



SFB 1315

Mechanisms and Disturbances in Memory Consolidation:
From synapses to systems

Tuesday

MAY 10, 2022
4:00 pm CET

ZOOM ID: 7754910236

Contact:

SFB1315.ifb@hu-berlin.de

SFB 1315 LECTURE SERIES 2019-2022

CELLS TO SYSTEMS: IMAGING THE NEURAL BASIS OF MEMORY TRANSFORMATION

MELANIE SEKERES

Canada Research Chair in - the Contribution of
Neurocognitive Functioning to Brain Health -
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German Research Foundation



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Melanie Sekeres, PhD

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Assistant Professor
School of Psychology,
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The hippocampus is a critical brain structure involved in the acquisition and initial consolidation of episodic (event) and episodic-like memories in humans and rodents, though its continued role in supporting memory retrieval is a long-debated issue. Soon after memory acquisition, event memories tend to be detailed, precise, and contextually-specific. Over time, however, memories tend to lose detail and precision, and what is retained is a more generalized version of the memory.

Using a cross-species approach, we identify how retrieval network activity in the healthy brain changes as memories age and transform over time. Using a combination of immediate-early gene expression studies in rodents, and functional magnetic resonance imaging studies in humans, I will discuss evidence of a comparable reorganization of hippocampal-pre-

frontal brain activity as a detailed event memory transforms to a more generalized memory over time.

These findings provide support for the idea that both the quality, the age, and the cues available at retrieval will mediate the degree of hippocampal and prefrontal cortical activity during event memory retrieval.

Bo1 PhDs Naomi Auer and Denis Alevi will host journal club and meet-the-speaker. SFB1315 Speaker Matthew Larkum will introduce the talk and moderate the Q&A.



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