

## IMPERIAL COLLEGE LONDON

### Department of Electrical & Electronic Engineering Centre for Bio-Inspired Technology

#### PhD Studentship in Bio-Inspired Devices

Applications are invited for a PhD studentship funded by the A.G. Leventis Foundation, to be filled by October 2011. This role will be based at the Centre for Bio-Inspired Technology within the Department of Electrical and Electronic Engineering and will use state-of-the-art facilities at the Institute of Biomedical Engineering. This is a truly interdisciplinary environment with laboratories for microelectronics, device fabrication and characterisation as well as biochemistry, bionanotechnology and genetics.

The outline of the project is presented below:

Never has the merge between biology and engineering been so strong, with innovations in medical devices been driven by emerging micro/nano-fabrication techniques. In vitro platforms for growing, controlling and monitoring cells and tissues have applications in testing the efficacy and safety of drugs, surgical tissue transplantation, organ-assist devices, and eventually, engineered patient-specific organs. Our long-term goal is to investigate scientific and technological aspects of tissue engineering that encompass cell and tissue growth in micro-fabricated bioreactors and scaffolds, cell signal transduction and mechanical characterization of cells and tissues. This project will therefore aim to exploit conventional micro/nano fabrication techniques for advancing existing cell-culturing platforms. This research will be developed in collaboration with Prof. Sir Magdi Yacoub and the National Heart and Lung Institute at Harefield Hospital.

The ideal candidate should have a background in microelectronics with experience in micro/nano fabrication techniques and an interest in biomedical engineering. They should have a 1st class undergraduate degree (or equivalent) in electronic engineering or a related subject. This studentship is available to **Greek/Cypriot** origin applicants for a period of 3 years. The Centre will provide research experience in one of its programmes, training, laboratory facilities and access to its seminar and lecture programmes. Students would be encouraged to attend three major conferences during their period of study and would have access to all Imperial's facilities for wider study, including the libraries, and recreation. The A.G. Leventis Foundation will fund students for their College fees, a bursary to cover living expenses (£15,590 per year), travel funding for conference attendance and a contribution towards research consumables.

Prospective candidates are encouraged to contact Dr Themistoklis Prodromakis ([t.prodromakis@imperial.ac.uk](mailto:t.prodromakis@imperial.ac.uk)) directly for further details.

To apply please send a CV, relevant publications, the names of two referees and a covering letter explaining your current interests and relevant background to Wiesia Hsissen, Department of Electrical & Electronic Engineering, Imperial College London, Exhibition Road, London SW7 2BT. We encourage applications by email to [w.hsissen@imperial.ac.uk](mailto:w.hsissen@imperial.ac.uk). Please note that the successful candidate will be asked to submit a PhD research application to Registry to ensure they have met the College's admissions criteria. More information on the Centre for Bio-Inspired Technology can be accessed at: [www.imperial.ac.uk/bioinspired](http://www.imperial.ac.uk/bioinspired)