

# CRC 1436

## Integrated Research Training Group (IRTG)



**IRTG 1436 Technical Workshop:** Tools and paradigms for probing cognition across species

**Dates:** Thursday 04.05.2023 and Friday 05.05.2023

**Place:** IBIO - Room 203

### **Organisers:**

Anne Albrecht (A07)

Frank Angenstein (Z01)

Markus Fendt (A01)

Kristine Krug (C05)

Janelle Pakan (B06)

Thomas Wolbers (B03)

### **Workshop description:**

This two-day workshop will explore a variety of tools and paradigms used to probe cognition across different species. From classic cognitive tests in rodents to awake-behaving experiments in primates and the use of virtual reality tools in both mice and men. Lectures will be followed up by hands-on demonstrations and practical experience in the lab as well as group discussions. A particular emphasis will be placed on tips and tricks for effective behavioral training as well as experimental designs suitable to probe various aspects of cognition. The ultimate goal is not only to develop techniques useful in your own research, but also to gain an understanding and appreciation of cross-species considerations.

**Day 1: 04.05.2023 | Thursday**

- 9:00-9:15 Welcome:** Introduction and workshop goals
- 9:15-10:00 Lecture:** Frank Angenstein  
Combining MRI & electrophysiological techniques in rodents
- 10:00-10:50 Lecture:** Anne Albrecht & Markus Fendt  
Behavioral paradigms for probing cognition in rodents
- 10:50-11:00 Coffee break**
- 11:00-12:30 Practical** Anne Albrecht & Markus Fendt  
Part 1: Cognitive tests with rodents
- 12:30-13:30 Lunch**
- 13:30-15:00 Practical** Anne Albrecht & Markus Fendt  
Part 2: Cognitive tests with rodents
- 15:00-15:10 Coffee break**
- 15:10-16:00 Lecture:** Kristine Krug  
Investigating primate cognition and behavior
- 16:10-17:00 Lecture:** Janelle Pakan & Thomas Wolbers  
Virtual reality paradigms for spatial cognition in mice and men

**Day 2: 05.05.2023 | Friday**

- 9:00-10:20 Practical:** Janelle Pakan & Thomas Wolbers  
Part 1: Virtual reality demonstrations in humans & mice
- 10:20-10:30 Coffee break**
- 10:30-12:00 Practical:** Janelle Pakan & Thomas Wolbers  
Part 2: Virtual reality demonstrations in humans & mice
- 12:00-13:00 Lunch**
- 13:00-14:30 Practical:** Frank Angenstein  
Group 1: MRI & electrophysiological techniques in rodents
- Discussion:** Janelle Pakan & Kristine Krug  
Group 2: Coffee and cross-species discussion
- 14:30-16:00 Practical:** Frank Angenstein  
Group 2: MRI & electrophysiological techniques in rodents
- Discussion:** Janelle Pakan & Kristine Krug  
Group 1: Coffee and cross-species discussion
- 16:00-17:00 Discussion:** All organisers  
Wrap-up and general discussion