



School of Pharmacy PhD Projects 2014

Project Title Elucidation of mechanisms regulating CCL2 expression

Supervisors Dr Roberta Burden, Prof Chris Scott and Dr Paul Mullan

Description CCL2 is a potent chemokine that is primarily involved in the recruitment of monocytes/macrophages in many inflammatory diseases. This project is focused on the hypothesis that CCL2 expression can be transcriptionally regulated by proteolytic activity by as yet undetermined mechanisms. This project will evaluate the transcriptional regulation of CCL2 expression in a number of cell types in order to determine if this regulation is cell-type specific. Following this, the molecular mechanisms mediating this regulation will be elucidated. Preliminary data implicates several potential mechanisms by which this effect is mediated and expertise within these research groups will be utilized to underpin this regulation in more detail. The clinical relevance of these findings will be evaluated through the interrogation of clinical material and relevant *in vivo* models.

The successful candidate will join two dynamic research groups, with strengths in chemokine biology and transcriptional regulation. This project will enable the student to acquire an extensive skill set by interrogation of cell-based, *in vivo* models and clinical samples.

Start Date 1 October 2014

Keywords Chemokine, protease, transcription

Contact Details

pharmacypostgrad@qub.ac.uk

How to Apply

Postgraduate applications should be made using Queen's Online:

<http://go.qub.ac.uk/pgapply>

Please note that there are two application processes: one for admission to the university and another for postgraduate awards.

Further Information

Additional information for prospective postgraduate students can be found on the School of Pharmacy website:

<http://www.qub.ac.uk/pha>

and the Queen's Postgraduate website:

<http://www.qub.ac.uk/home/ProspectiveStudents/PostgraduateStudents/>