIN
Michael-Christian Schlüter, Marlies Pinnow, Martin Brüne, Jörg Lewald, Bochum

T24-2B DETERMINANTS OF THE EXPLORE-VS-EXPLOIT COURTING STRATEGIES OF THE *DROSOPHILA* MALES
Madhura D. Ketkar, Jan Clemens, Göttingen

T24-3B ENCODING OF BASIC VISUAL FEATURES ACROSS THE FIELD OF VIEW IN THE CROW NIDOPALLIUM CAUDOLATERALE
Linus Hahner, Lena Hoeppe, Andreas Nieder, Tuebingen

T24-4B SPONTANEOUS AND SENSORY-EVOKED AROUSAL FLUCTUATIONS ENGAGE A SPECIFIC BRAIN ACTIVITY WAVE
Jose Maria Martinez de Paz, Johanna Mayer, Paulina Gabriele Wanken, Beatriz Rodrigues Apgaua, Emilie Macé, Goettingen

T24-5B CYTOARCHITECTONICAL MAPPING AND ANALYSIS OF THE HUMAN TEMPORAL POLE
Carla Hogrebe, Sebastian Bludau, Hartmut Mohlberg, Katrin Amunts, Duesseldorf

T24-6B MULTISENSORY INTEGRATION AND MODALITY-SPECIFIC DECISION-MAKING IN FRONTAL CORTEX AND SUPERIOR COLLICULUS
Alice Despatin, Irene Lenzi, Peter Severin Graff, Gerion Nabbefeld, Kerstin Cohlst, Daniel Gerber, Luca König, María Laura Pérez, Anoushka Jain, Sonja Grün, Björn Kampa, Simon Musall, Aachen

Friday

T24-1C COGNITIVE FLEXIBILITY TRAINING FACILITATES FEAR EXTINCTION IN C57BL/6J AND 129/S1 MICE
Markus Fendt, Mei Ling Iu, Laura de los Ángeles Molano Moreno, Iris Müller, Daniela C. Dieterich, Magdeburg

T24-2C LATERAL HYPOTHALAMIC NEURONAL DYNAMICS COMMAND BEHAVIORAL TRANSITIONS AND COORDINATE DIFFERENT STAGES OF FEEDING
Mahsa Altafi , Changwan Chen, Mihaela-Anca Corbu, Aleksandra Trenk, Hanna Elin van den Munkhof, Kristin Weineck, Franziska Bender, Marta Carus-Cadavieco, Alisa Bakhareva, Tatiana Korotkova, Alexey Ponomarenko, Erlangen

T24-3C DIVERSE REPRESENTATION OF VARIOUS REWARDS IN THE DOPAMINERGIC NEURONS OF THE VENTRAL TEGMENTAL AREA
Kamil Pradel, Katharina Wolff, Robson Sheffer-Teixeira, Vasyl Mykytiuk, Tatiana Korotkova, Cologne

T24-4C CROWS RECOGNIZE GEOMETRIC REGULARITY
Philipp Schmidbauer, Madita Hahn, Andreas Nieder, Tuebingen

T24-5C THE ROLE OF DOPAMINE RECEPTORS IN SEMANTIC ASSOCIATIONS BETWEEN SIGNS AND QUANTITY CATEGORIES IN PRIMATE PREFRONTAL NEURONS
Saskia Erdle, Laura E. Seidler, Andreas Nieder, Tuebingen

T24-6C LINKING ATTENTIONAL STATES AND NEURONAL DYNAMICS IN THE LOCUS COERULEUS DURING A DECISION-MAKING TASK
Ananya Joshi, Csilla Novák, Rafael Parker, Matthias Prigge, Magdeburg

T24-7C EFFECT OF CHEMOGENETIC MANIPULATIONS OF THE OREXIN SYSTEM ON COGNITIVE FLEXIBILITY AND WORKING MEMORY IN MICE
Niki Panagiotou, Markus Fendt, Magdeburg

Saturday

T24-1D DISSECTING THE MULTISENSORY DIMENSIONS OF THE SOCIAL BRAIN IN MICE
Johanna Luise Mayer, Emilie Macé, Göttingen

