Femto Isotope and Colibri Isotopes Corporation Announce Strategic Collaboration for Lutetium-177 Production

Berlin, Germany / Cairo, Egypt / Texas, United States

Femto Isotope GmbH and Colibri Isotopes are pleased to announce a strategic collaboration to support the production of Lutetium-177 (Lu-177) n.c.a., an important medical radioisotope used in targeted radionuclide therapy for cancer treatment.

Under this collaboration, Femto Isotope will coordinate and provide irradiation services for enriched Ytterbium-176 (Yb-176) targets at the Egyptian Second Research Reactor (ETRR-2), operated by the Egyptian Atomic Energy Authority (EAEA), supporting Colibri Isotopes Lu-177 production activities.

Advancing Medical Isotope Production in Egypt

Femto Isotope plays a key role in coordinating irradiation activities at ETRR-2, working in collaboration with the Egyptian Atomic Energy Authority to facilitate access to reactor irradiation capabilities for international isotope production programmes.

Through its established cooperation with ETRR-2 and the EAEA, Femto Isotope supports the integration of reactor irradiation services into international medical isotope supply chains, creating opportunities for collaboration with specialized isotope producers worldwide.

Supporting Colibri Isotopes' Lu-177 Production

The collaboration focuses on the irradiation of enriched Yb-176 metal targets as part of Colibri Isotopes unique and patented production pathway for Lu-177.

Lu-177 is increasingly important in precision oncology, particularly in radiopharmaceutical therapies targeting prostate-specific membrane antigen (PSMA) and somatostatin receptors.

By combining Femto Isotope's irradiation expertise and coordination capabilities with Colibri Isotopes expertise and experience in the production of medical isotopes for diagnostic and therapy in nuclear medicine, the collaboration aims to support the growing demand for Lu-177 and contribute to the continued development of nuclear medicine.

Colibri's Patented Lu-177 n.c.a. Production Technology

Colibri has developed a patented production pathway for non-carrier-added Lu-177 (Lu-177 n.c.a.) based on enriched Yb-176 metal targets. It combines reactor irradiation with advanced physicochemical separation technologies, including sublimation-based recovery of enriched ytterbium and chromatographic purification. Designed to produce high-purity Lu-177 n.c.a. while recovering valuable target material for reuse, the technology is protected by U.S. Pat. 11,894,156 and 12,315,650.

Scalable and Resource-Efficient Production

A key advantage of Colibri's technology is its flexibility across irradiation conditions and production volumes. A wide range of reactors can be used, including ones with relatively low thermal neutron flux, which are not practical with smaller targets. A feature of Colibri technology is its scalability, targets ranging from 0.5 g to 10 g can be processed using the same production line. With less than 3% Yb-176 losses per cycle and the ability to recycle enriched target material, the process is designed to improve economic efficiency and reduce resource consumption.

Beyond its own isotope supply activities, Colibri offers its patented Lu-177 n.c.a. technology for licensing to pharmaceutical companies and production partners seeking to establish or expand their own capabilities. Together with access to additional irradiation infrastructure, such as ETRR-2 through the collaboration with Femto Isotope, this approach supports more flexible and resilient medical-isotope supply chains.

Strengthening International Cooperation

The collaboration highlights the importance of cooperation between specialized isotope companies like Colibri Isotopes Corporation and national nuclear research infrastructure. It also demonstrates the role of ETRR-2 and the Egyptian Atomic Energy Authority in supporting irradiation programmes for medical radioisotope production.

Femto Isotope continues to develop international partnerships to advance medical and industrial isotope production and strengthen supply chains across Europe, the Middle East, and Africa.

About Femto Isotope GmbH

Femto Isotope GmbH, headquartered in Berlin, Germany, is an international isotope production and trading company focused on medical and industrial radioisotopes, irradiation services, and international supply-chain development. The company works with reactor operators, research institutions, and radiopharmaceutical companies worldwide.

About Colibri Isotopes

Colibri Isotopes Corporation develops technologies and turn-key solutions for therapeutic isotope production, while supplying medical isotopes to customers worldwide. The company's core expertise spans target design and physicochemical separation for reactor- and accelerator-based isotope production. Its patented Lu-177 n.c.a. technology reflects a commitment to making production commercially independent, economically effective and scalable on demand.

Colibri combines an in-house team of experienced chemists and physicists with leading external experts to develop reliable, efficient and scalable technologies. Its activities include Lu-177 production under GMP and a broader development pipeline encompassing Ac-225, Tb-161 and Pb-212, alongside international production and supply capabilities.

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