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New Look, New Website

We advocate and educate about the latest neurotechnology, now our website reflects the latest technology too. You will still have great content, educational tools and access to resources for free.

The new site offers a richer experience. A special addition is the showcase of dynamic people who have life altering neurological conditions, like brain injury, stroke or hearing loss, and use neurotechnologies in their daily lives. We introduce you to these pioneering individuals and give you the resources to learn more about the technology behind the story.

Visit our new site. You can still find us at

www.NeurotechNetwork.org

Coming soon is our social media initiative, but we'll let you pursue our website first!

Continuing to Educate & Outreach

We educate through featured presentations, continuing education courses & online webinars. Learn about the latest in neurotechnology by attending a session or reviewing the archives. Some sessions are targeted toward the consumer and caregiver community while others are targeted toward medical professionals and clinicians.

Here are links to recent events, webinar archives and video presentations

- **TEDxCLE:** Breakthrough Medical Technologies Better by Design: Megan

- Moynahan & Jen French. [Link to the video & slides](#)
- **World Science Festival: Bigger, Stronger, Faster: The Future of the Bionic Body.** [Link to the video archives](#)
 - **Introduction to Implanted Neural Prosthesis:** Webinar, July 9. [Link to the video archives and presentation.](#)

Upcoming events:

- [PVA 2014 Summit & Expo](#) - Las Vegas, NV, August 26-28
- [Academy of Spinal Cord Injury Professionals Annual Conference](#) - St. Louis, MO, August 31-September 3
- [American Congress of Rehabilitation Medicine](#) - Toronto, Ontario, October 7-11

Learn more about our outreach activities and upcoming events on our [Upcoming Conferences Page](#).

Human Experience

How we integrate technology into our lives is very intimate in the world of neurotechnology. We can learn from personal stories. Here are two from two young men who use technology that has recently been in the news.

Meet Derek

Derek is not one to passively wait for spontaneous recovery. He works at it. In October 2008, his life changed from a car accident that left him with a T4-5 spinal cord injury resulting in paraplegia. As a college student, he put his studies on hold and concentrated on his rehabilitation as an inpatient at Craig Hospital in Denver, CO. After being discharged 6 months later, Derek returned to the Edwards in a Colorado mountain village, completed his college studies at Colorado University Boulder with a degree in Finance and continued with his own physical therapy and exercise routine at home to build his basic strength.

Armed with his degree and ready to launch his career, Derek returned to the Denver area. But he wanted to step up from his home routine. He returned to Craig Hospital, but not as a patient. He returned as a member of the PEAK Center. PEAK (Performance, Exercise, Attitude and Knowledge) is an adaptive health and wellness center that serves individuals with neurological conditions. Members gain access to highly trained staff, an engaging environment and cutting edge technology with a variety of membership options and specialized classes. The environment is warm. Derek describes it as a personalized setting and has built camaraderie among the other members.

[Continue with Derek's story here.](#)



Derek Before & After

Meet Ian

Being splashed on the news headlines is not what Ian was expecting when he became a participant in the Neurobridge study at Ohio State University (OSU). That is exactly what happened when news broke from Battelle highlighting the use of brain machine interface technology to move a paralyzed man's hand. Ian was that man.

In 2010, Ian was an active and independent college freshman on vacation in North Carolina. He along with his other classmates from Ohio University hit the beach as soon as they arrived. While diving into a wave, Ian hit a sandbar. In a flash, he was paralyzed; losing the two things he treasured, his active lifestyle and his independence. [Continue Ian's story here.](#)

Look for the release of our latest book, *Bionic Pioneers*, this fall featuring short stories of trail-blazing individuals who have changed their lives using neurotechnology. More to come soon!

In the meantime, more stories can be found on our [website](#).

Welcome back our Sponsors

We would like to welcome back Bioness & Craig Hospital to our family of Neurotech Network sponsors. Their continued sponsorship helps us continue our mission of education and advocacy.



Bioness offers award-winning medical devices designed to benefit people with Stroke, Multiple Sclerosis, Traumatic Brain Injury, Cerebral Palsy and Spinal Cord Injury. These products use Functional Electrical Stimulation (FES) to help people regain mobility and independence to improve quality of life and productivity. Established in 2004 and with the support of entrepreneur and philanthropist Alfred E. Mann, Bioness provides neuromodulation technologies that help improve lives and restore function for those living with neurological deficit and peripheral pain. For more information, visit [Bioness.com](#)

Craig Hospital

Caring exclusively for patients with spinal cord and brain injuries.

Craig Hospital in Denver, Colorado is world renowned as a premier center for specialty rehabilitation and research for people with spinal cord injury and traumatic brain injury. It is ranked among the nation's top rehabilitation hospitals by U.S. News & World Report. Established by Frank Craig in 1907, Craig Hospital now is committed to assist patients to become independent and productive. They are also a resource to former patients and to the professional community through publications, presentations, and consultations. For more information, visit Craighospital.org

Thank you for your support and welcome!

Benefits of Sponsorship

Why support us? We are the only unbiased non-profit organization focusing on neurotechnology, medical technology that interacts with the human nervous system, and targeting efforts to educate the consumer, care-giver and clinical communities. Gain exposure, support our education, reach your target and tell your stories through our network. [Learn more here.](#)

As a registered 501(c)(3) non-profit organization, we meet the public access requirements through our website and [GuideStar](#), a trusted public information resource for the non-profit community.