T24-2D OPPOSITE CODING OF COMPETING REWARDS BY VTA DOPAMINE NEURONS
Hanna Elin van den Munkhof, Vasyl Mykytiuk, Tatiana Korotkova, Cologne

T24-3D WHOLE-BRAIN ACTIVITY PATTERNS UNDERLYING UNINSTRUCTED BEHAVIORAL SWITCHING IN MICE
Paulina Gabriele Wanken, Bradley Jay Edelman, Leafy Behera, José-Maria Martinez de Paz, Emilie Macé, Göttingen

T24-4D SOCIAL CONTEXT SHAPES BEHAVIORAL AND NEURAL DYNAMICS OF FORAGING AND DECISION-MAKING IN FREELY MOVING RHESUS MACAQUES
Ayuno Nakahashi, Jessica Grunwald, Zurna Ahmed, Irene Lacal, Alexander Gail, Göttingen

T24-5D NEURAL DYNAMICS OF CONTEXT, CUE AND RULE ENCODING: THE ROLE OF PV- AND SOM-INTERNEURONS IN THE MPFC
Florian Steenbergen, Brice De La Crompe, Julian Ammer, Ilka Diester, Freiburg

T24-6D GAZE FOLLOWING IS NOT GROUNDED IN THE PERCEPTION OF IMPLIED MOTION
Masih Shafiei, Marius Görner, Peter Thier, Tuebingen

T24-7D COGNITIVE BIASES INFLUENCE NUMEROSITY JUDGMENTS IN MACAQUES AND CROWS
Lena Jannasch, Julia Grub, Andreas Nieder, Tuebingen

T25: Learning and memory

Wednesday

T25-1A DOPAMINE MODULATES THE EXCITABILTY OF DOPAMINERGIC NEURONS INVOLVED IN FEEDING IN *DROSOPHILA*.
Michael-Marcel Heim, David Owald, Berlin

T25-2A THE ROLE OF RECURRENT LONG- AND SHORT-RANGE CONNECTIONS IN EXPERIENCE-DEPENDENT MODULATION IN *DROSOPHILA*
Sayantani Biswas, Julio Antonio Otarola-Jimenez, Bill S. Hansson, Markus Knaden, Silke Sachse, Jena

T25-3A MEMORY INDUCTION IN *DROSOPHILA* USING A VIRTUAL OLFACTORY ARENA
Sridhar rajan Jagannathan, Tania Fernandez d.V. Alquicira, David Owald, Berlin

T25-4A MATURATION OF DECISION MAKING ACROSS ADOLESCENCE IN MICE
Amelie Hagelüken, Anne Günther, Johanna K. Kostka, Ileana L. Hanganu-Opatz, Hamburg

T25-5A MEMORY PATTERNS ACROSS SYNAPTIC BOUTONS: COMPARTMENTALIZED DOPAMINE EFFECTS ALONG THE MUSHROOM BODY GAMMA LOBE
Philip Baxter Aßmann, Ibrahim Alperen Tunc, Martin Paul Nawrot, Cologne

T25-6A DETERMINANTS OF TRACE- DELAY- AND RELIEF CONDITIONING IN FRUIT FLIES
Edanur Sen, Christian König, Thomas Niewalda, Fatima Amin, Sevval Demirci, Melissa Comstock, Bertram Gerber, Magdeburg

T25-7A OPEN PLASTICITY WINDOW DURING MEMORY CONSOLIDATION IN *DROSOPHILA MELANOGASTER*
Tania Fernandez del Valle Alquicira, Lisa Schuenemann, Desiree Laber, Marine Balcou, David Owald, Berlin

T25-8A CORTEX AND HIPPOCAMPUS DIFFERENTIALLY CONTRIBUTE TO SPATIAL CODING IN SUBICULUM
Oliver Barnstedt, Dennis Dalügge, Hiroshi Kaneko, Liudmila Sosulina, Silvia Vieweg, Kimia Farghadayn, Stefan Remy, Magdeburg

