

# Nanofluidic devices for biomolecules

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Microfluidic systems are used in various fields of biology for applications such as observing polymer dynamics, detecting molecular reactions, and investigating the structure and functionality of large biomolecules. In this project we aim for developing a platform of *nanofluidic* devices to study nanoparticles, biopolymers, and proteins in confined dimensions. The nanofluidic devices are fabricated on substrates using e-beam lithography and top-down nanofabrication methods in cleanroom facilities. We will use these systems to study the dynamics of sub-cellular entities and macromolecules at low concentrations such as DNA strands. For this project we are looking for a highly motivated Ph.D. student with a degree in science or engineering and with a keen interest in nanofabrication, microscopy, and biophysics.

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