

**Catherine Hering, Class 2025**

Campus: CHI-St Joseph Health Regional Hospital, Bryan, TX

Research Area: Novel treatment options of traumatic brain injuries

Mentor: Ashok K. Shetty, PhD

Launch Talks: December 2022

Catherine Hering, a medical student at Texas A&M School of Medicine, is conducting a research project investigating the effects of targeted destruction of activated microglia to improve cognitive and behavioral function in traumatic brain injury (TBI) models under the mentorship of [Ashok Shetty, Ph.D.](#), Professor for the Department of Molecular and Cellular Medicine, and Associate Director for the Institute for Regenerative Medicine at Texas A&M School of Medicine. TBI, a form of brain injury resulting from sudden trauma to the brain associated with loss of consciousness, headache, confusion, and memory and behavioral changes, is often accompanied by secondary brain injuries resulting from increased inflammation and intracranial pressure caused by chronic activation of residential microglial cells. Our research project aims to utilize drug therapy targeting CSFIR receptors to selectively destroy activated microglial cells in repeated chronic head injury (rCHI) mice models to improve cognitive and behavioral function and provide a prospective treatment for further clinical models.