T25-9A DISSECTION OF NEURONAL CIRCUITS UNDERLYING OLFACTORY SENSITIZATION – THE ROLE OF A NEURONAL CIRCUIT IN THE MUSHROOM BODY CALYX
Lisa Epple, Hannah Mariedele Luksch, André Fiala, Göttingen

Thursday

T25-1B EFFECTS OF SOCIAL EXPERIENCE ON NEURAL FUNCTION IN *DROSOPHILA*
Frederic Alexander Römschied, Göttingen

T25-2B DIFFERENTIAL EFFECTS OF STARVATION ON DIFFERENT FORMS OF SHORT-TERM MEMORY IN *DROSOPHILA MELANOGASTER*
Juliane Thoener, Svea Königsmann, Thomas Niewalda, Sevval Demirci, Latafat Guliyeva, Fatima Amin, Isabel Walther, Mozhdeh Besharatifar, Bertram Gerber, Christian König, Magdeburg

T25-3B CONTRIBUTION OF THE NEURAL NETWORK TO THE CONSOLIDATION OF GENERALIZED MOTOR CONTENT DURING SLEEP
Nesa Ahmadi, Farzin Kamari, Olga Garaschuk, Lisa Marshall, Lübeck

T25-4B CELL-TYPE SPECIFIC ACTIONS OF NOGO-A IN CONTROLLING SPATIAL MEMORY FORMATION BY MODULATING NEURONAL EXCITABILITY
Jan Flechtner, Martin Korte, Marta Zagrebelsky, Braunschweig

T25-5B EXPLORING STRUCTURAL AND FUNCTIONAL PROPERTIES OF THE LIZARDS' CORTICAL REGIONS.
Niels Röhrdanz, Ceylan-Scarlett Steinecke, Anil Menon, Kira Balueva, Elke Edelmann, Peer Wulff, Kiel

T25-6B INTEGRATION OF INFORMATION IN THE ABSENCE OF ACTION IN *DROSOPHILA*
Johanna Aurelia Schweizer, Johannes Felsenberg, Basel, Switzerland

T25-7B NEURONAL MODULATION BY LATENT INHIBITION IN ANTENNAL LOBE AND MUSHROOM BODY OUTPUT
Cansu Arican, Martin Strube-Bloss, Brian H Smith, Martin Paul Nawrot, Cologne

T25-8B MODULATION OF CONTEXTUAL FEAR MEMORY CIRCUITS BY ACUTE PHASE DELAY
Lara Mariel Chirich Barreira, Hannah Gapp, Julia Henschke, Janelle M. P. Pakan, Anne Albrecht, Magdeburg

Friday

T25-1C THE ROLE OF EPIGENETIC MECHANISMS FOR BODY SIZE MEMORY IN *DROSOPHILA MELANOGASTER*
Natalie von Hattingberg, Burkhard Poeck, Roland Strauss, Mainz

T25-2C UNRAVELING THE ROLE OF SLEEP IN VOCAL LEARNING
Artemis Gkinakou, Hamed Yeganegi, Janie M. Ondracek, Freising

T25-3C BRAIN-WIDE NETWORKS FOR CATEGORY LEARNING IN THE MOUSE
Selina Majaj, Sandra Reinert, José-Maria Martinez de Paz, Mark Hübener, Pieter M. Goltstein, Emilie Macé, Tobias Bonhoeffer, Munich

T25-4C PATTERN COMPLETION OF CONTEXTUAL FEAR MEMORY: MODULATION BY HIPPOCAMPAL SOMATOSTATIN-POSITIVE INTERNEURONS
Gina Marie Krause, Oliver Stork, Anne Albrecht, Magdeburg

T25-5C BEHAVIORAL ALGORITHMS UNDERLYING FLEXIBLE DECISION-MAKING
Ashrit Mangalwedhekar, Sydney Hunt, Armin Bahl, Konstanz

T25-6C UNLOCKING VISUAL PATHWAYS: ENHANCED VISUAL LEARNING THROUGH OLFACTORY DEPRIVATION IN *DROSOPHILA*
Büsra Çoban, Johannes Felsenberg, Basel, Switzerland

