Cardiff University
School of Psychology

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<tr>
<th>Studentship Title:</th>
<th>GW4 BioMed PhD studentship in the School of Psychology, Cardiff University</th>
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<tr>
<td>Research Area/ Project Title:</td>
<td>The selfish brain: using high resolution 7 Tesla MRI of the human brain to investigate hypertension</td>
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<td>Location:</td>
<td>Cardiff University Brain Research Imaging Centre</td>
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<td>Expected Start Date:</td>
<td>October 2017</td>
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<tr>
<td>Duration:</td>
<td>3.5 years</td>
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<td>Deadline for Application:</td>
<td>1st December, 2016</td>
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Description of Research Opportunity:

The brain’s need to maintain a blood supply at all costs may be a common cause of high blood pressure. This project at the interface of neuroscience and physics will develop ultra-high field (7T) magnetic resonance imaging to understand the neural circuits and blood vessels in the human brain that are important for the control of blood pressure.

Project Details:

"Elevated blood pressure (BP; hypertension) is a major contributory factor in common cardiovascular and cerebrovascular diseases, including stroke and dementia. BP is under the control of the brain and in a substantial proportion of patients with intractable hypertension it is thought that problems with the brain’s control mechanisms may be the root cause. These central control mechanisms are poorly understood, since, hitherto, they have been hard to study in humans. The new Cardiff University Brain Research Imaging Centre (CUBRIC) with its ultra-high field (7 Tesla; 7T) MRI system (the third of its kind in the UK) has the tools to address this problem.

7T MRI permits functional magnetic resonance imaging (fMRI) and vascular imaging with high spatial resolution allowing us to visualize, for the first time, key brain regions involved in the control of BP in humans and the small arteries that are seen to alter with age and hypertension, increasing their resistance to flow

Award:

This studentship is funded through GW4 BioMed MRC Doctoral Training Partnership (DTP, www.gw4biomed.ac.uk) for 3.5 years. It consists of full UK/EU tuition fees, as well as a Doctoral Stipend matching UK Research Council National Minimum. In 2016-17 the doctoral stipend for full-time students is £14,296 per annum.
Additional research and training funding is available over the course of the programme. This will cover costs such as research consumables, courses, conferences and travel. Additional competitive funds are available for high-cost training/research.

This research project is in competition with 51 other studentship projects available across the GW4 BioMed MRC DTP. Up to 20 studentships will be awarded to the best applicants.

**Eligibility:**

Full awards (fees plus maintenance stipend) are open to UK Nationals, and EU students who can satisfy UK residency requirements. To be eligible for the full award, EU Nationals must have been in the UK for at least 3 years prior to the start of the course for which they are seeking funding, including for the purposes of full-time education.

As only one studentship is available and a very high standard of applications is typically received, the successful applicant is likely to have a very good first degree (a First or Upper Second class BSc Honours or equivalent) and/or be distinguished by having relevant research experience.

**How to apply:**

Further details are available at Cardiff University’s funding pages of this project [http://courses.cardiff.ac.uk/funding/R2863.html](http://courses.cardiff.ac.uk/funding/R2863.html). The applicants are encouraged to contact the lead supervisor Professor Richard Wise ([WiseRG@cardiff.ac.uk](mailto:WiseRG@cardiff.ac.uk)) for informal enquiries.

**Application deadline:** 1st December 2016

**General Information:**

The School of Psychology is one of the largest and most successful in the UK ([http://www.cf.ac.uk/psych/](http://www.cf.ac.uk/psych/)). The School’s excellent standard of research and teaching has been recognised in every Research Assessment Exercise. In early 2016 Cardiff University Brain Research Imaging Centre (CUBRIC, [http://sites.cardiff.ac.uk/cubric](http://sites.cardiff.ac.uk/cubric)) moved to new purpose-built premises housing up to 200 researchers, 4 human MRI systems (2 x Siemens Prisma, 1 x Siemens Connectom, 1 x Siemens 7T), MEG, EEG, TMS, tDCS, a clinical research unit and testing labs.

Cardiff is the youngest capital city in Europe and the fastest growing in the UK. It plays host to many national and international sporting events at the Millennium Stadium ([http://www.millenniumstadium.com/](http://www.millenniumstadium.com/)). Culturally, the city is thriving, with the Wales Millennium Centre ([http://www.wmc.org.uk/](http://www.wmc.org.uk/)) in Cardiff Bay. Cardiff is in very close proximity to the beautiful Welsh countryside ([http://www.breconbeacons.org/](http://www.breconbeacons.org/)), has a two hour rail link to London and a (cheap) one hour air link to Paris and Amsterdam ([http://www.cardiffairportonline.com/](http://www.cardiffairportonline.com/))

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<th>Please address any informal enquiries to:</th>
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<tr>
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<td>For further information please contact:</td>
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