MCIRCC’s Pre-Clinical Critical Care Laboratory produces best-in-class, high-fidelity models of multisystem disease and injury including—but not limited to—trauma, cardiac arrest, sepsis, ARDS, and traumatic brain injury.

WHAT WE OFFER
The MCIRCC Pre-Clinical Lab is equipped with a state-of-the-art high resolution physiologic and metabolic monitoring and analytic equipment providing for unique "physiomic" monitoring, tissue banking and analysis for preclinical research. Our models are available for integrated projects ranging from exploring the basic pathophysiology of critical illness and injury to developing new diagnostics, therapeutics, devices, and digital health solutions ready for clinical testing in critical care.

Together, we can...

- Support your project with the expertise of our highly qualified and trained personnel—doctoral researchers, veterinarians, veterinarian residents and technicians—several of whom serve on the U-M IACUC and other institutional committees related to animal care and use
- Provide advice and assistance with all aspects of protocol development and IACUC submission (writing, statistical procedures, power analysis, etc.)
- Provide technical and hands-on assistance with experimental procedures (Anesthesia, surgery, data collection and storing, blood and tissue sampling and recovery) and statistical analysis
- Assist with regulatory requirements
- Assist with data analysis and reporting
- Provide technical training and educational sessions.
WHY WORK WITH US?

- We have a proven track record of success working with large animals to model critical care diseases
- Research results from our lab have been published in high impact journals such as the *Journal of Neurotrauma, Resuscitation, Journal of Trauma*, and the *Journal of Critical Care*
- We collaborate extensively across medical & engineering disciplines, both locally and nationally
- Several of our team members have received federal & institutional funding
- Our team has a wealth of expertise in all aspects of project development, navigation of regulatory issues, and execution of experimental design
- We have extensive experience working with and training students and health care professionals

PRICING

The MCIRCC Pre-Clinical Lab is funded by federal grants and industry projects. We provide pre-study consultation at no cost for PI’s interested in using the Lab for new proposals. In exchange for this consultation, our PIs are required to budget for Pre-Clinical Lab personnel based on the resource utilization we recommend.

ADDITIONAL MCIRCC SERVICES

As members of MCIRCC, researchers also have the support of additional MCRICC core services including proposal development, data science, and clinical research. Each of these “MCIRCC Cores” can be leveraged to help improve chances of grant awards.

“The Pre-Clinical Lab is a critical asset for translational researchers like me. Our models of critical illness faithfully recapitulate human disease: physiologically, radiographically, immunologically, and histologically. We are truly fortunate to have the expertise and professionalism of our Pre-Clinical Lab team.”

—Robert Dickson, MD, Associate Director, MCIRCC
Pulmonary and Critical Care Medicine