JOB DESCRIPTION

Research Fellow/Clinical Lecturer, Academic Anaesthesia and Pain Medicine

Title & Grade: Research Fellow (Out of programme post) for one year, with option for: Clinical Lecturer (ST/SpR Grade) In-programme post for a second year

Department: Academic Anaesthetics Unit / Department of Anaesthesia

Tenable for: One year, with an option for extension into a second year

Responsible to: Prof. R Langford, Director
Dr Vivek Mehta Deputy Director
Dr Serene Chang, Consultant
Pain and Anaesthesia Research Centre, SBH.

Location: The academic components of the Anaesthesia, Critical Care and Pain Medicine CAU, comprise the Pain and Anaesthesia Research Centre (PARC), led by Professor Richard Langford, and located at St Bartholomew’s Hospital and academic critical care under the leadership of Professor Charles Hinds. The lecturer’s post is one of 11 PARC research staff, who pursue studies at all BLT sites and Queen Mary College, University of London. The medical school affiliation is with the William Harvey Research Institute at Charterhouse Square.

The department: PARC members of staff:

Professor Richard Langford, Director
Dr Vivek Mehta, Deputy Director
Dr Serene Chang, Deputy Director, Anaesthetics Laboratory
Dr T Wodehouse (post-doctoral scientist)
Clinical Lecturer (this post)
Medical research fellows,
Research nurses and scientists
and a number of associated consultants with active research interests.
PARC has an international reputation and many publications in two main research interests: pain medicine and clinical monitoring, and has a long track record in training and supervision in the methodology and conduct of research.

**Brief Description:**

**Research:** The post holder will pursue research under Prof. Richard Langford’s, Dr Vivek Mehta’s and Dr Serene Chang’s supervision. Research projects in **anaesthetic (including high risk / intensive care patients) and pain related** areas would be agreed. As well as recruiting patients for ongoing research, to support current studies, the post holder will be involved in writing research ethics applications and study protocols. He or she will thus also gain valuable experience in setting up studies, as well as completing their own research project. A full range of computer facilities is available within the department including on line access to journals and statistical and bibliographic software.

It is expected that the post-holder will pursue the attainment of research / academic publications, with enrolment for a higher degree encouraged for those with academic career intentions.

**Current ongoing and proposed projects**

**Opioid Immunosuppression:** As collaboration with CRUK, a research program is underway to investigate the opioid induced immunosuppression by Gene expression profiling of various immunomarkers including in vitro CD4, CD8 and NK cells activity. *(Investigator initiated grant 257K)* Besides leading to a PhD, this research program activity would support a planned grant application for a large long-term, clinical outcome study with huge significance on the peri-operative management of cancer patients.

**Pharmacokientic and Safety studies:** We have been the leading centre in several pharmacokinetic and safety studies of emerging molecules and drugs (NEJM 2007, Clinical Pharmacology and Therapeutics 2008). A programme of investigating the CNS pharmacokinetics of cyclo-oxygenase inhibitors is underway *(Investigator initiated grant >100k)* and would help characterise the mechanism of these group of drugs.

**European Pain Outcome Research Grant:** We are the only UK centre for the PAIN-OUT, an EU FP7 funded project (Grant >250K) with the aim of developing and validating a system for measurement and feedback of outcome quality and support of decision making in postoperative pain. The system will allow comparison of quality of postoperative care between different countries and health care settings and provide clinicians with real-time treatment recommendations based on measured patients' outcome.

**Interventional Pain Studies- British Pain Society IPMSIG projects:** The Pain and Anaesthesia Research Centre has been designated the co-ordinator for the feasibility of National Interventional Pain Medicine Research for low back pain under the British Pain Society Interventional Pain Medicine Specialist Interventional Group (IPM-SIG). This group has been entrusted with the task of developing and designing a coherent and achievable research strategy and academic grants for interventional pain medicine on the behalf of the British Pain Society. A series of nested studies on
coherent theme of establishing diagnosis and treatment in the back pain are being developed.

**Clinical Monitoring Studies:** We have long standing links with the Professorial Biomedical Engineering Research Group at City University, which has resulted in translation of applied physics into innovative monitoring techniques. Our research focuses on opto-electronic technology for patient monitoring. Emphasis is placed on the development and evaluation of opto-electronic sensors for both non-invasive and invasive clinical monitoring applications. This collaborative research has attracted support from public funders including the Engineering and Physical Sciences Research Council. One of the projects in this research theme, in the form of opto-electronic splanchnic monitoring was awarded the Anaesthetic Research Society’s Gold Medal in 2009, for the best presentation of that year.

