

September 2021

Rewiring the Immune System to Improve Recovery from Brain and Spinal Cord Injuries

Eoin N. Blythe
Western University, eblythe2@uwo.ca

Follow this and additional works at: <https://ir.lib.uwo.ca/inspiringminds>

Citation of this paper:

Blythe, Eoin N., "Rewiring the Immune System to Improve Recovery from Brain and Spinal Cord Injuries" (2021). *Inspiring Minds – Showcasing Western’s Graduate Research, Scholarship and Creative Activity*. 113.

<https://ir.lib.uwo.ca/inspiringminds/113>

Brain and spinal cord trauma are debilitating injuries that impact thousands of Canadians. These injuries can result in lifelong paralysis in addition to behavioural and cognitive changes. Currently, no therapeutic is able to improve patient recovery. Our natural immune system is typically excellent in healing our bodies following injury, however, it reacts poorly to injuries of the brain or spinal cord. Our research group asked the question, Can we temporarily rewire the immune system to improve recovery following brain and spinal cord injuries? This question led to the creation of a therapeutic that temporarily redirects the migration of immune cells and improves recovery. Our therapeutic can improve mobility and decrease cognitive changes following models of both injuries! I now work on testing this therapeutic to ensure safety and determine optimal dosage.