



Company: Charco Neurotech

Knowledge Transfer Partnership: Developing a wearable device to alleviate the symptoms of Parkinson's Disease.

Charco Neurotech is a young company based in Cambridge, dedicated to improving the lives of people with Parkinson's Disease. This KTP is a 24-month project to further develop and test Charco's CUE1 device, which offers non-invasive and non-drug-related treatment.

Challenge

Parkinson's is the fastest growing neurodegenerative condition worldwide, with over 10 million people currently diagnosed with the condition. Many people with Parkinson's are started on medications at the point of diagnosis, including drugs like levodopa. Some symptoms are effectively managed with drug treatment, but treatment effects can wane, and side effects can emerge over time.

CUE1 has already been developed and been used by Parkinson's patients, with good results. The device delivers individualised peripheral nerve stimulation designed to alleviate motor symptoms such as slowness, stiffness and freezing while walking and has a waiting list of more than 7000 people.

Now, the company wants to investigate how the device, which combines focused 'vibrotactile stimulation' and 'cueing' to alleviate symptoms such as bradykinesia (slowness in movement), rigidity (stiffness), balance problems, falls, freezing of gait, and to improve dexterity, can benefit a much wider group of Parkinson's patients.

The scope of the project includes testing the CUE1's feasibility, assessing its tolerability and effect on clinical outcome measures, assessing optimal stimulation settings and positioning for the CUE1, and drafting a design for a formal clinical trial.

This project is a new addition to Queen Mary's Knowledge Transfer Partnership (KTP) portfolio.

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We could not be more happy to be working together with Queen Mary on this project. Working with such an institution and leaders in the world of Parkinson's will be instrumental and invaluable in translating research and development to support this intervention. This will help us to improve the quality of life for people with Parkinson's.”



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Collaborate with us

