ETM/395 - Characterisation of genetic and epigenetic alterations in the VMP1/miR21 region in Crohn's disease - implications for pathogenesis and translation to clinical application

Crohn’s disease (CD) and ulcerative colitis (UC) are common chronic illnesses affecting between one and two percent of the Scottish population. They continue to have high morbidity and mortality in both children and adults in Scotland, with increasing incidence. Current medical and surgical therapies are unsatisfactory for many patients.

In recent studies of adults and children in Scotland we have identified alterations in two genes (VMP1 and miR21) which are strongly associated with susceptibility to CD, and now plan further work to understand the association between these genetic alternations and the development of disease. We will carry out experiments to understand the mechanisms whereby these alterations may increase the risk of CD; and we shall explore whether these genetic alterations may be useful in predicting susceptibility to disease, progression of the diseases, or response to current therapies and explore whether our findings provide new drug targets.