

Ph.D. or post-doctoral positions in NMR/structural biology at the Centre for Biomolecular Drug Research (BMWZ), Leibniz Universität Hannover, Germany.

Research

The successful candidates will work in the group of Prof Teresa Carlomagno (NMR-based Structural Chemistry). The group combines a wide range of structural biology techniques — including solution- and solid-state NMR, X-ray crystallography, EPR, small-angle scattering and mass-spectrometry — to investigate the structures of large and dynamic biomolecular complexes, with particular emphasis on the RNA–protein complexes involved in RNA metabolism and enzymatically active protein–protein complexes. We are seeking three talented scientists to work on the following research projects:

- Structural and regulatory impact of tRNA modifications in bacterial infections.
- Structural basis for the activity and regulation of ClpCP proteases in bacteria as well as their interaction with antibiotics.
- Development of novel solid-state NMR methods to study RNA–protein complexes.

Environment

The Centre for Biomolecular Drug Research (BMWZ) is a young and vibrant research centre (founded 2014) within the Leibniz Universität Hannover (LUH) that hosts a range of research groups in chemistry and biology. Its mission is to develop interdisciplinary approaches to basic and applied drug research by fostering collaborations between researchers both within the University and from clinical- and application-oriented partner institutions. It has close links with Hannover Medical School and the University of Veterinary Medicine Hannover, as well the Helmholtz Centre for Infection Research (HZI) in Braunschweig. The Carlomagno group has access to laboratory space and state-of-the-art instrumentation both at the BMWZ and the HZI. The NMR laboratory at the BMWZ comprises an 850-MHz Bruker AVIII HD spectrometer equipped with solution-state HCN He-cooled probe and a 600-MHz NMR Bruker AVIII HD spectrometer equipped with solution-state HCN N₂-cooled and HPCN room-temperature probes and solid-state HCN MAS probe. The BMWZ also offers fully equipped laboratories for molecular biology, cell biology and biophysical measurements. In addition, the group has exclusive access to a 600-MHz Bruker AVIII spectrometer at the HZI, equipped with solution-state HCN He-cooled and solid-state HCN MAS probes. High-field and proton-detected solid-state NMR experiments are recorded at European facilities and in collaboration with national and international partners. The group also has access to the crystallization facilities at the HZI.

Profile

The successful candidate will have Master's and/or Ph.D. degrees in molecular biology, biochemistry, biotechnology, physics, chemistry or a related field, as well as experience in biomolecular NMR spectroscopy and a good publication record. Strong organizational and communication skills, the ability to work in an international environment, and a deep interest and enthusiasm for fundamental research are essential.

Details

The posts are for two (post-doctoral level) or three (PhD level) years, starting as soon as possible. Part-time employment can be arranged if desired. Remuneration is according to the German public pay-scale (Entgeltgruppe 13 TV-L 100% and 50%, at the post-doctoral and doctoral levels, respectively). As an equal opportunities employer, LUH intends to promote women within the context of statutory requirements and encourages applications from qualified female scientists. Equally qualified applicants with disabilities will be given preferential treatment.

To apply, please email a cover letter, CV (in English) and contact information of three professional referees to:

Prof. Dr. Teresa Carlomagno

teresa.carlomagno@oci.uni-hannover.de

The application deadline is 28.02.2018. Informal enquires are welcomed and can also be directed to the email address above.