

PI Seminar Series

Speaker:

Dr Xiao Nong Wang- Institute of Cellular Medicine

Venue:

Dental Lecture Theatre D

Date:

Wednesday 21st November 2018

Time:

13:00 – 14:00

Dr Xiao Nong Wang will present:

‘MSC-derived EVs in Immunomodulation and Regenerative Medicine’

Extracellular Vesicles (EVs) are bi-lipid membrane nanoparticles secreted by all cell types. They are effective intercellular signaling mediators by horizontal transfer of their bioactive cargo, including proteins, RNAs and microRNAs, into recipient cells whereby elicit biological responses of the recipient cells. The discovery that secreted EVs can recapitulate the function of their parental cells has provoked growing interest in exploring the potential clinical applications of EVs as disease biomarkers or therapeutic agents. Mesenchymal stromal cells (MSCs) are adult multipotent progenitor cells broadly used in clinical trials to treat diseases associated with immune dysregulation or tissue degeneration. Despite promising clinical benefit, the mechanisms underlying MSC therapeutic effect are not fully understood and the clinical efficacy of MSC therapy needs improving. Research into MSC-derived EVs (MSC-EVs) could shed new light on both aspects. In this talk I will give an introduction to the current MSC-EV research in the context of our own work investigating the modulatory effect of MSC-EVs on monocyte derived dendritic cells and chondrocytes derived from the cartilage from patients with osteoarthritis.

Chair: Dr Chris Ward