

**Name:** Angela Grippo **Title:**

Associate Professor

**Department Name:** Psychology

**Semester Requested:** Fall 2014 (8/16/14-12/15/14)

**URA Position Title:** Undergraduate Research Assistant: Stress and the Brain

**Security Sensitive:** No

**Eligible Majors:** Biology, psychology, and sociology

**Position Description:**

The Undergraduate Research Assistant will conduct translational research focused on the interactions of emotion, physical health, and the brain in Dr. Angela Grippo's laboratory in the Department of Psychology. The Undergraduate Research Assistant will work closely with Dr. Grippo and her graduate students to gain technical and conceptual knowledge about how the brain regulates behavior and responses to social and environmental stress. The research in our laboratory uses a unique animal model – the prairie vole – to study the role that the brain plays in mediating health and diseases by influencing responses to social and environmental stress. Prairie voles are unique rodents that exhibit very interesting social behaviors similar to humans, such as living in extended family groups and forming life-long social bonds, making them an excellent model for studying interactions of social stress with brain function, emotional reactivity, and physical health. The Undergraduate Research Assistant will learn about the following: (a) experiments with prairie voles involving the interactions of behavior and physical health; (b) analysis of brain function; (c) breeding and care of prairie voles; (d) interpreting scientific results; and (e) public outreach about science and psychology.

**How this Position will enhance/enrich the undergrad experience and how it relates to the majors indicated above:**

The research in our laboratory is focused on using animal models to understand the interactions of stress, social experiences, physical health, and the brain. Students who are majoring in psychology, sociology, or biology will benefit from this position by gaining technical and critical thinking skills that will prepare him/her for jobs or graduate programs related to the social and natural sciences. This position will enrich the student's undergraduate experience in several ways: (a) it will allow him/her to be actively engaged in scientific inquiry about important psychological and physical health problems that affect millions of individuals worldwide, such as depression, anxiety, loneliness, and stress-related physical disorders; (b) it will demonstrate the value of animal research for studying behavior, emotion, physical health, and the brain, and (c) it will provide an opportunity for participation in valuable public outreach efforts, such as generating content for our website ([www.grippo.weebly.com](http://www.grippo.weebly.com)) and Facebook page (<http://www.facebook.com/pages/Grippo-Laboratory-Northern-Illinois-University/198934549464>).

The student will therefore learn to critically evaluate scientific knowledge, discuss the results in a meaningful manner, and apply technical knowledge to be competitive in the job market.

**How this position will be supervised:**

The Undergraduate Research Assistant will receive direct training and mentoring from Dr. Angela Grippo. He/she will be specifically trained in the following: (a) safety and ethics of conducting research with animals; (b) reading and interpreting scientific literature; (c) conducting experiments; (d) processing brain tissue; (e) analyzing and interpreting results; and (f) discussing the importance of the research in scientific and lay public settings. The Undergraduate Research Assistant also will have the opportunity to work closely with graduate research assistants and undergraduate students who have been participating in ongoing projects for the past 1-6 years, and will attend regular meetings to discuss research ideas, articles from the literature that are relevant to our studies, and topics that are relevant to career development. The student will be evaluated on a regular basis, through discussions with Dr. Grippo and her graduate research assistants, as well as through written feedback, to ensure that he/she gains necessary technical and conceptual knowledge and benefits from the experience.

**Duties and responsibilities of the position:**

This position will involve the following duties and responsibilities, for which the student will receive specific training: (a) assisting with experiments in an animal model (rodents); (b) working with computer programs to analyze behaviors and biological functioning; (c) working with biological samples; (d) regular interactions and research-related discussions with Dr. Grippo and other students in the laboratory, including attending scheduled meetings and communicating via email. Further information about the focus of our research can be found on this website: [www.grippo.weebly.com](http://www.grippo.weebly.com).

**Qualifications of students who wish to apply:**

Preference will be given to applicants that meet the following qualifications: (a) a minimum GPA of 3.5; (b) willingness to assist with experiments involving rodents; and (c) availability to continue in the laboratory for at least 1 semester following the Undergraduate Research Assistant appointment (e.g., through volunteering or receiving course credit, depending on individual circumstances).