

Multichannel MR imaging of neuroinflammation, stroke, and cancer

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Neuroinflammation underlies a broad array of neurological disease, from stroke to cancer. The ability to detect and monitor inflammation in the body is severely limited, hampering efforts to develop and apply new treatments. We are now searching for a postdoctoral researcher that will focus on the development and application of imaging approaches for magnetic resonance imaging (MRI) to probe molecular neuroinflammation pathways, with the ability to access multichannel/multiplex imaging outputs using PARASHIFT MRI – akin to blue/green/red imaging in fluorescence microscopy.

This 2.5 year postdoc will be funded by a recently awarded UKRI Future Leaders Fellowship to explore multichannel MR approaches in neuroinflammation, stroke, and cancer. Our lab research areas span from chemical synthesis and application of new MRI contrast agents, to studying biological models of neuroinflammation and developing imaging methods. We are now searching for an imaging-based postdoc to join our interdisciplinary research lab and develop novel MR imaging approaches. The postdoc will work closely with other members of the lab while also mentoring a linked PhD student. Work will involve imaging studies on cells, *ex vivo* tissue, and *in vivo* rodent models. We also combine MRI multimodal approaches (mass spec imaging, confocal microscopy, and electron microscopy). There are opportunities for the postdoc to be involved and gain skills in all aspects of the work.

The postdoctoral position will be based at the University of Nottingham within the School of Chemistry and the School of Medicine. The postdoc will be based within an active research group that spans both schools, joining a growing team of interdisciplinary researchers. The group is linked to the Sir Peter Mansfield Imaging Centre and the postdoc will be able to integrate with activities within this world-leading imaging centre.

Ideal skills:

- Hands-on MRI acquisition
- Research with *in vitro*, *ex vivo*, and/or *in vivo* models
- Image processing
- Multimodal imaging

If you are interested in applying, please email peter.harvey@nottingham.ac.uk. The project covers a broad range of skills so not all of the above are mandatory. If you have any queries about fit to the project, please get in touch.

Keywords: Medical Imaging, Magnetic Resonance Imaging, MRI, Contrast Agents, Inflammation, Molecular Imaging, Cell Biology, Lanthanide, Cancer, Stroke.