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News Release

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Crohn's study seeks to find causes of incurable bowel condition

British scientists are playing a key role in a global quest to find the causes of an incurable bowel condition.

Researchers at the University of Edinburgh are leading the UK's input into a major initiative to tackle Crohn's disease.

Understanding how the condition takes hold could explain why the incidence of Crohn's disease is rising dramatically in certain parts of the world, including Scotland.

It is hoped that the project's findings will help scientists to design better treatments. The researchers say it could also help them to give better health advice to the families of those affected.

Crohn's disease is a devastating, incurable, inflammatory bowel disease that often leads to a lifetime of abdominal pain, urgent diarrhoea, sickness and profound lethargy.

Scotland has one of the highest rates of Crohn's disease in the world. In young people, the incidence has doubled every ten years for the last four decades.

Currently there is no way to prevent Crohn's disease and it is not known why some people become ill while others do not.

The strongest risk factor for developing the condition is having a first degree relative who is affected. Nearly 200 genes have been linked to the illness but not everybody who inherits these genes will get the disease.

Diet is also thought to be important. So too are the bacteria that are found in the gut and the way the body's immune system interacts with them.

The study focuses on the immediate families of patients with Crohn's disease, rather than the patients themselves. Some of those family members will go on to develop the condition while many will not.

Participants are being asked to provide blood, urine and stool samples. They are also being asked to complete a questionnaire about their eating habits and other lifestyle factors.

Ranked among the top universities in the world

The Genetics, Environmental, Microbial (GEM) project is organised by Mount Sinai Hospital in Toronto Canada. Researchers from the University of Edinburgh's Centre for Genomic and Experimental Medicine are coordinating the UK's contribution to the study. They hope to recruit 1000 relatives of Crohn's patients from hospitals across the country.

Dr Charlie Lees, a consultant gastroenterologist and honorary senior lecturer at the University of Edinburgh, said: "Over the last ten years we have made significant progress in understanding the genetic underpinnings of Crohn's disease. However this only accounts for about a third of why somebody gets the disease. We need to look at healthy people and follow them over time to truly understand which factors cause the condition and which are consequences of the inflammation in the gut that occurs as part of the disease."

Helen Terry, Director of Research at Crohn's and Colitis UK, said: "Crohn's Disease is a devastating and life-long condition, with an increasing prevalence in younger people. While scientists have learned a great deal about the disease and significant advances have been made in research, there are still many unanswered questions. We urgently need a better understanding of what causes this disease and we are excited by the potential of the GEM research project."

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