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## **RUSSIAN COLLECTION OF VIRUSES FROM EAST ASIA AS AN ELEMENT OF BIOLOGICAL SAFETY ENSURING**

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Viruses are one of the important factors that reduce resistance to adverse effects as well as productivity of animals and cultivated and wild plants. Previous experience of development of natural resources and recreational potential of the Far East reveals the threat of challenging dangerous natural focal diseases. It is revealed that pathogens of a number of diseases circulate in natural conditions and when cultivated plant and animal species are introduced into the natural foci. It results in considerable potential threats to biological safety in the Far East.

Successful large-scale Program for monitoring of natural focus of humans, animals and plants diseases was conducted in the former USSR. Related methodological approaches were developed to become traditional tools of scientific and methodological support for the biological safety of all developed countries. During the implementation of Soviet programs to survey biological diversity of terrestrial ecosystems, new unique viruses were discovered in the Far East.

Russian Collection of viruses from East Asia was established in the 2017 on the base of the Laboratory of Virology of the FSC 'Biodiversity' FEB RAS. The purpose of the collection is the long-term preservation of viral strains in order to trace the modern evolution of East Asian microbiota, improving of the quality and transparency of scientific research in microbiology, and analyzing the biological properties of viral strains to select candidate samples for establishment of test-systems. Strains of phytoviruses identified since 1962 form the core of the collection. It has been revealed that almost all cultural plants and all wild flora are affected by phytopathogenic viruses. The Laboratory of Virology has been developing and implementing immunochemical identification of Far Eastern phytoviruses for many years.

Nowadays, current tasks of the Collection include ensuring the sustainable development of the Far East in accordance with Russian Government resolutions. So, there is an urgent need to resume large-scale studies of virus natural foci in the region in the context of the complex problem of the biological diversity of terrestrial ecosystems. This task will allow timely detection of threats to the development of epiphytotic, epizootic and epidemic, promptly deploy preventive actions and measures to reduce the level of adverse consequences that can affect the sustainable development of the Russian Federation. Russian collection of viruses from East Asia should become an integral element of these investigations.