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Dynamic stimulationof neurons by sigma photonic quantum energy as a novel biomarker for Alzheimer's disease

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The human brain contains billions of neurons that generaterhythmic and repetitive neural activity known as oscillations. These oscillations vary in time as repetitive measures about a central value, much like a pendulum or vibrating string, except that the wave generated in the human brainare electromagnetic.The difference in the electric potential between the two extreme oscillation points is defined as voltage and can be measured using electroencephalography (EEG). Traditionally used as an epilepsy diagnostic tool or adjunct test of brain death, EEGs can also be used to differentially diagnose between Alzheimer's disease and similar pathologies such as Lewy Body Disease. Since both anomalies affect the hippocampus it is especially difficult to discern between the two pathologies, except that LBD manifests a greater EEG wave deceleration.

In a given model of a brain, each hemisphere is considered as an independent generator of oscillatory processes.The mathematical description of the specified wave model of a brain is detailed below (Anuashvili). The mathematical description of the specified wave model of a brain is detailed below. Oscillatory processes occurring in hemispheres, are explicated as follows:

$$F_l = A_l e^{i(\omega_l t+\phi_l)}$$

$$F_r = A_r e^{i(\omega_r t+\phi_r)}$$

In formulas (1) and (2)

A_l and A_r- amplitude of oscillation accordingly in left and right hemispheres,

ω_l and ω_r - circular frequency of oscillation accordingly in left and right hemispheres,

ϕ_l and ϕ_r - preamble phase of oscillation accordingly in left and right hemispheres.

Hemispheric domination may be demonstrated by the displacement size of the Oscillatory source during an exposition or proportional value, i.e., the difference of amplitudes of oscillatory processes occurring in hemispheres:

$$\Delta A = A_l - A_r$$

Thus, in wave model of a brain, the two parameters are allocated:
1) Domination of one of hemispheres.
2) Coordination (coherence) of oscillatory processes in hemispheres. - Einstein's great minds

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