



## PhD Position in Structural Biology, Grenoble (France)

### **Biosynthetic and transport machineries controlling the structural integrity of the bacterial cell wall**

Bacterial cell wall is essential in maintaining cell integrity and to resist to external agressions (osmotic pressure, antibiotics). In pathogenic bacteria the cell envelope constitutes the interface with the host and participates in the recognition by the immune system. The variation of the structure of the cell surface constitutes for the pathogens a good strategy to evade the immune response. The mechanisms controlling the bacterial envelope biosynthesis, which are present and future antibiotic targets, will be deciphered by several biophysical methods (NMR, EM, SAXS..). These studies will produce essential atomic scale structural information about proteins, alone or in complexes, that are involved into these pathways. The accumulated knowledge on these complex mechanisms will open prospects for the discovery of novel antibiotic targets.

The successful candidate will be hosted in the [Biomolecular NMR Spectroscopy](http://www.ibs.fr/) group at Institut de Biologie Structurale (IBS, <http://www.ibs.fr/>) in the team directed by Dr Jean-Pierre Simorre and will work on the NMR aspects of the project. He/she will have access to the state of the art NMR facility at IBS containing six high-field spectrometers (950 MHz, 850 MHz, 700 MHz, 3x600 MHz) equipped with latest solid-state NMR and cryogenic liquid-state probes. The candidate will benefit from the exceptional scientific environment provided by the IBS relocated in the fall of 2013 to a new 9500-m<sup>2</sup> building and by the Grenoble Partnership for Structural Biology (PSB), a vibrant European hub for structural biology including EMBL, ESRF and ILL.

Applicants are expected to have a master degree by summer 2016. The candidate will have a background either in physical-chemistry(spectroscopy) or biochemistry(structural biology). He/She should have a strong desire to evolve in a particularly strong international and interdisciplinary environment. Applicants are invited to send their application with curriculum vitae, a letter of motivation by April 6<sup>th</sup> 2016 via email to Dr Cédric Laguri ([cedric.laguri@ibs.fr](mailto:cedric.laguri@ibs.fr)). The successful candidate will have to apply to the Grenoble University doctoral school (EDCSV <http://edcsv.ujf-grenoble.fr/>). After a pre-selection, candidates will be interviewed 7 or 8 of June 2016, and if successful will be enrolled in the French three-year PhD program. For more information about Grenoble and the doctoral school please visit : <http://doctorat.univ-grenoble-alpes.fr/en/>.

