Quantitative Olfaction: Physiology, Perception and Behavior

The Quantitative Olfaction Lab is looking to recruit motivated undergraduate research assistants.

We study the neurophysiology and behavior underlying olfactory perception and its representation in the brain. We use a wide range of methods from electrophysiology, animal learning, and neuroinformatics to develop quantitative models to bridge the gap between biology and behavior.

General research questions include:

-- How are odorants transformed into sensory representations in the olfactory bulb in mice?

-- How do animals learn to tell the difference between odorants?

-- How do humans and animals naturally categorize odorants?

-- Why do individuals with neurodegenerative disease develop olfactory deficits, and how can understanding the olfactory system assist in the detection and diagnosis of those diseases?

Students would be expected to assist in the running of behavioral and electrophysiology experiments. Students may also assist in and learn data analysis, animal surgery, model building, and software development, depending on their background and experience. Training and research publication opportunities will be provided for highly motivated students.

Students must be comfortable developing their quantitative and computational skills, and handling live mice on a daily basis. Students must be reliable, highly motivated, and have strong communication skills.

If you meet these qualifications and are interested in joining our research team, please send a letter of interest and curriculum vitae or resume to Richard Gerkin at rgerkin@asu.edu (https://sols.asu.edu/people/richard-gerkin). This position is for credit.