

## Stephanie Beane

## Thesis Defense

College of Science and Engineering Technology Department of Biological Sciences M.S. Biology

## The Effects of Cyclooxygenase-2 during Colorado Tick Fever Infection in Human Endothelial Cells

This study evaluates the induction of proteins during Colorado tick fever virus (CTFV) infections in endothelial cells and the mechanisms of vascular dysfunction associated with CTFV infections. CTFV is a tick-borne virus that can cause mild to severe clinical manifestations known as Colorado tick fever (CTF). CTF infections result in 20% of patients being hospitalized and death in children, yet there are currently no treatment options available. CTFV is not considered a viral hemorrhagic fever but does present hemorrhagic manifestations. Here, this study evaluated the involvement of COX-2 and its role in vascular permeability associated with CTFV infections.

Event Information Date: 20 March 2023 Time: 12 PM- 3 PM Location: LSB 400M <u>Committee Members</u> Dr. Aaron Lynne Dr. Jim Harper Dr. Anne Gaillard Dr. Jeremy Bechelli