

SFB 900 Seminar Series

ALL GUESTS ARE WELCOME

TITLE

Looking under the hood of cells: from single molecule dynamics to whole cell organelle reconstructions.

SPEAKER

Jennifer Lippincott-Schwartz, PhD, 4D cellular physiology at Howard Hughes Medical Institute, Chavy Chase, Maryland, USA.

LOCATION

Online Lecture

03.11.
2022

5.00 PM (s.t.)

» Reserach of Jennifer Lippincott-Schwartz

The body's organs are comprised of diverse cell types that together orchestrate the organ's complex behaviors. We want to understand how the different cells comprising an organ operate individually and interdependently to allow an organ to develop, remodel, heal and compute. In addressing this challenge, we focus on the dynamic organization of subcellular organelles and their trafficking pathways in driving the metabolic and physical states of cells and their interrelationships.

On a small scale, we are interested in the interplay between membrane-bound organelles, membrane-less organelles, cytoskeletal structures and metabolism as it relates to the organization and function of organ-specific cell types and their interactions. On a larger scale, we are trying to decipher how complex cellular behaviors characteristic of different cell types arise, including cell crawling, surface polarization, cell-cell fusion, cytokinesis, viral budding and intercellular transfer.