

SAVE THE DATE: SCIENTIFIC LECTURE SERIES

MOVEMENT DISORDERS & NEUROMODULATION UNIT
CHARITÉ – UNIVERSITY MEDICINE BERLIN

21st February 2018 | 6:00 PM | Seminarraum Neurologie
Bonhoefferweg 3, Klinik für Neurologie (CCM)

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Strategic decision-making in the human subcortex measured with ultra-high resolution magnetic resonance imaging

ABSTRACT: Today only seven percent of the subcortical structures listed by the Federative Community on Anatomical Terminology (FCAT, 1998) are depicted in available standard MRI-atlases (Forstmann et al., 2017). As a consequence, the remaining 423 subcortical structures cannot be studied using automated analysis protocols available for MRI and therefore require trained anatomists for the study of subcortical brain areas: The human subcortex is notoriously difficult to visualize and analyze with functional magnetic resonance imaging and to understand its role in strategic decision-making processes.

In this talk, exciting technical advances are presented that allow charting terra incognita; the human subcortex. Closing the knowledge-gap of the human subcortex has already resulted in the re-evaluation of prominent models in the cognitive neurosciences such as the functional role of cortico-basal ganglia loops in decision-making. I will discuss the emerging possibilities of novel human neuroanatomical approaches and directions for the incorporation of these data within the field of model-based cognitive neuroscience.