

The Role of IL-23 in Crohn's Disease

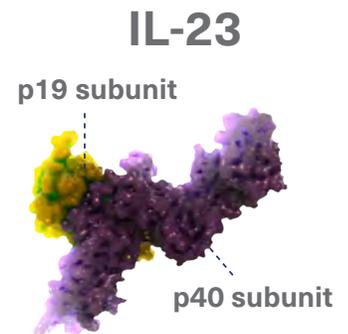
About Interleukin-23

Interleukin-23 (IL-23) is a key signaling molecule (also known as a cytokine) involved in inflammatory processes.¹ It is thought to be linked to a number of chronic immune-mediated diseases, including Crohn's disease.^{1,2}

As a member of the IL-12 family of cytokines, IL-23 has pro-inflammatory properties²

IL-23 is composed of two subunits – p40, which is shared with IL-12, and p19, which is unique to IL-23¹

IL-23 is produced by immune cells that survey the intestinal environment, such as dendritic cells and macrophages, in response to signals in the gut^{1,2}

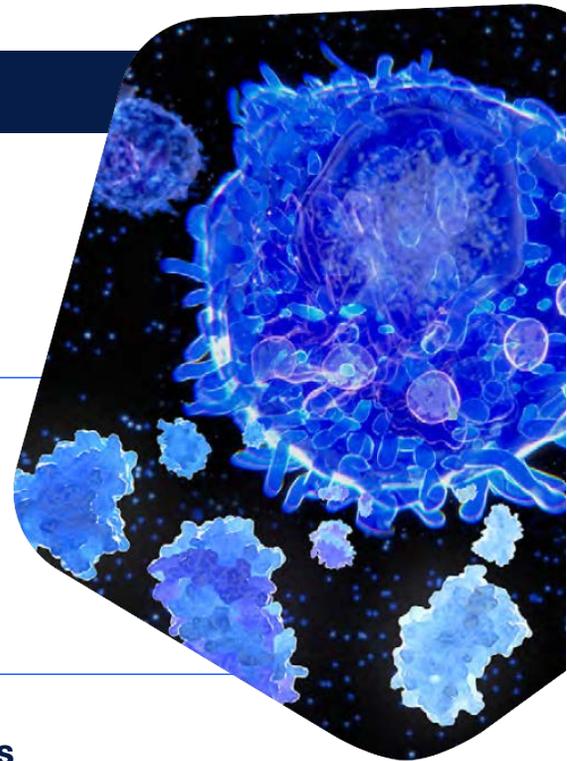


Crohn's Disease and the Immune System

Crohn's disease, an inflammatory bowel disease, is a **chronic, systemic disease that manifests as inflammation in the gastrointestinal tract.**^{3,4}

Levels of IL-23 are higher in people with Crohn's disease, especially during flare-ups, and people with mutations in the IL-23 receptor are more likely to develop Crohn's disease.^{1,2,5}

Increased IL-23 signaling **drives chronic inflammation, as activated Th17 cells promote inflammation** and are poorly responsive to anti-inflammatory signals, and IL-23 suppress T-cells which typically regulate inflammation.^{1,2}



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AbbVie in Gastroenterology

With a robust clinical trial program, AbbVie is committed to cutting-edge research in inflammatory bowel diseases (IBD), like Crohn's disease. By innovating, learning and adapting, AbbVie aspires to make a positive long-term impact on the lives of people with IBD.

For more information on AbbVie in gastroenterology, visit <https://www.abbvie.com/our-science/therapeutic-focus-areas/immunology/immunology-focus-areas/gastroenterology.html>.

1. Duvallet E, Semerano L, Assier E, Falgarone G, Boissier M-C. Interleukin-23: A key cytokine in inflammatory diseases. *Annals of Medicine*. 2011;43(7):503-511. doi:10.3109/07853890.2011.577093 **2.** Moschen AR, Tilg H, Raine T. IL-12, IL-23 and IL-17 in IBD: immunobiology and therapeutic targeting. *Nature Reviews Gastroenterology & Hepatology*. 2019;16(3):185-196. doi:10.1038/s41575-018-0084-8 **3.** Overview of Crohn's Disease. Crohn's & Colitis Foundation. Accessed January 24, 2022. <https://www.crohnscolitisfoundation.org/what-is-crohns-disease/overview> **4.** Crohn's disease - Symptoms and causes. Mayo Clinic. Accessed January 24, 2022. <https://www.mayoclinic.org/diseases-conditions/crohns-disease/symptoms-causes/syc-20353304> **5.** Schmidt C, Giese T, Ludwig B, et al. Expression of interleukin-12-related cytokine transcripts in inflammatory bowel disease: elevated interleukin-23p19 and interleukin-27p28 in Crohn's disease but not in ulcerative colitis. *Inflamm Bowel Dis*. 2005;11(1):16-23. doi:10.1097/00054725-200501000-00003