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Dr Dean Kavanagh PhD, BMedSc

Research Fellow

Cardiovascular and Respiratory Sciences

Contact details

Email d.kavanagh@bham.ac.uk (mailto:d.kavanagh@bham.ac.uk)

School of Clinical and Experimental Medicine
College of Medical and Dental Sciences
Institute of Biomedical Research
University of Birmingham
Edgbaston
Birmingham
B15 2TT
UK

About

Dr Kavanagh is a Postdoctoral Research Scientist based in the Centre for Cardiovascular Sciences in the School of Clinical and Experimental Medicine.

Qualifications

- 2009 - PhD (Medicine), University of Birmingham
- 2005 – BMedSc (Hons) Pharmacology, University of Birmingham

Teaching

BDS Yr 1 DRE-Digestion SGTs

MBChB Yr 1 Integrated Professional and Academic Skills

Research

Working under the supervision of Dr Neena Kalia, Dr Kavanagh's research is focussed on Hematopoietic and (HSC) mesenchymal stem cells (MSC) can migrate to injured tissues and help in tissue repair. However, the events that govern their recruitment to injured tissue microcirculation are unclear. Therefore, our research focuses on examining the molecular adhesive events involved in HSC/MSC recruitment to different vascular beds following injury, including the liver, gut, kidney and muscle. Inflammatory and stem cell trafficking is monitored predominantly by state-of-the-art confocal based intravital microscopy which allows real-time and dynamic microcirculatory images to be captured in vivo. This technique allows numerous microcirculatory disturbances to be quantitated including the various events of the adhesion cascade (rolling/adhesion/transmigration) and also changes in vascular integrity.

Publications

White RL, Nash G, Kavanagh DPJ, Savage COS, Kalia N. Modulating the Adhesion of Haematopoietic Stem Cells with Chemokines to Enhance Their Recruitment to the Ischaemically Injured Murine Kidney. **PLoS ONE** 2013 Jun 8(6): e66489

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