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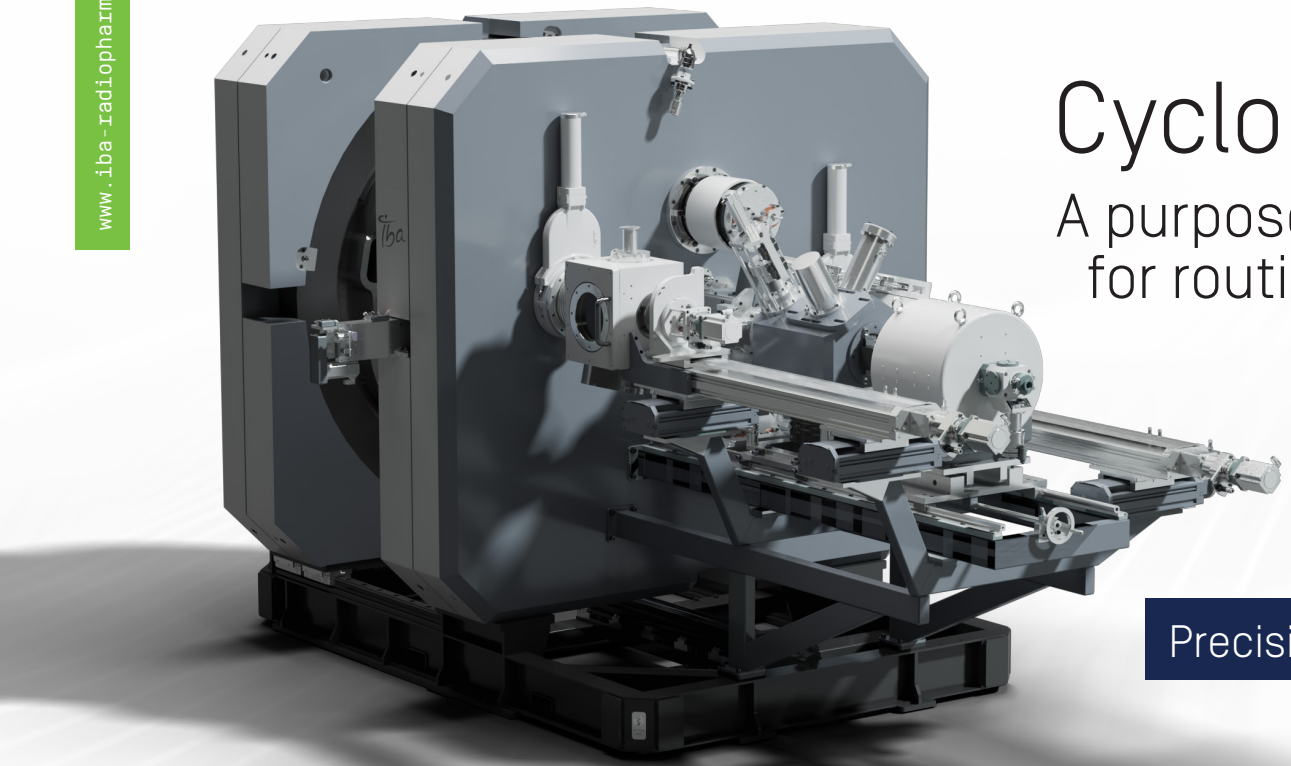


Cyclone® iKure

A purpose-built solution for routine Astatine-211 production

Precision Against Cancer.

Life.
Science.

RADIO
PHARMA
SOLUTIONS

40 years of cyclotron engineering expertise.

Legacy you can trust

For four decades, IBA has been shaping the development of cyclotron technology to meet the evolving needs of nuclear medicine. This engineering heritage enables efficient radiopharmaceutical production solutions and helps advance precision cancer care.

