

2ND INTERNATIONAL CONFERENCE ON CELL SCIENCE AND REGENERATIVE MEDICINE



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Sequential visual stimuli increase high frequency power in the visual cortex

Abstract: Today, 40 Hz flickering full-field visual stimulation is used to entrain neuronal oscillations for a variety of therapeutic purposes. We here propose spatially organized sequential visual flickering stimulation as a newer tool to entrain the visual system. We show that sequential visual flickering can evoke increased power in high frequencies (100 to 190 Hz) in the visual cortex of mice. Consequently, sequential sensory stimulation should be regarded as a putative new way leading to power increases in high frequency domains.

Keywords: Visual sensory processing, Neuronal entrainement, Neuropixels

Biography: I'm a research scientist at Charite. Defended my PhD in 2013 on neuroglial interaction and have been specializing in in vivo physiology since. Currently presenting some murine application from these new stimulations apradigm developed by the start-up Nuuron aimed at curing Alzhheimer.