QIMR Berghofer researchers have identified a key driver of the aggressive gut disorder, Crohn's disease, a finding that could eventually lead to new treatments for the often-debilitating condition.

Crohn's disease—also known as inflammatory bowel disease—is incurable and affects about 35,000 people in Australia.

QIMR Berghofer scientists found the protein PD-L2 was overactive in people with Crohn's disease. Lab testing showed that if antibodies that control PD-L2 were introduced to Crohn's disease cells from patients, then inflammation could be slowed down.

Dr. Radford-Smith said the study results could provide scientists with a new target for potential treatments.

"Crohn's disease is a chronic inflammatory disorder where the body appears to be generating its own inflammation against itself, and that's one of the reasons why the role of the "gatekeeper" molecule PD-L2 is so relevant," Dr. Radford-Smith said.

"This study is another important step in our understanding of Crohn's disease and opens up a new area to investigate."
"If we can understand why inflammation occurs in Crohn's patients, then we can work out strategies to treat, and possibly in the future, prevent the disease."

The study found there were also fewer immune-controlling dendritic cells in the lining of the guts of people with Crohn's disease.

"Our priority now is to try to secure funding to extend this research using a much larger group of patients to really test this new and important finding," Dr. Wykes said.

"Understanding inflammation in Crohn's will also add to our growing bank of knowledge that inflammation is a factor in many diseases.

"This is just the start. We believe that understanding this protein will have big implications for a range of autoimmune conditions."

The study findings have been published in the journal Clinical and Translational Immunology.


Provided by QIMR Berghofer Medical Research Institute


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