Original Article

Ultra-weak electromagnetic signals: effects of storing and playback on example of saccharomyces

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Abstract

Background: Different types of cells generate emission called mitogenetic by A.Gurvich. This emission was shown to affect growth of other cultures. We attempted to research this phenomenon with use of electronic medicamental selector (MS) to record and playback earlier stored ultra weak electromagnetic signals.

Aims: The aim of this work was to investigate methods and effects of storing and reproduction of ultra-weak electromagnetic signals of live cell cultures in radio-frequency range.

Methodology: Saccharomyces boullardii were selected as a source of weak electromagnetic signals of mitogenic. In each experiment liquid sample of culture was kept at 29°C in thermostat. After 2 hours at stage of maximum gemmation the sample was taken either for storing of signal or for processing by earlier registered signal. The signal was stored and reproduced by contact means. The samples of culture were distributed between 3 containers “K”, “X” and “S”: culture in container “S” was processed by signal from MS module, container “X” was connected to the MS, but without any signal (placebo) and container “K” was kept unconnected as a control. Cups were placed in thermostat for 12-15 hours for cultivation and achievement of maximum growth. After cultivation the growth of culture was measured by photoelectric photometer KFK-3-“3OMC” at wave length 570 nm. 20 values of optic density of culture in groups “S”, “X” and “K” were united in data sets. Data sets were compared by pairs with non-parametric Mann-Whitney U criteria.

Results and discussion: Analysis of experimental data sets shows either statistically significant (α≤0.05) inhibition of growth of saccharomyces processed by the signal of mitogenetic emission (5 experiments from 6) or no significant difference between groups (1 experiment from 6). Most expressed effect – inhibition of growth by 17% with α≤0.005 was observed in case of weak growth of culture in all groups.

Conclusion: 1. biologically significant effect of mitogenetic emissions signals of saccharomyces in radio-frequency range was observed; 2. electronic medicamental selector allows to store and reproduce signals of saccharomyces in radiofrequency range; 3. contact method can be recommended for storing and reproduction of saccharomyces signals.

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