



Non-Pharmacological Addiction Treatment

BYU #2019-006

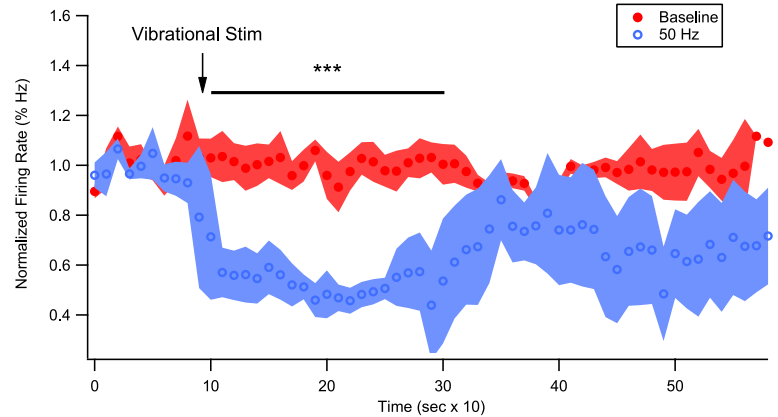
DESCRIPTION

The Addiction Lab at BYU is researching and developing non-pharmacological therapies for the treatment of substance abuse. This invention consists of a method that could treat drug abuse, having specific applications during the withdrawal stage, by mechanical vibration of the spine.

PROBLEM SOLVED

Fifty percent of people being treated for addiction will relapse within a given year (all treatment approaches combined). The symptoms of withdrawal for some drugs including alcohol are so severe that trying to overcome an addiction without medication or medical intervention is rarely successful. Current treatment for substance abuse is typically replacement therapy, is costly, is fraught with unwanted side effects, and often leads to abuse of other drugs. Midbrain dopamine neurons play an important role in the rewarding and addictive properties of drugs of abuse. When someone is going through withdrawal stages, regulatory GABA neurons in the midbrain pleasure system become hyperactive and the dopamine neurons become hypoactive leading ultimately to dysregulation of dopamine transmission, which is believed to be the primary driving force for relapse. This technology provides a non-pharmacological way of enhancing baseline dopamine levels by using mechanical stimulation of sensory receptors in the spine to enhance the release of endogenous opioids in the pleasure system of the brain that act naturally to reduce craving, symptoms of withdrawal and relapse.

GABA NEURONS IN THE VENTRAL TEGMENTAL AREA



KEY ADVANTAGES

- » *Treating addiction without the use of drugs*
- » *Non-invasive vibratory stimulation*
- » *Remote monitoring of patient usage*

Offer:
License
Exclusive
World Wide
All Fields of Use

APPLICATIONS

This technology targets the treatment of addiction as well as other brain dopamine-dependent conditions including ADHD, behavioral addictions and Parkinson's Disease.

IP Status:
Patent Pending



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