T25-7C OLFACTORY-VISUAL INTEGRATION IN INPUT AND OUTPUT REGIONS OF THE MUSHROOM BODIES IN THE HONEYBEE, *APIS MELLIFERA*
Andrea Rafaela Nicolaidou, Claudia Groh, Martin Strube-Bloss, Keram Pfeiffer, Wolfgang Rössler, Wuerzburg

T25-8C ACTION, VALENCE, DOPAMINE- DROSOPHILA AS A STUDY CASE
Fatima Amin, Oliver Barnstedt, Salil Bidaye, Ilona Grunwald Kadow, Marcel Heim, Christian König, Ashok Litwin-Kumar, Utsab Majumder, Nino Mancini, Kazuma Murakami, David Owald, Anna Pierzchlinska, Jasmine T. Stone, Bertram Gerber, Magdeburg

T25-9C OPPOSITIONAL AND COMPETITIVE INSTIGATION OF HIPPOCAMPAL SYNAPTIC PLASTICITY BY THE VTA AND LOCUS COERULEUS
Hardy Hagena, Denise Manahan-Vaughan, Bochum

Saturday

T25-1D OPTOGENETIC CONTROL OF MITOCHONDRIA IN PV+ INTERNEURONS ALTERS CA1 FUNCTION
Rina Patel, Matthias Haberl, Silvia Viana Da Silva, Berlin

T25-2D NOGO-A REGULATES FEAR MEMORY PROCESSES AND MEMORY ENGRAM FORMATION BY MODULATING NEURONAL EXCITABILITY IN A SEX-SPECIFIC MANNER
Sebastian Stork, Jennifer Just, Kristin Metzdorf, Marta Zagrebelsky, Martin Korte, Braunschweig

T25-3D THE ROLE OF GAMMA OSCILLATIONS IN STIMULUS ENCODING AND MEMORY MAINTENANCE DURING A SEQUENTIAL MEMORY TASK IN THE HUMAN MEDIAL TEMPORAL LOBE
Muthu Jeyanthi Prakash, Johannes Niedek, Thomas P. Reber, Valerie Borger, Rainer Surges, Florian Mormann, Stefanie Liebe, Tuebingen

T25-4D NEURAL CIRCUITS THAT REGULATE EXPLORATORY ODOR-DRIVEN BEHAVIOR
Giovanni D`Uva, Christian Daniel, Leticia Batista, Carlotta Martelli, Mainz

T25-5D TOWARDS ESTABLISHING A COCAINE PREFERENCE MODEL IN *DROSOPHILA MELANOGASTER*
Isabella Susanne Balles, Raquel Suárez-Grimalt, David Owald, Berlin

T25-6D IN VIVO IMAGING AND OPTOGENETICS REVEALS A ROLE OF THE MAMMILLARY BODY IN SPATIAL REWARD MEMORY
Marla Yasmin Witt, Deema Awad, Tatiana Korotkova, Oliver Barnstedt, Anne Petzold, Cologne

T25-7D ACUTE CIRCADIAN RHYTHM DISTURBANCE IMPAIRS CONTEXTUAL-MEMORY ENGRAMS IN THE DENTATE GYRUS
Harini Srinivasan, Anne Albrecht, Oliver Stork, Magdeburg

T25-8D CHANGES IN NEURAL REPRESENTATION OF SOCIAL CONSPECIFICS IN RESPONSE TO REWARD LEARNING
Lars-Lennart Oettl, Cristina Mazuski, Chenyue Ren, John O`Keefe, Heidelberg

T26: Computational neuroscience

Wednesday

T26-1A ADAPTIVE MECHANISM IN CLUSTERED SPIKING ATTRACTOR MODEL EXPLAINS EXPERIMENTAL FIRING RATES AND VARIABILITY
Felicitas A-L Bierth, Martin Paul Nawrot, Felix J. Schmitt, Cologne

T26-2A DISTRIBUTED REINFORCEMENT SIGNALS AMONG *DROSOPHILA* LARVA DOPAMINERGIC NEURONS GUIDE LEARNING IN INDIVIDUAL MUSHROOM BODY COMPARTMENTS
Anna-Maria Jürgensen, Denise Weber, Andreas S. Thum, Martin Paul Nawrot, Cologne

