

MISSION

The Hugh & Carolyn Shelton Foundation, a 501(c)(3) organization, was established in 2005 to accelerate the development of innovative diagnostic devices, treatments, data collection, and prevention of traumatic brain injury in military personnel on the battlefield. The Foundation is focused on crucial early interventions, diagnostics, and therapies aimed at preventing the long term devastating consequences of military traumatic brain injury. The ultimate goal of this Foundation is to collectively develop, promote, and enable these much needed improvements throughout the continuum of medical care, from prevention to acute treatment, through long-term care and rehabilitation, and ultimately, the restoration of neural function.

The Need: Traumatic Brain Injury (TBI) Statistics

- Dramatic rise in both open and close head (blast) injuries due to increased use of improvised explosive devices – 30% of combat-related casualties in Iraq have sustained a brain injury; half of those injuries are due to blast.
- Walter Reed has reported 62% of patients had TBI; slightly more than half had permanent brain damage.
- TBI screening at National Naval Medical Center showed 83% of patients had temporary or permanent brain damage.
- It is estimated that 10% of all troops and up to 20% of front line infantry troops suffer concussions during combat tours.

The Challenges: Why the Shelton Foundation was Founded

- There is limited advocacy for military relevant neurotrauma research efforts and very little funding available.
- There is a critical need for sustainable leadership and guidance in advancing research initiatives that stress the early diagnosis and intervention of neurotrauma as well as the unique requirements of combat injuries.
- There are no coordinated neurotrauma focused data collections or archive efforts currently in existence.

materials to create a therapeutic cell delivery system to treat traumatic brain injury. The “Brain Patch” will be designed to be placed in an open head wound to promote healing and enhance recovery and outcome.

Military Neurotrauma Database: the development of a new database to archive military neurotrauma injuries and outcomes in order to identify the most prevalent types of injury, assess the effectiveness of current treatments, expose gaps in treatment protocols, identify protective equipment needs, standardize medical reporting and focus the design of emerging research.

These and future Shelton Foundation projects will be supported by federal research grants, private donations and corporate and foundation gifts/grants.

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SHELTON FOUNDATION SPONSORED PROJECTS

“Brain Patch”: the investigation of various combinations of optimal cell sources and scaffolding