**CASE STUDY**

**UTILIZING THE MCIRCC MACHINE**

**SPECIAL EVENTS**

**Massey Grand Challenge Awards**

- Collected initial data in a large animal model of TBI
  
  PI: Krishna Rajajee, MBBS; Co-PI: Kevin Ward, MD
  Hakam Tiba, MD, MS; Barry Belmont, PhD; Brendan McCracken

- Clinical testing in patients and prototype development
  
  PI: Hakam Tiba, MD, MS; Co-PI: Kevin Ward, MD
  Ashwin Belle, PhD; Sardar Ansari, PhD; Craig Williamson, MD; Brendan McCracken; Amanda Pennington

**PROPOSAL & FUNDING SERVICES**

- Wrote, edited, and prepared budget for proposal
- Facilitated the routing of the application through the ORSP
- Secured $1.5M Department of Defense grant

**COMMERCIALIZATION COACHING**

- Advised PI with follow-on funding opportunities
- Served as a liaison between the PI, Office of Technology Transfer, and a prototyping company
- Secured two institutional awards as well as an add-on award from the Department of Defense to develop the prototype

**TRANS-OCULAR BRAIN IMPEDANCE**

- Performed lab experiments to assess the use of Trans-Occular Brain Impedance as a non-invasive measurement that can track physiological changes associated with TBI such as:
  - Intracranial pressure
  - Cerebral blood flow
  - Cerebrovascular auto-regulation

**CLINICAL RESEARCH UNIT**

- Verified compliance with UM, FDA, and DoD regulations and training
- Retrieved informed consent from patients and families for participation
- Collected data from patients using the prototype
- Provided reports to the team, IRB, and sponsored tracking successes and adverse events

**DATA SCIENCE SERVICES**

- Captured high-fidelity de-identified physiological data and waveforms from recruited patients in the ICU
- Stored, processed, and analyzed data

**LICENSEE:**

- (November 2017)
- **NEW VITAL SIGNS**

**MANUFACTURER:**

- (January 2018)
- **in2being**