Biomedical engineering and Human movement scientist PhD position in simulation of CP gait @ KU Leuven, Belgium/

The Human Movement Biomechanics Research group @ KU Leuven and her project partners from the Department of Movement and Rehabilitation Sciences, the University Hospital, and the Department of Mechanical Engineering are looking for 2 PhD student to work on the project SimCP: A simulation platform to predict gait performance following orthopedic intervention in children with cerebral palsy.

The project aims at modeling the musculoskeletal system and motor control of children with CP and at using these models to predict the effect of an orthopedic treatment on the gait pattern. The developed methods will be implemented and evaluated in the University Hospital Leuven and thereafter in the University Hospital Antwerp.

The biomedical engineering PhD candidate will collect the retrospective data, contribute to the methodological developments, generate predictive simulations, and support the implementation of the developed tool in the University Hospitals of Leuven and Antwerp. To receive full consideration for this position, prospective candidates must have earned a Masters degree in Biomedical Engineering or equivalent, with honors. The ideal applicant has a strong interest in biomechanics and a background in programming (Matlab, C++) and model-based simulation. He or she has the desire to work in a multi-disciplinary team. Experience with motion analysis and simulation of motion is highly desirable.

The human movement scientist PhD candidate will collect the retrospective data, contribute to the methodological developments, generate predictive simulations, and support the implementation of the developed tool in the University Hospitals of Leuven and Antwerp. To receive full consideration for this position, prospective candidates must have earned a Masters degree in Movement Sciences, Rehabilitation Sciences, or Biomedical Engineering. The ideal applicant has a strong interest in motion analysis and biomechanics and the desire to work in a multi-disciplinary team. Experience with 3D motion analysis, simulation of motion, and Matlab is highly desirable.

The applicant will also have a teaching and administrative assignment in the Bachelor or Master Program of the Faculty of Movement and Rehabilitation Sciences.

The initial appointment is for two years starting on December 1, 2014 and will be extended with two years upon positive evaluation (four years total). Applications are due on October 1, 2014. Interviews are planned in October.

For more information please contact Prof. dr. Ilse Jonkers, mail: ilse.jonkers@faber.kuleuven.be or Mrs. Friedl De Groote, mail: friedl.degroote@kuleuven.be.