Siemens Healthineers are looking for an On Site Magnetic Resonance (MR) Scientist to facilitate collaborative research between Siemens and University College London in the field of Ultra High Field (7T) MR. **This is a fixed term role for 3 years.**

**The Role:**

The primary focus of this role will be the conceptual design, product specification, prototype development and product implementation of advanced neuroimaging techniques within Ultra High Field Magnetic Resonance, with a particular focus on functional imaging (fMRI).

The position offers an exciting opportunity to become the interface between basic scientists, clinical researchers and Siemens Healthcare which enjoys the position of industry leader for advancing imaging technology.

Ideally, you are experienced in working together with physicians or scientists in the field of MR imaging, with a history of publishing in scientific journals and have an awareness of intellectual property rights and appropriate handling of sensitive intellectual material.

**Responsibilities:**

The MRI Scientist will be responsible for implementing MR research projects in collaboration with, The Wellcome Centre for Human Neuroimaging (WCHN), one of our luminary high-end research partners. A substantial proportion of your time would be devoted to supporting collaborations in ultra-high field (7T) MRI and advanced imaging, and providing consultation as well as scientific support.

An important aspect of this role is to identify potential new methods which might be developed into commercially viable products and, either within Siemens or in collaboration with our external partners to develop a strategy to implement, validate and potentially bring to market these ideas.

The role will offer a very close connection to applied and clinical science and aims to identify and assist collaborative MR research projects. Integral to this position will be the pivotal role you will play in helping maintain Siemens Healthcare as the leading scientific and collaboration partner within the MR community.

This position will also involve supporting and initiating additional academic collaborations with our partner. Clinical research input and direct contribution to research projects and publications will be possible subject to the individually defined research projects.

**Day to day duties include:**

- Developing innovative MR techniques in close cooperation with our academic partner and validating new neuroimaging applications in humans.
- Facilitating translation of pre-clinical concepts to an environment for ‘real-world’ evaluation with the goal of integration into future products.
- Successfully driving collaboration projects.
- Submission of invention disclosures with the aim of protecting company intellectual property.
- Publishing collaboration results at scientific congresses and in peer reviewed journals together with our collaboration partners.
- Develop a strong relationship with the MR development team in Siemens MR Headquarters in Erlangen, Germany.
- Become the Interface for our collaboration partner to the collaboration, development and marketing teams in headquarters and the global customer network of leading institutions collaborating with Siemens.
- To report collaboration results back to product development and marketing.
• Administration and management of collaboration projects.
• Participation at scientific workshops in the region and giving presentations at meetings, seminars and scientific congresses.

Required skills and experience to qualify for this job:

• It is anticipated that you would have a good understanding of MR physics, engineering, pulse sequence design, and be able to demonstrate a good knowledge of the scientific and clinical research applications of MR including knowledge of multi transmit hardware and concepts.
• Profound scientific MR applications, image reconstruction and/or sequence programming experience and an affinity for clinically relevant applications development in medical imaging or research with a proven track record.
• Experience of developing imaging methodologies at UHF, ideally for fMRI.
• Proficient at programming in C++, ideally with experience of the Siemens IDEA sequence development environment (SDE) and image calculation environment (ICE).
• RF transmit capability using multiple channels.
• Outstanding communication skills to establish and maintain relationships between variety of people in different roles / levels and physical locations.
• Good networking skills.
• Strong attention to detail.
• Ability to create new and innovative solutions.
• You enjoy learning from and working across different cultures.
• Excellent English language skills are required.

Although this role is site based, there may be some opportunities / expectation for international travel as well as within the UK and Ireland as part of the job role.

About Siemens:

Siemens Healthcare Sector is one of the world's largest suppliers to the healthcare industry and a pioneer in medical imaging, laboratory diagnostics and medical information technology.

Siemens offers its customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis, and on to treatment and aftercare.

By optimising clinical workflows for the most common diseases, Siemens also makes healthcare faster, better and more cost-effective.

