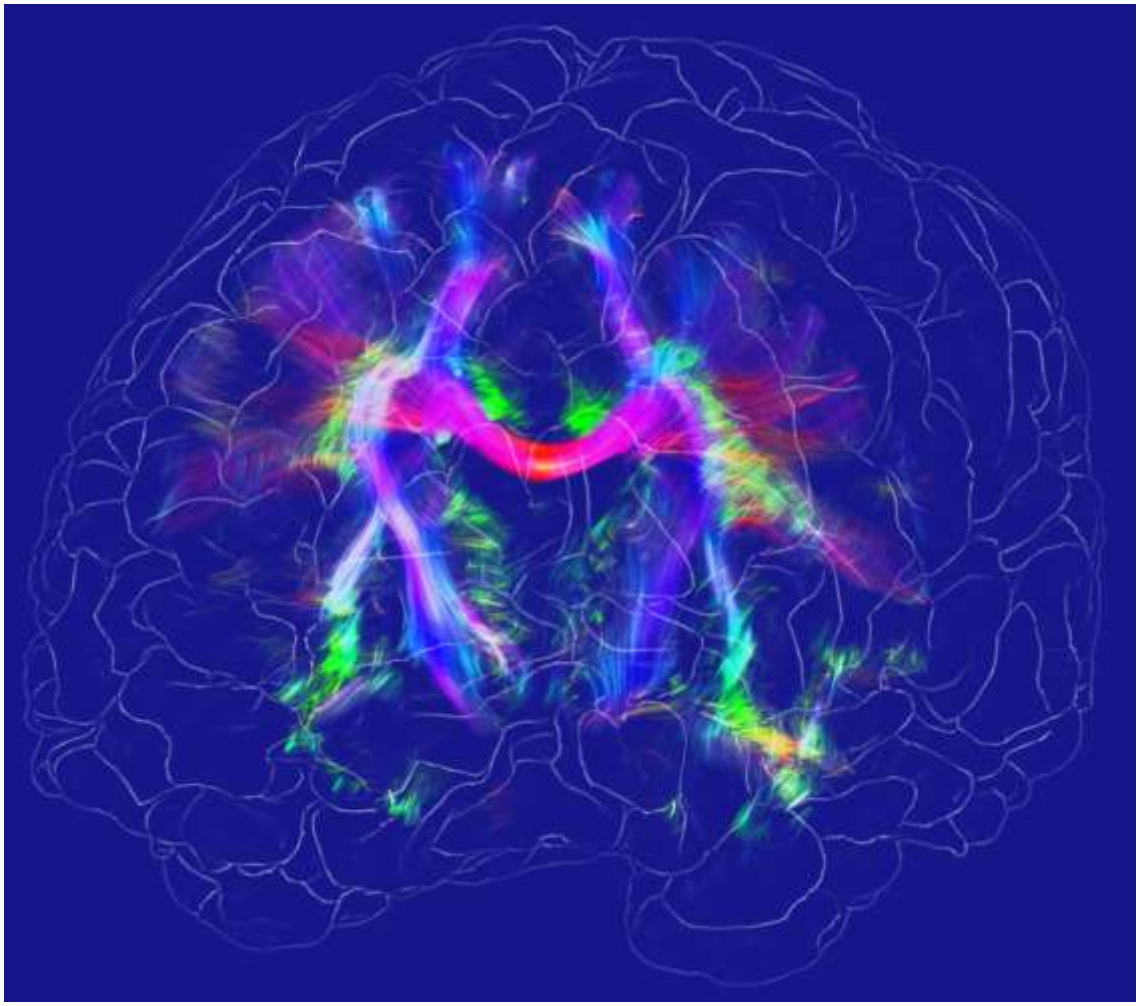

8th MindBrainBody Symposium

in the framework of the International Brain Awareness Week

March 15-18, 2021 Virtual

Abstract Booklet

Mind
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Institute

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8th MindBrainBody Symposium 2021

