Applications are invited for an expert in MRI methodology to join the Wellcome Centre for Human Neuroimaging (WCHN), UCL Queen Square Institute of Neurology. The Centre is equipped with a new 7T Siemens Terra system; two 3T Siemens Prisma MRI scanners (one with an optical tracking system for prospective motion correction); a CTF-Omega 275-channel Magnetoencephalography (MEG) system; a dedicated optically-pumped magnetometer facility for mobile MEG; and EEG, TMS and tDCS systems. These facilities are dedicated to research that aims to better understand the workings of the human brain and to develop clinically transformative applications of neuroimaging. The WCHN has pioneered many neuroimaging methodologies and is home to Statistical Parametric Mapping (SPM), the most widely used neuroimaging software worldwide. Further information on the lab can be found at: http://www.fil.ion.ucl.ac.uk/Research/physics.html

We are seeking a highly motivated individual to join the WCHN Physics group, which specializes in the development of a broad range of methods including functional, structural and diffusion imaging, and provides expert advice to enable neuroscientific studies. The post holder will be engaged in their own research projects aimed at enabling world-leading neuroscience research, and will have flexibility to shape the direction of their research. Key areas of research are artefact correction, particularly at 7T, and the development of rapid imaging techniques with ultra-high spatial specificity, to enable unprecedented studies of connectivity, functional organisation and anatomical microstructure, including at a laminar level using 7T. In addition, this role provides an opportunity to collaborate with neuroscientists from other disciplines working at the Centre to provide advice and guidance on the optimal neuroimaging strategies, and to play an active role in the broader research conducted by the WCHN Physics group.

Applicants must have a PhD (Senior Research Fellow) or, if not already held, the PhD must have been obtained by the agreed start-date (Research Fellow applicants only) in physics, biomedical engineering, or a comparable subject. A strong background in MR physics is essential, as is programming expertise (eg, Matlab or C/C++). Applicants must also be specialized in at least two (Research Fellow) or three (Senior Research Fellow) of the following areas: pulse sequence programming, particularly on the Siemens platform (IDEA/ICE); RF pulse design and/or parallel transmission; RF coil design for UHF; conducting and analysing neuroimaging studies using fMRI; image reconstruction including parallel imaging techniques, eg, compressed sensing and open platforms such as Gadgetron; biophysical modelling, eg, relaxometry models, diffusion processes, physiological models and models of neurovascular coupling. Those applying for the Senior Research Fellow position will also need to be able to demonstrate experience leading projects and an established publication track record.

The post is available from July 2019 and is funded by a grant from the Wellcome Trust for the period to 30 November 2021 in the first instance. Starting salary on UCL Grade 7 in the range £35,328 - £42,701 per annum or on Grade 8 in the range £43,884 - £51,769 per annum, including London Allowance, supernannual. Appointment at Grade 7 is dependent upon having been awarded a PhD; if this is not the case, initial appointment will be at research assistant Grade 6B (salary £30,922 - £32,607 per annum) with payment at Grade 7 being backdated to the date of final submission of the PhD thesis.

You should apply for this post through UCL's online recruitment – http://www.ucl.ac.uk/hr/jobs where you can download a job description and person specification using ref: 1804776. If you have any queries regarding the application process, please contact Miss E Bertram, HR Manager, UCL Queen Square Institute of Neurology, 23 Queen Square, London, WC1N 3BG (email: ion.hradmin@ucl.ac.uk). Informal enquiries to Dr Martina Callaghan (email: m.callaghan@ucl.ac.uk).

Closing date: 3 June 2019

We will consider applications to work on a part-time, flexible and job share basis wherever possible.

UCL Taking Action for Equality