



## Genetic focus on IBD disease prediction

**29<sup>th</sup> April 2009, St Albans, Herts.** Scientists at the University of Cambridge and Addenbrookes Hospital are investigating whether gene biomarkers can be used to predict disease behaviour in patients suffering from inflammatory bowel disease (IBD).

The study could be a critical advance in the management of these distressing bowel conditions and would allow early targeting of aggressive medical treatments for those patients most likely to suffer severe, recurrent relapses and complications if treatments are applied too slowly. It would also enable those patients destined for a quiescent disease course to be managed with minimal therapy, avoiding the side effects that may be associated with certain treatments.

Funded with a £82,000 grant from the National Association for Colitis and Crohn's Disease (NACC), the two-year project is being co-ordinated by Dr James Lee of the Cambridge Institute for Medical Research.

Dr Lee explains, "The inflammatory bowel diseases, ulcerative colitis and Crohn's disease are chronic, relapsing, and often painful, conditions which result from inflammatory cells attacking various components of the intestine.

Despite recent advances in our understanding of the genetic causes of susceptibility to IBD, we do not know why two patients with an identical distribution of IBD may have very different disease courses. One patient may respond well to initial treatment and require very little ongoing therapy whereas the other may have to endure frequent disease flares and require repeated courses of steroids."

IBD affects around one in 400 people in the UK. Common symptoms include inflammation and ulceration of the intestine and colon, pain, severe diarrhoea, tiredness and weight loss. The

cause of the disease is yet to be definitively identified, although scientists believe it could be due to a combination of genetic predisposition and environmental factors. Currently, there is no cure and patients manage their condition with a mixture of lifestyle changes, anti-inflammatory drugs and, in severe cases, surgery.

Dr Lee continues, “Up until now there has been no way to predict how colitis or Crohn’s disease will behave after a patient has been diagnosed and this has led to both over- and under-treatment in certain cases.

“The importance of this study is emphasized by the growing recognition of the need to control inflammatory activity early so as to prevent disease escalation and serious complications such as strictures and fistulae. This is where the inflamed bowel wall becomes dangerously narrowed or forms abnormal connections with other nearby organs, both of which would require surgery.

“Using microarray-based profiling, we hope to identify the gene expression ‘signature’ which is associated with a particular pattern of disease activity. If we can achieve this, it will be possible to test for these genes early in the course of the disease and allow doctors to assign treatment that is not only tailored to the disease at that time, but also to how it will behave in the future, after the initial flare has resolved.”

The CEO of NACC, Richard Driscoll, explains, “Since 1984, NACC members have raised over £4.5 million and more than 100 research awards have been made to hospitals and universities throughout the United Kingdom. This year our Medical Research Committee selected three studies to receive NACC research awards which we hope will contribute to finding improved treatments and ultimately a cure for IBD. We welcome Dr Lee’s work on predicting disease patterns and how this study may enhance the treatment of IBD.” **ENDS**

**For further information on this release please contact:**

Sarah Rogers or Louise Johnson at the NACC Press Office

Tel: 01252 790507 or [louise@healthcare-pr.co.uk](mailto:louise@healthcare-pr.co.uk)