



## “ $\alpha$ -Synuclein as a regulator of synaptic vesicle protein dynamics”

### Speaker

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### Date and Time

**Monday, 21<sup>st</sup> August 2023**  
10 am

### Location

**Institute for Neuro- and  
Sensory Physiology**  
*Humboldtallee 23, 37073 Göttingen  
Library*

#### **Abstract**

Repeated rounds of synaptic vesicle exocytosis and endocytosis play a critical role in the maintenance of neurotransmission.  $\alpha$ -Synuclein, a protein extensively studied for its role in Parkinson's disease and other synucleinopathies, is a known modulator of this synaptic vesicle cycle. However, the nature and regulation of the protein's physiological function remains unclear. This seminar will examine the activity-dependent regulation of  $\alpha$ -synuclein and its impact on the trafficking of the crucial SNARE protein synaptobrevin-2. Furthermore, the effects of moderate overexpression of  $\alpha$ -synuclein, as occurs in Parkinsonian multiplication of the SNCA gene, on synaptobrevin-2 trafficking will also be explored.