



Corporate Fact Sheet

Helius Medical Technologies (Helius) is a medical device company focused on neurological wellness. The company is committed to leading the advancement of unique and non-invasive platform technologies designed to amplify the brain's powerful ability to heal itself. Helius intends to file for U.S. Food and Drug Administration (FDA) clearance for the PoNS™ device.

Founded	2014
Headquarters	Newtown, Pennsylvania
Public Offering	Reverse merger June 2014 with NeuroHabilitation Corporation
Stock/Exchanges	Helius Medical Technologies is traded on the Toronto Stock Exchange (TSX: HSM) (TSX:HSM.S)(TSX:HSM.WT.S)(OTCQB:HSDT) and the OTCQB (HSDT) in the United States
Employees	7
Website	http://www.heliusmedical.com
Contact Information	Helius Medical Technologies 41 University Drive Suite 400 Newtown PA 18940 215-809-2018

Mission:

Develop, license and acquire unique, non-invasive platform technologies designed to help patients affected by neurological symptoms caused by disease or trauma.

Product Platform:

- The Portable Neuromodulation Stimulator (PoNS™) is the company's lead device and patented platform technology. The PoNS™ device is an investigational non-invasive method to deliver neurostimulation through the tongue. It represents the first of a series of non-invasive devices – based on the PoNS™ platform -- designed to amplify the brain's powerful ability to heal itself. This is part of a new approach to "symptom treatment" for the rising number of patients today who have experienced loss of function as a result of neurological disease or trauma.
- PoNS™ Therapy combines the use of the device with physical therapy and is currently being evaluated in a pivotal, multicenter, clinical trial for the treatment of balance disorder in subjects with mild to moderate Traumatic Brain Injury (mTBI). The PoNS™ Therapy is also being evaluated in the treatment of symptoms related to other neurological diseases including Multiple Sclerosis (MS) and Cerebral Palsy.
- Helius is the only company focused on commercializing the first, non-invasive means for delivering neuromodulation through the *tongue* – the use of external stimulation to intentionally change or regulate the internal electrochemical environment of the brain. The PoNS™ device induces neuromodulation by stimulating brain structures through the cranial nerves connected to the tongue. Researchers believe that using the tongue as a gateway to the brain, is a natural, non-invasive and direct way to stimulate the brain.¹
- Through its first wholly-owned subsidiary, NeuroHabilitation Corporation, Helius is building upon almost 40 years of scientific research on neuromodulation, pilot studies and case studies performed at the Tactile Communication and Neurorehabilitation Laboratory (TCNL) at the University of Wisconsin-Madison.

- More than 260 patients in the U.S. have been treated under IRB approval and achieved positive outcomes through multiple pilot and case studies on the PoNS™ device. Based on the positive results of these proof of principle studies, Helius is moving forward with a robust clinical development plan that includes registrational clinical trials in pursuit of U.S. FDA, CE Mark and Health Canada clearance.
- The PoNS™ patent estate includes 14 received patents in the U.S. and China and a further 38 patents (27 U.S. and 11 international) pending. The issued, filed or exclusively-licensed patents cover the method of stimulation and therapeutic use as well as the design of the device. In addition, the company will be filing patent applications for use of the device in a variety of other diseases.

Product Pipeline:

The PoNS™ device is currently being evaluated for two indications:

- As an adjunct to physical therapy in the treatment of balance disorder in mild to moderate Traumatic Brain Injury (mTBI)
- As an adjunct to physical therapy in the treatment of chronic balance and gait deficit in patients suffering from Multiple Sclerosis (MS)

Company History:

- Early 1990s: The Tactile Communications and Neurorehabilitation Laboratory (TCNL) was founded at the University of Wisconsin-Madison
- Late 2000s: TCNL developed and built the PoNS™ device and principals formed Advanced NeuroRehabilitation, LLC (ANR)
- 2013: ANR and MPJ Healthcare (medical device commercialization experts) formed NeuroHAbilitation Corporation, which signed a Collaborative Research and Development Agreement (CRADA) with the U.S. Department of Defense
- 2014: Helius was founded and acquired NeuroHAbilitation in a reverse merger and became a publicly traded company on the Canadian Stock Exchange
- 2016: Helius began trading on the Toronto Stock Exchange

Partnerships for Success:

The clinical research and development path for the PoNS™ device represents an innovative private-public “trifecta” approach and the company has established several major collaborations that highlight the potential for the PoNS™ device.

