

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.