PhD student position (3 years) available in the « NMR & Molecular Interactions » group in Lille, France.

Team: NMR & Molecular Interactions – PI: Xavier Hanoulle

Keywords: Structural Biology – Protein Biochemistry – NMR spectroscopy – Hepatitis E Virus

Scientific project: - Structure and interactions of the ORF3 protein from the Hepatitis E Virus (HEV) - ORF3 is a small and multifunctional protein essential for the viral life cycle as it is mandatory for the release of the newly assembled virions from the infected cells. The project aims at studying the structural organization of the HEV ORF3 protein, deciphering the molecular determinants of its membrane anchoring, and then investigating the molecular bases of its functional interactions with others viral or host proteins. The project relies on the expression and purification of recombinant proteins and on the use of advanced biophysical methods, such as high-field NMR spectroscopy and X-ray crystallography.

Skills required: The candidate should have a Master’s degree in biochemistry or chemistry and has interest in analytical techniques. Previous experience with protein biochemistry and/or NMR spectroscopy is welcome. The highly motivated candidate should be able to thrive and adapt in a dynamic and interdisciplinary environment.

The laboratory: The “NMR & Molecular Interactions” lab is located in the CNRS Haute-Borne campus in Lille. The lab, hosted in a modern and pleasant building, is fully equipped for protein production (bacteria, insect cells…) and protein purification (6 Akta systems), and for biophysical analyses (NMR, crystallization robot, MS, surface plasmon resonance, calorimetry, fluorescence spectroscopy). The lab is equipped with high-field NMR spectrometers (600MHz and 900MHz with cryoprobes) and has also access to the NMR platform of the Lille University (from 100 to 800MHz). The 800 and 900MHz spectrometers are part of the national high-field NMR facility (www.ir-rmn.fr/en/). In the lab, biochemists, NMR spectroscopists, and biologists work together to unravel the molecular mechanisms associated to physio-pathological processes. We have strong collaborations with virology labs in France or abroad.

Starting date: early 2020

Application: CV, cover letter, recommendations and grades have to be send by email to xavier.hanoulle@univ-lille.fr