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MindBrainBody Institute

The MindBrainBody Institute is situated at the Berlin School of Mind and Brain (a graduate school of the Humboldt-Universität zu Berlin established by the German Excellence Initiative in 2006) and closely linked to the Department of Neurology at the Max Planck Institute for Human Cognitive and Brain Sciences (MPI CBS Leipzig). Research at the MindBrainBody Institute focuses on three research areas related to mind-brain-body interactions using neurophysiological, neuroimaging and behavioral methods - also in combination with virtual reality setups:

- Mind-body-emotion interactions, stress, and their relation to vascular risk factors like hypertension
- Conscious and unconscious perception in somatosensory system
- Stroke with focus on somatosensory symptoms, as well as pain and emotional disturbance

Research projects are performed in close partnership with other groups at the Berlin School of Mind and Brain, at the Department of Neurology at MPI CBS Leipzig, the Competence Network Stroke, the excellence Cluster NeuroCure at Charité (Humboldt-Universität zu Berlin, Freie Universität Berlin), the Center for Stroke Research Berlin (CSB), and the Bernstein Center for Computational Neuroscience. For example, in a recent project (VReha), we - in collaboration with technical, clinical, and industry partners, investigate the use of virtual reality for the diagnosis and rehabilitation of cognitive deficits in neurological disorders.

For more details and updates, please visit our website:
www.mindbrainbody.de

8th MindBrainBody Symposium

On behalf of the MindBrainBody Institute, we are pleased to welcome all young researchers to participate at the 8th MindBrainBody Symposium (MBBS 2021) which takes place on March 15-18, 2021 virtually. We are happy to welcome postdoctoral, doctoral researchers and students in the domains of cognitive, social neurosciences, cognitive neurology, and psychology or behavioral sciences. The symposium program includes keynote lectures, workshops, presentations by applicants, poster sessions (with a Poster Prize). In the previous years, the Poster Prizes of MBBS were awarded to Katie Groves (University of Essex) in 2016; Lise Hobeika (Sorbonne Universités), Toni Muffel (MPI CBS Leipzig) in 2017; Friederike Irmen (Berlin School of Mind and Brain), Monika Graumann (Freie Universität) in 2018; & Lina Skora (University of Sussex) in 2019.

MBB Young Scientist Award

Also this year we will grant the MBB Young Scientist Award, which will provide the winner with the opportunity of a 3-month funded research stay at the MindBrainBody Institute in Berlin or at the Department of Neurology, Max Planck Institute for Human Cognitive and Brain Sciences. Applicants could submit a project idea in the research domains of the MindBrainBody Institute. The previous winners were Paweł Motyka (University of Warsaw) and Pietro Sarasso (University of Turin) in 2016; Birgit Nierula (Institut d'investigacions Biomèdiques August Pi i Sunyer) in 2017; Dorottya Lantos (Goldsmiths, University of London) & Marina Kliuchko (Aarhus University) in 2018; Alejandro Galvez-Pol (University College London) in 2019; & Mohammad Rostami (Tarbiat Modares University), Emma Louise Michalski (Umeå University), & Lina Skora (University of Sussex) in 2020.

B08 **Poster Presenter:** Nicolas Gustavo Calleja

Cardiovascular Reactivity as a Learning Indicator in the Amphibian Rhinella Arenarum

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Introduction: In vertebrates the adaptation to a new environment, specially an aversive one, involves cardiorespiratory adjustments. In order to understand the mechanisms that control this phenomenon, we have developed a procedure for aversive stimulation and chronic recording of cardiac activity in the terrestrial toad Rhinella arenarum. **Methods**: The subjects were chronically implanted with electrodes and exposed to the presentation of NaCl solutions in an inescapable compartment, while the heart rate was recorded. Training sessions were performed once a day for 12 days: 6 sessions for Acquisition and 6 for Extinction. During the Acquisition a 300 mM NaCl saline solution (neutral) was presented followed by an 800 mM NaCl solution (aversive). In the Extinction trials the aversive solution was replaced by the neutral one. **Results:** By the end of the Acquisition period the cardiac reactivity was registered during the neutral solution presentation, showing an anticipatory tachycardia to the aversive event. During Extinction the anticipatory cardiovascular response was gradually disappeared and the initial reactive response to the aversive solution was again observed. **Discussion:** These results suggest a physiological adjustment of the cardiovascular system mediated by a learned response, probably part of an adaptive system to cope with threatening situations.