Postdoctoral Scientists – Molecular Oncology

- Reference number: PI/12/07
- Four positions
- Salary in the range of £28,500 - £38,000 (dependent upon qualifications and experience)
- Three year fixed-term contracts

The Paterson Institute for Cancer Research, an Institute of The University of Manchester, is a world leading centre for excellence in cancer research. The Institute is core funded by Cancer Research UK, the largest independent cancer research organisation in the world. Our aim is to gain greater understanding of the fundamental basis of cancer development and apply that knowledge to develop new diagnostic tests, improved predictors of outcome and new treatment strategies. Our advanced research programmes therefore span the spectrum of cancer research, from the molecular and cellular basis of cancer, through to drug discovery to translational and clinical research. The Institute has outstanding laboratory facilities and exceptional core services, including microarrays, confocal microscopy, bioinformatics, histology and mass-spectrometry. We are situated in Manchester, England, a vibrant and dynamic city surrounded by some of the most beautiful countryside in the UK. The national and international transport links to Manchester are excellent.

Four post-doctoral scientist positions are available for ambitious scientists who wish to join the Molecular Oncology Group. We are active in the field of cancer cell signalling (See: Cancer Cell 2009, 15: 294; Cell 2010, 140, 209; Cancer Cell 2011, 19: 45; New England Journal of Medicine 2012, 366: 207; Genome Research 2012, doi:10.1101/gr.125591.111) and use a variety of standard and cutting edge techniques (molecular and cell biology, transgenic models, mass-spectrometry, next generation sequencing, molecular pathology, etc) to study basic cancer biology with the aim of translating our basic research discoveries into clinical benefit for patients.

Project 1 is a Cancer Research UK funded three-year position to examine how BRAF mutant melanoma cells evade senescence and why they appear to be under greater replicative stress than BRAF wild-type melanoma cells. This project will take advantage of the transgenic mouse models that we have developed and a key aim is to determine if this response can be exploited therapeutically.

Project 2 is a Cancer Research UK funded three-year position to develop a project investigating the role of metabolism or inflammation in melanoma. Again, this project will exploit our existing melanoma models, focusing on gene-gene and gene-environment interactions in melanomagenesis.

Project 3 is a Cancer Research UK funded three-year position to investigate the
role of lysyl oxidase (LOX) and the related proteins in metastasis. LOX is a secreted enzyme that modifies the extracellular matrix to prepare the pre-metastatic niche for metastatic dissemination of tumour cells. In collaboration with Prof Caroline Springer at the Institute of Cancer Research, London we are developing therapeutic LOX inhibitors and the purpose of this post is to develop a basic research project to support that programme.

Project 4 is a Kay Kendall Leukaemia Fund funded three-year post to investigate the interplay between chronic myeloid leukaemia cell survival and the RAF pathway. This study follows up on our recent discovery that the anti-CML drug nilotinib induces paradoxical activation of the RAF pathway in drug-resistant CML cells and that this makes the cells dependent on the MAP kinase pathway for survival (see Cancer Cell 2011, 20: 294).

Applicants will hold a PhD in cell biology, biochemistry, immunology, inflammation biology or a relevant field, and have excellent laboratory, analytical and presentation skills. They will work closely with other team members. For each post, experience in a relevant area of cancer cell signalling will be an advantage.

Informal enquiries should be directed to Professor Richard Marais: rmarais@picr.man.ac.uk

To apply for this position please visit our website: www.paterson.man.ac.uk
For applicants who are unable to download this information from our website, please contact HR department on 0161 446 3231, email: jobs@picr.man.ac.uk to have this information sent by post.

The deadline for receipt of applications is 2nd March 2012 and interviews will take place during the weeks commencing 12th and 19th March 2012.