



# FASSBERG Seminar Series

**Special Date**

**23. 04. 2018**

**11:00 s.t.**



**Prof. Dr. Frederick M. Hughson**

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## **Chaperoning SNARE assembly to control membrane fusion**

The compartmentalization of eukaryotic cells demands an intracellular transportation system. Cargo is transported within vesicles that bud from one compartment, travel through the cell, and deliver their contents by fusing with another compartment (or, in the case of exocytosis, with the plasma membrane). Underlying this intricate choreography is a set of proteins and protein complexes responsible for the creation, movement, docking, and fusion of vesicles. Our lab seeks to understand the design principles that endow these protein nanomachines with the ability to manipulate membrane vesicles, thereby powering a bustling intracellular transportation network. In this talk, I will focus on our recent X-ray crystallographic, biochemical, and single-molecule biophysical studies suggesting that Sec1/Munc18 (SM) family proteins play a key role in chaperoning the assembly of fusion-competent SNARE complexes. The generality and potential implications of these findings will be discussed.

**Host: Reinhard Jahn**



**Large Seminar Room, Administration Building**

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