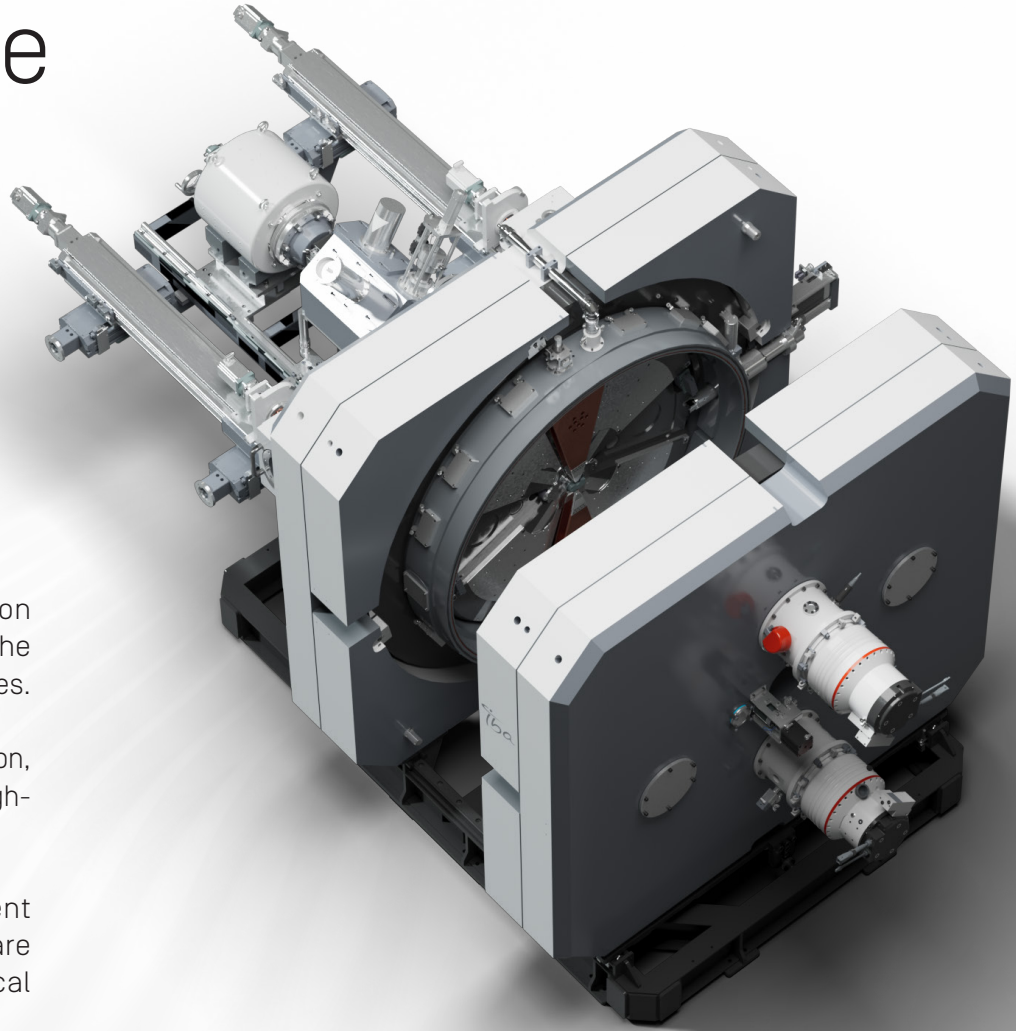
IBA's solutions support hospitals, research centers and distributors in their radiopharmaceutical activities, contributing to progress in cancer diagnosis and treatment worldwide. Each generation of equipment reflects a strong commitment to quality, reliability and long-term performance.

Cyclone® iKure is the result of years of continuous innovation in cyclotron engineering. Purpose-built for alpha irradiation and At-211 production, it embodies IBA's legacy while setting a new standard for precision, operational efficiency and confidence in targeted alpha therapy.

- **1986 :** Founding of IBA
- **1989 :** Cyclone® 10/5
- **1992 :** Cyclone® 3D
- **1992:** Cyclone® 18/9
- **2006 :** Cyclone® 70 XP
- **2009 :** Cyclone® 30 XP
- **2010 :** Cyclone® 11
- **2016 :** Cyclone® KIUBE
- **2021 :** Cyclone® IKON
- **2023 :** Cyclone® KEY
- **2026 :** Cyclone® iKure

