

NEUROSURGERY/PEDIATRIC NEUROSURGERY  
COLLEGE OF MEDICINE

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

FOR APPLICATION YEAR: 2024

PROJECT TITLE: Role of propriospinal neurons in recovery of breathing after spinal cord injury

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**Project Description**

The Crone Lab investigates how neural circuits that control breathing are altered by disease and injury. A variety of approaches are used to study the control of breathing in transgenic mice at the level of the whole animal (plethysmography, electromyography), neural circuit (synaptic tracing, 3D imaging, chemogenetics) and individual molecules (RNA sequencing). We are working to develop new approaches to repair or enhance the function of respiratory circuits to improve breathing in patients with spinal cord injury.