

**P025** A Strategy to Investigate the Role of MUC2 Mucin as a Tumour Suppressor in Colorectal Cancer

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MUC2 is the principal secreted mucin in the lower GI tract. Several studies, including muc2 knockout mice experiments have suggested that MUC2 may act as a tumour suppressor gene in colorectal cancer. The mechanism(s) through which MUC2 influences homeostasis and cancer protection in the GI tract could be: (a) a primary cell signalling effect (b) secondary through MUC2's role as a major barrier to pro-neoplastic products from the gut lumen or (c) a combination of these effects. This abstract defines a strategy to examine this effect in separate *in vitro* models of (a) tumour progression (modelling a primary effect for MUC2) and (b) the gut mucus barrier (modelling a secondary protective effect of MUC2). MUC2 expression in these models will be manipulated using both recombinant MUC2 and SiRNA. This will allow the different mechanism(s) through which MUC2 exerts its tumour-suppressive effect to be elucidated.