Cyclone® iKure

A purpose-built alpha cyclotron solution



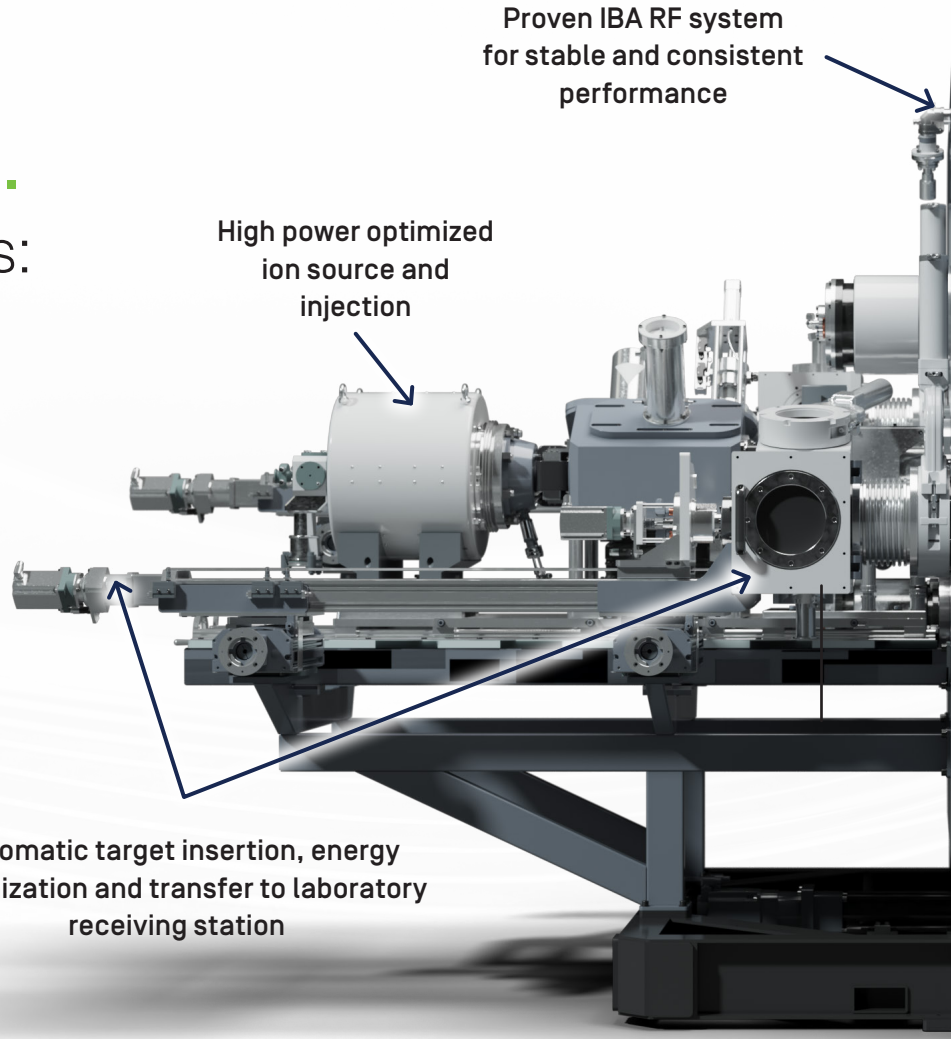
Cyclone® iKure is a high-energy cyclotron dedicated to At-211 production, supporting the growing demand for alpha-emitting radioisotopes.

