

# ICM Research Seminar

## Wednesday 6<sup>th</sup> December

**Dr Rachel Spiering**

(Dr Catharien Hilkens)

### **Tolerogenic immunotherapy with peptide-pulsed dendritic cells in inflammatory arthritis.**

Chronic inflammatory arthritis, including rheumatoid arthritis (RA) and psoriatic arthritis (PsA), are devastating autoimmune diseases affecting approximately 1% of the worldwide population. Currently available treatments alleviate symptoms but do not provide a cure. We previously developed a new type of immunotherapy using tolerogenic dendritic cells (tolDC), aiming to switch-off destructive immune responses long-term. The aims of this study are to i) specifically target the tolDC to relevant joint components and ii) to better understand the mechanisms of immune regulation induced by the tolDC.

**Amardeep Khanna**

(Prof D. Jones)

### **Metabonome & Microbiome Variability & Differential Risk in Primary Biliary Cirrhosis**

Primary biliary cirrhosis (PBC) is a rare autoimmune liver disease which arises through the combined effects of genetic and environmental factors. Our hypothesis is that individual variation in the gut microbiome, arising as a result of variation in the inherited maternal microbiome or modification of the microbiome throughout life (potentially by the use of antibiotics or immuno-suppressive drugs), dictates an individual's risk of developing a pathogenetic hydrophobic bile acid pool through variable microbiome modification of bile acids in the gut phase of the entero-hepatic circulation. Aim of our study is to better understand the factors underpinning the development of PBC in 'at risk' groups with a view to the future development of preventative strategies.

**Chair: Sviatlana Zhyzhneuskaya**

**Dental Lecture Theatre F, Medical School**  
**1pm - 2pm**