Job posting

Type of position
☑  scientific
☐  administrative

Target group
☑  graduates
☐  post docs
☐  other

Title
1 PhD position (f/m/d) - in Biophysics / NMR spectroscopy at Forschungszentrum Jülich

Institution
The Forschungszentrum Jülich GmbH (FZJ) conducts interdisciplinary research in the fields of health, energy and the environment, and information, based on the key competencies of physics and supercomputing. With around 5800 employees (2018), it is one of the largest research institutions in Europe.

Position
CoViPa (Corona Virus Pathogenesis) is a newly funded, internationally competitive and interdisciplinary network funded by the Helmholtz Association for the duration of 4 years starting on 1st of August 2021. The main focus of the network is to gain knowledge about the virological and immunological drivers of COVID-19 pathogenesis and the parameters of immune protection.

As part of the CoViPa consortium, the Bartenschlager, Sachse and Lakomek labs aim at an improved understanding of host determinants of SARS-CoV-2 replication to identify common pathways as targets for broad-spectrum antiviral therapy. As part of that approach they aim at the atomic structural characterization of key viral host complexes, with the focus on replication organelle (RO) formation. In particular the Sars-CoV-2 non-structural proteins nsp3 and nsp4 involved in double membrane vesicle (DMV) formation will be investigated at atomic resolution in an integrated cryo-EM and NMR approach. Here, the Lakomek group will focus on the conformational dynamics and dynamic binding interactions of nsp3 and nsp4, investigated by a combination of solution and solid-state NMR spectroscopy.

Detailed project descriptions: https://covipa.dkfz.de

Responsibilities
The PhD project will involve the application and development of novel proton-detected solid-state NMR experiments at very fast magic angle spinning (MAS) frequencies.
Requirements: The successful candidate should have a master degree with a strong background in physics, biophysics or physical chemistry.

Application procedure (deadline etc.): ! Deadline: 2nd of July 2021 !
Submission of written applications to the CoViPa Office (covipa-bw@dkfz-heidelberg.de)
The applications will be forwarded to Dr. Nils-Alexander Lakomek.

Contact: CoViPa Office
covipa-bw@dkfz-heidelberg.de