

Study shows KinesiaU smartwatch can aid Parkinson's therapy adjustments and reduce office visits

20 September 2021: Independence, OH – Great Lakes NeuroTechnologies (GLNT) announced today that it has published a research study, “Real-World Evidence for a Smartwatch-Based Parkinson’s Motor Assessment App for Patients Undergoing Therapy Changes,” in the journal *Digital Biomarkers* [<https://www.karger.com/Article/FullText/518571>] demonstrating that its KinesiaU™ motor assessment system can aid in the clinical management of patients with Parkinson’s disease (PD). KinesiaU enables patients to track their tremor, slowness, and dyskinesia in response to therapy using an Apple or Android smartwatch and smartphone app. Clinicians can access patient reports in real-time through the KinesiaU provider portal and use the information to help make better care decisions and identify therapies and activities to improve their patients’ symptoms.

In the study, sixteen individuals with PD who were scheduled to undergo a therapy regimen change were provided with a smartphone and smartwatch with the KinesiaU app installed. The participants used the KinesiaU system to assess the motor symptoms of tremor, slowness, and dyskinesia one week before the therapy change and for five weeks after the therapy change. After the six-week monitoring period, the treating physician used the information in the KinesiaU reports and his clinical judgment to make a treatment recommendation. The study concluded, “The smartwatch-based app successfully captured temporal trends in symptom scores following application of new therapy on hourly, daily, and weekly timescales. These results suggest that validated smartwatch-based PD monitoring can provide clinically relevant information and may reduce the need for traditional office visits for therapy adjustment”

Dr. David Riley was the treating physician during the study. According to Riley, “The KinesiaU system reveals a much wider window into my patients’ symptoms on an ongoing basis than we could ever achieve from widely spaced visits to my office. It’s like the difference between reading a book and hearing a review of the book. Seeing objective evidence of how my patients are doing when I am not with them helps me provide more accurate, informed and personalized care.”

Senior Biomedical Engineering Researcher, Aaron Hadley, Ph.D., was the lead author on the study. Hadley stated, “We are very pleased that this study demonstrated the KinesiaU system can provide patients and clinicians information on the effects of therapy changes. With KinesiaU, people can use their own smartwatches to track their symptoms and discuss their data with their doctor on the phone, reducing unneeded travel.”

Dr. Hadley also thanked the NIH for their support of this technology development through the SBIR program, specifically the National Institute of Nursing Research (1R43NR018128-01). The content of this press release is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

The KinesiaU motor assessment system is currently available in the US in the Apple App Store and Google Play by prescription.

About Great Lakes NeuroTechnologies

Great Lakes NeuroTechnologies [<http://www.glneurotech.com>] is committed to pioneering innovative biomed 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.

About Kinesia™ Technology

GLNT commercialized Kinesia™ technology 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. The technology is protected by 33 US and international patents shown at <https://www.glneurotech.com/patents/>.

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