

Force Protection Center for Brain Research

Provide \$2m in Line 30: Adanced Medical Technology, PE 0603002A, to further ongoing research in the prevention, diagnosis and treatment of traumatic brain injury to service members resulting from explosions encounter while in MRAPs.

Traumatic Brain Injury or TBI has become known as “the silent epidemic”. There is a constant flow of information showing that head injuries and the subsequent profound behavioral effects are taking their toll on the military’s service men and women. The quest now is to find the injury in the brain. Research shows that conventional brain imaging has not gone far enough in isolating the trauma. Without that knowledge, treatment, even prevention of some head traumas is impossible.

The Medical University of South Carolina in Charleston, South Carolina has joined in partnership with Ladson, South Carolina based Force Protection Industries to find the answers behind the questions of the silent epidemic in hopes of giving victims of head trauma the chance to live healthy, productive lives. Based on the unique partnership of a medical research institution and a manufacturer of mine resistant vehicles, the Force Protection Center for Brain Research opened its doors in August of 2008. The mission – purchase the brain imaging equipment that would allow researchers to delve even deeper into the brain, locate brain traumas and ultimately determine effective medical treatment while exploring the possibilities of enhanced head gear to protect those in combat.

The Center has moved forward by purchasing the state of the art Siemens imaging equipment. The 3 Tesla Research Scanner is massively equipped with the latest elements needed to carry out diffusion scans. Meanwhile, MUSC’s brain imaging researchers have constructed a simulated brain known as a phantom. These phantoms are being exposed to intense explosions and will be studied to determine the areas of destruction in the brain. The location of the problems is just the beginning of groundbreaking work in the diagnosis and prevention of Traumatic Brain Injury.

But, there is more work to be done in the continued building of this world-leading center for advanced research of TBI. Efforts are underway to bring together a critical mass of physicists, bioengineers, neuroscientists, neurologists and psychiatrists to develop the next steps in Force Protection’s research and development role of safer vehicle designs that will be unmatched in the United States. The answers and strategies will also enhance patient care. The research center is currently working with Charleston’s Ralph Johnson VA Hospital where current and former solders can find themselves closer to medical solutions surrounding head trauma. The Medical University of South Carolina. The South Carolina Research Authority and the University of South Carolina serve as the hub in the national TBI clinical Trials consortium. Without question, the work will have far reaching impact.

Force Protection Industries has led the way in donating much needed funding to launch the research. Yet, more dollars are required to strengthen this cutting edge study. It is an investigation of the brain that will ultimately save and enhance lives.