Two Postdoctoral Research Fellow Positions in MRI Susceptibility Mapping

We are seeking two talented and highly motivated postdoctoral researchers to join the Magnetic Resonance Imaging Group in the UCL Department of Medical Physics & Biomedical Engineering, London, UK. You will have a central role in an exciting research programme developing, optimising and applying new MRI electromagnetic tissue properties mapping (QSM) acquisition sequences and processing techniques in phantoms, healthy volunteers and patient studies.

You will work within the MRI group, led by Dr Karin Shmueli, a pioneer of quantitative magnetic susceptibility mapping (QSM), whose research focuses on developing and optimising magnetic susceptibility-related techniques for a variety of applications, aiming to improve disease diagnosis and monitoring of therapies. Dr Shmueli has obtained funding for these positions as part of two research programmes: one to develop QSM and electrical conductivity (MR-EPT) MRI techniques for structural and functional neuroimaging (ERC) and another to develop a new QSM-based technique to measure oxygenation in head-and-neck and prostate cancers (CRUK).

You will carry out your research as part of a collaborative, multidisciplinary team of physicists, biomedical engineers and clinicians. You will be based primarily within the Department of Medical Physics and Biomedical Engineering and do most of your MRI experiments using up-to-date 3-Tesla MRI systems in local UCLH Hospitals. Two 7 Tesla MRI systems have just been installed in London, so there may also be opportunities to apply for high-field research time where relevant.

You must have a PhD, or be about to submit a PhD, in MRI physics, engineering or a related subject. A strong background in MRI physics and expertise in computer programming in a language such as Matlab or C/C++ are essential. Experience in acquisition, reconstruction, processing and analysis of MRI data are required. Experience in QSM, MRI pulse sequence development, conducting and analysing functional MRI studies, and/or MRI body or cancer imaging would be advantageous. You will also have excellent problem-solving, interpersonal, communication, self- and time-management skills, and the ability to work effectively both in a team and independently.

The positions are available immediately (with an expected start date ASAP) and are initially funded for 24 months with renewal subject to satisfactory completion of a 9-month probation period and performance. Salary £35,328 to £43,884 per annum (inclusive of London allowance), Grade 7 or 8

If you have any scientific or informal queries please contact Dr Karin Shmueli, at k.shmueli@ucl.ac.uk or arrange to meet with me at the upcoming QSM workshop in Seoul.

You should apply for these positions as soon as possible through UCL's online recruitment site – http://www.ucl.ac.uk/hr/jobs where you can download detailed job descriptions and person specifications using reference numbers: 1806458, and 1806665 or by searching for “Susceptibility Mapping” under job title.