T26-3A BRIDGING TUNING AND INVARIANCE WITH EQUIVARIANT NEURONAL REPRESENTATIONS
Judith Hoeller, Lin Zhong, Marius Pachitariu, Sandro Romani, Ashburn, USA

T26-4A COMPUTING IN NEURONAL NETWORKS WITH PLASTICITY VIA ALL-OPTICAL BIDIRECTIONAL INTERFACING
Andrey Formozov, J. Simon Wiegert, Mannheim

Thursday

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Xin Hu, Brett Emery, Shahrukh Khanzada, Hayder Amin, Dresden

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Oliver Schmitt, Marie Bellmann, Stefanie Haase, Prathapan Vishnu, Eipert Peter, Hamburg

T26-3B ESTABLISHING FUNCTIONAL ULTRASOUND IMAGING IN CROWS
Eva Schwarzbach, Diana A. Liao, Andreas Nieder, Tuebingen

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Ibrahim Alperen Tunc, Jan E. Radermacher, Svenja Corneliussen, Vahid Rostami, Peter Kloppenburg, Martin Paul Nawrot, Cologne

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Fatemeh Yousefi, Dennis Laufs, Natalia Babushkina, Christopher Wiesbrock, Gerion Nabbefeld, Björn Kampa, Simon Musall, Jülich

Friday

T26-1C A BIO-PHYSICALLY INSPIRED MODEL FOR SYNAPTIC TAGGING AND CAPTURE
Michael Fauth, Francesco Negri, Jannik Luboeinski, Christian Tetzlaff, Göttingen

T26-2C TOWARDS DEVELOPING A SYLLABLE DICTIONARY FOR CHARACTERIZING NIGHTINGALE SONGS
Mahalakshmi Ramadas, Jan Clemens, Daniela Vallentin, Seewiesen

T26-3C SPATIOTEMPORAL DEEP LEARNING PIPELINE FOR DECODING STIMULUS-DRIVEN WHOLE-BRAIN CALCIUM IMAGING
Amina Abdelbaki, Paul Bandow, Karen Cheng, Ilona Grunwald-Kadow, Martin Paul Nawrot, Vahid Rostami, Cologne

T26-4C DISSOCIATION OF MULTISENSORY PROCESSING IN SUPERIOR COLLICULUS AND PRIMARY SENSORY CORTEX
Daniel Gerber, Peter Severin Graff, Björn Kampa, Simon Musall, Jülich

T26-5C HOW PRONOUNCED REFRACTORINESS PREVENTS RESURGENT EXCITATION IN BIDIRECTIONAL MOTOR NERVE NETS OF THE JELLYFISH
Peixuan Wu, Jan-Hendrik Schleimer, Susanne Schreiber, Berlin

Saturday

T26-1D EXCITATORY-INHIBITORY INTERACTION SHAPES ACTIVITY-DEPENDENT SELF-ORGANIZATION OF NEURONAL NETWORKS
Richmond L. Crisostomo, Shreya Agarwal, Ulrich Egert, Samora Okujeni, Freiburg

T26-2D A NOVEL AI-BASED TOOL FOR REAL-TIME USV DETECTION AS UNBIASED MARKERS OF DISTINCT SOCIAL INTERACTIONS
Ali Mohammadi, Jens F. Tillmann, Martin K. Schwarz, Bonn

T26-3D ESTIMATING LATENT VARIABLES OF DECISION-MAKING BEHAVIOR IN ZEBRAFISH LARVAE
Roberto Garza, Ahmed El Hady, Armin Bahl, Konstanz

T26-4D INTERACTION WITH THIRD PARTIES SHAPES COURTSHIP BEHAVIOR IN GROUPS OF FRUIT FLIES
Amirmohammad Naderi, Adrián Palacios Muñoz, Sarath Ravindran, Jan Clemens, Göttingen

