Spinal cord injury (SCI) affects over 250,000 people in the United States with 12,000 new cases occurring each year. It is a devastating injury resulting in either temporary or permanent loss of ability to move or feel the arms and legs, loss of ability to control bowel and bladder function, and paralysis in general. Animal research in the past 15 years by scientists and engineers (Dr. Mushahwar and others) have shown that it is possible in animals to restore standing or walking through precise control of hair-like, micro-wires into the spinal cord. We believe that such exciting technology can be offered to humans with similar types of injury.

The Department of Defense has sponsored a clinical trial in order to determine whether this technology is even feasible in humans. This requires some individuals (T2-T8 level of injury) who have a complete spinal cord injury and are scheduled to undergo surgery in the lower thoracic region (for repair or stabilizing the lower thoracic region) to allow up to 2 additional hours of testing to prove the concept. Specifically, we are asking 2 subjects who are already scheduled for a lower thoracic spine surgery to allow our team to perform electrical stimulation of the lower spinal cord through small wires to prove this concept. Our strategy is a novel, ground breaking study that will likely lead to a new generation of medical devices to restore standing and walking in SCI individuals. We are particularly interested in rehabilitation solutions for SCI individuals that have been injured in OIF/OEF military campaigns.

To see if you are eligible, please view enrollment and study details at

https://www.mc.vanderbilt.edu/root/vumc.php?site=neurosurgery&doc=48069

or call ISMS Study Coordinator – Melba Isom, 615-875-5853
Travel compensation is available and will be discussed at the time of your call to the study coordinator.