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**Product license obtained for new radiopharmaceutical “Rakurs” (223Ra) based on radium 223 produced by Rosatom**

*The license will ensure reduced logistics delays and more accessible treatment for Russian citizens*

**The Russian Federal Medical and Biological Agency has obtained a product license for the import-substituting radiopharmaceutical “Rakurs” (223Ra). This medication is used in radioisotope therapy to treat patients with castration-resistant prostate cancer and bone metastases.**

The innovative product was developed at the Federal Scientific and Clinical Center for Medical Radiology and Oncology of Russian Federal Medical and Biological Agency in the city of Dimitrovgrad with the active involvement of experts from Research Institute of Nuclear Reactors, State Scientific Centre, Joint-Stock Company (RIAR JSC of Rosatom Scientific Division). The medication is produced using Russian-sourced starting materials.

“This is another significant achievement for our team in the field of nuclear medicine. In close collaboration with colleagues from the Federal Scientific and Clinical Center for Medical Radiology and Oncology, we have developed a medication with immense potential. Each stage of this collaborative effort required experts from both organizations to find innovative solutions, combine scientific expertise with effective techniques. We are headed in the right direction, our cooperation continues,” pointed out **Alexander Tuzov**, Director of RIAR JSC.

“Rakurs” is a medication that acts in two ways. It first targets bone metastases, extending lives of patients with prostate cancer despite the disease. The medication selectively concentrates in bones, including those with metastases, and consequently, it has a highly focused anti-tumor effect. Furthermore, radium-223 alleviates pain, enabling patients to avoid the need for painkillers, significantly improving the quality of their lives. The medication has a significant potential from the point of broadening its applications in the treatment of metastatic bone involvement in other areas of the tumor progression.

The collaboration between professionals from two research institutions continues, and nuclear and medical experts are working together to develop new medications.

**For reference:**

**The Federal Scientific and Clinical Center for Medical Radiology and Oncology of Russian Federal Medical and Biological Agency** is one of the largest centers for nuclear medicine in Europe. Dimitrovgrad-based Center offers the whole range of diagnostic and treatment options for cancer patients including in-house production of various radiopharmaceuticals, "hot" beds for radioisotope therapy, set of remote and contact radiations treatments, linear accelerators and proton beam therapy. The Center provides minimally invasive endovascular surgery and has a chemotherapy unit. It offers a comprehensive range of diagnostic services from an outpatient oncology clinic that specializes in early cancer detection to advanced diagnostics with the latest PET-CT, SPECT-CT, and MRI systems; a medical physics department that ensures planning of radiation therapy courses for each patient; and specialized rehabilitation services for cancer patients. All this makes the Federal Scientific and Clinical Center for Medical Radiology and Oncology a leading Russian healthcare facility in the fight against cancer.

**Rosatom’s scientific division** specializes in the innovation development, contributing to the technological leadership of the Russian nuclear industry. The managing company of the division, Rosatom Science, JSC, oversees 13 scientific facilities engaged in research in nuclear physics, plasma physics, laser physics, hydrogen energy, nuclear medicine, novel materials, adaptive optics, gases, hydrodynamics, thermodynamics, radiochemistry, etc. The main objectives of the division are to increase the competitiveness of Russian products and services in the nuclear energy market by developing technologies and modernizing infrastructure; to improve the efficiency of research and development activities, and to actively commercialize scientific results. [niirosatom.ru](http://www.niirosatom.ru)

**RIAR JSC, (Research Institute of Nuclear Reactors, State Scientific Centre, a joint-stock company of Rosatom’s scientific division)** is one of largest research centers both in Russia and in the world. It provides knowledge-intensive high-tech services for a wide range of experimental reactor and post-reactor studies. The Center has a unique experimental base that allows it to solve problems in reactor materials science and closed nuclear fuel cycle. It is a leading radioisotopes production facility and a provider of a diverse selection of radioisotope-based products for medical, industrial, and specialized applications. niiar.ru

Rosatom manufactures radioisotope products for medical use, which ensures approximately 2.5 million diagnostic and therapeutic procedures in Russia and abroad. The use of radiopharmaceuticals in diagnostics allows for the early detection of diseases and timely initiation of treatment. Rosatom, which has a long history of developing nuclear medicine technologies, aims to create a patient-centered healthcare ecosystem to provide the population with a wide range of high-quality medical services. The company is one of the five largest global suppliers of isotopes used for diagnosing and treating cancer.

The Russian Government as well as the field-specific bodies are working towards modernization of the domestic healthcare infrastructure in accordance with the plan, while aiming to achieve full national sovereignty in this field. Rosatom, as a partner in the government's efforts to improve life expectancy and overall well-being for Russian citizens, is expanding the production of medical equipment and radiopharmaceuticals, additionally creating an entirely import independent system for providing healthcare services to citizens with the focus on the diagnosis and treatment of critical illnesses.