

University of Oxford Department of Psychiatry

DPhil Studentship available to start in October 2014: Investigating selective attention to emotion in older adults

The Department of Psychiatry offers a 3 year funded DPhil project (full time), as part of the Cognitive Health in Ageing research program, suitable for students with a background in Neuroscience or Psychology. The DPhil is funded by the Department of Psychiatry, University of Oxford. The studentship covers tuition and college fees for Home/EU students and includes a stipend. The current DPhil studentship stipend (tax-free) is £13,726 per annum plus support for conference attendance and consumables. Applicants should have, or expect to gain, at least an upper second class honours degree in an appropriate subject. Overseas students and those not meeting residency criteria may apply for this studentship but would be required to pay the balance of fees over the Home/EU rate (see <http://www.ox.ac.uk/feesandfunding/fees/>). English language competence criteria apply (see http://www.ox.ac.uk/admissions/postgraduate_courses/apply/application_guide/ag_1_basics.html#aenglish_language_requirements)

Cognitive Health in Ageing is a five year program of work, funded by the National Institute of Health Research (NIHR), with the aim of understanding the cognitive impairments associated with ageing and developing cognitive interventions to improve cognition in older adults. While a number of physical causes, genetic or otherwise, result in degeneration of brain structures in old age, there is epidemiological evidence that certain psychological environments are associated with resilience to such diseases, and that psychological interventions can have direct effects on brain function, and cognitive and behavioural deficits. It is so far uncertain which particular cognitive functions, and by implication neuronal networks, need to be stimulated to achieve an optimal beneficial effect on cognition. The aim of this program of research is to more precisely determine the aspects of cognition that are affected by ageing and conduct early phase translational studies to optimise core regulatory cognitive-neural systems in maintaining mental health and preventing cognitive decline with ageing.

This DPhil project will focus on how the cognitive and neural processing of emotion is affected by age. Emotional processing biases are known to play a central role in mental wellbeing. For example, there is now good evidence that attentional biases to threat are both causal in the development of anxiety¹, and a useful target for treatment². However, the tasks used to measure such attentional bias to threat, such as the dot probe task, have been criticised as being unreliable, with low internal consistency and retest reliability³. This is particularly problematic when assessing attentional biases to emotional stimuli in populations, such as older adults, who have high levels of variability in reaction time performance. The aim of this project is therefore to develop sensitive neural and behavioural measures of attentional bias to emotional stimuli that are more reliable and less reliant on reaction time as an outcome measure. These measures will be used to assess how the processing of emotion is affected by age, and how this interacts with mood and anxiety. Ultimately, this work will inform the development of cognitive interventions to promote cognitive and mental health in older adults.

The DPhil will be supervised by Dr Susannah Murphy and Professor Kia Nobre. For enquiries, please contact Dr Susannah Murphy (susannah.murphy@psych.ox.ac.uk).

To apply, please send your CV and a covering letter to: Tracy Lindsey, Department of Psychiatry, Warneford Hospital, Warneford Lane, Headington, Oxford OX3 7JX tracy.lindsey@psych.ox.ac.uk. The successful applicant will also be required to submit an online application to the university.

Deadline for submission of applications: 30th April 2014

Interview Date: w/c 12th May 2014 (Interviews for overseas applicants may be held using Skype.)

¹ Hakamata, Y. et al. 2010. Attention bias modification treatment: a meta-analysis toward the establishment of novel treatment for anxiety. *Biol Psychiatry* 68(11), pp. 982-990.

² MacLeod, C. et al. 2002. Selective attention and emotional vulnerability: assessing the causal basis of their association through the experimental manipulation of attentional bias. *J Abnorm Psychol* 111(1), pp. 107-123.

³ Schmukle, S. C. 2005. Unreliability of the dot probe task. *European Journal of Personality* 19, pp. 595-605