Mouse Olfaction for Investigation of Neurodegenerative Diseases

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Dr. Brian Smith’s laboratory (https://sols.asu.edu/people/brian-smith) in collaboration with Dr. Federico Sanabria’s laboratory (https://psychology.clas.asu.edu/research/labs/basic-behavioral-processes-lab-sanabria) is looking for two to three highly motivated undergraduate students to assist in a project funded recently by the Arizona Alzheimer’s Consortium. The aims of this project are two-fold: to develop a new behavioral assay for exploring (a) how and what mice learn when searching for target odors within an odor plume and (b) whether such search behavior is compromised in mouse models of Alzheimer’s and Parkinson’s diseases. Ultimately, the goal of this research is to investigate neural mechanisms that are affected in these diseases, and establish a new olfactory test as a diagnostic tool for earlier detection of neurodegenerative diseases.

We are seeking highly motivated students with strong backgrounds in biology or animal behavior who are interested in behavioral, ecological, psychological, and neurobiological research. Ideally, students should be available to start in the summer of 2017, but if they cannot then available for both fall 2017 and spring 2018. Students are expected to work at least 10 hours per week, which is subject to a regular schedule. Note: If students contribute significantly to the work above and beyond what is required of them then there will be opportunities to become authors on publications (i.e., posters, talks, peer-reviewed publication).

If interested, please contact the graduate student in charge of the project, Carter W. Daniels (cwdaniel@asu.edu) with the subject heading: Basic Behavioral Processes Laboratory.