



# Program

## 28.03.2022

19:00 - 20:00

**Public Lecture:** Ulman Lindenberger (*Center for Lifespan Psychology, Max Planck Institute for Human Development, Berlin, Germany; Max Planck UCL Centre for Computational Psychiatry and Ageing Research, Berlin, Germany, and London, UK*)  
Kognitive Entwicklung im Erwachsenenalter / Adult cognitive development

## 29.03.2022

08:30

**Check-in**

09:00

**Opening:** Ulman Lindenberger (*Center for Lifespan Psychology, Max Planck Institute for Human Development, Berlin, Germany; Max Planck UCL Centre for Computational Psychiatry and Ageing Research, Berlin, Germany, and London, UK*)

09:15

**Keynote:** Carlos Dotti (*Centro de Biología Molecular Severo Ochoa, Madrid, Spain*)  
A plasma membrane-centric view to explain (some) cognitive defects of the old: how gradual changes in neuronal plasma membrane lipids lead to synaptic plasticity deficits

10:15 - 10:35

**Coffee Break**

10:35 Session 1

**Neuro-Glia Interactions during development, aging and disease**  
**Chairs: Tabea Linde and Danai Katsere**

10:35 – 11:15

Romy von Bernhardt (*Universidad San Sebastian, Santiago, Chile*)  
Age-related changes on the activation of microglia and neuroinflammation promotes neuron damage

11:20 – 11:40

Tabea Linde (*Medical Faculty, Otto von Guericke University Magdeburg, Germany*)  
Influence of immunosenescence on *T. gondii* infection-induced neuroinflammation

11:45 – 12:25

Elena Alberdi (*Achucarro Basque Center for Neuroscience and Universidad del País Vasco (UPV/EHU), Spain*)  
Alterations of oligodendrocytes and myelin in Alzheimer's disease

12:30 – 12:50

Danai Katsere (*Medical Faculty, Otto von Guericke University Magdeburg, Germany*)  
Synaptic Aging: The L/D-Serine synthesis pathway and investigating pharmacological rejuvenation using metformin

13:00

**Lunch & Poster Session (even numbers)**



- 13:45 Session 2**      **Brain resilience in aging and disease**  
**Chairs: Jana Schulze and Hadi Mirzapourdelavar**
- 13:45 – 14:25      Saul Villeda (*University of California San Francisco, School of Medicine, San Francisco, USA*)  
Systemic Mechanisms of Brain Rejuvenation
- 14:30 – 14:50      Jana Schulze (*Leibniz Institute for Neurobiology, Magdeburg, Germany*)  
Effects of enriched environment on learning and memory in aged brevican and neurocan double knock-out mice
- 14:55 – 15:35      Aleksandra Deczkowska (*Institut Pasteur, Paris, France*)  
Blood-cerebrospinal fluid barrier in maintenance and aging of the brain
- 15:40 – 16:00      Hadi Mirzapourdelavar (*German Center for Neurodegenerative Diseases, Magdeburg, Germany*)  
Targeting the extracellular matrix in brain aging
- 16:00**      **Coffee Break & Poster Session (even numbers)**
- 17:00 Session 3**      **Ageing across species**  
**Chair: Sara Enrile Lacalle**
- 17:00 – 17:40      Rochelle Buffenstein (*Department of Biological Sciences, University of Illinois at Chicago, Chicago, Illinois, USA*)  
Breaking the mol(e)d; a non-traditional animal model of exceptional biogerontological interest
- 17:45 – 18:05      Miguel Del Angel (*Institute of Biology, Otto von Guericke University Magdeburg, Germany*)  
Trehalose administration increases autophagic flux in the dorsal hippocampus of old mice, and produces changes in exploratory behaviour
- 18:10 – 18:50      Janine Kirstein (*Department of Cell Biology, University of Bremen, Germany*)  
Chaperone-mediated regulation of the folding and spreading of amyloid proteins
- 18:55 – 19:15      Mahsima Khoshneviszadeh (*German Center for Neurodegenerative Diseases, Magdeburg, Germany*)  
Studying aging-associated risk factors in rat and mouse models of cerebral small vessel disease
- 19:30**      **Speakers Dinner**



**30.03.2022**

- 09:00** **Welcome**
- 09:15 Session 4** **Neurodegenerative diseases**  
**Chair: Alexandre Ryzynski**
- 09:15 – 09:55 Pablo Largo Barrientos (*VIB-KU Leuven Center for Brain and Disease Research, Belgium*)  
Molecular mechanisms of pathogenic tau at pre-synapses
- 10:00 – 10:20 Eleonora Cuboni (*Leibniz Institute for Neurobiology, Magdeburg, Germany*)  
Neddylation at synapses: functional implications for high risk ageing
- 10:25 – 11:05 Sabina Tahirovic (*Juvenile Degeneration, German Center for Neurodegenerative Diseases (DZNE), Munich, Germany*)  
Loss of NPC1 enhances phagocytic uptake and impairs lipid trafficking in microglia
- 11:10 – 11:30 Sara Enrile Lacalle (*Institute of Biology, Otto von Guericke University Magdeburg, Germany*)  
Modelling fragile X-associated neuropsychiatric disorders in an inducible mouse model: Increased anxiety and reduced parvalbumin-positive interneurons
- 11:30** **Lunch & Poster Session (odd numbers)**
- 12:30 Session 5** **Neuromodulation during aging**  
**Chairs: Katharina Klinger and Maximilian Borgmeyern**
- 12:30 – 13:10 Claudia Cavadas (*Neuroendocrinology and Aging Group, CNC – Center for Neuroscience and Cell Biology, University of Coimbra, Portugal*)  
Neuroendocrine strategies in aging and neurodegenerative disease mouse models
- 13:15 – 13:35 Maximilian Borgmeyer (*Center for Molecular Neurobiology, University Clinic Hamburg-Eppendorf, Germany*)  
Multiomics of synaptic junctions reveals altered lipid metabolism and signaling following environmental enrichment
- 13:40 – 14:00 Katharina Klinger (*Institute of Biology, Otto von Guericke University Magdeburg, Germany*)  
Maintaining neuroplasticity in healthy ageing: critical role of Neuropeptide Y
- 14:05 – 14:45 Anna Rieckmann (*Max-Planck-Institute for Social Law and Social Policy, Munich, Germany and Umeå Center for Functional Brain Imaging, Department of Radiation Sciences, Umeå University, Sweden*)  
Neurocognitive architecture of the human brain - novel insights from hybrid PET-MR
- 14:45** **Coffee Break & Poster Session (odd numbers)**



**15:30 Session 6**

**Brain integrity and cognitive function in aging and neurodegenerative diseases: insights from MRI studies**

**Chairs: Elisa Lancini and Lara Kramer**

15:30 – 16:10

Rogier Kievit (*Donders Institute for Brain, Cognition and Behaviour, Radboud University, The Netherlands*)

Morphometric specificity in healthy ageing: Teasing apart the roles of cortical thickness and surface area using SEM

16:15 – 16:35

Elisa Lancini (*Medical Faculty, Otto von Guericke University Magdeburg, Germany*)  
Subcortical decline in ageing

16:40 – 17:20

James H. Cole (*Centre for Medical Image Computing, University College London, UK*)

How old is your brain? The neuroimaging 'brain-age' paradigm

17:25 – 17:45

Alexander Weuthen (*Institute of Psychology, Otto von Guericke University Magdeburg, Germany*)

Linked brain networks of adaptive memory formation and error recognition processes

**17:45**

**Final Remarks**

**18:00**

**SynAGE Award Dinner**

Awarding Best Poster

**20:00**

**SynPARTY**