Summary

Job title	Post-Doctoral Researcher for Brain Analytics and Computing
Division	Medical Sciences
Department	Psychiatry
Location	CEHF, Stoke House, Oxford OX3 9BX
Grade and salary	Grade 7: £40178 -£ 48700 per annum
Hours	Full time
Contract type	Fixed-term (18 months)
Reporting to	Dr Andrea Luppi
Vacancy reference	189683

The role

We are seeking a motivated postdoctoral researcher with expertise in neuroscientific data analysis and high-performance computing, to lead delivery of Work Packages within the context of a Wellcome Trust Grant held by Dr. Luppi. The post holder will take a leading role in conducting, implementing and disseminating research that combines information theory analysis of large-scale functional MRI datasets and modelling with artificial neural networks, and overseeing implementation of the group's Open Science strategy. The research will take place within the Centre for Eudaimonia and Human Flourishing, headed by Prof. Morten Kringelbach.

Flexible working

This post is available on a flexible hybrid basis with a minimum onsite working of 3 days /week for a fulltime post.

Responsibilities

- Manage own academic research and administrative activities. This involves small scale project management, to co-ordinate multiple aspects of work to meet deadlines
- Adapt existing and develop new research methodologies and materials
- Prepare working theories and analyse quantitative data from a variety of sources, reviewing and refining theories as appropriate

- Develop ideas for generating research income and promoting the research area and write funding applications for specific avenues of independent research
- Regularly write research articles for prestigious journals, book chapters, and reviews.
- Present papers at conferences, and lead seminars to disseminate research findings
- Prepare manuscripts and high-quality visualisations.
- Act as a source of information and advice to Research Assistants, DPhil students, other members of the group on methodologies or procedures
- Represent the research group at external meetings/seminars, either with other members of the group or alone
- Lead the project's code- and data-sharing strategy (GitHub, Docker/Singularity).
- Carry out collaborative projects with colleagues in partner institutions, and research group

Selection criteria

Essential selection criteria

- Have or to be close to completion of a relevant(PhD/DPhil) in neuroscience or a closely related field with relevant research experience
- Hold a first degree in Engineering, Computer Science, Mathematics, or Physics.
- Possess sufficient specialist knowledge in information-theoretic analysis of functional MRI signals, as demonstrated by relevant peer reviewed publications/preprints
- Possess sufficient specialist knowledge in designing, training, and analysing Artificial/Deep Neural Networks to model neural systems or cognitive processes, as demonstrated by relevant peer reviewed publications/preprints
- Proven track record of research linking neural and behavioural data, as demonstrated by relevant peer reviewed publications/preprints
- Ability to contribute ideas for new research projects and manage own academic research and associated activities, as demonstrated by lead authorship of publications/preprints
- Excellent written/oral communication skills, including the ability to write for publication, present research proposals and results, and represent the research group at meeting
- Demonstrated advanced programming skills in Python, MATLAB, and R, and proficiency with version control (GitHub/GitLab).
- Demonstrated practical experience with software containerisation (Docker/Singularity) and parallel computing on HPC clusters.

Desirable selection criteria

- Experience of conducting research investigating functional MRI of patients with focal or traumatic brain lesions, as demonstrated by relevant peer reviewed publications/preprints
- Experience of conducting research with diffusion MRI tractography, as demonstrated by relevant peer reviewed publications/preprints
- Experience of conducting research in graph theory, as demonstrated by relevant peer reviewed publications/preprints

- Experience of intellectual leadership as indicated by published opinion or review articles
- Experience mentoring undergraduate/master's students in quantitative sciences
- Experience of data science role in industry

Pre-employment screening

Standard checks

If you are offered the post, the offer will be subject to standard pre-employment checks. You will be asked to provide: proof of your right-to-work in the UK; proof of your identity; and (if we haven't done so already) we will contact the referees you have nominated. If you have previously worked for the University we will also verify key information such as your dates of employment and reason for leaving your previous role with the department/unit where you worked. You will also be asked to complete a health declaration so that you can tell us about any health conditions or disabilities for which you may need us to make appropriate adjustments.

Please read the candidate notes on the University's pre-employment screening procedures at: https://www.ox.ac.uk/about/jobs/explore-our-careers/applications-process/pre-employment-screening

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities and we rank first in the UK for university spin-outs, and in recent years we have spun out 15-20 new companies every year. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information, please visit https://www.ox.ac.uk/about.

Department of Psychiatry

The Department of Psychiatry based on the Warneford Hospital site in Oxford has an international reputation for excellence. The Head of Department is Professor Belinda Lennox. The Department has a substantial research programme, with major funding from Medical Research Council (MRC), Wellcome Trust and National Institute for Health Research (NIHR) and provides highly rated medical training in psychiatry. There are approximately 250 staff including 41 principal investigators leading research groups investigating applying a wide range of approaches from translational neuroscience, experimental medicine, epidemiology, clinical trials and health services research to developmental disorders, mood disorders, cognitive disorders and self-harm and suicide. There are strong links with other departments and institutes both within and outside Oxford: these links ensure that we can apply the best scientific methods to psychiatric and cognitive disorders. The Department has an annual turnover of over £10 million with more than 130 research grants.

Our active Psychiatry People and Culture teams and initiatives, including our values and behaviours framework, work to make the Department of Psychiatry as supportive, welcoming and inclusive as possible.

For more information please visit: http://www.psych.ox.ac.uk

The Department of Psychiatry holds a silver Athena Swan award to recognise advancement of gender equality: representation, progression and success for all.

