



IBA and ICNAS Announce Ga-68 production on Cyclone® 18 using IBA liquid target & Synthera®

IBA is proud to announce a patent application EP15170854 on a process for producing and purifying Ga-68 using a liquid target system on a medium energy cyclotron to obtain Ga-68 labelled radiopharmaceuticals for human use

Hamburg, October 10th, 2015 - **IBA** (Ion Beam Applications S.A.), the world's leading provider of proton therapy and radiopharmacy solutions, and **ICNAS** (Institute for Nuclear Sciences Applied to Health in Coimbra), a leading institution in molecular product research and production, announce at the European Association of Nuclear Medicine congress (EANM) the patent application EP15170854 on a process for producing and purifying Ga-68 using a liquid target system on a medium energy cyclotron to obtain Ga-68 labelled radiopharmaceuticals for human use.

In collaboration with researchers from ICNAS/ University of Coimbra in Portugal, IBA has filed a patent application for the liquid target production and purification of Ga-68 on a medium energy cyclotron - the IBA Cyclone® 18 - to produce high purity Ga-68 ready for labelling of radiopharmaceuticals suitable for human injection.

The increasing number of publications with Ga-68 for PET imaging has demonstrated the tremendous potential of this isotope covering a large spectrum of applications including cancer, cardiovascular disease, infection and inflammation. Most importantly, Ga-68 is a tool for the design of compounds with both diagnostic and therapeutic use (Theranostics). Ga-68 is currently been used in about 100 sites with an estimation of over 10,000 scans being performed every year in Europe.

Ga-68 is currently obtained locally using 68Ge/68Ga generators. The alternative - centralized production of Ga-68 using solid targets - is complex and only a few of the cyclotrons worldwide are actually equipped with the technology. The production of Ga-68 from a liquid target will enable hundreds of cyclotrons worldwide to produce the isotope, thus promoting the widespread use Ga-68 radiopharmaceuticals.

Many other advantages of using liquid targets to produce Ga-68 are identified. The process is similar to F-18 production allowing a seamless automation on Synthera platform, the liquid-target produced Ga-68 is compliant with current european pharmacopoeia and production can be easily adapted to GMP processes and the production is very cost effective and easily adapted for in-house use or distribution.

IBA and ICNAS have fully automated the process from target irradiation to radiopharmaceutical labelling employing commercially available IBA equipment: IBA Ga-68 target and Synthera Platform facilitating its set-up and operation for routine production.

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Notes to Editors

About Synthera

Synthera[®] is a multi-purpose, automated synthesizer for the production of various ¹⁸F radiopharmaceuticals, such as ¹⁸F-FDG, ¹⁸F-Choline, ¹⁸FLT, Na¹⁸F, ¹⁸FMISO, ¹⁸FDOPA, etc. Synthera[®] is designed to accommodate a wide range of radiochemistry pathways, which provides invaluable versatility for any current and future development work. With more than 350 Synthera[®] installed worldwide, it has become the reference for radiopharmaceutical production due to its unique features, such as its smallest footprint, and multi-tracer and multi-run capabilities.

<http://www.iba-radiopharmasolutions.com/products/chemistry#synthera>

About IBA

IBA (Ion Beam Applications S.A.) is a cancer diagnostics and treatment equipment company, and the worldwide technology leader in the field of proton therapy, the most advanced form of radiotherapy available today.

The Company's primary expertise lies in the development of next generation proton therapy technologies that provide oncology care providers with premium quality services and equipment. IBA's proton therapy solutions are scalable and adaptable, offering universal full scale proton therapy centers as well as next generation compact, single room solutions. IBA also focuses on the development and supply of dosimetry solutions for Quality Assurance of medical equipment and increased patient safety as well as particle accelerators for medical and industrial applications.

IBA employs more than 1,000 people worldwide and is listed on Euronext Brussels, (IBA: Reuters IBAB.BR and Bloomberg IBAB.BB), more information can be found at: www.iba-worldwide.com

About ICNAS

The Institute for Nuclear Sciences Applied to Health (ICNAS) is a research unit at the University of Coimbra, Portugal, dedicated to the use of nuclear technology for health applications.

ICNAS is a complete Molecular Imaging facility with the ability to perform pre-clinical and clinical studies with PET and SPECT and hosts an 18/9 MeV IBA cyclotron and a fully GMP-licensed manufacturing facility.

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