

CUTTING-EDGE PRODUCTS AND SOLUTIONS TO MEET THE GLOBAL DEMAND

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 Laurentis
Energy Partners

Laurentis's isotopes improve millions of lives

Radioactive isotopes are critical in so many areas of our lives, from medical care and consumer technology to advanced research. Laurentis can meet high-capacity supply needs throughout the world.

As a top global supplier of critical, in-demand isotopes, Laurentis is leading the charge with cutting-edge new techniques to produce isotopes that are changing lives and propelling industries forward.



Target Delivery System: A first-of-its-kind isotope solution

Laurentis and its partner, BWXT Medical, co-designed and commissioned a patented technology to produce large quantities of medical isotopes inside a working nuclear reactor while the reactor seamlessly generates clean electricity for millions of homes and businesses. The Target Delivery System at Ontario Power Generation's Darlington Nuclear Generating Station can be installed in CANDU reactors, making Laurentis the choice supplier of life-saving medical isotopes, including molybdenum-99 and yttrium-90.

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At our core, Laurentis is a place for innovators. When we saw the growing need for a reliable supply of radioisotopes, we got to work, and the results speak for themselves. Laurentis has quickly established itself as a global leader in isotope production for the 21st century.

Jason Van Wart
President and CEO

Laurentis isotopes for medical diagnostics



Molybdenum-99

Molybdenum-99 (Mo-99) is the gold standard for medical diagnostics as its decay product, technetium-99m, is used in more than 40 million medical procedures each year to detect illnesses like cancer and heart disease.

Mo-99 is produced using Laurentis's Target Delivery System, enabling Laurentis to fulfill a critical local supply of Mo-99 to hospitals that have had to source from suppliers outside of North America following the shutdown of Canada's National Research Universal reactor in 2018.



Mo-99 harvested using the TDS can generate enough Tc-99m for 3,000 cancer diagnostic procedures per week.

Laurentis isotopes for cancer treatment



Yttrium-90

Laurentis will use its Target Delivery System to produce yttrium-90 (Y-90), a medical isotope used to treat liver cancer and other large inoperable tumours.

Once irradiated, Y-90 will be sent to BWXT Medical to be packaged and then shipped to Boston Scientific to be used in its TheraSphere™ Y-90 Glass Microspheres, a Health Canada and FDA-approved radioembolization treatment used in more than 30 countries to shrink and destroy cancerous tumours.

Pending regulatory approvals, Laurentis expects to begin producing Y-90 in the latter half of 2025.



Y-90 targets tumours and spares normal liver tissue and other nearby organs from unnecessary radiation exposure.

Laurentis isotopes for industry



Helium-3

Laurentis is one of the world's major producers of helium-3 (He-3), a rare isotope in high demand for quantum computing, neutron research, border security, and medical imaging.

Laurentis designed and commissioned a custom tool to extract high-purity He-3 from tritium, a byproduct of all CANDU nuclear reactors.



The only greater civilian source of
He-3 is the moon.



isotopes

Visit [laurentisenergy.com/isotopes](https://www.laurentisenergy.com/isotopes)
to read more about Laurentis's isotopes

About Laurentis

Laurentis is built around the simple but powerful idea that harnessing the power of nuclear energy can lead to a cleaner and healthier future for the next generation. Every day, Laurentis helps clients around the world bring that vision to life.

As a commercial subsidiary of Ontario Power Generation – one of North America's largest and most diverse clean-energy generators and innovators – Laurentis brings unparalleled real-world experience and technical expertise to tackle the toughest challenges. From project management to engineering services, to nuclear medicine and a range of isotope applications, to small- or large-scale asset refurbishments, to state-of-the-art system software and inspection technologies, Laurentis has the right solutions to help customers succeed.

Contact us

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