

From Bench to Bedside Symposium: Friday, 10th February 2023

Biozentrum, Lecture Hall Maurice E. Müller, Spitalstrasse 41, 4056 Basel

09:00 Welcome and opening: *Josef Bischofberger (DBM)*

Keynote lecture 1 *chaired by Roger Redondo (Roche)*

09:10 - 09:55 **Sonja Kleinlogel** (Neurotechnologies Section, Roche Pharma Research and Early Development)
"Development of a designer optogenetic gene therapy for the restoration of vision"

Session 1: "Dendritic information processing shapes learning" *chaired by Andreas Lüthi (FMI)*

09:55 - 10:00 Introduction to the session

10:00 - 10:25 **Simon D'Aquin** (Institute of Pharmacology and Toxicology, Neuropharmacology, University of Zurich)
"Compartmentalized dendritic plasticity during associative learning"

10:25 - 10:50 **Fritjof Helmchen** (Brain Research Institute, University of Zurich)
"Apical dendrites in neocortical layer 5 neurons enable task learning"

10:50 - 11:15 **Walter Senn** (Department of Physiology, University of Bern)

11:15 - 11:45 Coffee Break

Session 2: "Sleep and Plasticity" *chaired by Anissa Kempf (Biozentrum)*

11:45 - 11:50 Introduction to the session

11:50 - 12:15 **Anita Lüthi** (Department of Fundamental Neurosciences, University of Lausanne)
"Being disconnected, but remaining vigilant: the neuroscience of opposing sleep functions"

12:15 - 12:40 **Reto Huber** (Child Development Center and Pediatric Sleep Disorders Center, University Children's Hospital Zurich)
"Brain development and sleep: from slow waves to spike waves"

12:40 - 13:05 **Antoine Adamantidis** (Center for Experimental Neurology, Department of Neurology, Inselspital University Hospital Bern, University of Bern)
"Sleep as a window for synaptic plasticity in health and diseases"

13:05 - 14:30 Lunch

13:45 - 14:15 Lunchmeeting: General Assembly Neuroscience Network Basel (for NNB members)

Session 3: "Impact of exercise and aging on motor coordination" *chaired by Josef Bischofberger (DBM)*

14:30 - 14:35 Introduction to the session

14:35 - 15:00 **Christoph Handschin** (Biozentrum)
"Exercise effects on neuronal circuitries controlling balance and coordination in aging"

15:00 - 15:25 **Markus Rüegg** (Biozentrum)
"Mechanistic insights into the loss of muscle mass and function at high age"

15:25 - 15:50 **Oliver Faude** (Department of Sport, Exercise and Health, University of Basel)
"Functional consequences of muscle aging and disuse in humans"

15:50 - 16:10 Coffee Break

Keynote lecture 2 *chaired by Andreas Papassotiropoulos (Research Platform Molecular and Cognitive Neuroscience)*

16:10 - 16:55 **Philipp Sterzer** (Zentrum für Diagnostik und Krisenintervention, University Psychiatry Clinic)
"Prediction, perception and psychosis"

16:55 - 17:00 Closing remarks: *Josef Bischofberger (DBM)*