



**SFB 1315**

Mechanisms and Disturbances in Memory Consolidation:  
From synapses to systems

Tuesday

**JUN 13, 2023**  
**4:00 pm CET**

BCCN Lecture Hall

Philippstr. 13, Berlin

ZOOM ID: 7754910236

SFB1315.ifb@hu-berlin.de

**SFB 1315 LECTURE SERIES 2023**

# LOCAL SYNTHESIS OF CaMKII: WHERE, HOW AND WHY?

**LESLIE GRIFFITH**

Nancy Lurie Marks Professor of Neuroscience &  
Director of the Volen National Center for Complex Systems  
Department of Biology  
Brandeis University



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German Research Foundation



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# LOCAL SYNTHESIS OF CaMKII: WHERE, HOW AND WHY

**Brain function relies on the ability of neurons to build and modulate specialized structures for sending and receiving information at sites far from the soma.**

The molecular mechanisms underlying this cell biological feat are incompletely understood, but one important component is the ability of neurons to translate specific mRNAs at synaptic sites. Locally synthesized protein is critical for plasticity in the mature nervous system and is a well-established requirement for long-term memory.

Across phyla, activity patterns that drive long-term plasticity cause increased synthesis and synaptic accumulation of CaMKII.

**In this talk, I will tell you about work in my lab defining both cis and trans elements that are required for establishing the enrichment of CaMKII in the presynaptic terminals of *Drosophila* mushroom body Kenyon cells and discuss the role of neuronal activity in increasing local CaMKII levels both pre- and postsynaptically at the larval neuromuscular junction.**

## About the Speaker

Leslie Griffith is Nancy Lurie Marks Professor of Neuroscience and Director of the Volen National Center for Complex Systems, at Brandeis University (Waltham MA).

This invited talk is hosted by AG Oswald (A07). David Oswald will introduce and SFB1315 Speaker Matthew Larkum will moderate the Q&A.

## Certificate of attendance:

Please contact team assistant  
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