

**Department of Psychology
COLLEGE OF ARTS AND SCIENCES**

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE: March 1, 2013

The Department of Psychology is pleased to offer the following research project for the summer of 2013. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and, if possible, develop a timetable for the twelve-week research period.

PROJECT TITLE: UNDERSTANDING THE NEUROBIOLOGY OF DEPRESSION

Professor Matia B. Solomon, PhD
Department of Psychology
Building Edwards 1; Room 4150 P
Cincinnati, OH 45221-Mail Location 0506
Tel: (513) 556-5515; (513) 558-3025
Email: matia.solomon@uc.edu (fastest means of communication)

Laboratory Description:

The goal of the Solomon laboratory is to gain a better understanding of the neurobiology of depression. Chronic stress is one precipitating factor in the onset of depression. As such, we use various animal models to determine how stress alters the brain to lead to depression - like behavior in males and females. We are also interested in how the environment and genes interact to alter complex social behavior. Our research may have important implications for a number of pathological conditions including depression, social anxiety and social deficits associated with many mental health disorders.

Project Description:

The undergraduate research project will be designed to look at sex differences in the effects of chronic stress on depression. The study will also determine whether antidepressants protect the brain and body from the damaging effects of chronic stress.

Learning Goals of the Project:

- Student will learn how to give daily injections of antidepressants to females and male
- Student will learn how to run a chronic stress paradigm in females and males
- Student will learn how to analyze brain images from females and males with the use of a microscope
- Student will learn basic laboratory molecular skills
- Student will learn how to conduct various behavioral tasks that will be used to assess depression and social behavior in females and males
- Student will learn how to analyze and graph behavioral data for presentations and manuscripts

For more information about our work please visit: www.solomonlaboratory.com