News & Headlines of Interest

RESEARCH

- Researchers at Battelle and Ohio State University, recently implanted an **electrode array into the brain** of a young man with quadriplegia. The system has been used to connect thoughts to action using electrical stimulation. The series is featured in the Washington Post. [Read more here.](#)
- Researchers at NewCastle University are using **spinal cord stimulation** to restore movement in paralyzed primates. Read about this latest research [here.](#)
- Minaturizing technology is the efforts of a team at Stanford University to keep making devices smaller in the **electroceutical** space. [Read more here.](#)
- DARPA teamed up with University of California San Francisco and Massachusetts General Hospital to explore how **electronic devices implanted in the brain** can help to treat depression, anxiety and PTSD (Post-traumatic Stress Disorder). The full story is [here.](#) It was also featured in the [NY Times.](#)
- Can **vagus nerve stimulation** impact the immune system? Researchers at the Feinstein Institute for Medical Research in NY are exploring this potential technology. [Read about the progress here.](#)
- Researchers at the University of Alberta Edmonton are seeking feedback from clinicians and academic researchers regarding the design of a few **flexible electrode array.** [Take the survey here.](#)
- New research published reveals the **assisted movement with enhanced**

stimulation (AMES) including targeted vibration reduces impairments in upper extremity for people living with incomplete spinal cord injury. [Read the full journal article here.](#)

- Researchers at the University of Cincinnati are recruiting participants for a clinical trial to explore how brain stimulation can improve rehabilitation from a stroke. The treatment protocol includes occupational therapy and **transcranial magnetic stimulation**. [Learn more about this study here.](#)
- Project Endurance is a program partnership between Red Bull High Performance and Cornell University to explore how **brain stimulation** impacts the performance of elite athletes. [Watch the videos and read about the Project here.](#)
- Mainstay Medical has expanded the clinical trial for the **implanted neurostimulation** device, ReActiv8, for treatment of chronic lower back pain into Belgium, [read more about this here](#) and the U.K., [more here.](#)
- Recent published research reveals that **FES** improves community walking in children with cerebral palsy. [Reference the study here.](#)
- Collaborative researchers from Italy and Israel reported results from a pilot study using deep **repetitive transcranial magnetic stimulation (rTMS)** for improvement of lower limb function for subcortical stroke survivors. [Read more here.](#)

AVAILABLE PRODUCTS AND INDUSTRY NEWS

- **Video gaming and virtual reality** play into a new way to approach rehabilitation from a devastating stroke. Clinicians at Switzerland's Federal Institute of Technology are using new technology to 'trick' the brain with rehab results from stroke survivors. [Read more here.](#)
- Craig Hospital and Shepherd Center, two of the nation's leading specialized rehabilitation centers, announced they have established an alliance to create a first-of-its-kind "**center of excellence**" for catastrophic injury rehabilitation, long-term acute care and medical care. [Read the full report here.](#)
- Saebo Technology offers an insightful article about using **stimulation and bracing** for upper extremity rehabilitation after stroke. The technology has seen results restoring hand and arm function. [Learn about it here.](#)
- eNeura received FDA clearance for their SpringTMS device using **transcranial magnetic stimulation** to relieve painful migraines. This new device is mobile. Read more about this new product [here.](#)
- Craig Hospital, a sponsor of Neurotech Network, ranks in the Top Ten US **Rehabilitation Hospitals** by US News & World Report for the 25th time. [Read more about it here.](#)
- ElectroCore released recent results of using their **non-invasive vagus nerve stimulation** device to prevent chronic migraine headaches. The device, GammaCore nVNS therapy has a CE Mark in Europe and is seeking FDA approval in the US. [Read more here.](#)
- The U.S. FDA announced a pre-market approval of **cranial electrotherapy stimulation (CES)** for the treatment of depression, insomnia & anxiety. Chip Fisher of Fisher Wallace has been leading this case for the industry. Read the [full announcement here.](#)
- Futurist, Mitchell Zappa, makes the case that **emerging neurotechnologies**, the technologies that we feature, will lead the way of innovations in the next few

- years. [Read his predictions here.](#)
- U.S FDA approves the marketing and sale of **exoskeleton**, ReWalk, for lower body paralysis due to spinal cord injury. This opens the opportunity for expansion of exoskeletons in the United States. Note that it is already CE Mark approved in Europe. [Read the FDA announcement here.](#)
 - The Stimulated Brain is a recently published book exploring the past research, current knowledge and future direction of **trancranial electrical stimulation** to improve cognition and brain function. [Reference the book here.](#)
 - [Watch the video](#) from CNN of an interview with actor Brad Carter and his experience treating his essential tremor syndrome with **deep brain stimulation**.
 - Sensus, a **wearable TENS** device, from NeuroMetrix received FDA approval to sell the device over-the-counter with no prescriptions. [Click here to learn more.](#)
 - Advanced Bionics received regulatory approval in China for the Neptune **cochlear implant**, the swimmable implant. [Learn more about the approval here.](#)
 - New SONS technology, **Sphenoid & Olfactory Nerve Stimulation**, may help with memory and cognition issues particularly for those living with Alzheimer's disease. In a recently released study lead by Wedge Therapeutics. [Read the release here.](#)
 - The International Neuromodulation Society will be published the first peer-reviewed expert guidance on **neurostimulation** for the treatment of pain. [Read the full story here.](#)
 - Google Glass Accessibility Awards was granted to John Morris & Jim Mueller or Shepherd for their development of an app to assist people living with traumatic brain injury with memory deficits. Read more about this technology [here.](#)
 - A woman with Multiple Sclerosis seeks to get a **deep brain stimulation** system to help her with tremors brought on my her condition. She was denied by her insurance. Read the story and watch the video about her personal experience [here.](#)

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