WTDTP Projects for September 2022

Project Reference: T1/37

Project Title: **High dimensional predictive inference for precision immunotherapy of mesothelioma**

Theme(s): Theme 1: Genomics for drug development & pharmacogenetics

Primary Supervisor: Prof Dean Fennell (University of Leicester)

Secondary Supervisor(s): Prof Frank Dudbridge (University of Leicester)

Department: Genetics and Genome Biology

Project Summary: Immunotherapy has transformed the treatment of cancer over the last decade. Mesothelioma, a lethal cancer caused by asbestos responds to immunotherapy, however only a fraction of patients benefit, for reasons which are currently unknown. Following a positive clinical trial of an anti-PD1 inhibitor in mesothelioma, this project aims to utilise an advanced machine learning workflow to interrogate and extract features that accurately predict response to immunotherapy. The goal is to leverage high dimensional datasets to spearhead precision immunotherapy as a next generation approach to treating mesothelioma.