The need: Traumatic brain injury is complicated by secondary injuries. Sudden and rapid loss of blood leads to hemorrhagic shock.

Early administration of plasma & valproic acid can significantly improve outcomes in hemorrhage patients.

Competitive advantage: One-of-a-kind large animal model funded by the DoD. U-M has the only TBI model in existence to identify and test promising new treatments.

THE TEAM
- Yongqing Li, MD, PhD (Trauma Surgery Research)
- Ihab Halaweish, MD (Traumatology)
- Hasan Alam, MD (Acute Care Surgery)
- Patrick Georgoff, MD (General Surgery)
- Vahagn Nikolian, MD (General Surgery)

THE TECHNOLOGY
- Plasma
- Valproic acid
- Reduces size of brain lesions & swelling
- Faster neurologic recovery

Early administration of plasma & valproic acid to decrease brain injury & complications from hemorrhagic shock, to improve TBI patient outcomes & recovery speed.

Commercialization roadmap:
- Investigational new drug (IND) regulatory pathway
- License technology/therapy
- Potential partners: Drug companies

Project milestones:
- Test plasma in animal model
- Test valproic acid in animal model
- Identify mechanisms of action
- Determine optimal dose of valproic acid
- Publish data
- Clinical trials

NoVEL TBI Therapy
- There are currently no effective therapies for TBI patients. Plasma and valproic acid could be a new therapy for intracerebral hemorrhage.