Docket #: S23-360

Apparatus and method for efficient long-term multi-channel non-invasive stimulation for the treatment of disorders of the nervous system

The Tass Lab has invented non-invasive, Vibrotactile Coordinated Reset (vCR) stimulation devices and methods to safely and efficiently treat brain disorders characterized by abnormal neuronal synchrony such as Parkinson's disease.

The device is an anti-habituation method to adjust stimuli in a way that enhances long term effectiveness. It delivers non-invasive, in particular, sensory stimulation treatment in a way that it counteracts habituation, e.g., by increasing and rewarding patients' attention, alertness, curiosity level and activating additional brain areas besides primary sensory brain areas. In this way the device counteracts habituation and increases the therapeutic effects, e.g., by boosting the propagation of desynchronizing effects through disease-related brain circuits.

Stage of Development

- Prototype
- Implement in firmware and then ready for clinical trials.

Related Technologies:
17-270: Safe and efficient vibrotactile multi-channel stimulation for the treatment of brain disorders
23-357: Apparatus for efficient vibrotactile stimulation, especially vibrotactile fingertip stimulation
23-359: Apparatus for efficient vibrotactile and electrotactile fingertip stimulation
23-373: Apparatus and method for efficient multichannel vibrotactile stimulation with compound pulses
23-406: Apparatus and method for efficient combined vibrotactile and electrotactile

stimulation for the therapy of disorders of the nervous system
23-407: Apparatus for efficient electrotactile fingertip stimulation for the treatment of disorders of the nervous system
23-408: Apparatus and method for efficient wireless synchronization of multi-site non-invasive stimulation for the treatment of disorders of the nervous system
23-409: Method and apparatus for autonomous parameter adaptation of non-invasive multichannel stimulation

Applications

- Glove (fingertip stimulation) for the therapy of Parkinson's Disease and other movement related disorders

Advantages

- Non-invasive
- More effective method to counteract habituation during therapy

Innovators

- Peter Tass

Licensing Contact

Seth Rodgers

Licensing Manager, Life Sciences

Email