

Brain Dynamics Graduate School



Newsletter – March '23

*Let us know if you have an announcement, upcoming event, new publication or job posting!
Send your information (with a link if applicable) to jovanovic@uni-leipzig.de.
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<https://lists.uni-leipzig.de/mailman/listinfo/neuroscience>

Events

- **Max Planck School of Cognition Colloquium**

20.03. 16:00 online

Prof. Isabel Dziobek, Department of Psychology, Berlin School of Mind and Brain, Humboldt-Universität zu Berlin

"From social robotics to participatory research: What we can learn from the study of autism for mental health challenges of the 21st century".

<https://www.cbs.mpg.de/events/33348/338738>

- **Guest lecture at the MPI CBS**

29.03. 10:00 MPI CBS, Wilhelm Wundt Room (A400), Stephanstraße 1A, 04103 Leipzig

Prof. Dr. Magdalena Sauvage, Leibniz Institute for Neurobiology (LIN), Magdeburg

"Towards a Functional Architecture of Memory".

<https://www.cbs.mpg.de/events/33935/338738>

- **Brain Dynamics Seminar Series**

31.03. 12:00 online

Dr. Christian Simon, Carl Ludwig Institute of Physiology, Medical Faculty,
Leipzig

"Motor neurons drive motor circuit pathology in a distal form of spinal muscular atrophy".

<https://www.uni-leipzig.de/en/brain-dynamics/graduate-school-brain-dynamics/news-events/newsdetail/artikel/motor-neurons-drive-motor-circuit-pathology-in-a-distal-form-of-spinal-muscular-atrophy-2023-03-31>

- **Symposium “Neurologie update 2023”**

01.04. 09:00 – 13:00 hybrid, online & Salles de Pologne, Hainstraße 16, 04109
Leipzig

Neurologie update

https://www.uniklinikum-leipzig.de/veranstaltungen/Seiten/Veranstaltung_5569.aspx

- **Guest lecture at the Department of Animal Physiology**

04.04. 10:00 Kleiner Hörsaal, Institute of Biology, Faculty of Life Sciences, Talstr.
33, 04103 Leipzig

Prof. Dr. Thomas Roeder, Molecular Physiology, Institute of Zoology, Faculty of
Mathematics and Natural Sciences, Kiel University

„Nutrition and hormones as determinants of metabolism and organ structure in
Drosophila“

<https://www.uni-leipzig.de/en/brain-dynamics/graduate-school-brain-dynamics/news-events/newsdetail/artikel/nutrition-and-hormones-as-determinants-of-metabolism-and-organ-structure-in-drosophila-2023-02-09>

- **Language Circle Seminars**

05.04. 11:00 hybrid, online & MPI CBS, Wilhelm Wundt Room (A400),
Stephanstraße 1A, 04103 Leipzig

Dr Anne Keitel, University of Dundee, Scotland, UK

"Cortical tracking of speech and its relationship with intrinsic brain rhythms".

<https://www.cbs.mpg.de/events/33955/2090609>

05.04. 13:00 hybrid, online & MPI CBS, Wilhelm Wundt Room (A400),
Stephanstraße 1A, 04103 Leipzig

Dr Christian Keitel, University of Stirling & University of Dundee, Scotland, UK

"Physiological influences on brain state changes and their consequences for subjective perception and performance".

<https://www.cbs.mpg.de/events/33957/2090609>

News

- **New technology to study adhesion GPCRs**

Prof. Dr. Tobias Langenhan and Dr. Nicole Scholz from the Rudolf Schönheimer Institute of Biochemistry talk about their latest publication in 'Nature':

<https://www.uni-leipzig.de/en/newsdetail/artikel/receptor-blasting-visualised-2023-03-14>

- **New insight into the development of Alzheimer's disease**

Prof. Dr. Bernd Abel from the Institute of Chemical Technology & Leibniz-Institute of Surface Engineering (IOM) was part of the team investigating the links between oxidised cell membranes and peptide aggregation. Their findings are now published in the journal 'Chemical Science':

<https://www.uni-leipzig.de/en/newsdetail/artikel/neue-erkenntnisse-zur-entstehung-von-alzheimer-2023-03-06>

- **Potential Treatment for Autoimmune Encephalitis**

Brain Dynamics doctoral student Toni Kirmann and Prof. Dr. Stefan Hallermann from the Carl Ludwig Institute of Physiology talk about their latest publication in 'Brain':

<https://www.uni-leipzig.de/en/newsdetail/artikel/dfg-forschungsgruppe-entwickelt-therapiekandidaten-gegen-autoimmune-enzephalitis-2023-03-03>

- **Faces of the University Leipzig: Prof. Dr. Gesa Hartwigsen**

Prof. Hartwigsen, Wilhelm Wundt Institute, Faculty of Life Sciences & Lise Meitner Research Group Cognition and Plasticity, MPI CBS, talks about her carrier, research and teaching for the Leipzig university magazine (in German):

<https://magazin.uni-leipzig.de/das-leipziger-universitaetsmagazin/artikel/gesichter-der-uni-leipzig-prof-dr-gesa-hartwigsen-2023-02-13>

New members

We welcome one new doctoral student to the Brain Dynamics family:

➤ **Timothy Murai von Büнау**

Research Group Schmidt, Carl Ludwig Institute of Physiology, Medical Faculty

Research project: "Presynaptic mechanisms of long-term plasticity at neocortical synapses".

<https://physiologie.medizin.uni-leipzig.de/mobile.php?en,id163>

Latest publications

➤ Brain Dynamics graduate student **Yin Kwan Chung** and research group **Langenhan**

Molecular sensing of mechano- and ligand-dependent adhesion GPCR dissociation.

Scholz N, Dahse AK, Kemkemer M, Bormann A, Auger GM, Vieira Contreras F, Ernst LF, Staake H, Körner MB, Buhlan M, Meyer-Mölck A, Chung YK, Blanco-Redondo B, Klose F, Jarboui MA, Ljaschenko D, Bigl M, Langenhan T.

Nature. 2023 Mar 8. doi: 10.1038/s41586-023-05802-5.

➤ Brain Dynamics graduate student **Mareike Hemberger** and research group **Langenhan**

Optimized genetic code expansion technology for time-dependent induction of adhesion GPCR-ligand engagement.

Streit M, Hemberger M, Häfner S, Knotte F, Langenhan T, Beliu G.

Protein Sci. 2023 Mar 4: e4614. doi: 10.1002/pro.4614.

➤ Brain Dynamics graduate student **Toni Kirmann** and research group **Hallermann**

NMDA-receptor-Fc-fusion constructs neutralize anti-NMDA receptor antibodies.

Steinke S, Kirmann T, Loi EA, Nerlich J, Weichard I, Kuhn P, Bullmann T, Ritzau-Jost A, Rizalar FS, Prüss H, Haucke V, Geis C, Hust M, Hallermann S.

Brain. 2023 Mar 3: awac497. doi: 10.1093/brain/awac497.

➤ Research groups **Hallermann / Eilers / Krüger**

Direct whole-cell patch-clamp recordings from small boutons in rodent primary neocortical neuron cultures.

Ritzau-Jost A, Nerlich J, Kaas T, Krueger M, Tsintsadze T, Eilers J, Barbour B, Smith SM, Hallermann S.
STAR Protoc. 2023 Mar 14; 4(2): 102168. doi: 10.1016/j.xpro.2023.102168.