UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Biomedical Imaging, Faculty of Medicine and Health

Salary: Grade 7 (£33,797 – £40,322 p.a.)

Reference: MHLCM1225

Closing date: 22 August 2020

Fixed-term for 3 years

Research Fellow
Faculty of Medicine and Health
Leeds Institute of Cardiovascular & Metabolic Medicine

Are you an ambitious researcher looking for your next challenge? Do you have a background in Medical Imaging, particular in microstructural / diffusion MRI? Do you want to further your career in one of the UK's leading research intensive Universities?

Cardiac Diffusion Magnetic Resonance Imaging (cDMRI) can measure the microstructure of the heart, but despite ongoing developments, it is not yet used for clinical management. This is due to technical challenges and to MRI scanner hardware limitations, particularly gradient strength. The *Human Connectome Project*, designed to provide unparalleled assessment of the brain, developed highly specialized MRI scanners with gradients 4x stronger than those available on clinical scanners. However, this technology has never been exploited outside of the head. This project, which is funded by the Wellcome Trust and led by Prof Jurgen E Schneider (University of Leeds), aims to push the boundaries for microstructural assessments of the heart using both a standard 3T clinical scanner in Leeds and the Connectom Scanner in Cardiff to develop next generation assessments of human hearts. The post-holder will be based in Leeds to work on a clinical Siemens Prisma 3T MR system.

What does the role entail?

As Research Fellow your main duties will include:

- Working with and in support of Prof Schneider's research grant to ensure the project is successfully completed;
- Planning experimental approaches and developing the underpinning technologies, in collaboration with the research team;
- Generating and pursuing original research ideas in the field of cardiac diffusion MRI;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including, where appropriate preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;

- Attending regular project meetings and integrating with the other team members on the grant, ensuring good communication links, particularly with the team based in Cardiff;
- Preparing progress reports to grant funding and regulatory bodies;
- Presenting at local and international conferences;
- Maintaining good records and laboratory notebooks of research work carried out;
- Adopting an open science approach to code / data sharing;
- Attending and presenting at Departmental and Institute research seminars and meetings, and in particular, participating in the diffusion / microstructure team meetings at Prof Schneider's lab, communicating the research to other researchers in his centre.
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Developing and conducting public engagement activities;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the research culture of the School, where appropriate;
- Contributing to the training of both undergraduate and postgraduate students, where appropriate, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

You will report to Prof Jurgen E Schneider, Chair in Biomedical Imaging.

What will you bring to the role?

As Research Fellow you will have:

- A first degree and PhD (or passed PhD with minor corrections at the point of application) in Medical Imaging, Physics or a closely allied discipline;
- A strong background in diffusion MRI;



- Extensive experience with C/C++ and Matlab or other relevant programming languages and software;
- Good publication track record in diffusion MRI and / or cardiac MRI;
- Demonstrated experience of conducting research;
- Proven ability to write to the standard required for research reports/international publications;
- Good time management and planning skills, with the ability to meet tight deadlines and work effectively under pressure;
- Excellent written and verbal communication skills including presentation skills and the ability to communicate effectively with a wide range of (multi-disciplinary) stakeholders;
- Proven ability to manage competing demands effectively, responsibly and without close support;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience operating or pulse programming on Siemens MRI platforms;
- Strong background in hard- and software based acceleration techniques.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Prof Jürgen E Schneider, Chair in Biomedical Imaging
Email: J.E.Schneider@leeds.ac.uk

Additional information

Find out more about the Faculty of Medicine and Health and the School of Medicine

Find out more about the Leeds Institute of Cardiovascular and Metabolic Medicine

Find out more about Athena Swan in the Faculty.

Working at Leeds
Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our Working at Leeds information page.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974 (Exceptions) Order 1975
This post requires a standard criminal record check from the Disclosure and Barring Service (DBS), and any equivalent overseas authorities where relevant. The successful candidate will be required to give consent for the University to check their criminal record status. All applicants are required to make a self-declaration where applicable.

Any offer of appointment will be subject to the University being satisfied with the outcome of these checks, in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.