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Researchers reveal role of gene in IBD

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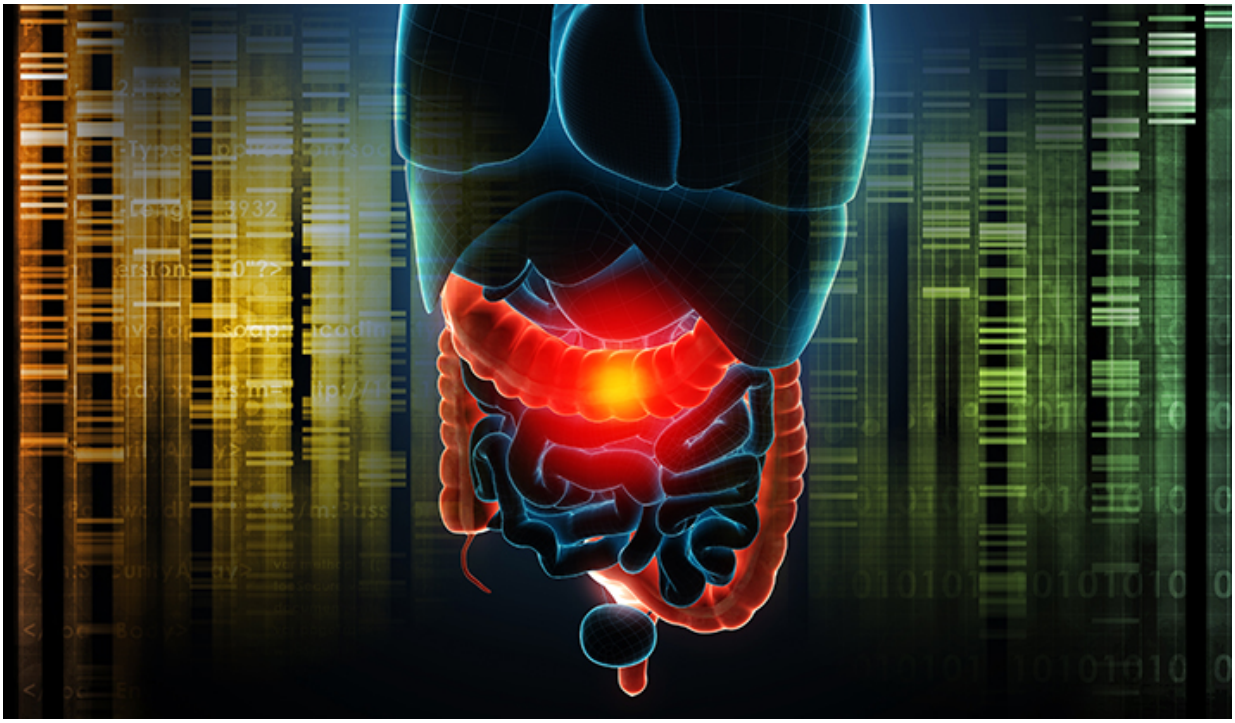

Credit: stock.adobe.com

Inside a healthy gut, bacteria and immune cells maintain a delicate balance. If that balance is disturbed, a condition called inflammatory bowel disease or IBD can result. Patients with IBD can experience diarrhea, abdominal pain, blood loss, fatigue, weight loss, and serious complications requiring surgery. To understand the underlying causes of IBD, a team of Yale researchers focused on understanding how genetic markers that have been linked to IBD contribute to the disease process.

Led by associate professor of medicine Dr. Clara Abraham, the Yale team studied cells derived from the intestines and blood of healthy people. They stimulated the cells with bacteria or bacterial components, and observed immune responses in the context of a previously unknown gene associated with IBD named INAVA.

The researchers found that people who carried the genetic susceptibility in the INAVA gene had lower expression of the INAVA protein. That diminished the ability of immune cells to detect bacteria and produce a response that is critical to clearing bacteria. This inability to effectively clear bacteria can raise the risk of developing IBD.

The finding could help researchers better categorize IBD patients based on their genetic profiles. It also defines a pathway that could be a future target for treatment, said Abraham.

Read the full paper in the *Journal of Clinical Investigation*.

More information: Jie Yan et al. An inflammatory bowel disease–risk variant in INAVA decreases pattern recognition receptor–induced outcomes, *Journal of Clinical Investigation* (2017). DOI: 10.1172/JCI86282

Provided by Yale University

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