MRC-funded IMPACT (Integrated Midlands Partnership for Biomedical Training) Doctoral Training Partnership 3.5 Year PhD Studentship available for September 2019

**Department:** Department of Respiratory Sciences

**Supervisors:** Prof Gooptu and Dr Quigley

**Eligibility:** UK/EU applicants only

**Project Title:** Converting insult into injury: Cellular and structural biology studies of a macromolecular complex that links inflammation with scarring in fibrotic disease.

**Project Description:**

**Abstract:** 45% of deaths in the developed world arise as a result of fibrosis – replacement of normal tissue with scar. Fibrosis is a basic response to severe or sustained insult. If confined, fibrosis can limit further tissue damage, but when widespread it leads to organ failure, cancer risk, and death. We study how different insults cause fibrosis, focusing on lung and liver disease. We have recently identified a molecular complex that represents a junction between acute inflammation and chronic scarring pathways, and may be an important target for future drug therapies. This project will use state-of-the-art cellular and structural biology approaches to understand the molecular details of how the complex assembles, works, and may be targeted by drugs. It will be studied in the context of intracellular (glycoprotein misfolding) and extracellular (bacterial molecule) insults. The work is excitingly cross-disciplinary (membrane protein crystallography, cryo-EM, cell biology, and integration within clinical/translational studies). It is also cross-institutional (Leicester Institute of Structural and Chemical Biology, NIHR Leicester BRC, Research Complex at Harwell, Diamond Light Source). The supervisors span these institutions and areas of expertise, from clinical to atomic resolution studies, and can offer outstanding training and support.

Interviews will be held in the week commencing the 11th February 2019.

**Funding details:** MRC IMPACT DTP

**Entry requirements:**

Applicants are required to hold/or expect to obtain a UK Bachelor Degree 2:1 or better in a relevant subject. The University of Leicester [English language](#) requirements apply where applicable.

**How to apply:**
Please apply via: https://more.bham.ac.uk/mrc-impact/phd-opportunities/

Project / Funding Enquiries:
Prof Gooptu (bg129@leicester.ac.uk) or Dr Quigley (andrew.quigley@diamond.ac.uk)

Application enquiries to mrc-impact@contacts.bham.ac.uk

Closing date for applications 20th January 2019