

The Graduate Program in Biomedical Sciences is proud to announce the



Ph.D. Dissertation Defense of EMILY ZAHRA TABAIE

Biomedical Sciences Ph.D. Candidate in the Wilson Lab

Dr. Emma Wilson, Chairperson

"Toxoplasma gondii infected cortical neurons alter extracellular vesicle production and content"

T. gondii can only form neuronal cysts in the central nervous system. Astrocyte-neuron communication is vital in brain homeostasis and extracellular vesicles (EVs) have been used to promote this communicative ability without direct contact. My work found that following primary neuronal infection there was a significant decrease in EV concentrations. When adding EVs onto astrocytes gene ontology revealed an increase in an immune and protozoan response following infection. This indicates EVs from T. gondii are able to alter astrocyte gene expression. Western Blot analysis determined the addition of infected EVs significantly decreased GLT-1 protein concentrations. My work highlights the importance of astrocyte-neuron communication and how infection with a parasite alters this communicative abilities through the use of EVs.

Friday, June 21st, 2024 1:00PM (PST) Multidisciplinary Research Building (MRB), Rm. 1110 (first floor) Join via Zoom: <u>https://ucr.zoom.us/j/95511161728?pwd=bk9aKy8yOHVTQlBMc3VqNDhza2wydz09</u>