

## Andrey I. Dudnikov (on the 95<sup>th</sup> anniversary of his birth)

December 12, 2023 marked the 95<sup>th</sup> anniversary of the birth of Andrey Ivanovich Dudnikov, Honored Veterinarian of the Russian Federation, holder of three Orders of the Red Banner of Labor, laureate of the State Prize of the Russian Federation in the field of science and technology, Doctor of Science (Veterinary Medicine), Professor, first Head of the Laboratory for Inactivated Vaccines in the All-Union Foot-and-Mouth Disease Research Institute (currently FGBI "ARRIAH", Vladimir).

Andrey I. Dudnikov was born in the village of Kryuk, Novooskolsky Raion of the Belgorod Oblast on December 12, 1928. In 1952, he graduated with honors from the Kharkov Veterinary Institute. For four years he worked as the Head of the Transport Veterinary Station at the Novy Oskol railway station in the Belgorod Oblast.

From 1956 to 1964, he worked as a Junior Researcher at the Laboratory of Virology at the Ukrainian Research Institute of Experimental Veterinary Medicine (Kharkov), where he defended his Candidate of Science thesis in 1964, and then was invited for Senior Researcher position in the All-Union Foot-and-Mouth Disease Research Institute.

Since foot-and-mouth disease as a highly dangerous infection posed a great threat to the country due to the lack of specific disease prevention tools, the Laboratory for Inactivated Vaccines was established at the All-Union Foot-and-Mouth Disease Research Institute in 1966 and headed by Andrey I. Dudnikov.

The Laboratory staff activities were aimed at the development of safe and highly effective inactivated vaccines against foot-and-mouth disease (FMD). Andrey I. Dudnikov led and was directly involved in the improvement of technology for adsorbed lapinized virus-based vaccine production and its putting into practice at national 10 biological factories. Anti-FMD emulsion vaccine using domestic mineral and synthetic oils and emulsifiers was developed and put into production. Commercial production of mono- and polyvalent adsorbed and emulsion anti-FMD vaccines as well as universal vaccines for rapid protection of animals from FMD based on large-scale virus cultivation in BHK-21 cell suspension was commenced under Andrey I. Dudnikov leadership.

National strategy for foot-and-mouth disease eradication through the use of developed immunobiologicals was launched in the country and facilitated by mass application of safe and effective vaccines. By the early 1990s, foot-and-mouth disease had been eradicated and epizootic virus strain circulation had been terminated in the country.



Professor Andrey I. Dudnikov created his own scientific school, three Doctor of Science theses and more than twenty Candidate of Science theses were successfully defended under his scientific supervision. He published more than 500 scientific papers. The priority of Andrey I. Dudnikov's research is protected by 38 USSR inventor's certificates and 12 Russian Federation patents for the inventions. He was an excellent teacher, highly committed and hardworking expert, knowledgeable in vaccinology, being a real "father" for his subordinates and early-career researchers and that's why he was deeply respected and cherished by his apprentices and colleagues. Andrey I. Dudnikov had been the Deputy Director for Research at the Institute till 1990.

In 2009, Andrey I. Dudnikov passed away. His adherents worthily continue to put his ideas into practice: new methods for preparation of epizootic virus isolates for vaccine production and virus inactivation; improved methods for virus purification and concentration, virus immunogenic components quantification within vaccine formulation. Since its early days until today, the Laboratory has been a unique fundamental pillar for research and experiments at the FGBI "ARRIAH".