Preclinical NMR/MRI engineer at the level of a postdoc to the 9.4T NMR Rodent Imaging Core Facility, University of Copenhagen

The 9.4T NMR Rodent Imaging Core facility at the University of Copenhagen has one opening for an engineer with focus on small animal research at the Panum NMR Core Facility. The NMR Core facilitates neuroscientific and metabolic research, including ongoing and planned research into the role of CSF/ISF in the clearance of metabolites and macromolecules from the brain, metabolomics of stroke, cerebral blood flow and metabolism in combination with optogenetics, and glia progenitor cells a treatment for demyelinating diseases.

The Panum NMR Core Facility is run by Center for Translational Neuromedicine, and is responsible for the running of a Bruker 9.4T USR 94/30 small animal magnet controlled by ParaVision software, and includes a large array of coils, including 1H- and 31P-CryoProbes. The NMR Core supports research from faculty across many fields at the University of Copenhagen as well as external collaborators, involved in many exciting and cutting edge scientific projects.

The successful candidate will be part of Division of Glial Therapeutics within Center for Translational Neuromedicine (CTN). CTN currently has 50 employees and students, divided into two labs. CTN is part of the Faculty of Health and Medical Sciences, University of Copenhagen, and is located at Panum. The Center comprises modern laboratories and excellent facilities within neuroscience.

For more information about the NMR Core: [http://nmr.ku.dk](http://nmr.ku.dk), and CTN [https://ctn.ku.dk/](https://ctn.ku.dk/).

Your responsibilities

- NMR/MRI related electrical prototype development and construction
- Maintenance of Bruker hardware, troubleshooting, and implementation of quality check protocols
- MRI protocol optimization, Bruker sequence programming, data acquisition and data processing

Qualifications

We are looking for a highly motivated applicant eager to push boundaries in ultra-high field MRI and contribute to the scientific mission of the Faculty of Health and Medical Sciences. The successful candidate must hold a PhD degree in an electrical engineering discipline, applied physics/mathematics, or related field; strong knowledge of MRI physics, expertise in MRI data analysis. Experience with small animal NMR, MRI sequence optimization, and pulse-sequence development are required. Strong background in computer-based skills (image-processing know-how a must – MATLAB, R, Fiji, python, etc.) is an advantage. Experience in pulse sequence development for ParaVision is preferred, as well as proficiency in scripting and/or programming. The projects are highly collaborative and interdisciplinary. The successful candidate will also possess excellent collaboration skills to support the NMR users need. Excellent communications skills are needed for planning and execution of the NMR user experiments that span over many diverse projects. Experience in working in a
multidisciplinary research environment is preferred.

**Terms of employment**

The position is at the level of a postdoc. It is a 2-year full-time position with the possibility of extension. Employment will commence in summer 2019 or as soon as possible hereafter. Salary and other terms and conditions of appointment are set in accordance with the agreement between the Ministry of Finance and AC (Danish Confederation of Professional Associations) or other relevant professional organizations. The position is covered by the Job Structure for Academic Staff at Universities 2013.

**Work place**

You will be part of the NMR Core Facility located at Blegdamsvej 3B, DK-2200 Copenhagen N, Denmark. Your primary work place will be at the 9.4T NMR Core which is governed by CTN.

**Contact persons:** Core Director Yuki Mori, yuki.mori@sund.ku.dk, or Center Administrator Ann Christensen, ann.christensen@sund.ku.dk

**Application deadline**

Application deadline is 25 June 2019. Only online applications will be accepted.

Applications – in English – must include:

- Cover letter with a brief statement of research interests and career goals
- Curriculum vitae
- Publication list
- Reference list
- Relevant academic transcripts

More about the recruitment process at the University of Copenhagen: [http://employment.ku.dk](http://employment.ku.dk)

*University of Copenhagen wish to reflect the diversity of society and welcome applications from all qualified candidates regardless of age, disability, gender, nationality, race, religion or sexual orientation. Appointment will be based on merit alone.*

Part of the International Alliance of Research Universities (IARU), and among Europe’s top-ranking universities, the University of Copenhagen promotes research and teaching of the highest international standard. Rich in tradition and modern in outlook, the University gives students and staff the opportunity to cultivate their talent in an ambitious and informal environment. An effective organisation – with good working conditions and a collaborative work culture – creates the ideal framework for a successful academic career.