

# ESMTB Infoletter

## June 2010



[www.esmtb.org](http://www.esmtb.org)

Dear colleague

with this ESMTB Infoletter you receive information about conferences, workshops, schools and open positions. Please send relevant information to be included in the next ESMTB infoletter to [info@esmtb.org](mailto:info@esmtb.org).

Best regards, Andreas Deutsch  
Dresden, 16th of June 2010

---

## Conferences

---

**SIGNET: Systems Biology of GPCR Signalling at University of Nottingham, Nottingham (UK)**

**Date: 2010-09-15 to 2010-09-16**

G protein-coupled receptors (GPCRs) represent important drug targets within the pharmaceutical industry. However, significant challenges remain for understanding the spatial and temporal profiles of GPCR-mediated signal transduction. Knowledge transfer between biology and mathematical science represents a powerful method to investigate complex aspects of GPCR function, such as receptor dimerisation, compartmentalisation and crosstalk. Systems Biology of GPCR Signalling 2010 will focus on quantitative experimental and modelling approaches to understand GPCR signalling, from ligand-receptor interactions to gene expression.

This multidisciplinary symposium is aimed at providing a relaxed interface between different scientific communities, encouraging lively debate, exchange of ideas and future collaborations.

There will be no cost for registration and accommodation will be provided for the night of 15 September 2010. Attendees are invited to submit abstracts for short oral or poster presentations, by filling in the appropriate section in the online registration form. The deadline for registration is 31 July 2010.

<http://www.cellsignet.org.uk/gpcr2010/>

---

## Open Positions

---

**Risk Assessor Mathematical Modeller at Sharnbrook, Bedfordshire (UK)**

**Deadline for applications: 2010-06-30**

Our thinking keeps Unilever in the lead as one of the largest and most successful FMCG companies. Its one of the reasons why, all over the globe, 150 million times a day, someone chooses one of our products to bring into their home. As a Risk Assessor with our Safety and Environmental Assurance Centre (SEAC), you will:

- Use your quantitative discipline and experience of biology to develop new risk assessment approaches for chemicals used in consumer products sold by Unilever across the globe
- Work in multidisciplinary teams including toxicologists, chemists and other modellers
- Build external acceptance of novel approaches through publication and external representation

In addition you will have opportunities to:

- Represent SEAC on interesting, fast-moving projects, collaborating with R&D
- Represent Unilever in external industry task forces, scientific conferences, workshops and discussion with regulatory bodies

There's no place in the industry in fact, no place in the world like the Safety and Environmental Assurance Centre (SEAC) at Unilever. Situated at the heart of our fast-paced, exciting consumer goods business, SEAC is solely dedicated to protecting employees, consumers and the environment at every stage of a product's lifecycle. Partnering with colleagues across the business, we are recognised externally as a global leader in safety.

We are looking to recruit a Mathematical Modeller with experience in mathematical biology, physiological based pharmacokinetic modelling, biophysics or systems biology.

This is the chance to tackle a variety of challenges, working across projects that pull in colleagues from diverse disciplines. You'll work alongside some of the industry's most respected thinkers, growing as a professional and enjoying opportunities to publish and present. And of course, you'll have fantastic career opportunities within a successful global company that's focused on winning every day.

To find out more about these roles and apply, please visit [www.unilever.co.uk/careers](http://www.unilever.co.uk/careers)

Closing date: 30/06/2010.

*Please contact:*

<http://www.unilever.co.uk/careers>

---

### **PhD position at University of Western Australia, Perth, Australia**

**Deadline for applications: 2010-06-30**

**Project Description** This position will be involved in a project on Multiscale modeling of fluid flow and solute transport through deformable porous materials. The PhD candidate will work closely with the CIs and research associates of the project (i.e., Drs Pivonka, Smith and Scheiner). Bone is a dynamic living tissue that permanently undergoes remodeling throughout life. Bone remodeling is the process by which old bone is replaced by new bone. This process is regulated by osteocytes, i.e., bone cells embedded in the bone matrix. These cells form a highly connected network embedded in the so-called lacunae-canalicular porosity of bone that allows them to readily respond to both biochemical and biomechanical changes. This project's aim is to formulate multiscale models of bone incorporating the lacunae-canalicular network and study solute transport, fluid flow and bone deformation behaviours. Outcomes of this project are expected to better understand the role and function of the osteocytic network in bone and they way osteocytes control bone remodelling.

**Required Skills** In order to register for a PhD, the applicant should have a Master degree or

equivalent. The applicant should have a strong background in solid mechanics, fluid mechanics, physics, and computing; he/she should be familiar with FEM, Fortran, Linux (or Unix), Matlab, and multi-physics finite programs like COMSOL or equivalent. English is the working language at the lab, and good written and communication skills are essential.