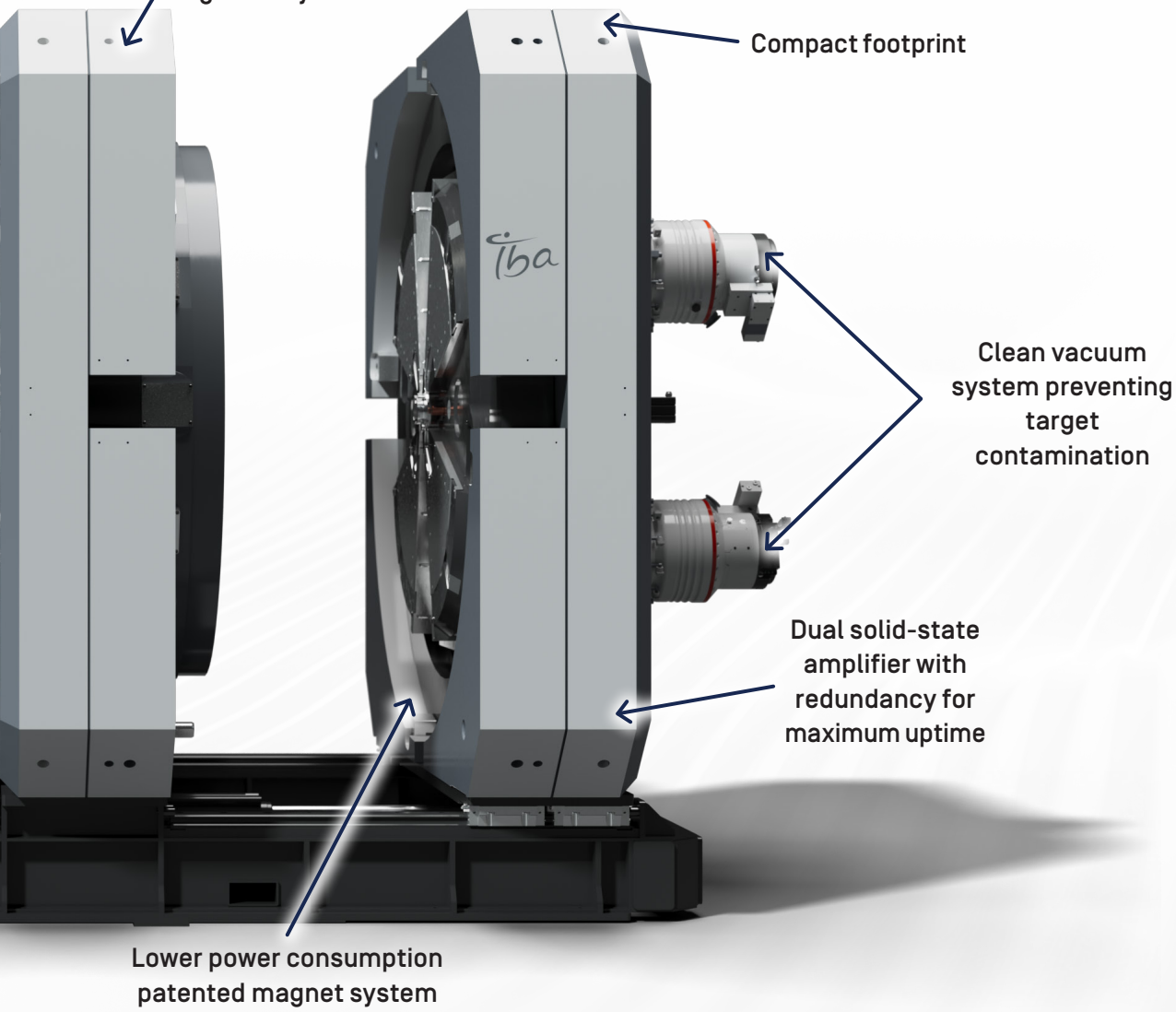
Engineered from the ground up for alpha irradiation, it delivers optimized performance for routine, high-volume and high-quality production.

Its innovative design ensures consistent and reliable output, empowering healthcare professionals to scale radiopharmaceutical production and advance alpha therapies.

A closer look at the Cyclone® iKure.

