

TOXICOLOGY  
COLLEGE OF ARTS AND SCIENCE

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

FOR APPLICATION YEAR: 2021

PROJECT TITLE: The Effect of Estrogen and Testosterone on Female Mosquitofish

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**Project Description**

This is a preliminary project which will result in a grant application and publication. The results of this project can be translated local fish populations.

The WISE student working on this project will test endocrine disruptors on Least Killifish and Mosquitofish populations in order to determine morphological and behavioral differences.

The student will perform literature research, statistical analyses, research project design, animal husbandry, and the care and culture of Least killifish and Mosquitofish or one invertebrate *Daphnia Magna*. Keeping record of water parameters is crucial to the health of the organisms in the lab, and this must be done on a daily basis. In terms of experimental design, dilutions, water changes, and euthanizing using MS22 is expected of the student along with record of weights, standard lengths, and number of births per fish. Future histology work is to be conducted on both Least Killifish and Mosquitofish.

The ideal student will have some experience in animal husbandry, (specifically maintenance of fish lab stocks and tanks), but training can be provided. The selected student will be expected to complete IACUC training.