Studentship in Cell Biology

The role of novel, tolerance-inducing NCEs on intracellular protein trafficking in immune cells.

Prof. D Sansom, Dr S.Minogue and Dr O.Qureshi

A fully funded BBSRC / CASE studentship is available between UCB Pharma and University College London. The aim of the project is to investigate potential new pharmaceutical approaches to manipulating immune responses. The studentship will study novel chemical entities targeting lipid kinases for effects on protein trafficking in immune cells. Correct protein trafficking is important in numerous aspects of immune function, including maintaining immune tolerance and regulation, secretion of cytokines and antibodies and the interpretation of chemotactic cues.The project will involve, cell biology, molecular biology, immunology and the use of high resolution confocal microscopy to study protein trafficking of immune targets and their response to specific inhibition.

The studentship is available to UK and students resident in the UK for a period of 3 years or more and will provide a stipend of £17,726 per annum for up to 4 years.

The applicant will hold at least a 2:1 in a cell biology related discipline and should be in a position to take up the post in 2014.

References:

1. Walker LS, Sansom DM. The emerging role of CTLA4 as a cell-extrinsic regulator of T cell responses. Nature Reviews Immunology. 2011; 11:852-63

2. Clayton EL, Minogue S, Waugh MG. Mammalian phosphatidylinositol 4-kinases as modulators of membrane trafficking and lipid signaling networks. Prog Lipid Res. 2013; 52:294-304.

3. Qureshi OS, Zheng Y, Nakamura K, Attridge K, Manzotti C, Schmidt EM, et al. Trans-endocytosis of CD80 and CD86: a molecular basis for the cell-extrinsic function of CTLA-4. Science. 2011; 332:600-3.

4. Qureshi O, Kaur S, Hou TZ, Jeffery LE, Poulter NS, Briggs Z, et al. Constitutive clathrin-mediated endocytosis of CTLA-4 persists during T cell activation. JBiolChem. 2012; 287:9429-40.

5. Minogue S, Waugh MG. Lipid rafts, microdomain heterogeneity and inter-organelle contacts: impacts on membrane preparation for proteomic studies. Biol Cell. 2012 Oct;104(10):618-27. doi: 10.1111/boc.201200020.