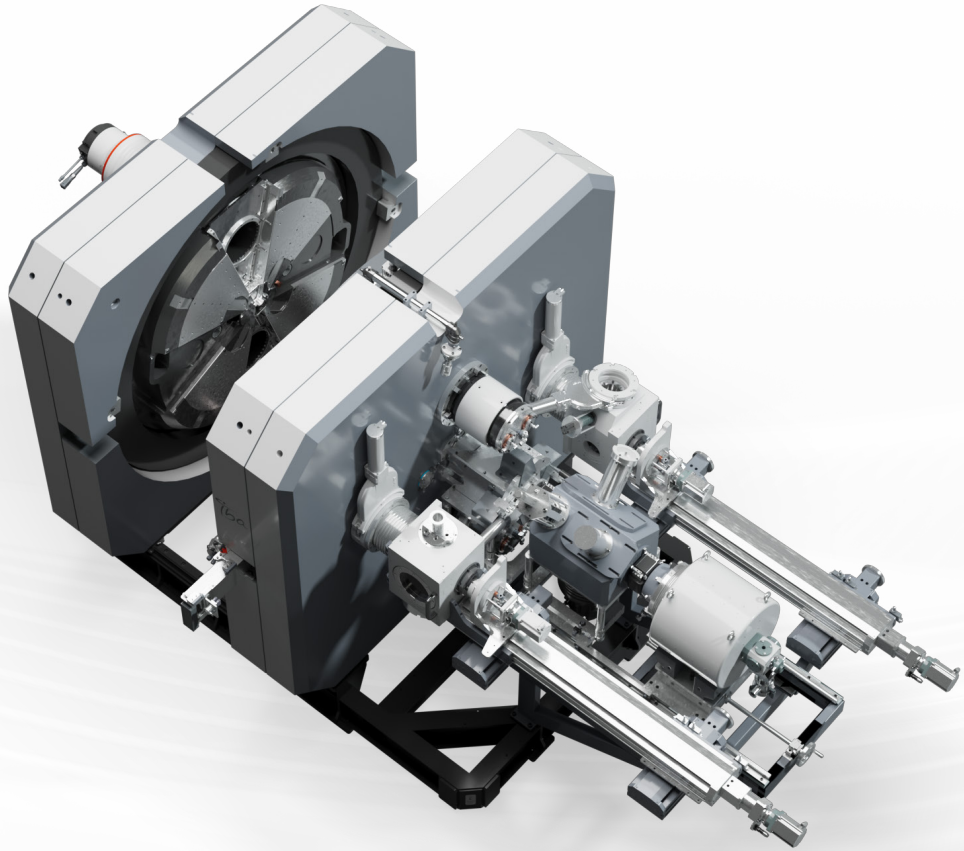
From particle source to targets: how the cyclotron works




High safety standards
Compact footprint
Clean vacuum system preventing target contamination
Dual solid-state amplifier with redundancy for maximum uptime
Lower power consumption patented magnet system

Precision by design.

Consistent and high-quality output



Cyclone® iKure is engineered to deliver reliable At-211 with high-yield performance, addressing the demands of both research and clinical applications.

Its operation is optimized for stability and reproducibility, with each production run achieving precise activity levels and purity.

Designed for precision, Cyclone® iKure enables organizations to produce high-quality radiopharmaceuticals efficiently, unlocking the full potential of targeted alpha therapies.

Integration without complexity.

Seamless operation from day one

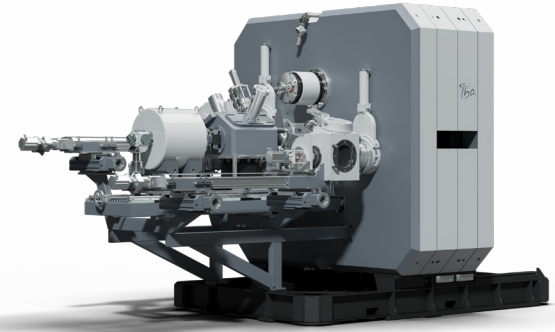
This state-of-the-art cyclotron is compact by design, making it easy to fit into existing facilities without major infrastructure changes. Its size allows for efficient use of space while maintaining full functionality for high-quality radiopharmaceutical production.

As part of integrated solution, Cyclone® iKure streamlines daily operations from day one. Automated processes reduce manual intervention, minimize radiation exposure for operators, and simplify routine workflows.

The machine's design ensures reduced operational complexity, saving time and cost while maintaining reliable performance.