T26-5D BEYOND FIRING RATE HOMEOSTASIS: HOW NEURONS CAN TUNE THEIR EXCITABILITY CLASS USING HIGHER-ORDER STATISTICS OF THE CALCIUM SIGNAL
Hannah Schultheiss, Nelson Niemeyer, Jan-Hendrik Schleimer, Susanne Schreiber, Berlin

T27: Techniques and demonstrations

Wednesday

T27-1A MOUSEFLOW: A PYTHON TOOLBOX FOR HIGH-RESOLUTION BEHAVIORAL TRACKING IN HEAD-FIXED MICE USING OPTICAL FLOW AND KINEMATIC ANALYSES
Lam Q. Bui, Felix Kuhn, Janelle M. P. Pakan, Simon Musall, Anne Petzold, Oliver Barnstedt, Bremen

T27-2A A GENETIC TOOL FOR TRACING ELECTRICAL SYNAPTIC CONNECTIVITY
Rachita Taneja, Stefanie Ryglewski, Carsten Duch, Marion Silies, Christopher Schnaitmann, Mainz

T27-3A MULTISCALE LIGHT SHEET FLUORESCENCE EXPANSION MICROSCOPY REVEALS REGION-SPECIFIC SYNAPTIC INNERVATION OF HDB PROJECTIONS WITHIN THE OLFACTORY BULB
Juan Eduardo Rodriguez Gatica, Ulrich Kubitscheck, Martin K. Schwarz, Bonn

T27-4A A STIMULUS AND ANALYSIS FRAMEWORK FOR SELF-CONSISTENT ESTIMATIONS OF IONIC CURRENT DYNAMICS FROM VOLTAGE CLAMP EXPERIMENTS
Lukas Sonnenberg, Stephan Lauxmann, Jan Benda, Tuebingen

T27-5A ELIMINATING THE EDGE EFFECT IN NEURONAL CELL CULTURE
David Daniel Murphy, Piotr Aleksander Niziolek, Paul Turko, Berlin

T27-6A CARDIAC DYSFUNCTION AND IMMUNE INFILTRATION OF CARDIAC TISSUE IN MURINE MODEL OF RECURRENT STROKE
Laura Kate Ismajli, Polina Bugaeva, Sylwia Piatek, Eduart Temaj, Amido Daugardt, Marco Foddis, Ronja Marion Dörk, Tingting Wang, Amelie Weber, Susanne Mueller, Phillip Boehm-Sturm, Nikolaus Wenger, Christian Hoffmann, Linda Hammerich, Christian Oeing, Christoph Harms, Berlin

T27-7A MINIMALLY INVASIVE HOLOGRAPHIC MICROENDOSCOPE FOR SUBCELLULAR DEEP BRAIN IMAGING
Hana Cizmarova, Sergey Turtaev, Jena

Thursday

T27-1B LIMITATIONS OF CLICK CHEMISTRY IN NEUROIMAGING: NON-SPECIFIC ALKYNE BINDING IN NEURONS
Piotr Aleksander Niziolek, Berlin

T27-2B THE QUANTIFICATION OF CELLULAR STRUCTURES IN THE INTACT COCHLEA BY ADVANCED SUB-MICRON LIGHT SHEET IMAGING
Lennart Roos, Aleyna M. Diniz, Mostafa Aakhte, Anupriya Thirumalai, Elisabeth Koert, Jakob Neef, Bettina Wolf, Constantin Pape, Jan Huisken, Tobias Moser, Göttingen

T27-3B IMPLEMENTATION OF THE CRISPR/CAS9 TOOLBOX ENABLES TARGETED GENOME EDITING IN THE PARTHENOGENETIC STICK INSECT *MEDAUROIDEA EXTRADENTATA*
Elina Dirksen, Benjamin Altenhein, Sigrun Korsching, Ansgar Büschges, Giulia Di Cristina, Cologne

T27-4B ANALYSIS OF GLIAL CELL MORPHOLOGY IN EAE MICE AND OLFACTORY STIMULATION EXPERIMENTS USING ADVANCED IMAGING AND TISSUE-CLEARING TECHNOLOGIES
Insa Gudrun Kreimer, Hanna Hartwig, Greta Hartmann, Hannah Gäb, Anne-Wienke Nissen, Charlotte Schubert, Manuel Friese, Daniela Hirnet, Christian Lohr, Hamburg

