



**SFB 1315**

Mechanisms and Disturbances in Memory Consolidation:  
From synapses to systems

Tuesday

**MAY 12, 2026**

**4:00 pm**

BCCN Lecture Hall

Philipstraße 13/Haus 6

10115 Berlin

Meeting-ID: 775 491 0236

SFB1315.ifb@hu-berlin.de

SFB 1315 LECTURE SERIES 2025-2026

# CRITICAL PERIODS OF COGNITIVE DEVELOPMENT IN HEALTH AND DISEASE

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Hamburg



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# CRITICAL PERIODS OF COGNITIVE DEVELOPMENT IN HEALTH AND DISEASE

**Brain development is not a linear process. The relevance of critical time windows of development has been extensively documented for sensory systems, yet it is still a matter of debate, whether similar processes occur in brain areas accounting for cognitive behavior, such as the prefrontal cortex.**

Recent data from our lab demonstrate that during neonatal development, perturbation of prefrontal activity dramatically disrupts network functions and cognition of adults. However, the protracted timeline of the maturation of higher-order cognitive abilities, leads to the hypothesis that critical windows for prefrontal functioning are present during late development too.

**The talk will highlight recent experimental evidence confirming this hypothesis. Moreover, the relevance of identified critical periods as “vulnerability” time windows in neuropsychiatric disorders will be highlighted.**

## About the Speaker

Ileana Hanganu-Opatz is a Professor of Developmental Neurophysiology at the University Medical Center Hamburg-Eppendorf, Germany. She is the Director of the Hamburg Center of Neuroscience. Her research focuses on the wiring of developing circuits in health and neuropsychiatric disorders. Dr. Hanganu-Opatz studied Biology and Biochemistry at the University Bucharest, Romania and received her PhD in Cellular Physiology from the Heinrich Heine-University Düsseldorf, Germany. She conducted postdoctoral research at the Institute Neurobiology de la Méditerranée (INMED) Marseille, France. Ileana Hanganu-Opatz is member of the Academy of Sciences in Hamburg, funding member of the FENS Kavli Network of Excellence and received the Du Bois Reymond-Prize of the German Society for Physiology and an ERC Consolidator Grant.

## Certificate of attendance:

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