Immune sensors suppress colitis-associated cancer

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Particular components of inflammasomes -- protein complexes needed for generating immune responses to pathogens and cellular damage—lessen the severity of colitis and colitis-associated colon cancer in mice, according to a study published online this week in the *Journal of Experimental Medicine*.

Compared to healthy humans, patients with ulcerative colitis, a form of inflammatory bowel disease, have a higher risk of developing colorectal cancer. As the inflammasome is typically associated with activation of the immune system, Jenny Ting and co-workers suspected that mice lacking inflammasome components would be more resistant to colitis and associated colorectal cancer.

Unexpectedly, mice lacking some but not all inflammasome components developed more severe colitis and larger tumor burdens in the colon.

Additional work is needed to determine how specific inflammasome components protect against colitis in mice, and whether inflammasomes play similar roles in humans.

More information: Allen, I.C., et al. 2010. J. Exp. Med. doi:10.1084/jem.20100050

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