



Career Development Fellow
MRC Band 4 Salary £29,330 - £35,010 pa inclusive
London W12

We are seeking an outstanding scientist who has recently completed doctoral studies to work in the group of Professor Vasso Episkopou at the MRC Clinical Sciences Centre (CSC), which is funded by the MRC and is a Division of the Faculty of Medicine, Imperial College based on the Hammersmith Hospital Campus

<http://www.csc.mrc.ac.uk>

Career Development Fellowships are designed as a 3 year post to support post-doctoral scientists in training, and help them establish an independent academic career.

The aim of the project is to address the intracellular regulation of the Transforming Growth Factor (TGF) beta signalling in development and disease. Understanding the mechanisms of germ layer formation and patterning will provide the foundations for stem cell differentiation and therapies. Furthermore, as deregulation of signalling during adult life leads to disease most notably cancer, our research will shed light into tumour formation and metastasis.

Project description: Nodal/ TGFbeta signalling establishes a variety of cell fates during gastrulation in the embryo. These different functions of Nodal are thought to depend on different levels of signalling. The role of intracellular regulators (repressors, activators, de-repressors) in altering the strength and the duration of TGFbeta signalling remains unclear. Ubiquitin like modifications is the dominant mechanism of TGFbeta signalling regulation. The research will address the role of intracellular regulation in achieving different cell fates and the involvement of Arkadia, an E3 ubiquitin ligase, in this.

Selected references:

Mavrakis KJ, et al. (2007) Arkadia enhances Nodal/TGF-beta signaling by coupling phospho-Smad2/3 activity and turnover. PLoS Biol 5: e67;
Episkopou, V., et al. (2001). Induction of the mammalian node requires Arkadia function in the extraembryonic lineages. Nature 410, 825-30.

Requirement for the position

- PhD in disciplines related to Developmental Biology or Signalling
- Expertise in at least 2 of the following:
 - Molecular biology (generation of DNA constructs, DNA and RNA analysis)
 - Biochemistry/protein analysis (western blotting; immunoprecipitations)
 - Developmental biology techniques (dissections histology and in situs)
 - Tissue culture and expression assays (luciferase, immunocytochemistry)

Informal enquiries: vasso.episkopou@csc.mrc.ac.uk

To apply go to: <http://www.csc.mrc.ac.uk/Vacancies/posts/CSC08129.asp>

Include a cover letter and a CV. If you experience technical difficulties please call 01793 301154 quoting the reference number **CSC08/129**.

Closing Date: **8 April 2008**

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