

PhD / postdoc position on mass transport in the growth plate – Biomechanics section, KU Leuven

Prometheus, the division of Skeletal Tissue Engineering (TE) at KU Leuven, is an interdisciplinary platform focusing on skeletal TE research and technology transfer. The division's mission and focus is the development of consistent and clinically relevant TE concepts for skeletal applications. Research within this division is based on 6 research tracks, including among others stem cell technology, bioreactor development, in vivo models and multiscale computational modeling.

We are looking for a highly motivated, enthusiastic and interdisciplinary researcher (**PhD or postdoc position**) within the framework of a recently approved grant from the Research Foundation Flanders (FWO). Research will focus on the quantification of mass transport within the growth plate and hydrogel-based TE constructs in order to unravel the relation between mass transport properties and growth plate signaling. The researcher is expected to develop a quantitative framework that combines advanced optical microscopy and mathematical modeling techniques. PhD candidates must have a BSc/MSc and/or research experience in biomedical engineering, bioengineering, biophysics or equivalent. Postdoc candidates must have a PhD in a similar field and expertise on one or more of the following aspects: mass transport, advanced microscopy and/or mathematical modeling of biological systems. Candidates are expected to work with cell and tissue cultures.

The project is a joint research effort between the Biomechanics section (prof. Hans Van Oosterwyck), the Laboratory of Skeletal Development and Joint Disorders (prof. Frank Luyten, Dr. Scott Roberts) (both partners within Prometheus) and Molecular Imaging and Photonics (prof. Johan Hofkens, prof. Maarten Roeffaers) at KU Leuven.

More information on the Biomechanics section: <http://www.mech.kuleuven.be/en/bme/research>

More information on Prometheus: www.kuleuven.be/prometheus

More information on KU Leuven: <http://www.kuleuven.be/english/>

Applications will be reviewed immediately until positions are filled.

Send applications (including CV, list of publications and contact information of two references) to Hans Van Oosterwyck (hans.vanoosterwyck@mech.kuleuven.be) **before 1 February, 2012.**

Keywords: tissue engineering, mass transport, growth plate, computational modelling, advanced microscopy, bioreactor, hydrogel