

Postdoctoral Fellowships

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CALL FOR APPLICATIONS 2025 - FELLOWS

Supervisor Sergii Rudiuk

Supervisor page https://www.researchgate.net/profile/Sergii-Rudiuk

Host Institution Centre National de la Recherche Scientifique (CNRS)

https://www.cnrs.fr/en

Research Lab PASTEUR Laboratory

https://www.chimie.ens.fr/recherche/laboratoire-pasteur/

Research Team NanoBiosciences and MicroSystems

https://www.chimie.ens.fr/recherche/laboratoire-pasteur/nbms/

Project Title

Coacervation in DNA nanotechnology

Project Description

Coacervation refers to liquid-liquid phase separation within a polyelectrolyte solution upon neutralization of its charges. Recently we investigated coacervation of DNA with surfactants, polyamines and DNA intercalants, and found exciting sequence-specific properties. In this project we will expand DNA coacervation into the field of DNA nanotechnology by investigating formation, properties and transformation of DNA origamis in the coacervate phase.

Keywords

coacervation, DNA nanotechology, DNA origamis

Description of the Host Research Lab

The PASTEUR Laboratory (Processus d'Activation Sélectif par Transfert d'Energie Uni-électronique ou Radiative) is a joint CNRS-ENS-SU research unit set up in 2000. Its research activity is centred on a physico-chemical approach to chemical reactivity, with the aim to understand and probe molecular mechanisms in order to develop original systems that exploit these functionalities. To achieve this, the laboratory draws on a wide range of skills in electrochemistry, photochemistry, microfluidics and biological techniques, as well as on theory and simulations. Applications cover a wide range of fields, from materials to in situ interrogation of living systems.