**2019 Advisory Board Grant**

**Analysis of gene expression changes related to circadian rhythms and sex determination in the common house spider, *Parasteatoda tepidariorum.***

This grant was used to purchase material to survey gene expression patterns responsible for sex determination and circadian clocks. I completed my study on the sex determination gene, doublesex, and in the spring of 2020 this manuscript was accepted for publication in the journal Gene Expression Patterns. This manuscript was co-authored with three undergraduate students in my laboratory.

Pilot studies are underway for the study of core circadian clock genes in the house spider. This study is still in its early stages, but me preliminary results and interest in the field have earned me a place in an international course on the study of biological rhythms. The course will be held online in May 2020. The money from this grant provided the materials for molecular studies by 7 undergraduates to study various genes related to the project.