

UNDERGRADUATES PURSUING RESEARCH IN SCIENCE AND ENGINEERING (UPRISE)

NEUROSURGERY/PEDIATRIC NEUROSURGERY COLLEGE OF MEDICINE

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

APPLICATION DEADLINE: 03/01/2024

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

Steven Crone
Cincinnati Children's Hospital Medical
Center
3333 Burnet Ave
Cincinnati, OH 45229
steven.crone@cchmc.org
(513) 803-9275

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.