Repurposing a Device to Help Restore Function Lost to Brain and Nerve Disorders

In 2009, Cures Within Reach funded Drs. Kaczmarek and Danilov at the University of Wisconsin to test the Portable NeuroStimulator (PoNS), previously used for treating balance disorders, in multiple sclerosis (MS) patients as a way to regain function by enhancing the brain’s ability to restore balance, walking, arm movement and strength. This small, pilot trial of 9 patients combined physical therapy with PoNS use. A larger, confirmatory trial was then funded in MS and smaller studies in stroke, Parkinson’s and traumatic brain injury (TBI) with similar success. In 2014, Helius Medical acquired Neuro-Habilitation, licensee of PoNS, to commercialize the device. Helius conducted FDA-authorized clinical studies in MS and TBI, and PoNS is now approved for TBI and stroke in Canada and for MS in the US, Canada and Australia.

KEY FACTS AND IMPACT
- CWR provided $54,000 to fund the first human clinical trial testing the PoNS device in MS
- Success in MS patients led to additional clinical trials in TBI
- PoNS is now approved in Canada for TBI and stroke and in the US, Canada and Australia for MS
- CWR’s early funding helped to leverage $4.5 million in follow-on funding for TBI from the DOD, plus led to commercialization by Helius Medical