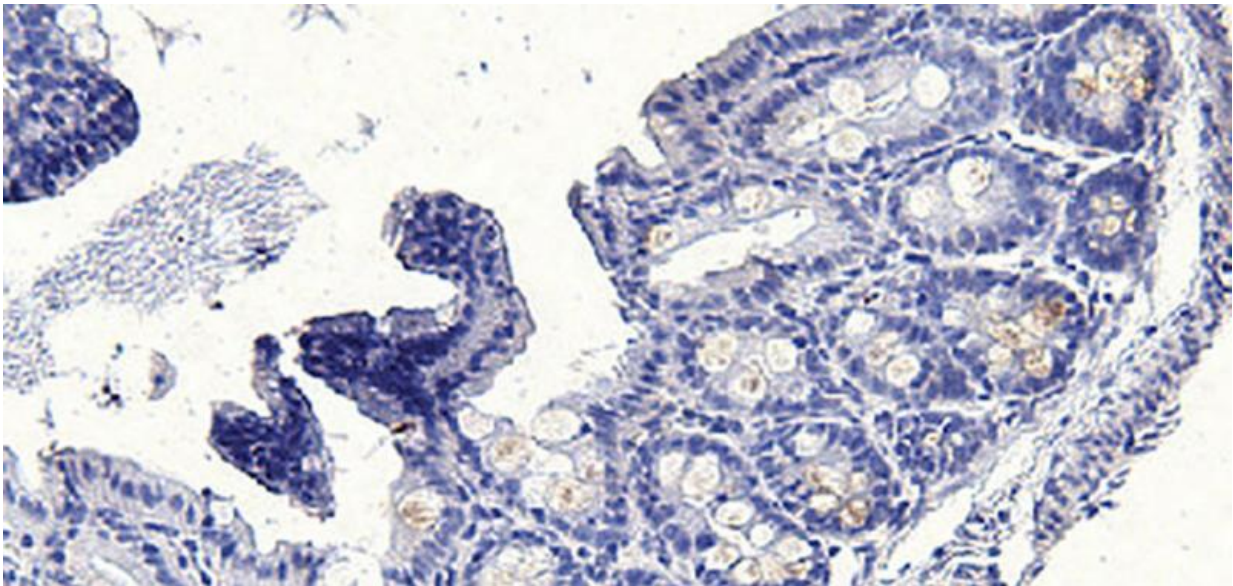


Food-poisoning bacteria may be behind Crohn's disease

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Credit: McMaster University

People who retain a particular bacterium in their gut after a bout of food poisoning may be at an increased risk of developing Crohn's disease later in life, according to a new study led by researchers at McMaster University.

Using a mouse model of Crohn's disease, the researchers discovered that acute infectious gastroenteritis caused by common [food-poisoning](#) bacteria accelerates the growth of adherent-invasive E. coli (AIEC) – a

bacterium that has been linked to the development of Crohn's.

Even after the mice had eliminated the food-poisoning bacteria, researchers still observed increased levels of AIEC in the gut, which led to worsened symptoms over a long period of time.

The study, published in the journal *PLOS Pathogens*, was funded by grants from the Canadian Institutes of Health Research and Crohn's and Colitis Canada.

Crohn's disease is a debilitating bowel disease characterized by the inflammation of the intestines. Today, one in every 150 Canadians is living with Crohn's or colitis, a rate that ranks among the highest worldwide.

"This is a lifelong disease that often strikes people in their early years, leading to decades of suffering, an [increased risk](#) of colorectal cancer, and an increased risk of premature death," said Brian Coombes, senior author of the study. At McMaster University he is a professor of biochemistry and biomedical sciences and a researcher at the Michael G. DeGroote Institute for Infectious Disease Research.

The study's results, said Coombes, means that new diagnostic tools should be developed to identify AIEC-colonized individuals who may be at greater risk for Crohn's disease following an episode of acute infectious gastroenteritis.

"We need to understand the root origins of this disease – and to use this information to invigorate a new pipeline of treatments and preventions. It has never been more pressing."

Provided by McMaster University

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