Medical Sciences Division

For more information please visit: https://www.medsci.ox.ac.uk/

How to apply

Applications are made through our online recruitment portal. Information about how to apply is available on our Jobs website https://www.ox.ac.uk/about/jobs/explore-our-careers/applications-process/how-to-apply

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

As part of your application you will be asked to provide details of two referees and indicate whether we can contact them now.

You will be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet each of the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants)

Please upload all documents **as PDF files** with your name and the document type in the filename.

All applications must be received by **midday** UK time on the closing date stated in the online advertisement.

Information for internal candidates

If you currently work at the University please note that:

- as part of the referencing process, we will contact your current department to confirm basic employment details including reason for leaving and information about your performance.
- although employees may hold multiple part-time posts, they may not hold more than the equivalent of a full time post. If you are offered this post, and accepting it would take you over the equivalent of full-time hours, you will be expected to resign from, or reduce hours in, your other posts(s) before starting work in the new post.

Information for priority candidates

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing department(s).

If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments).

If you need help

Application FAQs, including technical troubleshooting advice is available at:
https://www.ox.ac.uk/about/jobs/explore-our-careers/applications-process/support-with-online-applications

Non-technical questions about this job should be addressed to the recruiting department directly vacancies@psych.ox.ac.uk

To return to the online application at any stage, please go to: https://www.ox.ac.uk/about/jobs/explore-our-careers/applications-process/how-to-apply

Please note that you will receive an automated email from our online recruitment portal to confirm receipt of your application. **Please check your spam/junk mail** if you do not receive this email.

Important information for candidates

Data Privacy

Please note that any personal data submitted to the University as part of the job application process will be processed in accordance with the GDPR and related UK data protection legislation. For further information, please see the University's Privacy Notice for Job Applicants at: https://compliance.admin.ox.ac.uk/job-applicant-privacy-policy. The University's Policy on Data Protection is available at: https://compliance.admin.ox.ac.uk/data-protection-policy.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for very senior research posts at **grade RSIV/D35 and clinical equivalents E62 and E82** of 30 September before the 70th birthday.

For **existing** employees on these grades, any employment beyond the retirement age is subject to approval through the procedures: https://unioxfordnexus.sharepoint.com/sites/OXINTRANET-working-here/SitePages/the-ejra.aspx

There is no normal or fixed age at which staff in posts at other grades have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.

Equal Opportunity

The University of Oxford is committed to equal opportunity, and to being a place where everyone belongs and is supported to succeed. We recognise how the diversity of our community enriches our ability to deliver on our academic mission.

We welcome applications from individuals from all backgrounds, including those under-represented within higher education. No applicant or members of staff shall be unlawfully discriminated against on the basis of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.

Employment with the University and progression within employment will be determined according to personal merit and the application of criteria related to the duties and conditions of the post. In all cases, the primary consideration will be the ability to perform the job.

As stated in the University's Equality Policy and Equality, Diversity and Inclusion Strategic Plan, our commitment to equality and diversity goes hand in hand with our commitment to academic freedom and free speech.

Benefits of working at the University

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, flexible working options, support for sustainable travel and other discounts. Staff can also access a huge range of personal and professional development opportunities. See https://www.ox.ac.uk/about/jobs/working-here .

Employee Assistance Programme

As part of our wellbeing offering staff get free access to a confidential employee assistance programme, available 24/7 for 365 days a year. Find out more at https://www.ox.ac.uk/about/jobs/life-in-oxford/healthcare-and-wellbeing

University Club and sports facilities

Membership of the University Club is free for University staff. It offers social, sporting, and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See www.club.ox.ac.uk and https://www.sport.ox.ac.uk/.

Information for staff new to Oxford

Please see our Life in Oxford webpage for information on relocating to and settling into the Oxford area. The website offers valuable guidance, including information on where to find more details about housing, transportation, finances, healthcare, and other key aspects of living in Oxford and the surrounding region. See https://www.ox.ac.uk/about/jobs/life-in-oxford

There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependants. See https://www.ox.ac.uk/about/jobs/explore-our-careers/applications-process/visas-and-immigration

Family-friendly benefits

We are a family-friendly employer with one of the most generous family leave schemes in the Higher Education sector (see https://www.ox.ac.uk/about/jobs/explore-our-careers/applications-process/terms-and-conditions-of-employment Our Childcare Services team provides guidance and support on childcare provision, and offers a range of high-quality childcare options at affordable prices for staff. In addition to 5 University nurseries, we partner with a number of local providers to offer in excess of 450 full time nursery places to our staff. Eligible parents are able to pay for childcare through salary sacrifice, further reducing costs. See https://www.ox.ac.uk/about/jobs/life-in-oxford/childcare-and-schooling/childcare

Supporting disability and health-related issues

We are committed to supporting members of staff with disabilities or long-term health conditions, including those experiencing negative effects of menopause. Information about the University's Staff Disability Advisor, is at https://edu.admin.ox.ac.uk/support-for-disabled-staff. The Staff Disability Advisor can be contacted at staffdisability@admin.ox.ac.uk

The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is run by volunteers that aims to assist the partners of new staff settle into Oxford, and provides them with an opportunity to meet people and make connections in the local area. See www.newcomers.ox.ac.uk

Research staff

The Researcher Hub supports all researchers on fixed-term contracts. They aim to help you settle in comfortably, make connections, grow as a person, extend your research expertise and approach your next career step with confidence. Find out more https://www.ox.ac.uk/research/support/researcher-hub/about