

THE HYPOTHESIS OF MECHANISM OF INFLUENCE OF REGULAR COSMOGEOPHYSICAL OSCILLATIONS ON HORMONES SECRETION AT HUMANS AND MATTERS RELATED TO PRESERVE THE HEALTH OF ASTRONAUTS DURING INTERPLANETARY FLIGHT

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Abstract. In the research of 33 genealogical trees, on the basis of detection of significant divergence with a random distribution of dates of birth among the genetic relatives respectively to two solar long-period harmonics, known from the Earth tide theory, a hypothesis of the regular cosmogeophysical oscillations influence' mechanism on hormone secretion in the humans' organisms was suggested using the methods of mathematical statistics. The fidelity of the hypothesis of the influence mechanism on the humans' organisms of tidal harmonics will be affirmed, if on the base of additionally collected genealogical trees via adjusting the sampling size till 440-880 reveals a significant divergence with a random distribution of dates of birth among the genetic relatives respectively to the lunar long-period harmonics. In light of the suggested hypothesis it is considered to take measures to maintain the health of astronauts during planning in the future interplanetary flights under the conditions of absence of the earth tides oscillations, which are natural on the Earth surface. The technical support of the probable modeling of the essential for humans extremely-low-frequency electromagnetic oscillations in the habitable module of the spacecraft or separately for each crew member must be coordinated with the decision of similar problems on creation of the electromagnetic fields of various designations during the whole interplanetary flight.

Keywords: cosmogeophysical oscillations, the influence of long-period electromagnetic waves on the humans' organisms, hormone secretion, the interplanetary manned flights.