MRC-funded IMPACT (Integrated Midlands Partnership for Biomedical Training) CASE Doctoral Training Partnership 3.5 Year PhD Studentship available for September 2019

**Department:** Department of Neuroscience, Psychology and Behaviour

**Supervisors:** Prof Elizabeta B. Mukaetova-Ladinska eml12@le.ac.uk and Prof. Kevin Paterson kbp3@le.ac.uk

**Eligibility:** UK/EU applicants who meet the MRC eligibility and residency criteria

**Project Title:** Clinical Validation of Gaming Concepts for Cognitive Improvement leading to Neurofeedback Development

**Project Description:**

The project aims to:

1. Validate gaming software (Cerebrum Matter Ltd.) in a Randomised Control trial (RCT) with healthy volunteers using behavioural assessments and electroencephalography (EEG) to aid detection of changes in cognitive performance/improvements and the neural basis of such effects; and

2. Collect and analyse EEG data for neurofeedback development.

Digital gaming software is at the forefront of new forms of preventative dementia therapies, with recent research indicating that cognitive game therapies can not only complement drug therapies, but also target certain areas of the brain and lead to cognitive improvement.

Our work using a novel cognitive gaming platform will assess whether new pathways of neuronal networks can be both created and maintained, via improvement of EEG activity. We will assess neuronal neuroplasticity via increase in healthy brainwave signals with gaming as a stimulator. This can help not only people with dementia to maintain/improve their cognitive wellbeing, but also people with age-associated slowing of mental capabilities.

This research will provide the PhD student with: (i) expertise in working with an Industrial partner and translating academic knowledge, (ii) validating technical advances for societal benefit and (iii) gaining necessary industrial skills via exposure to marketing, manufacturing and business processes.

Interviews will be held on Tuesday 26 and Friday 29 March 2019 at University of Leicester.
References:


Funding details:
MRC IMPACT DTP CASE studentship CASE partner Cerebrum Matter Ltd,

Studentship provides tuition fees and stipend for 3.5 years to UK applicants. EU applicants who do not meet the RCUK residency criteria can apply for a fees only award.

Entry requirements:
Candidates must hold qualifications in a relevant subject to the project topic at the level of, or equivalent to, a good honours degree from a UK academic institution. This should be a first or upper second-class honours degree. We welcome applicants with qualifications (or a combination of qualifications and experience) in neurophysiology, psychology, neuroscience and/or medicine

The University of Leicester English language requirements apply where applicable.

How to apply:
Please apply via: https://more.bham.ac.uk/mrc-impact/phd-opportunities/

Project / Funding Enquiries: Prof. Elizabeta b Mukaeotva-Ladinska, e-mail: eml12@le.ac.uk , tel No: +44 116 373 6405
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Application/eligibility enquiries to mrcicase@contacts.bham.ac.uk

Closing date for applications 15 February 2019