**Title: Establishing the common house spider as an evolutionary model of the effects of gene duplication on addiction and sex determination.**

This grant was used in early studies involved at identification and cloning of several spider genes involved in neurotransmission and development. Preliminary data for my sex determination project was presented at the society for developmental biology meeting, and the nearly completed project was presented at the American Arachnological Society in summer 2019.

The other funds were used for a student project studying the pharmacology of neurotransmitter receptors from spiders. While this study could not be completed for publication, it provided enough data for the student to present at 4 scientific conferences including the national American Arachnological Society Meeting. Her poster drew in several new contacts in the field that act as future collaborators.