Biographical Sketch:

Brienne McKenzie is a PhD student in the lab of Dr. Christopher Power in the Department of Medical Microbiology and Immunology. Her research focuses on innate immunity in the brain, particularly within the context of multiple sclerosis and its animal model, experimental autoimmune encephalomyelitis (EAE). Brienne’s most recent publication identified a role for a particular innate immune complex, called the inflammasome, in multiple sclerosis. In addition, Brienne and her colleagues identified a type of inflammasome-associated cell death, called pyroptosis, in multiple sclerosis and demonstrated that inhibition of the molecules responsible for inflammasome activation helped to reduce disease severity. Brienne’s current research is expanding upon these results to identify the precise molecular mechanisms driving pyroptosis in the brain.