

## Agreement signed to advance Lutetium-177 isotope production to meet global demand for critical cancer-fighting therapies

**ONTARIO, CANADA and MUNICH, GERMANY** – *October 29, 2020* – ITM Medical Isotopes GmbH and Isogen signed a formal supply arrangement to provide a reliable supply of Lutetium-177 to the world’s health care system using Bruce Power reactors as a key supply source.

ITM Medical Isotopes GmbH, based in Munich, Germany, is a subsidiary of the biotechnology and radiopharmaceutical group of companies Isotopen Technologien München AG (ITM), and Isogen is a joint venture between nuclear companies Framatome and Kinectrics. The arrangement was made possible through Isogen’s partnership with Bruce Power, Canada’s only private sector nuclear energy generator, in combination with ITM’s know-how in the development of medical isotopes, and will ensure reliable, consistent supply of medical isotopes for use in targeted therapies for cancer patients around the world for the next 15 years.

The agreement, which follows the signing of a Memorandum of Understanding (MOU) in November 2019, defines the use of the new Isotope Production System (IPS) to be deployed in conjunction with ongoing Life-Extension work at the Bruce Power site. The IPS, designed and manufactured in Ontario by Isogen, offers functional flexibility and will support the future production of other isotopes in addition to Lutetium-177, providing the world’s health care system with a stable supply of isotopes for decades.

The unique international partnership among the three companies brings together a wealth of knowledge in nuclear engineering, operations, and radiopharmaceutical production and development.

Vic Fedeli, Minister of Economic Development, Job Creation and Trade, praised the partnership.

“Ontario continues to position itself as a world leader in the production of life-saving medical isotopes,” said Minister Fedeli. “The innovation of Ontario companies, and international partnerships are critical to ensuring Ontario’s economic recovery from the COVID-19 outbreak. Today’s announcement is further proof that Ontario is open for business, open for jobs and open for investment.”

Medical isotopes are increasingly being used in innovative applications such as targeted therapies in the treatment of cancers, as well as a tool in the sterilization of medical equipment to help protect frontline health care workers in their battle against the COVID-19 pandemic.

“This is an exciting day as we move into the next phase of our isotope program,” said Mike Rencheck, Bruce Power’s President and CEO. “Bruce Power is proud of its role as supplier of critical medical isotopes, including 40 per cent of the world’s Cobalt-60, which has been essential in the fight against COVID-19.

“As we look towards the future, the Isotope Production System is a game-changer that will allow us to access a key neutron source in our reactors, and create unprecedented capacity and redundancy of isotope production to improve global access to these innovative tools in the fight against cancer. Today’s announcement is a big step forward in achieving our goal of long-term, sustainable, and flexible production of medical isotopes at the Bruce Power site.”

Production of Lutetium-177 at Bruce Power is expected to start in 2022, following regulatory and other approvals. Lutetium-177 is produced by irradiating Ytterbium-176. The process involves placing Ytterbium-176 source material in special sealed containers that are then conveyed into one of the Bruce Power reactors using the proprietary Isotope Production System (IPS). The Ytterbium-176 is then irradiated for about one week and the resulting intermediate Lutetium-177 is then sent to ITM for further processing into highly-pure pharmaceutical grade Lutetium-177 for subsequent distribution to health care facilities worldwide.

Development of the IPS is currently in its final phase of engineering, testing, and design at the state-of-the-art Framatome engineering facility in Kincardine, Ontario.

“This is a landmark day for Isogen and we are thrilled to finalize our agreement with ITM,” said John D’Angelo, President of Isogen. “Through the combination of Isogen’s proprietary production technology, the reliability and capacity of the Bruce Power reactors, and ITM’s patented processing technology and industry-leading supply network, we have set the stage to create the largest, most secure supply of Lutetium-177 in the world. This will be a benefit to our pharma partners, and to cancer patients now and in the future, knowing they can rely on a stable supply of isotope for decades to come.”

Processing and global distribution of pharmaceutical grade Lutetium-177 by ITM is enabled through the company’s global network of radiopharmaceutical production facilities. The partnership’s primary goal is to guarantee the supply of pharmaceutical grade Lutetium-177 and meet the medical community’s growing demand for this important isotope.

“We are very pleased to further strengthen our partnership with Bruce Power and Isogen by signing this exclusive agreement which ensures us a consistent and reliable irradiation service for critically needed radioisotopes for the next 15 years,” said Steffen Schuster, CEO of ITM. “This partnership will further increase the scalability of our production and thus ensure a steady supply of no-carrier-added Lutetium-177 on a global scale, further increasing the availability of this promising treatment option to cancer patients worldwide.”

The advancement of the Lutetium-177 project further cements Ontario as a hub of nuclear innovation and isotope production, and matures Canada’s status as a leader among the international medical isotope community.

“Canada has always been looked to as a leader in the development and production of medical isotopes, and the advancement of this unique partnership is yet another example of innovation by Canadian companies in the isotope industry,” said James Scongack, Chair of the Canadian Nuclear Isotope Council, and Bruce Power’s Executive Vice President, Corporate Affairs & Operational Services. “We are proud of the innovative work being done by Canadian companies to remain at the forefront of the global isotope market, and we look forward to expanding Canada’s leadership role in the growing global medical isotope supply chain as we fight the ongoing battle against cancer.”

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#### **About Bruce Power**

Formed in 2001, Bruce Power is an electricity company based in Bruce County, Ontario. We are powered by our people. Our 4,200 employees are the foundation of our accomplishments and are proud of the role they play in safely delivering clean, reliable, low-cost nuclear power to families and businesses across the province. Bruce Power has worked hard to build strong roots in Ontario and is committed to protecting the environment and supporting the communities in which we live. Learn more at [www.brucepower.com](http://www.brucepower.com) and follow us on [Facebook](#), [Twitter](#), [LinkedIn](#), [Instagram](#) and [YouTube](#). You can learn more about how Bruce Power is helping to keep hospitals safe, and also diagnosing and treating cancer by visiting [www.brucepower.com/isotopes-and-medical-innovation/](http://www.brucepower.com/isotopes-and-medical-innovation/).

#### **About Isogen**

Isogen is a joint venture between [Framatome](#) and [Kinectrics](#), whose mission is to enable the use of CANDU reactors to produce the medical isotopes needed to treat and diagnose patients with serious diseases world-wide. Isogen’s enabling partnership with [Bruce Power](#) allows us to produce the world’s largest and most reliable supply of life-saving, short-lived, medical isotopes.

## **About ITM Isotopen Technologien München**

ITM Isotopen Technologien München AG is a privately owned biotechnology and radiopharmaceutical group of companies dedicated to the development, production and global supply of targeted diagnostic and therapeutic radiopharmaceuticals and radioisotopes for use in cancer treatment. Since its foundation in 2004, ITM and its subsidiaries have established GMP manufacturing and a robust global supply network of a novel, first-in-class medical radioisotopes and generator platform for a new generation of targeted cancer diagnostics and therapies. Furthermore, ITM is developing a proprietary portfolio and growing pipeline of targeted treatments in various stages of clinical development, which address a range of cancers such as neuroendocrine tumors, glioblastoma, osteosarcoma and bone metastases, as well as folate receptor  $\alpha$  positive tumors such as lung, ovarian or breast cancer. ITM's main objectives, together with its scientific, medical and industrial collaboration partners worldwide, are to significantly improve treatment outcomes and quality of life for cancer patients while at the same time reducing side effects and improving health economics through a new generation of Targeted Radionuclide Therapies in Precision Oncology. For more information please visit: [www.itm.ag](http://www.itm.ag)

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