T27-5B AN INNOVATIVE APPROACH FOR CONDUCTING 3D ELECTROPHYSIOLOGICAL RECORDINGS WITHIN INTACT ORGANOIDS.
Kerri Kukovetz, Tom Stumpp, Sara Mirsadeghi, Michael Mierzejewski, Angelika Stumpf, Haein Chang, Udo Kraushaar, Ali Hosseini, Michele Giugliano, Jenny Hsieh, Peter Jones, Reutlingen

T27-6B OXYGEN IMAGING OF HYPOXIC POCKETS IN THE MOUSE CEREBRAL CORTEX
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Friday

T27-1C INVERSE BIPOLES: EXPANDING THE TOOLKIT FOR BIDIRECTIONAL OPTOGENETIC CONTROL OF NEURONAL ACTIVITY
Yilmaz Arda Ates, Niklas Meyer, Johannes Vierock, J. Simon Wiegert, Mannheim

T27-2C FUSED FIBER PHOTOMETRY 2.0: INTENSIOMETRIC AND RATIOMETRIC MONITORING OF NEURONAL ACTIVITY
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T27-4C INVESTIGATING FLUORESCENT NEUROTRANSMITTER SENSOR DYNAMICS USING FAST PATCH-CLAMP FLUOROMETRY
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T27-5C RNA SPLICING REVISITED: NEW MOLECULAR TOOLS FOR ANALYSIS OF CRYPTIC SPLICE DONORS AT SINGLE CELL RESOLUTION
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Posters

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T27-1D ADVANCEMENTS TOWARDS HIGH-THROUGHPUT ARRAY TOMOGRAPHY FOR HIPPOCAMPAL CIRCUIT ANALYSIS
Pelin Ayyildiz, Laura-Jane Neßler, Rina Patel, Silvia Viana Da Silva, Matthias Haberl, Berlin

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Lena Susann Eschholz, Chantal Wissing, Maxime Maheu, Kathrin Sauter, Fabio Morellini, J. Simon Wiegert, Alexander Dieter, Mannheim

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Lisa Ratz, Lidia Miguel Telega, Tiago Costa, Volker Arnd Coenen, Máté Daniel Döbrössy, Freiburg

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John Carl Begley, Yi Lien, Camin Dean, Paul Turko, Berlin

T27-6D HIGH PURITY FLUORESCENCE-ACTIVATED VESICLE SORTING FOR ENRICHMENT OF EXTRACELLULAR VESICLE (BRAIN) SPECIFIC POPULATIONS
Isabel Graf, Anne Rissiek, Jochen Behrends, Santra Brenna, Christina Krüger, Christopher Urbschat, Bente Siebels, Franz Ricklefs, Amanda Salviano-Silva, Anke Diemert, Petra Arck, Tim Magnus, Berta Puig, Hamburg

