

**«Electromagnetic Radiation» Experiment  
STUDY OF THE NEGATIVE INFLUENCE  
OF ELECTROMAGNETIC RADIATION  
PRODUCED BY RADIO ELECTRONIC DEVICES ON BOARD THE ISS  
ON THE HOMEOSTATIC SYSTEM OF ASTRONAUTS**

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The purpose of experiment is to study the influence of electromagnetic radiation (EMR) produced by radio electronic devices aboard the orbital stations on the homeostatic system of astronauts

The main objectives are as follows:

— to study biotropic effects resulting from com-

bined influence of electromagnetic radiation and other space flight factors on the stability of a human homeostasis;

— to develop methods for enhancement of astronauts' resistance to the adverse influence of the space flight factors.

**CONCLUSION**

**TO THE «SPACE BIOLOGY, BIOTECHNOLOGY, AND MEDICINE» CHAPTER**

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The Ukrainian Research Module of the ISS will be used for performance of more than 50 experiments in the field of space biology, biotechnology and medicine. These series of experiments will create the necessary basis for obtaining principally new fundamental knowledge on the biological role of gravity and geomagnetic field acting permanently on Earth. These experiments will enable the original ideas on growth, development, and vital activity of living systems to be verified under the influence of various space factors. This basic research will allow development of space cell biotechnologies and

methods for functioning of the autotrophic and heterotrophic links of CELSS for astronauts during their flights in far space and visits to Moon and Mars. The long-term orbital flight of the URM will give us a unique possibility both to test the reliability of newly created biotechnologies and to develop self-sufficient onboard technological processes for production of biopreparations and biomaterials.

Research and testing performed in the URM will facilitate a wider integration of Ukraine into the international co-operation in the field of space life sciences.