A Multi-Chip Module for Treatment of Ear/Brain Disorders

Tech ID: 33720 / UC Case 2022-99Q-0

BRIEF DESCRIPTION

This unique device delivers electrical stimulation to the inner ear or cranial nerves to treat a panel of ear/brain disorders, including tinnitus.

FULL DESCRIPTION

Researchers at UC Irvine developed a multi-chip module that can stimulate neural structures in and around the ear to suppress tinnitus in some patients. Compared to alternative treatment options, this device can assist patients who are experiencing varying symptoms of tinnitus as well as a wide range of disorders related to the cranial nerves. This novel technology addresses the void for a minimally invasive, easily accessible, and widely applicable therapeutic strategy for ear/brain abnormalities.

SUGGESTED USES

- Treatment of auditory disorders, primarily tinnitus and hearing loss.
- Treatment of neurological disorders, such as depression, anxiety, migraine, dizziness, and seizures.
- Treatment of cranial neuropathies, including salivary-gland and facial-nerve abnormalities.

ADVANTAGES

- Minimally invasive, in contrast to cochlear implants.
- Compact size and easy implantation, unlike alternative sound therapy equipment. ·
- Broad range of stimulus parameters available for tailored treatment plans.
- Wireless charging and control.

PATENT STATUS

Patent Pending

RELATED MATERIALS

- A miniaturized wireless multi-chip module for treatment of an ear/brain/systemic disorder

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OTHER INFORMATION

CATEGORIZED AS

- **Biotechnology**
  - Health
- **Medical**
  - Devices

RELATED CASES

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