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CHRONICLE AND INFORMATION

ON THE ANNIVERSARY OF SERGEY FESENKO

On 17 September, 2025, Sergey Fesenko celebrated his 70th birthday. He is a leading radioecologist respected in the scientific community both in our country and abroad, D. Sc. (1997), Professor (1999), and laureate of the Russian Federation National Award (2002). He has made a significant contribution to the development of agricultural, forest, aquatic, and general radioecology, as well as environmental radiation protection and dosimetry.

S. Fesenko was born in 1955 in Simferopol and graduated from secondary school No. 14 in 1972 there. In 1978, he graduated with honors from the Moscow Engineering Physics Institute (MEPhI) (specializing in dosimetry and protection), and in 1982, from the Lomonosov Moscow State University, the Faculty of Mechanics and Mathematics (specializing in applied mathematics). In 1983, he completed the full-time postgraduate course at MEPhI.

Sergey Fesenko began his scientific career in 1981 as a junior researcher. Then, he worked as a senior and leading researcher, head of a laboratory, and deputy director for scientific affairs. Currently, he is the chief researcher at the Russian Institute of Radiology and Agroecology of the National Research Centre “Kurchatov Institute” (until 1991, the All-Union Research Institute of Agricultural Radiology). In 2004–2017, he worked at the International Atomic Energy Agency (IAEA) coordinating research and practical assessment of the environmental hazards of nuclear energy use and the rehabilitation of contaminated sites. During this period, he prepared over 15 international guidelines and recommendations on determining the effect of ionizing radiation on the environment and people, and on the rehabilitation of radioactively contaminated areas. S. Fesenko participated in the cleanup efforts following the Chernobyl and Fukushima Daiichi nuclear power plant accidents.

In 1985, Sergey Fesenko defended his PhD thesis *Assessment of the Effect of the Accident at the ‘Mayak’ Chemical Plant on Freshwater Ecosystems*, in physics and mathematics. In 1997, he defended his D. Sc. thesis *Agricultural and Forest Ecosystems: Radioecological Consequences and Effectiveness of Protective Measures in Case of Radioactive Contamination*, in radiobiology.

He has studied the fundamental mechanisms of behavior of natural and artificial radionuclides in natural and agricultural ecosystems. A set of migration and dosimetric models has been developed which allowed for reconstructing the radiation doses of hydrobionts in Lake Uruskul (the Urals) and providing a long-term assessment of the radiation effect on ecosystems at different levels of biological organization.

S. Fesenko has determined quantitative parameters and developed a set of models to assess the contribution of agricultural products to the exposure of the local population in radioactively contaminated sites.

He has established fundamental patterns of change in the biological availability of ^{137}Cs in agricultural ecosystems and identified the key factors causing this change. He presented a theoretical description of mechanisms governing changes in ^{137}Cs mobility in agroecosystems and a long-term forecast of the dynamics of its content in soils and vegetation of various ecosystems.

Sergey Fesenko has carried out the research to assess the consequences of radioactive contamination of agricultural land for various radiation exposure scenarios: in the context of nuclear war, normal operation of radiation-hazardous facilities, and emergency situations. He has developed a set of models describing environmental protection measures in agriculture in radioactively contaminated areas and carried out a comparative analysis of countermeasure strategies in agriculture after the Chernobyl nuclear accident.

He has carried out a comprehensive radioecological assessment of the effect of normalized and emergency emissions from nuclear power plants on forest and agricultural ecosystems. The materials of his research and the methods he developed were used for environmental expertise in the construction and expansion of several Russian nuclear power plants.

For the long-term period after the Chernobyl nuclear accident, he proposed a fundamentally new, targeted approach to the rehabilitation of agricultural land.

S. Fesenko has authored and co-authored 12 monographs and more than 400 articles in leading Russian and foreign scientific journals. He has supervised 2 D. Sc. and 15 PhDs. He serves on editorial boards of *Marine Biological Journal*, *Radiation Biology. Radioecology*, and *Civil Security Technology*.

The significance of his scientific work is confirmed by his receipt of a number of national and international awards. He is a laureate of the Russian Federation National Award in science and technology (2002), for establishing the scientific foundations of agro-industrial production and implementing a system of protective and rehabilitation measures within the zone of the Chernobyl nuclear accident, and also the Nobel Peace Prize laureate (jointly with IAEA, 2005). Sergey Fesenko was presented with the prestigious IAEA Superior Achievement Award (2017) and the V. Klechkovsky Gold Medal of the Russian Academy of Sciences (2021) for outstanding achievements in radioecology. He has been awarded certificates of honor from the Ministry of Agriculture of the Russian Federation (2001), the Russian Academy of Agricultural Sciences (2000), the Obninsk administration (2007 and 2011), the Governor of the Kaluga Oblast (2003), the Minister for Emergency Situations of the Republic of Belarus (2016), and the Russian Academy of Sciences (2020).

Colleagues from IBSS Department of Radiation and Chemical Biology sincerely congratulate Sergey Fesenko on his anniversary and wish him good health, active creative longevity, happiness, new scientific achievements, and family well-being!

With deep respect,
the team of IBSS Department of Radiation and Chemical Biology

К ЮБИЛЕЮ СЕРГЕЯ ВИКТОРОВИЧА ФЕСЕНКО

17 сентября 2025 г. отметил своё 70-летие д. б. н., проф. Сергей Викторович Фесенко — выдающийся специалист, чей вклад в развитие сельскохозяйственной, водной и общей радиоэкологии трудно переоценить. С. В. Фесенко исследовал фундаментальные механизмы поведения естественных и искусственных радионуклидов в природных и аграрных экосистемах, занимался оценкой последствий радиоактивного загрязнения сельскохозяйственных земель и их реабилитацией при различных сценариях радиационного воздействия, а также анализировал влияние нормализованных и аварийных выбросов АЭС на лесные и аграрные экосистемы.