



<b>Job title</b>	Research Fellow (mTBI, MRI)	<b>Job family and level</b>	Research and Teaching Level 4
<b>School/ Department</b>	Sir Peter Mansfield Imaging Centre, School of Physics and Astronomy	<b>Location</b>	University Park Campus

## Purpose of role

You will be carrying out research to enable the evaluation of the utility of different metrics of brain function and structure as biomarkers for mild Traumatic Brain Injury (mTBI).

You will be an integral part of a large and diverse team of researchers at the Sir Peter Mansfield Imaging Centre (SPMIC), School of Physics and Astronomy as well as having close links to the Centre for Human Brain Health (CHBH), University of Birmingham and Aston Brain Centre, Aston University.

Your main responsibility will be to set up the MRI sequences and analysis pipelines across multi-site, multi-vendor 3T MRI platforms to enable the measurement of structural and functional changes with mTBI.

	<b>Main responsibilities</b> (Primary accountabilities and responsibilities expected to fulfil the role)	<b>% time per year</b>
1	To plan and conduct primary research towards the goals of the research project.	80%
2	To write up research work for publication and contribute to the dissemination of research at scientific conferences. To assist in the dissemination of research outputs to the general public.	5%
3	To assist where appropriate with supervising undergraduate and postgraduate students projects as appropriate.	2%
4	To build relationships with both internal and external members of the consortium in order to exchange information, to enable primary research goals to be reached and to form relationships for future collaborations	8%
5	To develop their own research ideas and collaborate with academic colleagues on areas of shared interest for example, collaborative or joint research projects.	5%

## Person specification

	<b>Essential</b>	<b>Desirable</b>
<b>Skills</b>	<ul style="list-style-type: none"> <li>▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex information.</li> <li>▪ Strong capability to analyse and illuminate data, interpret reports, evaluate and criticise texts and generate new insights and apply to own research.</li> <li>▪ Ability to assess and organise resource requirements and deploy effectively.</li> <li>▪ Ability to build relationships and collaborate with others, both internally and externally.</li> <li>▪ Good computer programming skills. Specifically, experience in the use of Matlab and/or python.</li> <li>▪ Previous training in development of MRI analysis pipelines for functional and/or structural data.</li> <li>▪ A collaborative approach to research within a multidisciplinary context</li> </ul>	<ul style="list-style-type: none"> <li>▪ MRI sequence optimisation skills</li> <li>Training in development of analysis pipelines for big datasets</li> </ul>
<b>Knowledge and experience</b>	<ul style="list-style-type: none"> <li>▪ Significant experience in the field of human imaging, in particular variety of experience in using MRI for assessing brain function and/or structure.</li> <li>▪ Knowledge of the advantages and challenges of multi-vendor studies</li> <li>▪ Good knowledge of fundamental physics of MRI and fMRI</li> <li>▪ Good publication track record</li> </ul>	<ul style="list-style-type: none"> <li>▪ Experience in running a Philips and/or Siemens 3T MRI scanner</li> <li>▪ Experience in setting up and/or optimising scan sequences</li> <li>▪ Previous experience of working with human participants</li> <li>▪ Experience of analysing structural and functional brain images</li> <li>▪ Experience with data acquisition and/or analyses in neurological populations such as mTBI</li> <li>▪ Experience with clinical research, including knowledge of governance and ethical regulations for clinical trials</li> </ul>
<b>Qualifications, certification and training (relevant to role)</b>	<ul style="list-style-type: none"> <li>▪ Undergraduate degree (BSc/MSci) in Physics, Engineering, Mathematics or appropriately related discipline, for example neuroscience or psychology</li> <li>▪ Ph.D. in neuroimaging or an associated area and strong interest/experience in the clinical</li> </ul>	<ul style="list-style-type: none"> <li>▪ Doctoral / post-doctoral experience with multi-site and/or multi-vendor imaging studies.</li> </ul>

	application of neuroimaging techniques	
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The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.



The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

## Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

## Key relationships with others

