

## **ICM Research in Progress Seminar**

### **Monday 17<sup>th</sup> December**

**Christopher Dowson**

(Dr. J Taylor, Prof. P Preshaw, Dr. L Wakeling, Dr. R Valentine)

#### **An investigation of the credentials of a histone deacetylase as an age-related biomarker for periodontitis**

Preliminary data from our research group found that a histone deacetylase (HDAC) was the most highly elevated protein from a panel of 92 inflammation-related molecules in saliva samples from patients with periodontitis. For this reason we aim to investigate if this HDAC could be involved in the immunological processes relevant to periodontitis and therefore may qualify as a biomarker for periodontitis.

**Roisin Stout**

(Prof. M Birch-Machin, Dr. G Gorman, Prof. M Catt, Prof. S Dlay, Dr. R Stefanetti)

#### **Facial appearance and ageing in mitochondrial dysfunction**

Mitochondrial dysfunction have been linked to ageing since the 1950s, and patients with mitochondrial disease have genetic alterations that directly affect the respiratory chain and mitochondrial function. We will be assessing the facial appearance in a cohort of mitochondrial disease patients as a diagnostic biomarker, and assessing ageing and stress biomarkers to evaluate the role of mitochondria in ageing skin.

**Dr Hussam Elamin-Ahmed**

(Mr Oday Al-Dadah)

#### **Bone Mineral Density in Fracture Neck of Femur patients: What's the significance?**

NICE guidelines have advised further research is required into investigating the added prognostic value of Bone Mineral Density in the assessment of fracture risk with the FRAX score. The aim of this clinical study was to investigate the significance of bone mineral density in fracture neck of femur patients and compare it to the outcome of the FRAX score. Inclusion criteria for this study were all patients who underwent Dual-Energy X-ray Absorptiometry (DEXA) scans following fracture neck of femur between 2015 and 2017. Analysis of bone mineral density, FRAX scores and patient demographic data was undertaken.

**Chair: Laura Sabater**

**Dental Lecture Theatre D**

**1pm - 2pm**