

ICM Research Seminar

Wednesday 24th January

Tom Pither

(Prof Andrew Fisher, Prof Simi Ali, Dr Bill Scott)

Modelling leukocyte-endothelial interactions in ex-vivo organ perfusion

Transplantation remains as one of the few viable interventions to treat end-stage chronic organ disease. However while demand has grown due to an ageing population, the supply of viable donor organs remains limited, by factors such as donor/recipient health, organ status and the transplant facility. Ex-vivo organ perfusion is an emerging technique that potentially provides a way in which an 'extended criteria' donor pool may be utilised. This project will build on previous work performed within the ICM and will aim to develop models to study the cellular and molecular interactions involved in ex-vivo perfusion, in order to elucidate more information concerning the processes that result in organ status declining over the course of treatment.

Dr Rachel Botting

(Prof Muzlifah Haniffa)

The developing human skin: insights from single cell RNA sequencing analysis

This study aims to investigate the array of cells present in developing skin through single cell RNA sequencing on cells isolated from fetal skin. Exploring these cells could provide insight into immune ontogeny, wound healing and regenerative medicine.

Xuefei Yu

(Prof Mark Walker, Dr Laura Greaves)

Does exercise protect the defected mitochondrial function in aged mice pancreas?

Mitochondrial DNA has an age-related accumulative mutation and deletion, causing mitochondrial dysfunction in every body organ including pancreas. PolG mutator mouse model is widely used as an ageing model because it shows how mtDNA mutagenesis can result in the development of ageing phenotype. Moderate exercise, which known as an important life quality improver, can also help rejuvenate mitochondrial function on a micro level. In our study, pancreatic mitochondria function can be characterised by assessing the impairment of the electron transport chain complexes using quadruple immunofluorescence assay.

Chair: Rashmi Maheshwari

Dental Lecture Theatre F, Medical School

1pm - 2pm