Postdoc offer

Revealing the evolution of the nuclear organization with advanced single-molecule microscopy

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Subject:

We are seeking a motivated postdoc to join our effort in studying the biophysical properties of the cell nucleus with novel microscopy approaches. The project will be conducted in the “Light-based Observation and Control of Cellular Organization” (LOCCO) team with strong experience in developing advanced microscopy and computational tools for single molecule imaging and successful application in studying the dynamics and organization of nuclear factors. The group is a part of Physical Chemistry Unit which gathers physicists and biologist to work on interdisciplinary approaches to study various biological processes from molecular level to population level.

The project aims to develop and use advanced microscopy tools based on imaging in 3D the organization and orientation of single-molecules using multi-focus microscopy. Combined with advanced fixation methods at different stages of cell cycle, the new approach will serve to reveal the evolution of nucleosome and DNA organization near transcription sites. The project will benefit from recent developments in the team related to single-molecule visualization and analysis in virtual reality.

The project will be developed in close collaboration with onsite groups, national labs and international ones. The candidate will have access to the technological platforms of the research unit as well as nearby institutions. He or She will have the opportunity to interact with the rich scientific environment of Curie Institute and the surrounding research centers.

The applicant should have a PhD in biology, biophysics, Physics, Optics or another field relevant to the subject. Previous experience in one of the following fields is preferable: single-molecule imaging, Super-resolution, optical instrumentation, biophysics.

For further information and for application, interested candidates are invited to send a motivation letter and a CV to: bassam.hajj@curie.fr