Research Associate in Magnetic Resonance Physics

Requisition ID: 25446
Location: Newcastle, GB

Contract Type: Fixed Term  
Working Pattern: Full Time  
Posted Date: 10-May-2023

Salary: £33,348 to £43,155 per annum

Newcastle University is a great place to work, with excellent benefits. We have a generous holiday package; plus, the opportunity to buy more, great pension schemes and a number of health and wellbeing initiatives to support you.

Closing Date: 19 June 2023

The Role

The purpose of this role is for a skilled MR physicist to design and deliver high-quality clinical research in magnetic resonance imaging and spectroscopy within the Centre for In Vivo Imaging at Newcastle University. This is a core role, which will embrace working with a number of different projects and principal investigators at any one time and collaborating with multi-disciplinary teams of scientists and clinicians.

There are two 3.0T research-dedicated Philips scanners and a 3.0T clinical GE PET-MR scanner, with pulse programming and advanced scan capabilities. Human studies are supported by a dedicated research radiography team. Though this post is devoted to human MR studies, a 7.0T preclinical MRI scanner for basic and translational research is located adjacent to our clinical scanners.

The research interests of the Centre for In Vivo Imaging (CIVI, https://www.ncl.ac.uk/civi) are wide-ranging, covering most of the research disciplines within in the Translational and Clinical Research Institute, and the wider Faculty of Medical Sciences. These include studies of function and metabolism in the brain and most organs of the body. The Centre has particular interests in multinuclear imaging/spectroscopy (19F, 23Na, 31P, 13C, 7Li). CIVI works alongside the many clinical academics within the Faculty of Medical Sciences, and clinician researchers in the local acute and mental health NHS Trusts, to design and deliver high impact translational research that improves health. The post-holder would develop and support studies in several areas of interest.

This post is available for 2.5 years in the first instance, with the possibility of extension. The post could suit equally those who have just qualified with a PhD, or those with postdoctoral experience. Newcastle University is committed to career development for Research Associates through development to independent research and/or staff scientist positions where appropriate. Informal questions about the position can be addressed to Prof Pete Thelwall (pete.thelwall@newcastle.ac.uk) or Dr Kieren Hollingsworth (kieren.hollingsworth@newcastle.ac.uk).

Key Accountabilities

• Working under the guidance of several academic staff, develop and carry out multiple research projects using appropriate magnetic resonance imaging/spectroscopy and equipment available within the Centre for In Vivo Imaging
• Determine appropriate methodologies for research, showing an appropriate degree of independence, with advice and support where required
• Review the literature to assess proposals for new research by collaborating principal investigators to determine scientific right-to-succeed and appropriate resourcing
• Writing up and publication of own/collaborative research through publications in leading peer-reviewed journals
• Prepare high quality presentations and present research findings at national/international conferences/meetings and to appropriate stakeholders within the University
• Work with the support staff and, with undergraduate and postgraduate students, and interact intellectually with other academic members of the Institute
The Person (Essential)

Knowledge, Skills and Experience
- Experience in delivering (a) research project(s)
- Experience of developing and validating acquisition methods in magnetic resonance imaging/spectroscopy
- Experience of developing and devising analysis techniques for MRI/MRS data.
- Evidence of interpretation of data and investigations leading to the discovery of new knowledge
- Evidence of independent working and initiative in research work, under the broad guidance of academic staff

Desirable
- Publication record in PhD and postdoctoral work, reflecting a productive role within research teams (first author and/or middle author publications). The role the individual played in publications should be stated.
- Evidence of managing multiple projects and/or interactions with principal investigators.
- Experience of providing successful advice to non-expert scientific users of MRI/MRS.
- Experience of teaching of magnetic resonance physics.
- Experience of delivering research that exploits academic knowledge in a commercial or applied setting.
- Knowledge of Philips pulse sequence programming.
- Experience of public engagement activities.

Attributes and Behaviour
- Ability to undertake research and analysis independently, with guidance from academic staff.
- Able to effectively organise allocated work activities.
- Excellent organisational, communication and interpersonal skills.
- Ability to carry out research project work within agreed timelines, meeting project milestones and producing research to an appropriate standard.

Qualifications
- PhD in magnetic resonance imaging and/or spectroscopy, preferably on in-vivo clinical or pre-clinical work. Alternatively, research experience equivalent to PhD studies may be considered.

Newcastle University is a global University where everyone is treated with dignity and respect. As a University of Sanctuary, we aim to provide a welcoming place of safety for all, offering opportunities to people fleeing violence and persecution.

We are committed to being a fully inclusive university which actively recruits, supports and retains colleagues from all sectors of society. We value diversity as well as celebrate, support and thrive on the contributions of all of our employees and the communities they represent. We are proud to be an equal opportunities employer and encourage applications from individuals who can complement our existing teams, we believe that success is built on having teams whose backgrounds and experiences reflect the diversity of our university and student population.

At Newcastle University we hold a silver Athena SWAN award in recognition of our good employment practices for the advancement of gender equality. We also hold a Race Equality Charter Bronze award in recognition of our work towards tackling race inequality in higher education REC.

In addition, we are a member of the Euraxess initiative supporting researchers in Europe.

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