A two-year postdoc in the development and application of deuterium metabolic imaging

We are looking for an enthusiastic postdoctoral researcher who wishes to join our efforts to develop new methods for deuterium metabolic imaging utilizing proton (1H) and deuterium (2H) Magnetic Resonance Spectroscopy (MRS) and our high field (3T) and ultra-high field (7T) scanners. The applicant will join a multidisciplinary team that aims to implement and optimize current techniques of deuterium metabolic imaging in order to maximize the sensitivity of the methods. The project will be conducted in collaboration with experts in metabolite modeling to derive comprehensive brain metabolic parameters. We will explore translational applications for the newly developed methodologies in clinical settings. The establishment of relevant clinical applications provides an opportunity for an extension of the postdoctoral position. The successful applicant will be encouraged to develop her/his own line of research and apply for independent funding. If you are an MRS expert and interested in neuroscience, you should join our project to change our view on the brain forever.

About us:

The Danish Research Centre for Magnetic Resonance (DRCMR) is one of the leading research centers for biomedical MRI in Europe (www.drcmr.dk). Our mission is to triangulate MR physics, basic physiology, and clinical research. Approximately 70 researchers from a diverse range of disciplines are currently pursuing basic and clinically applied MR, electrophysiology, and brain stimulation research with a focus on structural, functional, and metabolic MRI of the human brain and its disorders.

The DRCMR is embedded in the Center for Functional and Diagnostic Imaging and Research, a large diagnostic imaging department including all biomedical imaging modalities at Copenhagen University Hospital Hvidovre.

The position:

You will be employed as a Postdoc for a two-year period on a project funded by the Lundbeck Foundation. As a Postdoc at the DRCMR, you will closely interact with other researchers from various disciplines (neuroscience, health technology / medical engineering, neurobiology, radiology, computational and clinical neuroscience, etc.). We act in concert, and you are never alone with your tasks.

Your daily tasks will vary according to the flow of the project, but will mainly be centered around:

- development and testing of MRI/MRS(I) protocols at 3T and 7T
- development and testing of MRI/MRS(I) data analysis methods
- analyzing MRI/MRS(I) data, from pre-processing to group analysis
- data acquisition, mainly MRS(I) with multi-session design
- engaging in teaching, knowledge dissemination, and publication of results in international, recognized scientific journals
Your profile:

You should be an expert in MRI/MRS with most of the following qualifications:

- A PhD degree or corresponding qualification in engineering, physics, computer science or a related field with interest in neuroscience/neurophysiology.
- Background and proficiency in MRI (mainly MRS/MRSI) protocol design, data acquisition, and analyses. Experience with MRI sequence pulse programming is an advantage.
- Knowledge of MRI analysis software.
- Strong programming skills in MATLAB and/or Python.
- Strong oral and written communication skills.

Starting date is expected to be September 2023.

Salary and Terms of Employment:

You will be employed as a postdoc for a period of 24 months with good possibilities of extension. Salary, pension and terms of employment are in accordance with the agreement between the Danish Regions (Danske Regioner) and the relevant professional organization. The salary depends on background education and seniority. Further, supplements can be negotiated. Note that candidates coming from abroad may be eligible for tax reductions. We see diversity as a strength and encourage all persons, regardless of gender, age, ethnicity, disabilities, or religion, to apply.

Applications should include a cover letter, CV, and list of publications.

Applications must be submitted on-line through the RegionH job portal [https://candidate.hr-manager.net/ApplicationInit.aspx?cid=342&ProjectId=249728&DepartmentId=18051&Mediad=4754](https://candidate.hr-manager.net/ApplicationInit.aspx?cid=342&ProjectId=249728&DepartmentId=18051&Mediad=4754)

Application deadline: June 23th 2023 at 23:00 (CET)

For further information regarding the position, please contact Petr Bednarik, MD, PhD
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