

**Dr S Pender - Southampton General Hospital**

**Grant awarded £74,202 (2 Years)**

***Functional polymorphism in the regulatory region of matrix  
Metalloproteinase genes in Inflammatory Bowel Diseases***

The inflammatory bowel diseases (IBD) are devastating, incurable conditions. They are more common (1:250-1:500) than many better-known conditions, but as diarrheal diseases, they are embarrassing and difficult to talk about for sufferers, and hence gain less publicity. The end-point of these diseases is the appearance of large ulcers in the delicate lining of the bowel. These ulcers are produced by uncontrolled inflammation and the actual tissue damage is caused by overproduction of enzymes which digest away the gut wall. There is a strong genetic tendency to develop IBD and there is also good evidence that the production of the molecules which digest the gut is also genetically controlled. In this work we will investigate if patients with IBD have genes, which make them genetically more likely to produce high levels of enzymes which can degrade the gut wall.