



SUMMER 2015

## The Current

*The official e-newsletter of Neurotech Network*

### Featured Real Stories from Real People: ALS & Incontinence

Meet the Bionic Pioneers featured in the book of the same title. These brave individuals blaze the trail to new therapies.

#### ALS: Early Intervention to Keep Quality of Life



It is all too common for neurotechnology devices to be an option of last resort. It is a precarious situation in which all other options have been attempted with no success. In this particular situation, Matt June bucks the trend. This is the story of one family using technology to stay two steps ahead of the progressive condition of Lou Gerhig's disease or Amyotrophic Lateral Sclerosis (ALS).

This is also a story about preserving quality of life.

#### Finding Freedom from Incontinence



'This too shall pass.' We often tell ourselves this phrase when we have an ache or a bodily complication that is out of the ordinary. For Lauren, it was a matter of getting her body back to normal after giving birth to her first daughter, Evelyn.

Quality of Life (QOL) is something that we talk about but do we know exactly what it is? In fact we do not. Quality of Life is defined by each individual and it can vary drastically. The impact of QOL is not always realized until it is compromised. [Read more of his story under Breathing Assistance.](#)

Lauren's body did not return to 'normal'. She was dealing with her own recovery and incontinence while Baby Evelyn developed infant colic. Lauren was tired, stressed and sore. See how she discovered freedom from incontinence. [Read more of her story under Bowel Control.](#)



*Brave Neurotech Users Blaze the Trail to New Therapies*

All profits from this book will go toward advancing awareness of new therapies for people with neurological disorders.

[www.BionicPioneers.org](http://www.BionicPioneers.org)

[read more about the book →](#)

### ***Encouraging Guidance***

*By James Cavuoto*

*- This is an excerpt from an article of Neurotech Reports*

...Perhaps the best news came from the FDA, in the form of two separate draft guidance documents that could dramatically improve the approval process for neurotech devices. The first draft guidance concerned patient preferences with respect to devices. According to the document, “The Agency understands that patients and caregivers who live with a disease or condition on a daily basis and utilize devices in their care may have developed their own insights and perspectives on the benefits and risks of devices under PMA, HDE, or de novo review. FDA believes that patients can and should bring their own experiences to bear in helping the Agency evaluate the benefit-risk profile of certain devices.” In essence, the FDA is acknowledging that a patient’s tolerance for risk may be considered by the agency when making approval decisions. “

[read more about this article →](#)

### ***The Neuroethics of Non-Invasive Brain Stimulation***

*By Roi Cohen Kadosh, Neil Levy, Jacinta O’Shea, Nicholas Shea, and Julian Savulescu*

*- Article is published in Current Biology, Vol22, No4, 2015*

Transcranial direct current stimulation (tDCS) is a brain stimulation tool that is portable, painless, inexpensive, apparently safe, and with potential long-term efficacy. Recent results obtained from tDCS experiments offer exciting possibilities for the enhancement and treatment of normal or impaired abilities, respectively. We discuss new neuroethical problems that have emerged from the usage of tDCS...

[read more about this article →](#)

## Helping people regain life thru neurotechnology

### Education & Outreach

#### SPECIAL FEATURE

PBS WEDU science show, QUEST, features Neurotech Network's Executive Director, Jennifer French, and her story of using neurotechnology. [Watch the video here.](#)

We educate through featured presentations, continuing education courses & online webinars. Learn about the latest in neurotechnology by attending a session or reviewing the archives.

#### Consumer & Caregiver Focused:

- [Houston Abilities Expo](#): co-hosted by Neurotech Network & Cleveland FES Center, in Houston, TX from July 31-August 2, 2015

- [What is the Vibe? Vibration Therapy as a Rehabilitation Tool](#): Webinar with partners United Spinal Association &

### News in Products & Industry

- *On the Brink of a New Era in Headache and Migraine Medicine*, is an article published in US Neurology. [Read it here.](#)

- Dr. Jeffery Shuren, who leads the medical device arm of the FDA, states they are aiming to be the first in the world for access to high quality devices. [Learn more here.](#)

- United Spinal Association partners with MyoMo to raise awareness of myoelectric orthoses. [Read more here.](#)

- The Rehabilitation Institute of Michigan teams up with ReWalk to provide exoskeleton robotics to paraplegics. [Learn more here.](#)

- Nevro receives FDA approval for their Senza spinal cord stimulation devices for management of chronic pain of trunk and/or limbs. [Read more here.](#)

- Magstim received FDA clearance for their repetitive Transcranial Magnetic Stimulation (rTMS) device for treatment resistant Major

### News In Research

- The Assessment of Brain-Machine Interface from the Perspective of People with Paralysis was recently published in the *Journal of Neural Engineering*. [Read more here.](#)

