

INSTITUT MAX VON
LAUE
PAUL LANGEVIN



NEUTRONS
FOR SCIENCE

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The Institut Laue-Langevin (ILL), situated in Grenoble, France, is Europe's leading research facility for scientific research using neutrons. The ILL operates the brightest neutron source in the world, reliably delivering intense neutron beams to 40 unique scientific instruments. We welcome more than 2000 visiting scientists per year to carry out world-class research. The Science Division currently has a vacancy for a:

Post-Doctoral Fellow in Bioanalytical chemistry (M/F)

Duties:

The Soft Matter Science and Support (SMSS) group is responsible for activities within the Partnership for Soft Condensed Matter - a scientific and technical platform supporting ambitious large-scale soft matter research projects related to nanomaterials, environmental and energy sciences, biotechnology and related fields - and the ILL chemistry support laboratories. The SMSS group interacts strongly with the Large Scale Structures (LSS) group, which comprises a range of instruments designed to carry out studies on the structure of matter on a scale of one to hundreds of nanometres. The range of science covered is very broad, from polymer and colloid science through structural molecular biology to materials science and magnetic phenomena [www.ill.fr/lss].

Working within the SMSS group and as part of the EC-funded neutron project SINE2020 focusing on chemical deuteration, you will be involved in the:

- Optimization of techniques for the growth of microbes in deuterated media with the assistance of the ILL deuteration lab (D-lab) to obtain lipids and other membrane components (sterols, gangliosides, polysaccharides etc) in their deuterated form.
- Development of techniques for the extraction, separation and purification of lipids and other membrane components from the prepared biomass.
- Qualitative and quantitative analysis of the prepared biomass to identify the components and their purity.
- Participation in physico-chemical and structural characterisation work of reconstructed membranes.

The project is being run in collaboration with both European and Grenoble-based laboratories as part of the DEUNET network. These activities are of interest in neutron scattering techniques used for the structural and dynamical characterisation of biomembranes due to the increased contrast obtained through the use of deuteration.

The post represents an excellent opportunity for a young scientist to develop expertise, broaden his/her experience and interact with leading scientists from around the world.

Qualifications and experience:

PhD in biochemistry, biotechnology, bioanalytical chemistry or physical chemistry or related field.

We are particularly interested in highly motivated candidates with experience in microbiology and the subsequent extraction and purification of biological molecules using chromatographic techniques (eg TLC, HPLC, SPE & GC).

An experience in methods for chemical identification, such as NMR or Mass Spectrometry, would be appreciated.

The knowledge of the lipid composition of biological membranes and the understanding of the role of membrane components is essential.

Language skills:

As an international research centre, we are particularly keen to ensure that we also attract applicants from outside France. You must have a sound knowledge of English and be willing to learn French (a language course will be paid for by the ILL).

Knowledge of German would be an advantage.

Notes:

Post-Doctoral contract of 18 months. Only candidates holding a PhD obtained less than 2 years ago are eligible for post-doctoral positions at the ILL.

Further information can be obtained by contacting the head of the SMSS and LSS groups Dr. Giovanna Fragneto, fragneto@ill.fr (**please do not send your application to this address**), +33(0)4.76.20.70.62.

Benefits: Generous company benefits (expatriation allowance), relocation assistance and language courses may be offered (for more information, please consult our employment conditions). <https://www.ill.eu/en/careers/working-at-the-ill/employment-conditions/>

How to apply:

Please submit your application on line with a list of publications and the **names of 3 references, including one from your present work place**, no later than

15.10.2017, via our website: www.ill.eu/careers

(Vacancy reference: **17/Post-Doc10**).

The interviews will take place in November 2017.

Consulte las [Ayudas a la movilidad](#)

The ILL is an equal opportunities employer and encourages both men and women with the relevant qualifications to apply