

## "Gender-specific Umwelt" - interrogating sexually dimorphic aggressive behaviour

Initiative: Kurswechsel – Forschungsneuland zwischen den Lebenswissenschaften und Natur- oder  
Technikwissenschaften

Ausschreibung: Planning Grants

Bewilligung: 10.01.2021

Laufzeit: 1 Jahre 6 Monate

The long-term goal is to identify the neural mechanisms that control sexually dimorphic aggression. For this purpose, biological experiments, statistical methods and virtual reality will be combined. To understand the neuronal computations that control how sensory information is transformed into motor activities in animals, a meaningful test for high-resolution quantification of behavior is needed, as well as a robust approach to challenge animals in a controllable manner. The planned project will involve a combination of methods from neurobiology, computer science and engineering. The interaction with the Couzin group in Konstanz in quantitative studies of collective animal behaviour, computer models and virtual reality will enable the applicants to test and constrain the emerging models of aggressive behavior.

### Projektbeteiligte

#### **Dr. Hernán López-Schier**

Helmholtz Zentrum München  
Deutsches Forschungszentrum für  
Gesundheit und Umwelt (GmbH)  
Sensorische Biologie und Organogenese  
München

#### **Prof. Dr. Iain Couzin**

Universität Konstanz  
Department für Biologie  
Konstanz