Introductory Remarks to Symposium 26

Neural circuits for flexible social behavior

Jan Clemens and Frederic Römschied, Oldenburg and Goettingen

Most animals are social: They live in groups and coordinate behavior with conspecifics in dyadic interactions (mating, aggression, parenting) or larger groups (hierarchies, swarms). Social behaviors are driven by sensory cues emitted by other animals but are also modified through learning. However, investigating sensory processing and learning in the context of social behavior is inherently difficult because, in most cases, the mutual interactions between individuals and the resulting sensory experience are beyond experimental control. How the orchestrated activity of neural circuits results in complex social behavior is therefore largely unknown.

This symposium will showcase young researchers that employ novel experimental and computational tools for analyzing neural activity during social interactions in an integrated manner. The participants cover a broad range of model systems and social behaviors: From an analysis of circuits for processing social cues in larval and adult flies, over studies of neural circuits for vocal learning and production in songbirds, to multi-modal processing for social interactions in primates. These issues are approached using a diverse set of techniques including functional imaging, machine-learning based behavioral analyses, optogenetics, and connectomics.

By bringing together a diverse group of researchers and approaches, we hope to identify common principles of social neuroscience and to foster an exchange of ideas and concepts across fields.

Symposium 26, Friday, March 28, 14:30 - 16:30

Symposium 26

Friday, March 28, 2025
14:30 - 16:30, Lecture Hall 8

Chairs: Jan Clemens and Frederic Römschied, Oldenburg and Goettingen

14:30 **Opening Remarks**

14:35 Daniela Vallentin, Seewiesen
NEURAL MECHANISMS OF VOCAL LEARNING AND PRODUCTION IN SONGBIRDS (S26-1)

15:00 Katrin Vogt, Konstanz
SENSORY CIRCUITS UNDERLYING SOCIAL CONTEXT-DEPENDENT DECISION-MAKING IN *DROSOPHILA* LARVAE (S26-2)

15:25 Weiqi Chen, Munich
NEURAL CIRCUITS REGULATING AVOIDANCE AND TRACKING (S26-3)

15:35 Julia Sliwa, Paris, France
COMPARING HUMAN AND MONKEY NEURAL CIRCUITS FOR PROCESSING SOCIAL SCENES (S26-4)

16:00 Frederic Römschied, Goettingen
EFFECTS OF SOCIAL EXPERIENCE ON NEURAL FUNCTION IN *DROSOPHILA* (S26-5)

16:25 **Concluding Remarks**

Symposia