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, University College London, UK. You will have a central role in an exciting research program developing, optimizing and applying new MRI electromagnetic tissue properties mapping (QSM and EPT) acquisition sequences and processing techniques in phantoms, healthy volunteers and patient studies.

You will work within the MRI group, led by Prof. Karin Shmueli, a pioneer of quantitative magnetic susceptibility mapping (QSM), whose research focuses on developing and optimizing electromagnetic tissue properties mapping techniques for a variety of applications, aiming to improve disease diagnosis and monitoring of therapies. Prof. Shmueli has obtained funding for these positions as part of two research programs: 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 are available 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 and/or EPT, MRI pulse sequence development, conducting and analyzing 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 18-24 months with renewal subject to satisfactory completion of a 9-month probation period and performance. Salary £36,770 to £45,610 per annum (inclusive of London allowance), Grade 7 or 8, depending on experience.

Job advertisements and links to apply are here: ERC funded position, CRUK funded position or visit the UCL job search site: https://atsv7.wcn.co.uk/search_engine/jobs.cgi and search for “MRI”. The initial application deadline is Monday 8th August 2022.

If you have any scientific or informal queries or to check if the deadline has been extended, please contact Professor Karin Shmueli at k.shmueli@ucl.ac.uk