Siemens Healthcare employs some 51,000 employees worldwide and operates around the world. For further information please visit: www.siemens.com/healthcare

About The Wellcome Centre for Human Neuroimaging:

The Wellcome Centre for Human Neuroimaging at UCL (incorporating the Leopold Muller Functional Imaging Laboratory (FIL) and the Wellcome Department of Imaging Neuroscience) is an interdisciplinary centre for neuroimaging excellence within the UCL Institute of Neurology.

We bring together clinicians and scientists who study higher cognitive function using neuroimaging techniques. Our goal is to understand how thought and behaviour arise from brain activity, and how such processes breakdown in neurological and psychiatric disease.
Our research groups study all aspects of higher cognitive function including vision, hearing, memory, language, reasoning, emotion, decision making and social interactions, utilising leading edge neuroimaging methodologies.

The Centre has a strong track record in developing imaging sequences for functional and quantitative neuroimaging applications, as well as developing processing and analysis pipelines and computational models.

It is the home to Statistical Parametric Mapping (SPM), the most widely used neuroimaging software. The Centre houses three MRI scanners (two 3T scanners, with a 7T system to be installed in 2019), as well as MEG facilities, all dedicated to neuroscientific research. Details of research areas conducted by the Physics Group can be found here: https://sites.google.com/view/fil-physics.

The Institute of Neurology (ION) in Queen Square was established in 1950, merged with UCL in 1997, and is a key component of the Faculty of Brain Sciences (FBS), School of Life and Medical Sciences (SLMS), at UCL. The Institute has eight academic research Departments (https://www.ucl.ac.uk/ion/research/research-departments), which encompass clinical and basic research within each theme. In parallel, there are currently six Divisions representing clinical professional affiliations. The mission is to translate neuroscience discovery research into treatments for patients with neurological diseases. In addition, a number of important research centres are based at the Institute of Neurology, affiliated with one of our academic research departments: https://www.ucl.ac.uk/ion/research/research-centres.

The UCL Institute of Neurology has a significant postgraduate teaching and training portfolio, with nearly 500 graduate students at Queen Square. The Institute employs just over 730 staff, and hosts just under 300 honorary & visiting staff, occupies some 12,000 sqm of laboratory, lecture room and office space, and has a current annual turnover of approximately £78m.

The Institute is closely associated in its work with the National Hospital for Neurology & Neurosurgery (NHNN), University College London Hospitals' NHS Foundation Trust, and in combination they form a national and international centre at Queen Square for teaching, training and research in neurology and allied clinical and basic neurosciences. The Institute also has active collaborative research programmes with other centres of excellence and works in close partnership with them: http://www.ucl.ac.uk/ion/about/related.

A large proportion of the Institute's funding is obtained from the Higher Education Funding Council for England. The most recent research assessment exercise, REF2014, showed that the IoN, as part of the FBS, is the first rated UK institution for neuroscience research output.

The Institute currently holds over 578 active research projects, totaling £248m, for research from the principal medical charities concerned with neurological diseases, and from government agencies such as the Medical Research Council. Generous support for research is also provided through grant awards from the Brain Research Trust and we also receive significant philanthropic support.

UCL Neuroscience is currently rated second in the world by ISI Essential Science Indicators, and four of the top twelve most highly cited authors working worldwide in neuroscience and behaviour are based at the ION. In the calendar year 2016, Institute staff published 1428 papers, 40 book chapters and 5 books (data from UCL Discovery). 55 papers were published in the top 50 of all scientific journals (ranked by ISI impact factors), including Nature, Science, Lancet, BMJ and New England Journal of Medicine. RAND report shows that UCL has the highest share of highly cited publications in Neurology in England: http://www.rand.org/pubs/research_reports/RR1363.html.

There are 9 Fellows of the Royal Society and one Nobel Prize winner at Queen Square.

Job ID: 88691

Organization: Siemens Healthineers

Experience Level: Experienced Professional

Job Type: Full-time

Further details and to apply: https://jobs.siemens-info.com/jobs/88691