

Post-doctoral Position - DISCO

Division Expériences

Position opens in June 2010. Deadline for submission of application: **April 9th, 2010**

SOLEIL is an optimized 2.75 GeV synchrotron light source of 3rd generation under operating 25 km south of Paris. The first 17 beamlines, several of which are using new concepts of undulator sources, are opened to users.

A total of 26 beamlines, covering the whole energy range from IR to hard X-rays and providing a complete panel of synchrotron radiation-based outstanding experimental tools for Physics, Chemistry, Biology and Environmental Sciences, will be operational in 2012. A permanent staff of 357 people operate the installation. Currently the 17 beamlines in operation offer a broad panel of SR-based techniques from microspectroscopy in IR and VUV to X-ray absorption, diffraction and scattering.

1. Position (m/f)

The position is opened on the DISCO beamline, a UV beamline exploiting the synchrotron radiation beam on two spectroscopy and one microscopy end-stations. The post-doctoral position is attached to the microscopy end-station, which is designed to measure, at high spatial and temporal resolutions, the fluorescence of UV excitable biomolecules. Thanks to the broad energy range and to the tuneability of the synchrotron radiation source, experiments are performed at wavelengths that are not accessible by other sources. These facilities open several new possibilities for cell and tissues imaging using new probes, either endogenous or exogenous. Fast excitation switching adds a new dimension to the imaging, fluorescence excitation microscopy. A cell culture laboratory and a biochemistry laboratory are accessible and associated to the beamline.

2. Mission

The post-doctoral project aims at developing the full potential of UV microspectrofluorimetry for autofluorescence of cancerous cells and tissues. The major discriminants between healthy and pathologic cells will be identified and referenced. It will also include the study of combined PhotoDynamic Treatment (PDT) in X-Ray and visible light with newly designed and specific nanoparticles. Besides handling the scientific project, the post-doc will participate in the operation of the beamline as a local contact on the microscope end-station.

3. Qualifications & Experience

The candidate should hold a PhD either in biology, biochemistry, biophysics or related sciences. Experience in cell culture and microscopy is mandatory with a bonus for spectroscopy and microspectroscopy. Knowledge in autofluorescence and/or PDT will be appreciated.

4. General conditions

The offer concerns a Post-doctoral contract for a two year-period. A wide range of valuable training programs and research opportunities will be accessible. Moreover, the position benefits of a progressive employment conditions and a flexible work-life balance policy.

The contract should start in June 2010.

The place of work will be at Synchrotron SOLEIL, which is located in the Paris suburbs (Saint-Aubin).

Applications should include a motivation letter and Curriculum Vitae with the addresses of two referees. Applications should be preferably registered directly on the:

<http://candidature.synchrotron-soleil.fr/VotreCandidature/> with the reference: Post-Doc DISCO.

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