**Qualification required:** Master in Engineering (Civil Eng., Mech.Eng., Chemical Eng.), Mathematics, Physics, or equivalent.

**Value & Duration:** Living allowance stipend of 26.000 AUD/year (tax free) for a period of 3 years starting in August or September 2010;

**International Students:** Please note that this scholarship is for a living allowance only. Any prospective student must also apply for a SIRF Scholarship to cover the cost of international student tuition fees and health care cover.

To apply for, please send a Curriculum Vitae and a motivation letter by email.

*Please contact: Dr Peter Pivonka*

<http://biomed.csse.uwa.edu.au>

Download PDF [here](#)

---

### **PhD position at University of Western Australia, Perth, Australia**

**Deadline for applications: 2010-06-30**

This position will be involved in a project on Engineering Computational Biology. The role of the PhD candidate will be development of computational/mathematical models of biological systems. Models will be developed to integrate a wide range of biological processes including: tissue deformation, fluid-tissue interactions, cell population dynamics models, inter and intra-cellular communication (systems biology). Projects will cover aspects of cancer biology (specifically colorectal and prostate cancer biology), regenerative medicine (specifically tendon and cartilage damage and repair), developmental biology (specifically drosophila development and bone growth), oxygen balance in the kidney, and implant design for the treatment of glaucoma. Typically models will involve a combination of partial differential equations, ordinary differential equations and discrete methods on a range of scales (e.g. molecular dy-

namics, cellular automata). PhD candidates will be matched to projects based on expressed interests and suitability according to their background experience.

In order to register for a PhD, the applicant should have a Master degree or equivalent. The applicant should have a strong background in solid mechanics, fluid mechanics, physics, and/or computing; he/she should be familiar with FEM, Fortran, Linux (or Unix), Matlab, and multiphysics software like COMSOL or equivalent. English is the working language at the lab and good written and communication skills are essential.

Qualification required: Master in Engineering (Civil Eng., Mech.Eng., Chemical Eng.), Mathematics, Physics, or equivalent.

Value & Duration: Living allowance stipend of 26.000 AUD/year (tax free) for a period of 3 years starting in August or September 2010;

International Students: Please note that this scholarship is for a living allowance only. Any prospective student must also apply for a SIRF Scholarship to cover the cost of international student tuition fees and health care cover.

To apply for, please send a Curriculum Vitae and a motivation letter by email.

Please contact: [Dr Bruce Gardiner](mailto:Dr Bruce Gardiner)

<http://biomed.csse.uwa.edu.au>

[Download PDF here](#)

---

## PhD-Students at Max Planck Institute for the Biology of Ageing, Cologne (Germany)

### Deadline for applications: 2010-07-31

The Max Planck Institute for the Biology of Ageing was founded in 2008 and is quickly becoming the centre of a unique network of research institutes dedicated to related questions. In our institute, scientists are using a number of different model systems combined with theoretical approaches to

address this fundamental question in biology.

### Our Interests

Our group has the following projects to offer: analysis and integration of biological data (NGS, expression-, functional screens, proteomics); algorithm development for sequence analysis (proteins, nucleic acids); motif discovery (proteins, nucleic acids); software development for biological research; understanding epigenetics in ageing; We work in very close collaboration with biological research labs here in Cologne, as well as world-wide.

### Your Qualifications

You hold a master degree or diploma in one of the following fields: Biology, Bioinformatics, Physics, Mathematics or Computer Sciences. Programming experience is required (Perl or Python; additional knowledge of Java or C/C++ would be a plus). The working language of our institute is English.

### What we can offer

We can offer you an interesting and diversified PhD position in an international environment. You will furthermore have the possibility of attending training courses and international conferences. Payment follows the Tarifvertrag des öffentlichen Dienstes (TVöD) and you will get a number of social benefits. The Max Planck Society aims at employing more disabled persons, applications of disabled persons are therefore highly requested.

### Are you interested?

If so, please send us your complete application including 2 letters of references or 2 names of referees as a pdf-file per e-mail to [personal@age.mpg.de](mailto:personal@age.mpg.de) with cc to [BHabermann@age.mpg.de](mailto:BHabermann@age.mpg.de) using the code number 09/2010 until the 31.07.2010 latest.

Max-Planck-Institut für Biologie des Alterns  
Kennziffer 09/2010  
Gleueler Str. 50a  
50931 Köln

Please contact: [personal@age.mpg.de](mailto:personal@age.mpg.de)

[Download PDF here](#)