Andrew Devitt

Professor, School of Biosciences at Aston University
Birmingham, , GB

Professor Devitt's research over 20 years has focused on the innate immune system and its role in protection and tissue repair.

Biography

As an inflammatory cell biologist, Professor Devitt's research over 20 years has focused on the innate immune system and its role in protection and tissue repair through the study of phagocyte clearance of dying (apoptotic) cells and microbial challenge. Research within his research group addresses membrane receptors/ligands and cell communication in this phagocytic clearance process. His current work aims to define the mechanisms by which apoptotic cells communicate via extracellular vesicles (EV). This BBSRC-funded work is revealing novel EV structure-function relationships that underpin tissue repair and regeneration capacity of EV from both apoptotic and viable cells, including mesenchymal stem cells. This research has introduced the concept that EV are an active extracellular metabolic compartment capable of modulating inflammation. The ultimate aim of this group?s research is to modify inflammation for therapeutic gain either through the inhibition of inflammation (e.g. in cardiovascular disease and regenerative medicine applications) or promoting inflammation (e.g. in tumours).

Areas of Expertise

Extracellular Vesicles, Intercellular Adhesion Molecules, Macrophages, Apoptosis, Phagocytes

Affiliations

Fellow of the Royal Society of Biology, Fellow of the Higher Education Academy , Member - UKEV: UK Extracellular Vesicle Society, Member - British Society for Immunology, Member - International Society for Extracellular Vesicles, Member - The Biochemical Society , Member - The Society For Leukocyte Biology , Member - European Cell Death Organization

Education

University of Birmingham
PhD

University of Manchester
BSc