

2 PHDS IN NEUROIMAGING PHYSICS AND METHODOLOGY

CYCLOTRON RESEARCH CENTRE, UNIVERSITY OF LIÈGE,
LIÈGE, BELGIUM

Posted: 15 October 2009

The Cyclotron Research Centre, University of Liège, Belgium, is seeking 2 highly motivated and talented PhD students to take part in a Marie Curie Initial Training Network (MC-ITN) project in "NeuroPhysics" in collaboration with the University of Maastricht (The Netherlands), the Forschungszentrum Jülich (Germany) and GSK (United Kingdom). Grants can start from November 1, 2009 at the earliest and review of applicants will continue until both positions are filled.

The Cyclotron Research Centre is equipped with a 3T Allegra MR scanner (Siemens) dedicated to research only, with parallel imaging capabilities (8-channel receive coil). The MR facilities include stimulus equipment for fMRI studies (auditory and visual stimuli, keypads), monitoring devices (eye-tracking, pulse and respiration monitoring, skin conductance) and a 72-channel MRI compatible EEG/ECG/EOG system (Brain Products). Other research equipments available include: several multi-channel EEG systems (BrainProducts and EGI) including a high-density 256-channel EEG system, a PET scanner (Siemens) and TMS system for studies of the human brain, and another PET scanner dedicated to small animals (rats and mice).

Neuroscience is the main research interest of the Centre, including sleep studies, altered states of consciousness, brain-computer interface, Parkinson and Alzheimer diseases, movement coordination, memory processing, and effect of daytime light. The team is a multidisciplinary group of research fellows and seniors including neurologists, psychologists, engineers, biologists, chemists and physicists. The group has also close collaborations with the Wellcome Trust Centre for Neuroimaging, University College of London, United Kingdom.

The applicant will be part of the "Methods & Physics group". Several PhD projects are proposed based on EEG/fMRI experiments and real-time data processing, DTI and MR sequence development, data processing and analysis for the development of diagnosis and prognosis tools, and rat PET/MR imaging.

The applicant must have a master degree (or equivalent) in physics, engineering, computer science, computational neuroscience or related field. Prior experience with programming (C/C++ and Matlab) and MRI/EEG/PET data analysis as well as a background in neuroscience are preferred but not mandatory. To take part in this MC-ITN project, the applicant must have a EU passport and be fluent in English. Priority is given to highly motivated, innovative candidates with interest in developing new techniques to further understand brain functioning. Enthusiasm for working in a multidisciplinary environment is essential.

The MC-ITN in NeuroPhysics offers a 3 year grant, including travel allowance and training in the different partners' institution. A 4th year stipend will

be provided by the University of Liège. Co-diplomation by the University of Liège and another partner's institution is possible and strongly encouraged.

Please include the following to your application: cover letter, curriculum vitae, a statement of research interests and objectives, and the contact details of two references. For questions, further details about the PhD projects and application, please contact:

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