

Job Reference Number: UOS018128

Job Title: Lecturer in Magnetic Resonance Physics

Contract Type: Open ended

Working Pattern: Full-time

Faculty: Faculty of Medicine, Dentistry and Health

**Department:** Department of Infection, Immunity and Cardiovascular Disease

Academic Unit of Radiology

Salary: Grade 8

£39,992 to £47,772 per annum (pro-rata), with potential to progress to

£53,691

Closing Date: 8th February 2018

## **Summary:**

An opportunity has arisen for an experience MRI physicist to work in the POLARIS Pulmonary and Hyperpolarised MRI Research group at the University of Sheffield (https://www.sheffield.ac.uk/polaris/home), where significant technological development work has been undertaken to establish the group as a world centre in this emergent branch of diagnostic pulmonary imaging with proton and hyperpolarised gas MRI.

The role will be based in the pulmonary MRI group (POLARIS) in the Academic Unit of Radiology under the mentorship of Professor Jim Wild. The Academic Unit of Radiology is an active research unit focused on MR imaging. The main research themes of the unit are neuroimaging, developmental and pulmonary/cardiac MRI.

The post will involve developing MRI methods, specifically image acquisition and pulse sequence development. You will implement novel lung imaging techniques on 3T and 1.5T whole body MRI systems for 129Xe and 1H MRI. The lecturer will provide support and direction for ongoing clinical lung imaging research and generate high quality research output as a first author. They will contribute to strategic planning, development and management of MR imaging research in POLARIS, Academic Radiology, IICD, Insigneo and cross-faculty imaging activities. They will develop new areas of MRI methodology and technology for transitional pulmonary imaging as well as developing new avenues of clinical translational research for hyperpolarised MRI, especially Xenon 129. The lecturer will supervise PhD students in MRI Physics. They will secure research funding through career establishment fellowships and collaborative grants as well as building on and developing strategic industrial collaborations with MRI scanner vendors. They will contribute to imaging research and teaching in IICD, School of Medicine and across the University.

The post will particularly suit candidates from a physics or engineering background who hold a PhD in MR Physics, MR Engineering or equivalent. Candidates should have a combination or all of the following: MRI pulse sequence programming experience, MRI hardware development experience, image processing and numerical computational modelling skills. Applicants will have a track record of publication in MR and imaging journals and have experience in writing and securing grant funding. Having the ability and willingness to teach and supervise PhD and undergraduate students and researchers in imaging research is important. Candidates will have effective communication skills, both written and verbal, report writing skills and experience of delivering presentations. Experience of working in a multi-disciplinary team and an ability to develop creative approaches to problem solving is essential. Applicants will also have the ability to analyse and solve problems with an appreciation of longer-term implications and have the ability to assess and organise resources, and plan and progress work activities. Experience of developing and maintaining a network of contacts throughout your own work area is also essential as is adapting their skills to new circumstances.

Interested candidates are invited to contact Prof. Jim Wild to discuss the post further: j.m.wild@sheffield.ac.uk

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