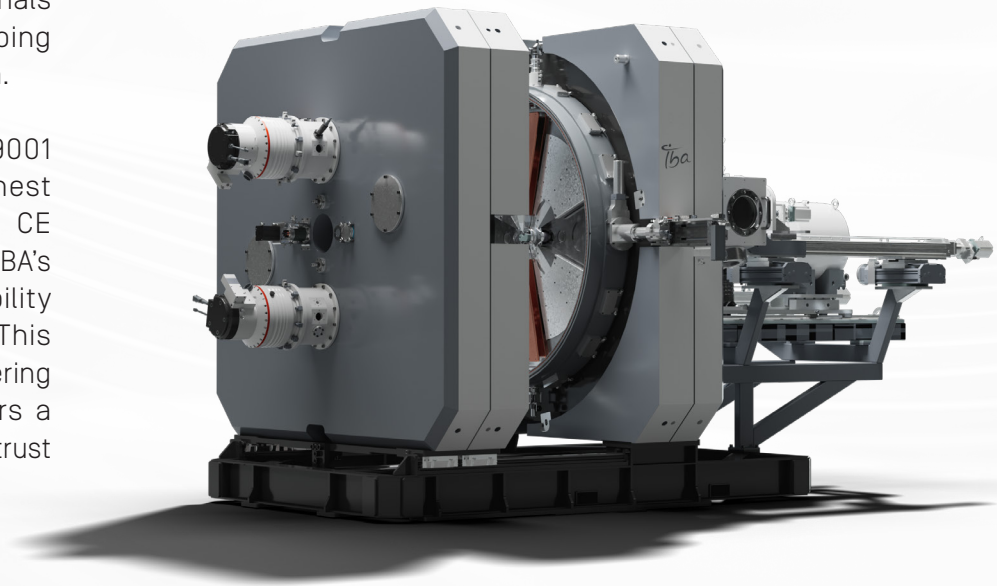
Built to last.

Manufactured to the highest standards



Cyclone® iKure is engineered for long-term reliability, with every component built to withstand years of routine operations. Its robust design ensures minimal downtime, providing healthcare professionals with a trusted tool for ongoing radiopharmaceutical production.

Manufactured under ISO 9001 standards, meeting the highest quality requirements and CE marked, Cyclone® iKure reflects IBA's commitment to safety, durability and regulatory excellence. This combination of rigorous engineering and quality assurance delivers a cyclotron that professionals can trust day after day.



Empowering the future of targeted therapies.

From production to patient impact

Progress in alpha therapy is opening new possibilities for cancer treatment, enabling healthcare professionals to reach more patients with precision therapies and supporting the development of next-generation radiopharmaceuticals.

Reliable, high-quality production is essential to make these innovations a reality. Cyclone® iKure provides the solution, allowing organizations to scale At-211 production with confidence while maintaining the highest standards of quality and safety.

Purpose-built to meet the evolving needs of nuclear medicine, Cyclone® iKure helps accelerate access to targeted therapies and supports progress from research to clinical impact, shaping the future of patient care.

Technical specificities.

Cyclone® iKure		
Beam	Particle energy	Alpha He^{2+} 28.5 – 29.5 MeV
	Current	Up to 2 x 200 µAe / 2 x 100 µA particle
Magnet	Field	Max 1.7 T
	Poles	4
RF	Technology	LLRF controller
	Dee voltage	50 kV
	Frequency	38 MHz (harmonic 4)
	Power amplifier	2 x 16 kW
Ion source	Type of source	External
	Vacuum	Turbo pump
Vacuum	Operational vacuum	< 1.10^{-6} mbar

Cyclone® iKure		
Target	Technology	Fully automated / internal
	Dimension (beam strike area)	~20 x 100 mm
Electrical power	Cyclotron only (beam on)	100 kW
	Installed power	400 V, 3 phases, 150 kVA
	Standby power (beam off)	4 kW
Cooling	Inlet temperature	7 – 16°C
	Heat load	80 kW
Dimensions (w x d x h) & weight	Cyclotron system	3 x 3 m 32 Tons
	Cyclotron vault	6.5 x 6.5 x 3 m
	Power supply room	25 m^2 - h: 3 m 1 T/m^2
	Technical room	25 m^2 - h: 2.8 m 1 T/m^2

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Life.
Science.

About IBA RadioPharma Solutions

Based on long-standing expertise, IBA RadioPharma Solutions supports hospitals and radiopharmaceutical distribution centers with their in-house radioisotope production by providing them with global solutions, from project design to the operation of the facility. In addition to high-quality technology production equipment, IBA has developed in-depth experience in setting up GMP radiopharmaceuticals production centers.

About IBA (Ion Beam Applications S.A.)

IBA is the world leader in particle accelerator technology. The company is the leading supplier of equipment and services in the fields of proton therapy, considered as one of the most advanced forms of radiation therapy available today, as well as industrial sterilization, radiopharmaceuticals and dosimetry. The company, based in Louvain-la-Neuve, Belgium, employs approximately 2,100 people worldwide. IBA is a certified B Corporation (B Corp) meeting the highest standards of verified social and environmental performance.

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Certified B Corporation

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