



OPPORTUNITY

Post-Doctoral Research Associate

Reference: R230188

Grade: 8

Salary: £37, 099 to £43,155, depending on experience

Contract Type: Fixed Term (36 Months)

Basis: Full Time

Job description

Job Purpose:

A three year opportunity is available for a post-doctoral research associate with expertise in the acquisition and analysis of human fMRI data to study brain function and cognition in children and adults. The post-holder will work within the lab of Prof Stephen Mayhew as well as collaboratively supporting MRI research within the School of Psychology and the Institute of Health and Neurodevelopment. In particular, the role will combine fMRI with EEG and/or MEG recordings to elucidate research questions such as studying: the neurophysiological origins of brain function; how dynamic patterns of brain activation and deactivation are organised and give rise to behaviour; how indices of cortical excitability can be obtained by neuroimaging; how these patterns and indices vary between participants and their potential to provide transdiagnostic information about an individual's mental health. We will fully support you to develop applications for independent fellowships to follow your initial post.

Applicants should hold a PhD (or equivalent) in neuroimaging, cognitive neuroscience or related field. Experience of fMRI acquisition and data analysis is essential. Experience of EEG or MEG acquisition and analysis is desirable. Experience of working on research projects involving children and young adults is desirable. Experience with MATLAB or Python computer programming for neuroimaging data analysis is essential.

Main duties and responsibilities

Research

- ▶ To lead multimodal (fMRI, EEG-fMRI, MEG-fMRI) neuroimaging research projects and to develop and support collaborative neuroimaging projects within the School.
- ▶ To develop the application of multi-band and multi-echo BOLD fMRI to study brain function in children, young people and young adults
- ▶ To design and conduct EEG-fMRI and MEG-fMRI experiments to study the neural and vascular measures of brain function and health across development and into adulthood.
- ▶ To analyse neuroimaging data using combinations of available software and in-house code, e.g. processing multiecho fMRI data, perform fMRI network functional connectivity analysis, preprocess EEG data to remove MRI artefacts, perform beamformer source analysis of EEG/MEG responses.
- ▶ To help develop and maintain neuroimaging data analysis pipelines and an internet based resource to document the acquisition and analysis methods that have been developed so other users might benefit
- ▶ To write up and publish the outcomes of research in good quality publications.
- ▶ To present papers, posters, reports at seminars, conferences etc.
- ▶ To develop research objectives, projects and proposals for personal/joint research projects in collaboration with School researchers
- ▶ To identify sources of funding, develop and submit funding applications, securing external research funding.
- ▶ To supervise and manage research projects
- ▶ To supervise PhD and other postgraduate students to completion.

Teaching

- ▶ To contribute to the assessment of student knowledge and the supervision of student projects.
- ▶ To assist in the development of student research skills.

External engagement

- ▶ To represent the interests of the subject and School via activities to raise the regional, national and international profile, particularly with the professions, schools and businesses.
- ▶ To forge relationships with the professional bodies and other bodies representing relevant professional interests.

Citizenship

- ▶ To help support collaborative School and IHN research, advising on data acquisition or analysis. Maintaining code and procedures for data analysis pipelines and
- ▶ To demonstrate the University's leadership values through own actions and behaviour.
- ▶ To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

Additional responsibilities

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
 - ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
 - ▶ Carry out duties in a way which promotes fairness in all matters and which engenders trust.
 - ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.
- .

Person specification

	Essential	Method of assessment
Education and qualifications	<p>A first degree in a scientific discipline.</p> <p>A PhD in cognitive neuroscience or related field.</p>	Application form
Experience	<p>Experience of fMRI acquisition and data analysis is essential.</p> <p>Experience of EEG or MEG acquisition and analysis is desirable.</p> <p>Experience of initiating and conducting research up to doctoral level</p> <p>Experience of writing up/contributing to the write up of research for high quality publications.</p> <p>Experience of producing papers, posters, reports presenting at seminars, conferences etc.</p> <p>Experience of positive collaboration within and outside of candidate's immediate research team.</p> <p>Supervising other personnel involved in the project</p>	Application form and interview
Aptitude and skills	<p>Experience with MATLAB or Python computer programming for neuroimaging data analysis is essential.</p> <p>Ability to use initiative to lead your own research projects as well as interest in supporting wider collaborations within the School.</p>	Application form and interview

	Essential	Method of assessment
	<p>Ability to present data in both a clear and concise manner that is visually appealing.</p> <p>Ability to prepare written communications to a high standard</p> <p>Ability to develop and maintain a research programme and to publish in high quality publications.</p> <p>Ability to harness IT as a research and teaching tool</p> <p>A willingness to undertake further training as appropriate and to adopt new procedures as and when required.</p>	

	Desirable	Method of assessment
Experience	<p>Experience of MATLAB or Python computer programming</p> <p>Experience of working on research projects involving children and young adults.</p>	Application form and interview