- StimGuard will begin clinical studies of their implanted device for the treatment of overactive bladder syndrome. [Learn more here.](#)

- From Obesity to Epilepsy, there is one nerve that can impact them all and lead to incredible cures. [Read the article in WIRED here.](#)

- Researchers at the Cleveland Clinic are testing the use of deep brain stimulation and the recovery from stroke. [Learn more here.](#)

- Electrical Geodesics received FDA approval to conduct a clinical evaluation of the GTEN neuromodulation device as a treatment to manage epilepsy. [Read more here.](#)

- ImThera announced that they implanted the first 2 people with

The Miami Project, September 30, 2015

- [Archived Consumer & Caregiver Sessions can be found here.](#)

### Clinician & Industry Focused:

- [PVA Summit & Expo](#), co-hosted by Neurotech Network & Cleveland FES Center, Jacksonville, FL, September 1-3, 2015

- [Academy of Spinal Cord Injury Professionals](#), co-hosted by Neurotech Network & Cleveland FES Center, New Orleans, LA, September 7-9, 2015

- [Society for Neuroscience](#), Chicago, IL, October 17-21, 2015

- [American Congress of Rehabilitation Medicine](#), Dallas, TX, October 25-30, 2015

- [Neurotech Leaders Forum](#), San Francisco, CA, November 2-3, 2015

### [read more education resources](#)→

Depression. [Learn more.](#)

- PBS NewHour features modern prosthetics to restore the sense of touch. [Watch the video here.](#)

- Brainscope received FDA clearance of their new device for analyzing brain injuries. [Read more here.](#)

- Health Canada approved the St. Jude device Prodigy for the treatment of chronic pain. [More is here.](#)

- Ossur's new implantable sensors allow those living with lower limb amputation to control the prosthetic by intentional thought. [Learn more here.](#)

- Cefaly Technology demonstrates evidence that migraine prevention by returning brain metabolic activity to normal. [Read more here.](#)

- After receiving CE Mark, Cyberonics receives FDA approval of the AspireSR generator to regulate heart rate with brain seizures related to epilepsy. [Learn more here.](#)

- St. Jude's deep brain stimulation device receives FDA approval for symptoms of essential tremor and Parkinson's disease. [Read more here.](#)

- Pericoach is a smartphone connected device used to monitor pelvic floor exercises to reduce urinary incontinence. [Read more about the device.](#)

- The FDA gave the initial approval to St. Jude for the use of an Apple-compatible device to control the trial

their device to treat sleep apnea at the Advanced Sleep Center in Atlanta, GA. [Read more here.](#)

- WikiSTIM is a searchable resource for published data in the fields of neuromodulation. Learn more [here.](#)

- Recent research published in the Journal Neuroregulation highlights the use of Transcranial Direct Current Stimulation (tDCS) for the treatment of Major Depression and improved visual working memory. [Learn more here.](#)

- Researchers at Caltech used new BCI technology to allow a quadriplegic to use a robotic arms just by intentional thought. [Learn more here.](#)

- Bioness begins a pilot study for the StimRouter device to treat overactive bladder with tibial nerve stimulation. [Read more here.](#)

- Researchers at the University Hospital Southampton have developed a headphone device to detect brain injury and infection. [Learn more here.](#)

- A new neurostimulation device from Mainstay Medical has received FDA approval for clinical trials in potentially 40 sites using the ReActive device for chronic lower back pain. [Learn more.](#)

- Helius Medical secures a partnership with the US Army to study the impact of a new device to treat balance issues for people living with mild to moderate brain injuries. [Read it here.](#)

- Published in the *Journal of*

version of their implantable pain device. [Learn more here.](#)

- The first implantable above-the-knee device to improve use of prosthesis by those with lower limb loss receives FDA approval. [Read more here.](#)

*Neurophysiology*, Electrical nerve stimulation may reverse spinal cord injury nerve damage in patients. [Read more here.](#)

- Early results show the Endostim implant is effective for treating acid reflux. [Learn more here.](#)

## Thank you to our Generous Sponsors

Our efforts are only possible with the generous support of these sponsors.

**ARDIEM MEDICAL**  
MEDICAL DEVICE DESIGN AND MANUFACTURING

**AMF**  
ALFRED MANN FOUNDATION

**Bioness**  
LiveOn™

**cleveland FES center**

**Craig Hospital**  
*Caring exclusively for patients with spinal cord and brain injuries.*

THE CRAIG H. NEILSEN FOUNDATION

**HASOMED**  
Hardware and software for Medicine by **R**

**NeuroXcel**  
Removing limits one step at a time™

**Neurotech**  
reports

[follow on Twitter](#) | [friend on Facebook](#)

Copyright © 2015 Neurotech Network, All rights reserved.

[unsubscribe from this list](#) | [unsubscribe from all lists](#)

