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"Science in the News- CAN STIMULATING THE BRAIN TREAT CHRONIC PAIN"

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BioChemistry

Can Stimulating the Brain Treat Chronic Pain?

Link: <https://www.sciencedaily.com/releases/2018/11/181108130546.htm>

The focus of this study is to determine whether targeting a specific region of the brain with a weak alternating current of electricity can help decrease symptoms associated with chronic lower back pain. The reason why I picked this article is because I want to become a pharmacist and the opioid issue is something all pharmacists are currently dealing with. Many people have been abusing opioids and because of that, and other issues people with chronic pain are not being given opioids. This alternative treatment would help solve a major crisis. In this study, researchers would target the somatosensory cortex using tACS (transcranial alternating stimulation) to enhance naturally occurring alpha waves. They believed that these alpha waves were deficient in those with chronic lower back pain. This was tested out on 20 patients in two sessions and each session was about 40 minutes. They had a control group and one in which tACS was actually used. Data shows that participants who underwent the tACS sessions felt no pain immediately after the session. This is related to what we are learning in class because it is a great example of how the scientific method is used in the industry to determine whether or not a new treatment works or not. These results are only from one session and the researchers plan on conducting a larger study to discover the effects of multiple tACS sessions over a longer period of time. They also plan on doing studies on people with different kinds of chronic pain.

[https://www.jpain.org/article/S1526-5900\(18\)30642-4/fulltext](https://www.jpain.org/article/S1526-5900(18)30642-4/fulltext)

Santae Ahn, Julianna H. Prim, Morgan L. Alexander, Karen L. McCulloch, Flavio Frohlich.

Identify and Engage Neuronal Oscillations by Transcranial Alternating Current

Stimulation in Patients with Chronic Low Back Pain: A Randomized, Crossover, Double-

Blind Sham-Controlled Pilot Study. *The Journal of Pain*, 2018; DOI:

10.1016/j.jpain.2018.09.004

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