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|  | Rosatom DeigitalPress Office[atommedia.online](https://atommedia.online/) | **Press Release**13.05.25 |

**Rosatom’s first supply of technetium-99m generators to the Kyrgyz Republic**

*Kyrgyzstan-Rosatom cooperation aims to improve the nuclear medicine infrastructure in the republic and enhance the effectiveness of cancer treatments*

**Isotope - Regional Alliance, Joint-Stock Company (Isotope JSC, part of Rosatom’s Scientific Division) will supply technetium-99m generator sets to the Kyrgyz Republic on a regular basis. The company will provide radiopharmaceutical products to the National Center of Oncology and Hematology in Bishkek within the framework of the national project of the technical cooperation program of the International Atomic Energy Agency (IAEA) "Restoration of Nuclear Medicine in Kyrgyzstan" and as part of the Agency's "Rays of Hope" program.**

The GT-5K type technetium-99 generators produce technetium-99, a radionuclide that is in high demand in nuclear medicine. Tehnetium-99 is employed in 80% of single-photon emission computed tomography (SPECT) procedures to diagnose a wide range of conditions, including cancer, heart, neuroendocrine and other diseases. SPECT makes it possible to visualize the thyroid, heart, bones, lungs, kidneys and gastrointestinal tract enabling the detection of metastases and other abnormalities at an early stage. This helps significantly improve the accuracy of diagnoses and the effectiveness of treatments and increase survival rates.

“The development of cooperation with the Kyrgyz Republic in the field of nuclear medicine is an important step towards improving access to advanced technologies and early detection of various health conditions. Through our joint efforts, we aim to enhance the quality of life for patients and reduce the number of deaths from cancer," stated **Maxim Kushnarev**, Director General of Isotope JSC.

The GT-5K technetium-99 generator is manufactured by Karpov Research and Development Institute for Physical Chemistry, Joint-Stock Company (KIPC JSC belongs to Rosatom’s Scientific Division). The Institute is a leading producer of this medical product in Russia.

“The Molybdenum-99 and technetium-99 radioisotope pair is crucially important in the nuclear medicine. These radioisotopes make it possible to make a lot of diagnostic tests annually, allowing physicians to evaluate properly the health of patients' organs and tissues. The production of the GT-5K type technetium-99 is particularly important amid the growing need for high-quality diagnostic services,” pointed out **Oleg Kononov**, Director General of KIPC JSC.

 “Our cooperation with Isotope JSC as part of the IAEA program will be a crucial milestone in the development of nuclear medicine infrastructure in the Kyrgyz Republic and a significant event for the national healthcare system. This will have a positive effect on the further development of cooperation between Russia and Kyrgyzstan in the atomedics, undoubtedly resulting in improved outcomes, including earlier disease detection, enhanced treatment results, and increased survival rates,” said **Gulnara Ryspaeva**, Head of the Nuclear Medicine Department at the National Center for Oncology and Hematology.

**For reference:**

Technetium-99 is a radioactive isotope that is in high demand in medical imaging. It is manufactured by KIPC JSC.

The GT-5K technetium-99 generator is intended for multiple production of sterile sodium pertechnetate solutions with technetium-99m (eluate). The eluate can be used as a radiopharmaceutical or as a component of other radiopharmaceuticals with technetium-99m produced using specialized reagent sets. Sodium pertechnetate (⁹⁹ᵐTc) is employed in brain, thyroid, and salivary gland scintigraphy, as well as in radionuclide angiocardiography and ventriculography.

Diamed LLC offers specialized kits for the on-site production of technetium-99 radiopharmaceuticals. As technetium-99 has a short half-life it is necessary to produce radiopharmaceuticals in clinical laboratories and the kits make it possible, helping to ensure that technetium-99 is selectively distributed throughout the body concentrating precisely in the targeted organ. This improves the accuracy of diagnoses and reduces the overall radiation exposure for patients.

**Karpov Research and Development Institute for Physical Chemistry, Joint-Stock Company (KIPC JSC)** is the leader in scientific research and experimental development in the nuclear, radiation, and chemical production technologies, industrial engineering and manufacturing of cutting-edge products primarily for nuclear medicine. The institute is a leading producer of medical radionuclides and radiopharmaceuticals, which can save lives.

**Isotope JSC** is the industry’s integrator specializing in the distribution and marketing of Rosatom’s isotope products. The company is the exclusive supplier of Rosatom's isotope network on the global market, and a key isotope products supplier on the domestic market. Isotope JSC has a vast network of partners, including 170 foreign companies based in 50 countries worldwide, as well as approximately 600 Russian companies. These include medical facilities, manufacturing companies, and scientific institutions. Currently, Rosatom offers the world’s widest range of radioactive and stable isotopes for medical applications. Diagnostic and therapeutic services based on Rosatom’s products are provided to over 2.5 million patients around the world annually. The company dispatches 9,000 shipments each year including around 2,000 ones for export.

Russia is steadily developing its international trade and economic relationships, prioritizing long-term mutually beneficial cooperation. In particular, it is focusing on the supply of radioisotope products. Rosatom and its companies are actively involved in this endeavor.