How to apply

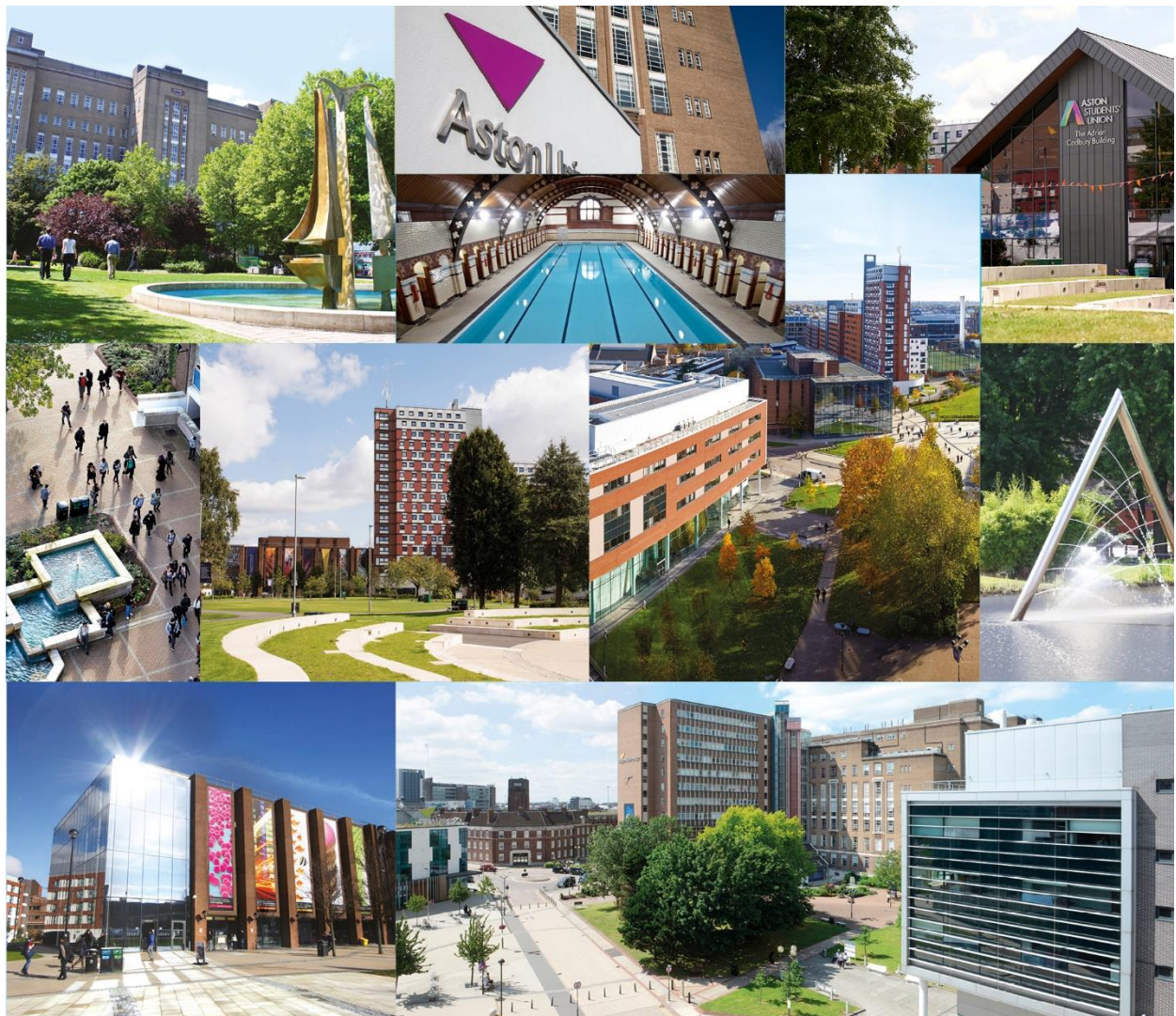
You can apply for this role online via our website <https://www2.aston.ac.uk/staff-public/hr/jobs>.

Applications should be submitted by 23:59 on the advertised closing date.

All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form then please contact the Recruitment Team via jobs@aston.ac.uk.



Contact information

Enquiries about the vacancy:

Name: Professor Stephen Mayhew
Job Title: Professor of Cognitive Neuroscience
Email: s.mayhew@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via jobs@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits Aston University staff enjoy

Salary scales: <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

Benefits: <https://www2.aston.ac.uk/staff-public/hr/Benefits-and-Rewards/index>

Working in Birmingham: <https://www2.aston.ac.uk/birmingham>

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK:

Post-Brexit transition period / EU Settlement Scheme

The post-Brexit transition period ended on 31 December 2020. If you are an EU/EEA citizen and you were a resident in the UK before 31 December 2020, you and your family members (including non-EU citizens need to apply to the EU Settlement Scheme to continue to live, work and study in the UK beyond 30 June 2021. The deadline for applying to the EU settlement scheme is 30 June 2021. You can apply via the Government webpage

<https://www.gov.uk/settled-status-eu-citizens-families>

Irish Nationals do not need to apply for settlement as they retain the right to work in the UK.

New immigration system for EU/EEA and Swiss Nationals who were not resident in the UK before 31 December 2020

A new immigration system has been introduced for people arriving in the UK from EEA countries with effect from 1 January 2021. In addition to those who have always required a visa, EU citizens moving to the UK to work will need to get a visa in advance. You can find more information on the following website. Candidates should check their eligibility to enter or remain in the UK in advance of making any job application via the UKVI website

<https://www.gov.uk/browse/visas-immigration/work-visas>. Before applying you should ensure that you meet the requirements, including meeting the English Language requirements. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful. If you require a visa to work in the UK the most common types of visa are:

Skilled Worker Visa

<https://www.gov.uk/skilled-worker-visa>

Global Talent Visa

If you are a leader or potential leader in one of the following fields you may be eligible to apply for a Global Talent Visa:

- Academia or Research
- Arts and Culture
- Digital Technology

Please click the following link for further information and to check your eligibility for this visa.

<https://www.gov.uk/global-talent>

Equal Opportunities: Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection: Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

Aston University

Birmingham

B4 7ET, UK.

+44 (0)121 204 3000

aston.ac.uk



**Where change
gets real.**