EUROPEAN SYNCHROTRON RADIATION FACILITY
INSTALLATION EUROPEENNE DE RAYONNEMENT SYNCHROTRON

ESRF

The ESRF is a multinational research institute, situated in Grenoble, France and financed by 19 countries mostly European. It operates a powerful synchrotron X-ray source with some 30 beamlines (instruments) covering a wide range of scientific research in fields such as biology and medicine, chemistry, earth and environmental sciences, materials and surface science, and physics. The ESRF employs about 600 staff and is organized as a French *société civile*.

Within the Experiments Division, the Structural Biology group is now seeking to recruit a:

PhD Thesis Student (M/F)

Subject: Structural Studies of a Toxin-Antitoxin System

General Framework

A PhD studentship is available in the ESRF Structural Biology Group to study the Toxin Antitoxin System (TAS) in *Deinococcus radiodurans*. The prokaryotic toxin-antitoxin systems are small genetic modules that are abundant and widespread in bacterial genomes. In *Deinococcus radiodurans* these systems have been described as playing a role in bacterial stress physiology and the stabilisation of horizontally acquired genetic elements. This project aims for the structural characterisation by x-ray protein crystallography of two TAS from *Deinococcus radiodurans* and to understand their cellular targeting and context within the stress response mechanisms of this organism.

Description of the thesis work

The successful candidate will be responsible for the production of the selected targets. The work will be performed in the PSB facilities (http://www.psb-grenoble.eu/) allowing the cloning, expression and crystallisation of the recombinant target proteins. He/she will also study the interaction of the TAS elements and asset the affinity between the different components. Structure determination of the single targets and the complex TAS will be performed by collecting data on the ESRF Structural Biology Beamlines.

Place of Work: ESRF in Grenoble
Supervisor: Daniele de Sanctis (+33) (0)4 76 88 28 69
Sean McSweeney (+33) (0)4 76 88 23 62

General Conditions

The working language of the ESRF is English. You should hold a degree in Physics, materials science or Chemistry allowing enrolment for a PhD, such as an MSc, Master 2 de Recherche, Laurea or equivalent. Further information on the post can be obtained from Daniele de Sanctis (tel.: +33 (0)4 76 88 28 69, email: daniele.de_sanctis@esrf.fr) or Sean McSweeney (tel: +33 (0)4 76 88 23 62, seanmcs@esrf.fr). For further information on employment terms and conditions, please refer to http://www.esrf.fr/Jobs/Conditions. The ESRF is an equal opportunity employer and encourages applications from disabled persons.

Contract of two years, renewable (subject to satisfactory progress) for one year.

If you are interested, please send an e-mail (recruitment@esrf.fr) together with your CV and the application form, available on http://www.esrf.fr/Jobs/Applying.

Ref. CFR367 - Deadline for returning application forms:

31 August 2011

ESRF, Personnel Service - Recruitment
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