



# Specialized Predoctoral and Postdoctoral NIH Chemosensory Training Program

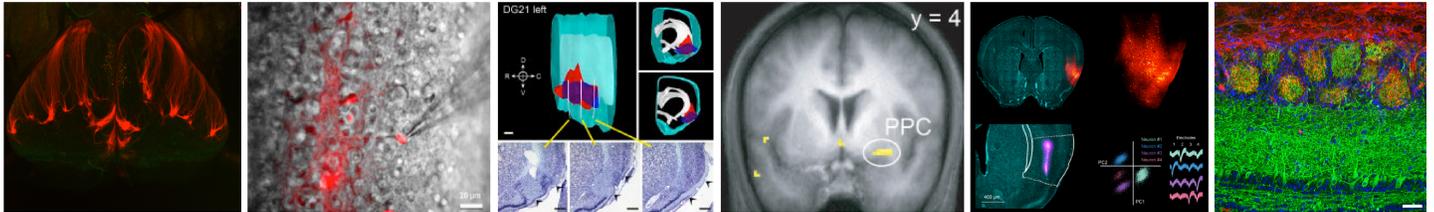
Available at Florida State University, Tallahassee, USA



**Predoctoral applications being accepted for all trainers. MUST be US Citizen.**

*Early decision, December 15; final deadline December 31, 2019*

**Postdoctoral opportunity can start immediately but must be appointed by March 1, 2020**



## Descriptions of Chemosensory Trainers:

### **Adam Dewan, Ph.D., Assistant Professor of Psychology and Neuroscience**

*My research focuses on the molecular and cellular basis of sensory perception. We use a combination of genetic, optogenetic, calcium imaging and behavioral techniques to explore how olfactory perception is mapped and encoded within the brain.*

### **Lisa Eckel, Ph.D., Professor of Psychology and Neuroscience**

*My research explores the roles of sensory, endocrine and endocannabinoid systems in the control of ingestive behavior to better understand how dysregulation of these systems may promote eating related disorders including anorexia nervosa, binge eating and obesity.*

### **Debra Ann Fadool, Ph.D., Nancy Marcus Professor of Biological Science, Neuroscience and Molecular Biophysics**

*My research explores regulatory signaling by ion channels, endocrine pathways, and neuromodulators that govern olfactory coding, odor detection, and energy homeostasis at the level of the olfactory bulb to understand sensory dysfunction attributed to diabetes and obesity.*

### **Elizabeth Hammock, Ph.D., Assistant Professor of Psychology and Neuroscience**

*Attachment to a caregiver is an essential component of mammalian brain development. My research uses mouse models to explore the circuit based mechanisms of chemosensory-dependent infant attachment.*

### **Tom Houpt, Ph.D., Professor of Biological Science and Neuroscience**

*Animals are extremely good at learning which tastes and flavors predict nutritious foods, and which predict toxic foods to be avoided. I study the molecular mechanisms underlying food learning in conditioned taste aversion and flavor preference models.*

### **Wen Li, Ph.D., Associate Professor of Psychology and Neuroscience**

*The role of sensory systems in emotion encoding and its implications in emotional disorders such as anxiety and depression, using fMRI, event related potentials, autonomic physiology and sensory psychophysics. Current projects include perceptual training and category learning, fear learning and long-term fear memory, and olfactory perception and perceptual modification in anxiety disorders including post-traumatic stress disorder.*

### **Alan C. Spector, Ph.D., Distinguished Research Professor of Psychology and Neuroscience**

*We use behavioral procedures, coupled with experimental manipulations of the peripheral and central gustatory system, to study the functional organization of taste processing in the brain.*

### **Douglas Storage, Ph.D., Assistant Professor of Biological Science and Neuroscience**

*Despite the olfactory bulb being the first stage of olfactory information processing, it contributes to a surprising array of complex functions related to perception and learning. My research investigates the bulb's precise role in these high level neural computations by measuring how olfactory sensory input is transformed via bulb processing and transmitted to higher brain regions.*

### **Paul Q. Trombley, Ph.D., Associate Professor of Biological Science and Neuroscience**

*My research program explores cellular and molecular mechanisms that regulate neuronal excitability and the efficacy of synaptic transmission in the olfactory bulb. Our experimental approach uses primary neuronal cultures, brain slices, and patch-clamp electrophysiology, in combination with molecular biology and histological techniques, to examine modulation of ion channels, neurotransmitter receptors, and synaptic circuits.*

### **Roberto Vincis, Ph.D., Assistant Professor of Biological Science and Neuroscience**

*My research studies how cortical and thalamic gustatory brain regions integrate sensory and cognitive taste-related information and how they influence feeding behaviors. We use a combination of multisite electrophysiological and optical recordings, quantitative methods for data analysis, pharmacological and/or optogenetic manipulation of brain areas in concert with behavioral training.*

**Please contact individual CTP faculty members to discuss possibilities for joining their research team. Or contact Program Director, Dr. D.A. Fadool (phone/skype 850 241-6392; dfadool@bio.fsu.edu). See also [www.neuro.fsu.edu](http://www.neuro.fsu.edu) and <http://opda.fsu.edu>  @FSUCTP**



The Departments of Biological Science and Psychology at FSU are large, interdisciplinary departments with research programs in Neuroscience, Molecular Biophysics, Computational Science and Information Technology, Cognitive Science and Clinical Psychology/Neuroscience with access to advanced technical facilities including DNA, imaging, hybridoma, protein, viral, and instrumentation/engineering core facilities.