Today’s living cells emerge from the complex interplay of thousands of molecular constituents. Our vision is to create a simpler model of a cell that consists of a lipid vesicle and operates based on our own custom-engineered and genetically encoded molecular hardware made from DNA and RNA nanotechnology. Recently, we demonstrated the power of two-photon 3D laser printing for synthetic biology, realized mechanisms for vesicle division and build functional DNA-based mimics of cytoskeletons, capable of cargo transport and signal transduction. Ultimately, by coupling GUV division to their informational content and their function, we aim for a prototype of a synthetic cell capable of evolution.

Thursday, July 20th, 2023 at 2:15 pm

MPI-DS, Seminar room 0.77&0.79
Am Fassberg 17, Göttingen, and
Zoom Meeting ID: 959 2774 3389
Passcode: 651129, direct link