

Single Molecule Imaging Reveals Conformational Dynamics of Synaptic Proteins

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Proteins govern a vast number of processes inside the cell, making them central to cellular function. Although high-resolution atomic structures are known for many proteins, relating a single static structure to its function is difficult. Many proteins are dynamic, changing shape thus affecting the function of the molecule. Therefore, it is important to develop methods to watch proteins in action. We will apply single molecule fluorescence resonance energy transfer (smFRET) to monitor protein motions and complex assemblies in real time on biologically relevant timescales (sub-milliseconds to minutes). The application of fluorescence at the single molecule level will allow us to distinguish molecular heterogeneity, monitor transient intermediates and rare events, as well as sequence of events.

Students, meet the speaker after the seminar in
a student/postdoc session from 4:45-5:15 pm

Date: Fri, Nov. 19, 2021

Time: 3:30-4:30 pm

Location: Virtual Seminar (Zoom)