PhD position in Biomechanics

The Biomechanics lab of the Institute of Mechanics, Materials and Civil Engineering at the UCLouvain (Belgium) is seeking applications for a PhD position in Biomechanics. The lab aims to apply an interdisciplinary, combinatory research approach, encompassing experiments, characterization and computational modelling, to solve different biomedical and biomechanical research questions.

PROJECT TOPIC
Intravascular stents are biocompatible, expandable tube-like porous materials that are applied for opening up narrowed arteries in the body. Intravascular stents have so far mostly been produced from non-degradable metals because of their high mechanical properties that are required to keep the final shape of the stents after their expansion, by for example balloon inflation, in the arteries. However, new advancements have been made during the latest decade in terms of degradable metallic materials. The general aim of this project is to obtain a better understanding of the structural and mechanical properties of biodegradable metallic intravascular stents, and to evaluate their in vivo performance. For this purpose, three highly advanced 3D evaluation tools will be applied and further optimized, which are all based on microfocus X-ray computed tomography (microCT). The proposed in-depth biomechanical characterization of the intravascular stents will allow to provide input for more intelligent and robust stent design.

REQUESTED PROFILE
The candidate will join our interdisciplinary research team and should have:
- an MSc degree in Mechanical/Biomedical Engineering, Bio-Engineering or a related discipline, and should be graduated with at least distinction
- a strong interest in experimental work, ranging from mechanical testing to imaging and image processing, and the combination thereof
- preferentially a background in imaging or image processing
- good communication skills in English, both spoken and written
- the capacity to act independently, within an interdisciplinary environment, and to take initiatives
- an interest in bridging the gap between the engineering and biological/biomedical sciences

WHAT WE OFFER
- a highly dynamic working environment, in a friendly international university city
- a young and dynamic interdisciplinary research environment
- a framework to boost intensive collaborations within the university, but also with other partners at the national and European level
- a competitive salary and social benefits

HOW TO APPLY
Interested applicants may contact Prof. Greet Kerckhofs (greet.kerckhofs@uclouvain.be) with “PhD in Biomechanics” in the topic of the email. Your application should include a motivation letter, a full CV with photograph, (potentially) a list of publications, academic transcripts, and contact information of two references. Applications will be reviewed immediately until positions are filled. Short-listed candidates will be contacted for a telematic or physical interview. The position should start as soon as possible, and no later than the 1st of January, 2018.

LINKS
Institute of Mechanics, Materials, and Civil Engineering: https://uclouvain.be/fr/node/3404
UCLouvain: http://www.uclouvain.be
Louvain-la-Neuve: http://en.wikipedia.org/wiki/Louvain-la-Neuve