

## Stochastic modeling of metabolic enzyme complexes

Enzymes in purine biosynthesis and glucose metabolism have been shown to spatially organize into different types of multienzyme complexes. These multienzyme complexes regulate metabolic flux in living human cells. Metabolic pathways for purine biosynthesis and glucose metabolism are associated with each other, but their metabolic enzyme complexes are spatially independent in human cells. We hypothesize that these metabolic enzyme complexes communicate with each other when they are in close location. This talk will introduce a stochastic model for metabolic enzyme complexes using the Langevin dynamics to investigate their spatial communication.