

Postdoctoral Research Assistant/Senior Research Associate in Cerebrovascular Imaging

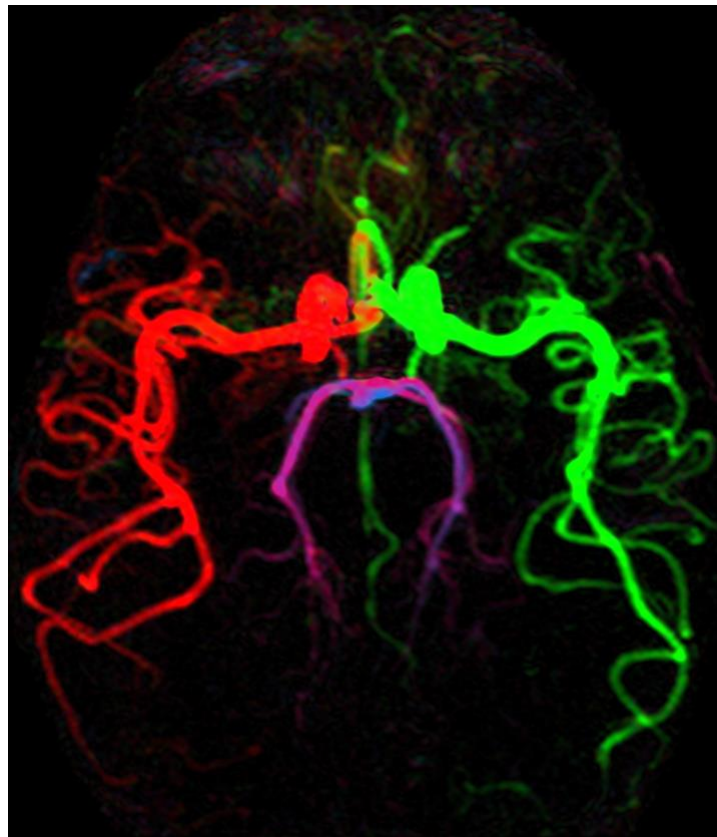
Grade 7: £39,424 - £47,779 per annum/Grade 8: £49,119 - £58,265 per annum

Overview

We are seeking a full-time Postdoctoral Research Assistant or Senior Research Associate in Cerebrovascular Imaging to join the research group of Prof Thomas Okell at the Podium Institute for Sports Medicine and Technology within the Department of Engineering Science (based in Headington, Oxford, UK), with strong links to the Oxford Centre for Functional MRI of the Brain (FMRIB), part of the Oxford Centre for Integrative Neuroimaging (OxCIN). The post is funded by Podium Analytics and is initially fixed-term to 30th September 2027, with possible extension subject to funding.

The role

You will be responsible for the development of novel acquisition, reconstruction, image analysis and/or modelling methods for cerebrovascular magnetic resonance imaging (MRI) to improve the assessment of mental health, cognition and brain injury, with applications to athletes and sports-related injuries. This includes contributing to one or more projects that include: 1) leveraging large scale imaging datasets and advanced machine learning approaches to identify novel imaging markers of mental health disorders and cognitive function; 2) developing robust MRI-based acquisition, image reconstruction and physiological modelling approaches that are highly sensitive to cerebrovascular



changes; 3) exploring the potential for imaging markers to improve prognosis and treatment stratification for those suffering from chronic pain or mental health conditions; 4) investigating novel MRI approaches to assess microvascular damage and blood-brain barrier disruption; and 5) utilising highly efficient methods for simultaneous imaging of blood vessels, tissue perfusion and brain anatomy to assess cerebrovascular changes. The precise areas of work will depend on the priorities of the group at the start of the post and your skills and experience.



Requirements

You should possess (or be close to the completion of) a PhD in a relevant field (e.g. engineering, mathematics, physics or other relevant discipline). Previous experience with MRI acquisition, image reconstruction, signal modelling and/or image analysis is essential, and further experience in one or more of the following would be advantageous: MRI pulse sequence programming; running an imaging study; blood-brain barrier evaluation; and/or the application of machine-learning methods to large (ideally imaging) datasets.

Enquiries and further information

Informal enquiries may be addressed to Prof Thomas Okell (email: thomas.okell@eng.ox.ac.uk).

For more information about working at the Department, see www.eng.ox.ac.uk/about/work-with-us/

The Department holds an Athena Swan Bronze award, highlighting its commitment to promoting women in Science, Engineering and Technology.

Application process

Only online applications received before midday on **23rd March 2026** can be considered. You will be required to upload a covering letter/supporting statement, including a brief statement of research interests (describing how past experience and future plans fit with the advertised position), CV and the details of two referees as part of your online application. Please note that both Postdoctoral Research Assistant and Senior Research Associate roles are being jointly advertised, but only one role will be filled, so please apply to the one that best fits your skills and experience.

For further details and to apply, please see: <https://thepodiuminstitute.ox.ac.uk/our-team/careers/>