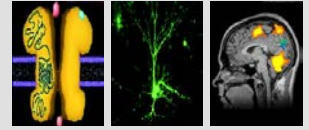


IGSN / SFB 1280 / BIOME
CONFERENCE**EXTINCTION LEARNING:
THE NEURAL, BEHAVIOURAL, ONTOGENETIC,
EDUCATIONAL, AND CLINICAL MECHANISMS****April 24 - 25, 2018** Veranstaltungszentrum, Ruhr University Bochum

Tuesday

April 24, 9:25 – 12:35

Session 1 Brain-Immune-Interactions**ARTHUR LIESZ**

Institute for Stroke and Dementia Research, Ludwig-Maximilians-University, Munich, Germany

Neuroinflammatory Mechanisms in Acute Brain Ischemia

Despite intensive research efforts, the treatment options for patients with acute stroke are very limited. For decades, the investigation focused on neuroprotective mechanisms at the forefront of experimental research which have all failed in clinical translation. Therefore, the focus of experimental stroke research has increasingly shifted in the past decade towards neurotoxic and regenerative processes in the subacute and chronic phase after the ischemic lesion. A major pathophysiological mechanism that also contributes to the expansion of the initial lesion in the subacute phase as well as the regeneration in the chronic phase is the secondary sterile immune response after stroke.

In this presentation an emphasis should be placed on inflammatory mechanisms and emerging immunological therapies for acute stroke. These include several promising approaches in various stages of development. Immunosuppressive drugs, cell therapy procedures and immunomodulatory therapies that are already approved for primary-autoimmune CNS disorders are among the strategies to prevent mainly a secondary infarct progression and optimize recovery. The preclinical results, pathophysiological rationale and translational approaches will be presented.

