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SSC RF-Institute of Biomedical Problems RAS, Russian Federation, (*email is not specified*)60 YEARS OF SERVICE TO WORLD COSMONAUTICS. DEDICATED TO THE ANNIVERSARY OF
THE INSTITUTE OF BIOMEDICAL PROBLEMS**Abstract**

On October 28th, 1963, the Institute of Space Biomedicine of the USSR Ministry of Health (since 1965 - the Institute of Biomedical Problems, or IBMP) was created. Its establishment was initiated and actively supported by the creator of first spacecraft S.P.Korolev, the President of the USSR Academy of Sciences M.V.Keldysh and the USSR Deputy Minister of Health A.I.Burnazian. IBMP was intended to be the leading USSR institution researching the problems of space biomedicine. Increasing duration of space missions and the volume of works in space required extended biomedical research and the development of new medical equipment and life support systems. To solve this task, specialists from various fields of science and technology were involved. Today, the IBMP is the leading Russian organization conducting fundamental research in space biomedicine; biomedical support for space flights and measures to ensure safety, preserve health and maintain human performance in extreme conditions. In addition to research in the field of space biology and medicine and biomedical support in space (including environmental and radiation safety issues), experiments are conducted in environmental, extreme, sports, aviation and high-altitude physiology and medicine; gravitational physiology; biological, physical-chemical and complex life support systems; cellular physiology; biotechnology; psychophysiology; engineering psychology and ergonomics; radiation biology; magnetobiology; exobiology; barophysiology and diving medicine; telemedicine; exposure to artificial respiratory gas mixtures; hygiene and epidemiology of hermetic objects; functional reserves of the body and mechanisms of adaptation to the effects of various environmental factors; physiology of a healthy person; medical problems of dangerous professions. Another important task is translating the research results into clinical medicine and national economy. The IBMP has a unique bench base, including a ground-based experimental facility for conducting research in conditions of prolonged isolation and artificial habitat, special stands for simulating and studying the physiological and biological effects of weightlessness and other factors of space flight (dry immersion, antiorthostatic hypokinesia, hypomagnetic stand); a short-radius centrifuge, a deep-sea diving complex (GVK-250) to simulate human immersion to a depth of up to 250 m, etc. Over 60 years of work, IBMP has made a significant contribution to the development of new fields of knowledge — space medicine and biology, gravitational biology and physiology. The cooperation of academic, medical, educational, technical organizations from various departments and ministries paired with broad international cooperation solved

the tasks necessary for cosmonautics, thus creating the prerequisites for human exploration of deep space, interplanetary flights and the creation of planetary bases.