Great Lakes NeuroTechnologies to be Awarded a Patent for Objectively Training and Adjusting DBS Systems with the Ability to Capture Patient-Specific Brain Signals

5 August 2020: Independence, OH – Great Lakes NeuroTechnologies (GLNT) announced today that it received a notice of allowance for an important US patent application 15/992,270 related to using common wearable sensors to objectively train and adjust the new, regulatory-approved deep brain stimulation (DBS) systems capable of capturing patient-specific brain signals. These new DBS systems, which include the Medtronic Percept PC with BrainSense* system, have the ability to record brain signals while delivering therapy to patients with certain neurologic disorders. This new DBS technology, however, is currently limited to patients tracking their own actions or experiences and allowing the attending physician to correlate this subjective data with the patient's brain signals. GLNT's new patented technology should provide for a more robust system, using clinically validated, real world evidence of the patient's disease state being collected during activities of daily living, which can be mapped or used to train an algorithm to objectively allow the physician or eventually a processor to adjust the patient's DBS neurostimulator based on their own brain signals. This patent is in addition to four allowed patent applications announced last month [http://glneurotech.com/kinesia/great-lakes-neurotechnologies-to-be-awarded-four-patents-for-movement-disorder-monitoring-and-therapy-adjustment/], and will be GLNT's sixth patent expected to issue during summer 2020.

GLNT commercialized Kinesia™ technology [http://www.glneurotech.com/kinesia] to provide wearable, objective and automated assessment of movement disorders such as Parkinson's disease (PD) and essential tremor (ET). The clinically validated technology has been adopted as the gold-standard for objective sensor measurement for movement disorders by many of the world's leading pharmaceutical and medical device companies. Last year, GLNT released the KinesiaU™ motor assessment system [http://www.KinesiaU.com], a prescription app that allows individuals to measure their Parkinson's disease symptoms at home using consumer smartwatches and share their data remotely with their doctors.

According to GLNT President and COO, Dustin Heldman, Ph.D., "This patented technology and GLNT's extensive knowledge in the field will allow for the more robust and patient-specific adjustment of these exciting new DBS systems. Machine learning and artificial intelligence algorithms should further allow for the automated adjustment of these DBS systems based on the patient's own brain signals."

Executive VP Brian Kolkowski, who leads GLNT's business development, stated: "This GLNT technology is another important piece in the puzzle related to significantly improving conditions for patients with these movement disorders. This patent will allow us to work with these third-party medical device manufacturers to improve their products, and potentially help protect their investments in these markets with exclusive offerings."

*Medtronic, Percept, and BrainSense are trademarks and/or the tradename of Medtronic, Inc.
Kinesia and KinesiaU are trademarks of Great Lakes NeuroTechnologies Inc. of Independence, OH.

About Great Lakes NeuroTechnologies

[https://www.glneurotech.com] is committed to pioneering innovative biomedical technologies to serve research, education, and medical communities, improving access to medical technology for diverse populations, and positively impacting quality of life for people around the world.

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