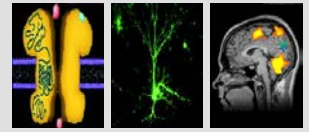## IGSN / SFB 1280 / BIOME
CONFERENCE

EXTINCTION LEARNING:
THE NEURAL, BEHAVIOURAL, ONTOGENETIC, EDUCATIONAL, AND CLINICAL MECHANISMS

April 24 - 25, 2018   Veranstaltungszentrum, Ruhr University Bochum

Wednesday   April 25, 9:15 – 12:05

Session 3   **Emotional processing – Mechanisms of fear regulation**

CHRISTIAN BÜCHEL

Institute of Systems Neuroscience University Medical Center Hamburg-Eppendorf, Germany

Expectations shape pain: The role of learning

Expectation and experience can shape pain perception. This talk will focus on potential mechanisms of how expectations can increase (nocebo hyperalgesia) or decrease (placebo hypoalgesia). I will present a conceptual framework which posits that pain perception can be seen as the integration (in a Bayesian sense) of expectation (i.e. prior) and incoming data (i.e. stimulus). Importantly, this framework leads to testable hypotheses (e.g. the variance of the expectation should reduce the influence of expectation). Importantly, these priors have a strong learning component and the second part of the talk will focus on the acquisition of these priors and the observation that they seem to be relatively immune to extinction.