

For immediate release

Rare immune cells key to fibrosis in Crohn's disease

HAMILTON, ON (2 September 2016) New research by AllerGen investigators at The University of British Columbia (UBC) has found that a group of immune cells known as Group 3 innate lymphoid cells (ILC3) could be the key to the development of fibrosis in a mouse model of Crohn's disease.

The study, published today in *Science Immunology*, found that ILC3 contributes to fibrosis through a previously unrecognized role for the protein ROR α in the production of cytokines from ILC3. Its findings may help to advance the development of new medications for people suffering from the fibrotic complications of Crohn's disease.

Crohn's disease is a chronic, inflammatory condition of the intestinal tract. Fibrosis—a hardening and thickening of the bowel wall—is a common complication of Crohn's disease that often leads to surgery and affects a patients' quality-of-life.

“We found that the loss of ROR α in in these rare innate cells protected mice from fibrosis in this model of inflammatory bowel disease,” said lead author [Dr. Kelly McNagny](#), a professor in the Department of Medical Genetics and co-director of the Biomedical Research Centre at UBC. “Fibrosis is a major complication of chronic inflammation in a whole range of diseases. We believe we can develop inhibitors to this protein that will dampen fibrosis in many conditions, including chronic allergies.”

Dr. McNagny is Associate Scientific Director of the [AllerGen Network](#) and co-Leader of its Biomarkers & Bioinformatics research platform.

“The study is exciting because it has uncovered the mechanism leading to fibrosis in a mouse model of Crohn's disease,” said Bernard Lo, a PhD candidate at UBC and an AllerGen Highly Qualified Personnel (HQP), who was the paper's first author. “Since many patients developing fibrosis will require surgery, early intervention strategies are critical and ILC3 offers a promising therapeutic target.”

The research was funded by AllerGen NCE and the Canadian Institutes of Health Research (CIHR).

About AllerGen NCE

[AllerGen NCE Inc.](#), the Allergy, Genes and Environment Network (est. 2004), is a national research network dedicated to improving the quality of life of people suffering from allergic and related immune diseases. Funded by Innovation, Science and Economic Development Canada through the federal Networks of Centres of Excellence (NCE) Program, the Network is hosted at McMaster University in Hamilton, ON. Visit allergen-nce.ca for more information.

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