Selected Publications from PARC over the last six years:

**Original articles**

- Kyriacou PA, Pal SK, Langford RM, Jones DP. Electro-optical techniques for the investigation of oesophageal photoplethysmographic signals and blood oxygenation in burns. J Inst of Measurement and Control (ISSN 0020-2940) 2006; 39 (3) 77-9
- **Phillips JP, Langford RM**, Kyriacou PA, Jones DP. Optical fibre catheter photoplethysmograph. J Inst of Measurement and Control (ISSN 0020-2940) 2006; 39 (3) 84-7
- Sarah E Benson, **Stuart Ratcliffe, Ella van Raders**, Patricio G Schlottmann, Ifty Khan, Richard Newsom, **Richard M Langford**, David G Charteris. A randomised comparison of parecoxib/ valdecoxib and placebo for the


- **Chang SH, Maney KM, Mehta V, Langford RM.** Pain Assessment and Management in Medical Wards: an area of unmet need. Postgrad Med J. 2010 May; 86 (1015): 279-84

- **Chang SH, Maney KM, Phillips JP, Langford RM, Mehta V.** A prospective, randomised, double-blind, placebo-controlled investigation of the respiratory effects of oxycodone versus morphine in anaesthetised patients. 2010 65(10): 1007-1012


- **Wodehouse T, Kidd B, Langford RM**, Normalisation of widespread hyperalgesia and facilitated spatial summation of deep-tissue pain in knee osteoarthritis patients after knee replacement Arthritis & Rheumatism *in press*

**Editorial**

- **Langford R M, Mehta V** Are COX-2 selective inhibitors safe for post-operative pain--Yes and No. *International Journal of Acute pain*. 2006; 8: 95-

- **Langford RM.** Pain management today – What have we learned? Clin Rheumatology. 2006; 25(7): 2-8

• **Langford RM.** Pain: non-malignant disease for current opinion in supportive and palliative care. Current Opinion in Supportive and Palliative Care 2008; 2:114–115

• **Mehta V.** Peripheral opioid antagonism. *Anaesthesia* 2009; 64: 1279-83

• **Mehta V, Shah S.** Paracetamol- the forgotten drug. 2010 *Br J Hosp Med* 71 (11); 606-7

**Review articles**

• **Mehta V, Langford RM.** Acute pain management in opioid dependent patients. *Anaesthesia*. 2006; 61: 269-76


• **Langford R M, Mehta V.** Selective cyclooxygenase inhibition: its role in pain and anaesthesia. *Biomedicine and Pharmacotherapy*. 2006; 7: 323-328

• Shafqat K, **Langford RM, Jones DP, Kyriacou PA** Filtering techniques for the removal of ventilator artefact in oesophageal pulse oximetry. Medical & Biol Engineering & Computing. 2006, 44(8) 729-37


• **RR Byreddy, N RANDIVE, RM Langford.** Cyclooxygenase Inhibitors - An Update. Current Opinion in Pall Care.


• **Chang SH, Mehta V, Langford RM.** Acute and chronic pain following breast surgery *Acute Pain*. 2009; 11: 1-14

• **Mehta V, Langford RM.** Acute pain management in opioid dependent patients. *Reviews in Pain* 2009; 3 (2): 10-14

• Kumar P, Nargund V, **Mehta V.** Chronic testicular pain management-a review. Urol Int. 2010; 84 (2):125-31

• **Snidvongs S, Mehta V.** Pulsed radiofrequency – a non-neurodestructive therapy in pain management. *Current Opinion in Palliative & Supportive Care-* 2010; 4(2): 107-10

• **Snidvongs S, Mehta V.** Recent advances in opioid prescription for chronic non-cancer pain. *Postgrad Med J* doi:10.1136/pgmj.2010.112045

• **Shah S, Mehta V.** Recent advances in non-opioid prescription for chronic non-cancer pain. *Accepted Postgrad Med J. in press*

• Randive S, **Mehta V.** Breakthrough pain- novel analgesics. Accepted by *Current Pharmaceutical Analysis*
Chapter

- Transition from acute to chronic pain states. Mastectomies; Procedures, Types and Risks. Husband M, Chang SH, Mehta V. Chapter for book, accepted by Nova publishers, due March 2012

Teaching: The post holder will participate in undergraduate anaesthetic teaching and exam orientated teaching for junior members of the department. Other teaching commitments will include occasional lectures/tutorials to medical students, nurses and trainee operating department personnel. There is flexibility within the post to pursue other teaching opportunities depending on individual interest.

The post will be covered by the same arrangements for study leave and supervision that apply to trainees in PMETB approved posts.