

The Centre for Biomolecular Drug Research at the Leibniz Universität Hannover invites application for a

## **Postdoctoral scientist in solid-state NMR spectroscopy**

**(EntgGr. 13 TV-L, 100%)**

starting as soon as possible. The posts are for two years. A part-time employment can be arranged, if desired.

### **Research description**

The available positions are within the NMR-based Structural Chemistry group of Prof. Teresa Carlomagno. The group studies RNA–protein complexes involved in RNA metabolism and enzymatically active protein–protein complexes. We combine multiple structural biology techniques, including NMR spectroscopy (both solution- and solid-state), X-ray crystallography, EPR, SAXS, SANS and mass spectrometry, to solve the active structures of large and dynamic biomolecular complexes. The successful candidate will develop novel solid-state NMR methods to study RNA–protein complexes and apply these methods to the specific complexes that catalyse chemical modifications of ribosomal RNA. The tasks of the postdoctoral scientist will include sample preparation, biophysical characterization of *in vitro*-assembled complexes (for example by means of ITC, analytical ultracentrifugation and light-scattering), development and application of NMR experiments, structure determination and computational modelling.

### **Facilities & instrumentation**

The Carlomagno group has access to laboratory space and instrumentation both at the Centre for Biomolecular Drug Research (BMWZ) of the Leibniz Universität Hannover (LUH) and at the Helmholtz Centre for Infection Research (HZI) in Braunschweig. The NMR laboratory at the BMWZ comprises an 850-MHz spectrometer equipped with a solution-state HCN He-cooled probe and a 600-MHz NMR spectrometer equipped with solution-state HCN N<sub>2</sub>-cooled and HPCN room-temperature probes and a solid-state HCN MAS probe. The BMWZ offers fully equipped laboratories for molecular biology, cell biology and biophysical measurements. In addition, the group has exclusive access to a 600-MHz 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 or in collaboration with national and international partners. The group also has access to the crystallization facilities at the HZI.

### **Qualifications & experience**

The successful candidate will have a Master's degree in molecular biology, biochemistry, biotechnology, physics or a related field. A Ph.D.



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title is highly desirable. In addition, (s)he will have a solid experience in biomolecular NMR spectroscopy as well as 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.

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](mailto:teresa.carlomagno@oci.uni-hannover.de)

Leibniz Universität Hannover  
BMWZ  
Schneiderberg 38  
30167 Hannover

The application deadline is 28.07.2017. Informal enquires are welcomed and can also be directed to the email address above.