

Research Project

NCCR MSE: Zipping of Synthetic Assemblies Equipped to Produce Multifunctional Clusters for Bio-Applications

Third-party funded project

Project title NCCR MSE: Zipping of Synthetic Assemblies Equipped to Produce Multifunctional Clusters for Bio-Applications

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Organisation / Research unit

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Project start 01.07.2018

Probable end 30.06.2026

Status Active

This project will develop an innovative methodology to create size controlled polymer clusters of compartments that selectively and stably attach to the surface of epithelial cells. Such compartment clusters will be used to attach to scavenger receptors of the cell membranes and support medical applications. By loading specific compartments with different compounds and then zipping them together, the clusters will achieve multifunctionality serving for the development of nanotheranostics and dual-sensing systems. In addition, such segregated confined spaces at the nanoscale can be used to achieve efficient complex cascade reactions in between compartments.

Financed by

Swiss National Science Foundation (SNSF)

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