- **U.S. Armed Forces:** Because of its potential application for treating symptoms of Traumatic Brain Injury (TBI) for armed services veterans and members, the United States Army Medical Research and Materiel Command (USAMRMC) holds a Cooperative Research and Development Agreement (CRADA) with NeuroHAbilitation, a division of Helius, to fund clinical studies to further evaluate the PoNS™ device and to work with the FDA to get the PoNS™ device approved for use. Pursuant to the CRADA, U.S. Armed Forces are called to fund, manage and provide regulatory oversight associated with the clinical effort necessary to secure FDA clearance and approval, at which point USAMRMC will transfer such clearance or approval to Helius.
- **TCNL:** TCNL, located at the University of Wisconsin-Madison, studies applied neuroplasticity with the aim of developing solutions for sensory and motor disorders. This is the home laboratory of the scientists behind Helius’ PoNS™ technology.
- **Manufacturing**
Ximedica is a medical device product development company that produced the PoNS™ commercial prototype being used in clinical trials. Ximedica is a full service ISO 13485 certified and FDA registered product development firm with an exclusive focus on medical products. With more than 25 years of experience developing medical devices, combination products and consumer healthcare, Ximedica’s client base spans the globe and ranges from start-ups to the world’s largest medical device manufacturers.

Market Potential:

While available options to manage a host of neurological disorders exist today, for millions living with disorders there are limited treatments that actually help compensate for loss of function.

- Industry analysts report that devices are gaining acceptance as therapy alternatives for certain chronic conditions.
- The global neurostimulation – therapeutic activation of part of the nervous system using microelectrodes – device market is likely to achieve sales of \$6.5B by 2017, growing at a compounded annual growth rate (CAGR) of 17.9% from 2011 to 2017.²
- The US was the largest market for neurostimulation devices in 2011 and accounted for 81.9% of the total market in 2011.³
- Fueling the growth of the market is the development of non-invasive neurostimulation devices, which will help increase the adoption of these devices as treatment alternatives.⁴
- Other contemporary forms of neurostimulation are costly and invasive, with the potential for adverse effects. For example, deep brain stimulation (DBS), which uses implanted pacemaker-like electrical devices to decrease tremors in MS, carries surgical risks.⁵

Leadership

Management Team	Board of Directors
– Philippe Deschamps, President, Chief Executive Officer and Chairman of the Board of Directors	– Philippe Deschamps, President, Chief Executive Officer and Chairman of the Board of Directors
– Jonathan Sackier, MD, Chief Medical Officer	– Mitch Tyler, Clinical Director of Education/Training at TNLC; co-inventor of the PoNS™ device, Board of Directors and Member, Audit Committee, Nominating Committee and Compensation Committee
– Joyce LaViscount, Chief Financial Officer and Chief Operations Officer	– Blane Walter, Board of Directors and Member, Audit Committee and Compensation Committee
– Brian Bapty, PhD, Vice President, Strategy and Business Development	– Huaizheng Peng, PhD, Board of Directors
	– Edward M. Straw, Board of Directors and Member, Nominating Committee
	– Thomas Griffin, Board of Directors, Chairman of Audit Committee

¹ Y.P. Danilov, M.E. Tyler, K.L. Skinner, R.A. Hogle, and P. Bach-y-Rita, *Efficacy of electrotactile vestibular substitution in patients with peripheral and central vestibular loss*, J. Vestib. Res., 16:119-130, 2007; M. Tyler, Y. Danilov and P. Bach-y-Rita, *Closing an open-loop control system: Vestibular substitution through the tongue*, J. Integrat. Neurosci., 2:159-164, 2003; Bach-y-Rita P., Kaczmarek K., Tyler M. and Garcia-Lara J., *Form perception with a 49-point electrotactile stimulus array on the tongue*, J. Rehab. Res. Develop. 35 (1998) pp. 427-431

^{2,3,4} Root Analysis Research & Consulting: Neurostimulation Device Market, 2012-2017. Gross, R. (2008). "What Happened to Posteroventral Pallidotomy for Parkinson's Disease and Dystonia?" *Neurotherapeutics* 281- 293.

⁵ Tyler, M.E., Kaczmarek, K.A., Rust K.L., Subbotin, A.M., Skinner, K.L., & Danoliv, Y.P. (2014). Non-invasive neuromodulation to improve gait and chronic multiple sclerosis, *Journal of NeuroEngineering and Rehabilitation*.