

**ANESTHESIOLOGY/NEUROSCIENCE GRADUATE PROGRAM
MEDICINE****SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students****FOR APPLICATION YEAR: 2024****PROJECT TITLE: Neurobiology of pain**

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Project Description

The Davidson lab investigates the neurobiology of pain at the levels of the brain and the peripheral nervous system. Projects involve modulating specific neural circuits between the cortex and deeper structures within the brain to determine the contributions of these neural circuits to behaviors related to pain and stress. Projects also examine morphology, anatomy, and physiology of pain signaling neurons in vitro. Methods in the lab include surgery, behavior, cell culture, electrophysiology, live cell calcium imaging, fluorescent microscopy, immunohistochemistry, genetic models, and others.