



**François Bonneau, Chairman of the Centre Region, will visit SOLEIL on 7th July
for the inauguration of the DISCO Beamline
(6 July 2009)**

Very early in the project, the Centre region wanted to join SOLEIL's main partners: the Ile de France region and the Essonne departmental council. Both parties signed a seven-year agreement in April 2003, making the Centre region one of SOLEIL's special partners.

Within this structured and exemplary partnership, the Centre region participates in the development of three beamlines to facilitate access to SOLEIL by its students and scientists. These three beamlines are also open to the entire national community in the context of a multi-disciplinary co-operation movement. The first two beamlines, DIFFABS and SWING, were opened in January 2008 and have already collected some remarkable results. The third, DISCO, will be inaugurated on the 7th of July. The first users to work on DISCO will arrive in September 2009.

DISCO (Dichroism, Imaging, Mass spectrometry for Chemistry and Biology) is equipped for experiments in the visible and ultra-violet light domain, and is part of SOLEIL's biology platform. It offers a complementary service to the beamlines operating in the x-ray and infrared domains, which are more traditionally used in biology to acquire information about the shape of molecules (by scattering and diffraction of x-rays) and measure chemical mappings of tissue cross-sections (by IR microspectroscopy).

The UV-visible range lies between x-ray and infrared, and provides access to the environment and arrangement of molecules of living organisms. With three different experimental stations (circular dichroism, mass spectrometry coupled with VUV photoionisation, confocal microscope), DISCO is a key part of SOLEIL's scientific strategy in biology, pushing back the boundaries of synchrotron techniques to explore the full scope of biological subjects: from molecule to tissue, from tissue to cell, and from cell to organism.

SOLEIL

Located on the Saclay Plateau in the Essonne department, SOLEIL is the third-generation French synchrotron. SOLEIL is a research centre directed by the CNRS (French National Centre for Scientific Research) and the CEA (French Atomic Energy Commission). The building of this type of facility involves major construction work as well as precision mechanical work. Its purpose is to accelerate bunches of electrons until they radiate extremely bright light covering a very wide range of wavelengths: from infrared to x-ray, with ultraviolet in between. The characteristics of this light (intensity, focus, stability, polarisation, etc.) allow scientists to observe matter down to the atomic level and perform experiments that would previously not have been possible, in the interests of fundamental, applied, and industrial research. SOLEIL serves many areas currently of particular interest to the scientific and industrial communities: biology, chemistry, materials science, the environment, physics, Earth sciences, cultural heritage and archaeology. SOLEIL's specifications (operating energy, number of undulators, broad spectrum from infrared to x-ray, brilliance, continuous injection for beam stability to within a micron, etc.) make it competitive at the top level on the international scene.

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