

# **iSEQ and AU Interdisciplinary Network minisymposium on cancer evolution**

**Wednesday 5 October 2016 at 11.00 – 13.00**

## **PROGRAMME**

**11.00 – 11.45**

### **Talk: Molecular archaeology of cancer**

Speaker: Peter Van Loo, Cancer Genomics Francis Crick Institute, London.

#### **Abstract:**

The cancer genome contains within it an archaeological record of its past. We developed approaches to disentangle the subclonal architecture and the life history of cancers based on massively parallel sequencing data, collectively termed “molecular archaeology of cancer”. In an on-going pan-cancer analysis of 2,600 whole-genome sequenced tumours, we are gaining insights into the extent of heterogeneity in different tumour types and the order and timing of acquisition of genetic aberrations.

**11.45 – 12.15 lunch break**

**12.15 – 13.00**

### **Talk: The landscape of selection in cancer and somatic evolution**

Speaker: Inigo Martincorena, Wellcome Trust Sanger Institute, Cambridge.

#### **Abstract:**

Cancer is largely caused by somatic mutation and clonal selection. Yet, despite the central role of selection in cancer, tools to accurately quantify selection in cancer genomes are lacking. In this talk I will present my work towards refining tools from evolution to study selection in cancer. Applying these methods to 8,000 cancer exomes reveals that somatic evolution is characterised by a distinct and universal pattern of selection never seen in species evolution and clarifies the extent of positive and negative selection in cancer genomes. I will also briefly discuss our recent work unveiling the vast extent of somatic mutation and selection in normal skin.

#### **Venue:**

Auditorium A1, Building 1333 room 101, Barthoins Allé, 8000 Aarhus C.

#### **Refreshments:**

Sandwiches will be provided during the lunch break. Therefore, please email Anne Hedemand ([anne@biomed.au.dk](mailto:anne@biomed.au.dk)) no later than 3 October 2016, if you would like to participate.