

Research/PhD position in Clinical Neuroengineering

University Medical Center Groningen, the Netherlands

The Department of Neurology of the University Medical Center Groningen invites applicants at the MA level for a two-year research position in Clinical Neuroengineering with the possibility to extend the position to a four-year PhD project.

Topic

Diagnosing Parkinson's Disease by neuromuscular function evaluation

The present project is part of the European project DiPAR, which will start shortly. DiPAR's aim is to deliver a novel diagnostic system for the early diagnosis of the onset of Parkinson's disease. The nine research and commercial partners will work together to develop an enhanced version of a unique hand-held pen device. The system will be taken through pre-clinical trials, conducted at the University Medical Centre Groningen to demonstrate the efficacy of the system. Parkinson's disease affects 5 citizens in every 1000 over the age of 60, is chronic, degenerative and currently incurable. Although there are promising therapies on the horizon, the best patient outcome available today can only be delivered on the basis of early and accurate diagnosis, which would lead to superior management and care planning, resulting in enhanced quality of life for the patient.

Tasks

- recruiting patients with a variety of movement disorders and healthy controls
- designing and running several experimental studies on patients and controls
- executing data analysis, using new techniques developed together with other partners in DiPAR
- preparing and attending DiPAR's international project meetings
- writing manuscripts for publication in international peer-reviewed scientific journals
- presenting research at (inter)national research meetings and conferences
- in preparation for PhD: taking courses and participating in meetings organized by the graduate school BCN

Supervisors

Prof. dr. ir. N.M. Maurits, Prof. dr. K.L. Leenders, Department of Neurology, University Medical Center Groningen, University of Groningen

This project will be executed in close collaboration with the other partners in DiPAR.

Requirements

- Master (MA, MSc) in technical medicine, biomedical technology or related field
- motivated and enthusiastic interest in clinical neurology and medical technology
- interest in and preferably experience with physiological recording techniques (e.g. EMG)
- interest in and preferably experience with research design, methodological developments and statistical analysis
- experience in using Matlab and SPSS
- excellent analytical, writing, presentation and communication skills
- capable of independent decision-making
- mastery of both written and spoken English (at least TOEFL paperbased 580, computerbased 240, internetbased 95 or IELTS 6.5)
- willingness to travel on a regular basis within Europe

Offer

We offer an interesting two-year full-time research position in an (inter)nationally engaged clinical brain research lab, using up-to-date technologies and state-of-the-art facilities. The project is financed by an EU-grant. We offer the perspective of prolongation for another two years to obtain a PhD on a topic related to the work in DiPAR, when the candidate shows the appropriate skills and interests. The conditions of employment comply with the Collective Labour Agreement for Medical Centers (CAO-UMC). The gross salary per month starts from €2086 (starting PhD student) and further depends on experience.

Organization

The Department of Neurology at the University Medical Center Groningen is part of the Faculty of Medical Sciences. Both supervisors in the project actively participate as senior scientists in the BCN Graduate School.

All experiments will be carried out using equipment developed within DiPAR, in combination with equipment of the Department of Clinical Neurophysiology.

Further information

Further information about the position can be obtained from Prof. dr. ir. N.M. Maurits (n.m.maurits@neuro.umcg.nl).

Additional information can be obtained through one of the following links:

- University Medical Center Groningen: www.umcg.nl/azg/nl/english/
- University of Groningen: www.rug.nl
- BCN Graduate School: www.rug.nl/bcn

Application

Applicants should send their (well motivated) letter of application, a curriculum vitae, a list of courses and grades, a proof of writing (e.g. Master's thesis) and the names and contact information (email, phone) of two referees to n.m.maurits@neuro.umcg.nl or to:

Prof. dr. ir. N.M. Maurits
University Medical Center Groningen
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The closing date for application is: December 15, 2010. The position will start as soon as possible.