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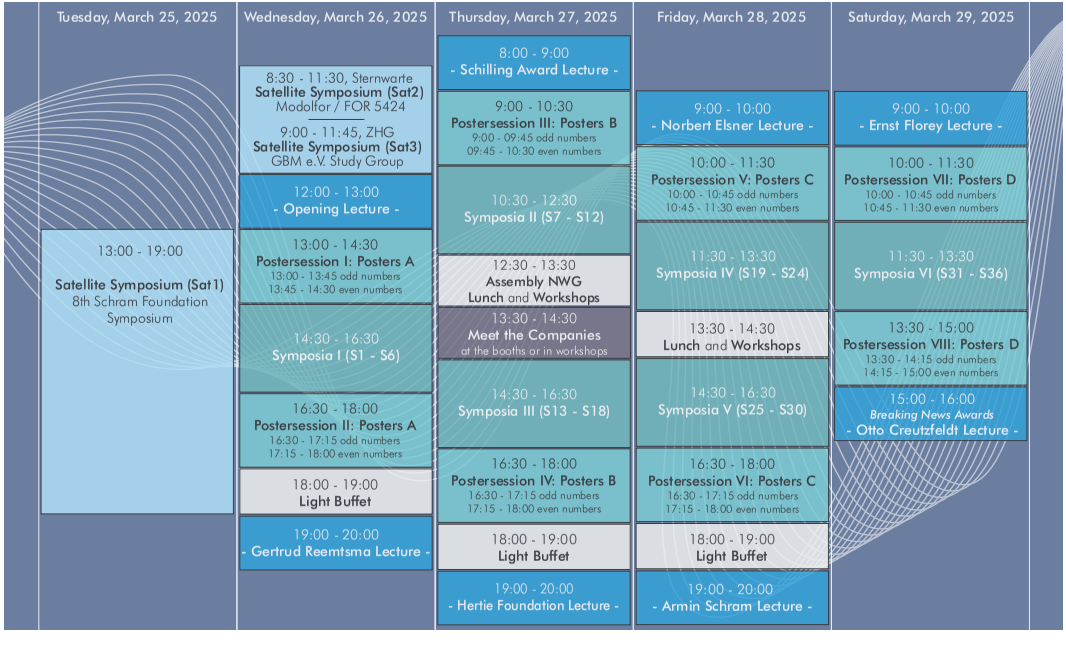
Tuesday, March 25, 2025
13:00 - 19:00
Satellite Symposium (Sat1)
8th Schram Foundation Symposium
Wednesday, March 26, 2025
8:30 - 11:30, Sternwarte
Satellite Symposium (Sat2)
Modolfor / FOR 5424
9:00 - 11:45, ZHG
Satellite Symposium (Sat3)
GBM e.V. Study Group
12:00 - 13:00
- Opening Lecture -
13:00 - 14:30
Postersession I: Posters A
13:00 - 13:45 odd numbers
13:45 - 14:30 even numbers
14:30 - 16:30
Symposia I (S1 - S6)
16:30 - 18:00
Postersession II: Posters A
16:30 - 17:15 odd numbers
17:15 - 18:00 even numbers
18:00 - 19:00
Light Buffet
19:00 - 20:00
- Gertrud Reemtsma Lecture -
Thursday, March 27, 2025
8:00 - 9:00
- Schilling Award Lecture -
9:00 - 10:30
Postersession III: Posters B
9:00 - 09:45 odd numbers
09:45 - 10:30 even numbers
10:30 - 12:30
Symposia II (S7 - S12)
12:30 - 13:30
Assembly NWG
Lunch and Workshops
13:30 - 14:30
Meet the Companies
at the booths or in workshops
14:30 - 16:30
Symposia III (S13 - S18)
16:30 - 18:00
Postersession IV: Posters B
16:30 - 17:15 odd numbers
17:15 - 18:00 even numbers
18:00 - 19:00
Light Buffet
19:00 - 20:00
- Hertie Foundation Lecture -
Friday, March 28, 2025
9:00 - 10:00
- Norbert Elsner Lecture -
10:00 - 11:30
Postersession V: Posters C
10:00 - 10:45 odd numbers
10:45 - 11:30 even numbers
11:30 - 13:30
Symposia IV (S19 - S24)
13:30 - 14:30
Lunch and Workshops
14:30 - 16:30
Symposia V (S25 - S30)
16:30 - 18:00
Postersession VI: Posters C
16:30 - 17:15 odd numbers
17:15 - 18:00 even numbers
18:00 - 19:00
Light Buffet
19:00 - 20:00
- Armin Schram Lecture -
Saturday, March 29, 2025
9:00 - 10:00
- Ernst Florey Lecture -
10:00 - 11:30
Postersession VII: Posters D
10:00 - 10:45 odd numbers
10:45 - 11:30 even numbers
11:30 - 13:30
Symposia VI (S31 - S36)
13:30 - 15:00
Postersession VIII: Posters D
13:30 - 14:15 odd numbers
14:15 - 15:00 even numbers
15:00 - 16:00
Breaking News Awards
- Otto Creutzfeldt Lecture -

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20 February 2025 – 5 May 2025

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