

iBrain Interdisciplinary Graduate School for Brain Research and Translational Neuroscience

Retreat 2023

September 04, 2023

Schloss Mickeln, Alt Himmelgeist 25, 40589 Düsseldorf

Scientific Program

09:00	Welcome	Guido Reifenberger (Speaker of iBrain)
Guest Lecture		<i>Chair: Alessandro Prigione</i>
09:15	Leveraging spontaneous activity in human stem cell-derived neurons to model neurodevelopmental disorders	Prof. Nael Nadif Kasri Department of Human Genetics & Cognitive Neurosciences, Radboud University Medical Centre, Donders Institute for Brain, Cognition and Behaviour, Nijmegen, The Netherlands
Session 1		<i>Chair: Alessandro Prigione</i>
10:00	Dissecting the neural pathology of Leigh syndrome using patient-derived brain organoids	Sonja Heiduschka Department of General Pediatrics (AG Prigione)
10:15	Patient derived cortico-striatal assembloids for modeling Leigh Syndrome	Stephanie Le Department of General Pediatrics (AG Prigione)
10:30	High-throughput screening for modifiers of neuronal morphology in patient-derived neurons	Selene Sophia Lickfett Department of General Pediatrics (AG Prigione)
10:45	Coffee Break	
Session 2		<i>Chair: Guido Reifenberger</i>
11:15	Impact of genotoxins on autophagic processes in hiPSCs and thereof differentiated neural progenitor cells	Seda Akgün Institute for Molecular Medicine I (AG Stork)
11:30	Screening of computationally predicted compounds in 2D and 3D human neural models of Leigh syndrome carrying <i>SURF1</i> mutations	Carmen Maria Menacho Pando Department of General Pediatrics (AG Prigione)
11:45	Transgenic expression of the HERV-W envelope protein leads to polarized glial cell populations and a neurodegenerative environment	Joel Gruchot Department of Neurology (AG Küry)
12:00	C21orf91's role in defective oligodendroglial differentiation and rescuing approaches - a new window of opportunity for white matter restoration in Down syndrome?	Laura Reiche Department of Neurology (AG Küry)

12:15	Inward operation of NBCe1 upon brief chemical ischemia promotes astrocytic Na ⁺ loading and loss of ATP in mouse neocortex	Katharina Everaerts Institute of Neurobiology (AG Rose)
12:30	Lunch Break	
Session 3		<i>Chair: Christine Rose</i>
13:30	Investigation and evaluation of neuroprotective and regenerative strategies in experimental models of Multiple Sclerosis	Mustafa Sindi Department of Neurology (AG Albrecht)
13:45	Effects of energy deprivation on cellular ion homeostasis in the mouse brain	Nils Pape Institute of Neurobiology (AG Rose)
14:00	Studying the properties of human neural cells and networks using cultured brain organoid slices (cBOS)	Laura Petersilie Institute of Neurobiology (Rose)
Guest Lecture		<i>Chair: Laura Petersilie</i>
14:15	Modeling of neuronal degeneration and restoration therapy with human retina organoids	Prof. Mike Karl Center for Regenerative Therapies Dresden (CRTD), Center for Molecular and Cellular Bioengineering (CMCB), TU Dresden, and DZNE Dresden
15:00	Coffee Break	
Session 4		<i>Chair: Anna von Mikecz</i>
15:30	Progress in phenotyping the tgDISC1 rat model	José Michele Dören Comparative Psychology (AG Kalenscher)
15:45	Neurodegeneration by pollutants: Neurotoxicity and vulnerable age-groups in <i>Caenorhabditis elegans</i>	Dang Tri Le IUF – Leibniz Research Institute for Environmental Medicine (AG von Mikecz)
16:00	Cytoarchitectonic mapping of the human frontal operculum – New correlates for a variety of brain functions	Nina Unger Cécile und Oskar Vogt Institute of Brain Research (AG Amunts)
16:15	Does glucose starvation induce a novel type of cell death?	Zülal Bas Institute of Neuropathology (AG Leprivier)
16:30	SIRT1 as a link between DNA damage and neural differentiation	Christian Kroll Department of Neurology (AG Berndt)
16:45	Summary and Goodbye	Christine Rose (Speaker of iBrain)