



THE SENSE OF MEMORY: INTEGRATION AND REPRESENTATION OF SENSORY PROCESSES

25th - 26th of April 2017

Veranstaltungszentrum, Ruhr University Bochum

Programme

April 25th **9:15** **Welcome** - opening of the conference
Denise Manahan-Vaughan Director / Dean of Studies IGSN / Speaker SFB 874
Ulf Eysel Speaker IGSN

Session 1 **9:25** **Cellular Communication and Neuronal Networks**
 Introduction: Frederick Junker

9:30 **Cornelius Schwarz**
 Werner Reichardt Center of Integrative Neuroscience, University of Tübingen, Germany
Linking cortical columns. What is the functional basis of learned associations?

10:05 **Olivia Masseck**
 Advanced Fluorescence Microscopy, Ruhr-University Bochum, Germany
Illuminating the serotonergic system - Modulation of GPCR pathways by light

10:40 Coffee break / Poster Session / Brainstorming Session (1)

12:00 **Christine Grienberger**
 HHMI/Janelia Research Campus, Ashburn, USA
Inhibition enhances spatial selectivity in CA1 place cells

12:35 Lunch break



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April 25th - Afternoon

Session 2: 13:40 Interaction of cortical, cortico-cortical and subcortical structures
Introduction: Miroslav Fecko

13:45 Nadine Ravel
Center for research in Neuroscience (CRNL), University of Lyon, France
Detecting learning-induced modulation of oscillatory activities in olfactory memory network: a new functional imaging?

14:20 Dora Angelaki
Department of Neuroscience, Baylor College of Medicine, Houston, USA
Multisensory Neural Computations for Perceiving Self-Motion and Object Motion

14:55 Coffee break / Brainstorming Session (2)

15:45 Jeffry Isaacson
Center for Neural Circuits & Behavior, Department of Neuroscience, University of California, La Jolla, USA
Cortical circuits underlying audition

16:20 individual lab visits / individual meetings with RUB scientist (by request)



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April 26th - Morning

Session 3 **9:15** **Categorization learning at the interface between perception and cognition** **Introduction: Richard Görler**

9:20 **Simon Jacob**
Institute of Neuroscience, Technical University of Munich, Germany
Neuronal dynamics and neuromodulation of category representations in primate frontoparietal cortex

9:55 **Sebastien Hélie**
Department of Psychological Sciences, Purdue University, West Lafayette, USA
Rule-based categorization in a multiple-system framework

10:30 **Coffee break / Poster Session / Brainstorming Session (3)**

11:30 **Fabián Soto**
Department of Psychology, Florida International University, Miami, USA
Object categorization and perceptual separability: A two-way street

12:05 **Lunch break**



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April 26th - Afternoon

Session 4 13:10 **Higher order representations of memory and sensory experiences**
Introduction: Abdelrahman Rayan

13:15 **David Redish**
Department of Neuroscience, University of Minnesota, Minneapolis, USA
Mental time travel: imagining the past and remembering the future

13:50 Coffee break / Brainstorming Session (4)

14:40 **Pascal Fries**
Ernst Strüngmann Institute (ESI) for Neuroscience, Frankfurt/M., Germany
Rhythms for cognition: communication through coherence

15:15 **Anton Sirota**
Department Biology II, Ludwig-Maximilians-University Munich, Germany
Network and behavioral dynamics of sensory integration in the rodent hippocampal system

16:00 **FAREWELL** – end of conference

