



*Dear colleagues!*

The Russian Academy of Sciences, together with the Federal State Budgetary Institution Central Research Institute of Epidemiology of Rospotrebnadzor, will organize an International conference "Technology of the genome editing system: applications in the modern world", which will be held on June 20, 2024 In an online format.

The timeliness of the conference topic is due to the rapid development of genome editing using programmable nucleases, which has taken the leading positions in the field of genome modification technologies in a short time and is used in many countries around the world. At present, there are three main systems for targeted genome editing: zinc-finger nucleases, TALE nucleases and CRISPR/CAS nucleases. The potential benefits of human genome editing include faster and more accurate diagnosis, more targeted treatment and prevention of genetic diseases. In Russia, special attention is paid to genetic technologies within the framework of national projects. Modern genomic technologies make it possible to treat diseases that were previously considered incurable, contribute to the development of a personalized approach to the diagnosis of the disease and treatment of the patient, taking into account the individual characteristics of his/her genome.

At the moment, the world has accumulated significant experience in the use of gene editing technologies for treatment and prevention of genetic diseases, vector-borne and viral infections, but further development is hindered by both technical and ethical problems. The task of the international expert community and government agencies is to ensure the smooth integration of genome editing methods into society without allowing significant social disruptions.

The conference schedule will be of interest both to scientific specialists engaged in fundamental and applied research in the field of genome editing, as well as to clinical practitioners using the achievements of science in their practical work.

The conference is held in support of the development of modern molecular biological technologies with the participation of the world-class Center for genomic research for biological safety and technological independence (Agreement of the Ministry of Education and Science of the Russian Federation No. 075-15-2019-1666 from October 31, 2019).

Taking into account the high social, scientific and practical significance of the event, we invite you to take part in the International Conference "Technology of the genome editing system: applications in the modern world".

*Kind regards*  
*The Organizing Committee*