Postdoctoral Researcher Position (up to 5 years)
Development and application of NMR spectroscopy methods
for the study of extra-large protein complexes

A post-doctoral position is available in Dr. Boisbouvier's team at the Institut de Biologie Structurale (IBS) in Grenoble, France. The successful candidate will work on the development of new NMR experiments to push the biological applications of NMR beyond their current limits, and apply the new methods to the study of large, medically relevant complexes and molecular machines. The position can be extended for up to five years and is funded by the European Research Council under the Advanced Grant program. This position is ideal for post-docs who wish to progressively develop independent research and apply for a permanent research position in France.

Grenoble: Capital of the French Alps, Grenoble is a world-renowned scientific center with a strong international dimension. It's a pleasant city at the foot of three mountain ranges, offering a wide range of cultural, sporting and outdoor activities all year round. Grenoble is close to the Côte d'Azur, Italy and Switzerland, and is served by international and national airports and a high-speed rail network.

Facilities: The IBS is situated on the European Photon and Neutron campus (EPN) with its European partners EMBL (European Molecular Biology Laboratory), ESRF (European Synchrotron Radiation Facility) and ILL (Institut Laue-Langevin). This unique site provides access to cutting-edge equipment for analyzing biological systems at different scales of resolution. The EPN site, and the Grenoble scientific community in general, represent a veritable hub for integrated structural and dynamic biology. The IBS itself offers a lively international working environment, with state-of-the-art NMR facilities including 950, 850, 700 and 600 MHz NMR spectrometers with liquid-state cryoprobes and state-of-the-art solid-state technology, wet lab facilities dedicated to cloning, in vivo and in vitro expression and protein purification, as well as state-of-the-art imaging facilities.

Qualification: Candidates should hold a PhD and have 2-7 years' post-doctoral experience in biomolecular NMR. Expertise or interest in the development of NMR pulse sequence for solution- or solid-state NMR will be highly appreciated. Interested candidates should send a CV with a list of publications, a covering letter and the names and e-mail addresses of three referees. These documents should be submitted by email to jerome.boisbouvier@ibs.fr

Recent Relevant Publications of the Team:

- Elena-Real, Urbanek, Imbert, Morato, Fournet, Allemand, Sibille, Boisbouvier, Bernado. "*Site-Specific Introduction of Alanines for the Nuclear Magnetic Resonance Investigation of Low-Complexity Regions and Large Biomolecular Assemblies*". ACS Chemical Biology (2023). doi:10.1021/acschembio.3c00288

- Henot, Rioual, Favier, Macek, Crublet, Josso, Brutscher, Frech, Gans, Loison, Boisbouvier. "*Visualizing the Transiently Populated Closed-State of Human HSP90 ATP Binding Domain".* Nature Communications (2022). doi: 10.1038/s41467-022-35399-8

- Törner, Kupreichyk, Gremer, Colas Debled, Fenel, Gans,, Willbold, Schoehn, Hoyer, Boisbouvier. *"Structural Basis for the Inhibition of IAPP Fibril Formation by the Co-Chaperonin Prefoldin".* Nature Communications (2022). doi: 10.1038/s41467-022-30042-y

- Gauto, Estrozi, Schwieters, Effantin, Macek, Sounier, Sivertsen, Schmidt, Kerfah, Mas, Colletier, Güntert, Favier, Schoehn, Schanda, Boisbouvier. *"Integrated NMR and cryo-EM atomic-resolution structure determination of a half-megadalton enzyme complex".* Nature Communications (2019). doi: /10.1038/s41467-019-10490-9

- Mas, Guan, Crublet, Colas Debled, Moriscot, Gans, Schoehn, Macek, Schanda, Boisbouvier. "*Structural Investigation of a Chaperonin in Action Reveals How Nucleotide Binding Regulates the Functional Cycle".* Science Advances (2018). doi: 10.1126/sciadv.aau4196

- Macek, Kerfah, Boeri Erba, Crublet, Moriscot, Schoehn, Amero, Boisbouvier. "*Unraveling Self-Assembly Pathways of the 468 kDa Proteolytic Machine TET2".* Science Advances (2017). doi: 10.1126/sciadv.1601601