



## Press Release |

*Latest Advance in Precision Proton Radiotherapy for Cancer*

### **CE Certification Granted for IBA's 2<sup>nd</sup> Generation Pencil Beam Scanning Proton Treatment System**

**Louvain-la-Neuve, Belgium, April 15, 2010** — IBA's 2<sup>nd</sup> generation Pencil Beam Scanning (PBS) system for Proton Therapy, which further enhances the performance of anti-cancer proton treatments, has been granted the CE Mark\*, certifying that the product has met European Union medical device regulations.

Developed by the Particle Therapy division of IBA (Ion Beam Applications S.A.), the PBS system offers a variable beam that narrows to 3mm, ensuring greater dose control and further sparing healthy tissue. Unlike photon-based intensity-modulated radiation therapy systems which only are able to control the dose inside the patient in two dimensions, PBS delivers three-dimensional dose conformity, enhancing cancer treatments.

Data to support the CE certification were collected primarily at Westdeutsches Protontherapiezentrum Essen (WPE), the IBA-supplied Proton Therapy center in Essen, Germany.

At least eight cancer centers will be using IBA's advanced beam scanning technology over the next three years. The prototype was cleared by the U.S. Food and Drug Administration in 2008 and clinically validated in close collaboration with clinicians and scientists at the Massachusetts General Hospital at the Francis H. Burr Proton Therapy Center in Boston.

"Receiving CE Marking for our enhanced PBS technique ensures IBA can bring this leading-edge Proton Therapy technology to our partner facility in Essen as well as to other Proton Therapy centers currently in development in Europe," said Pierre Mottet, Chief Executive Officer of IBA. "This approval ensures the continued advancement of PBS and IBA's rich history of innovation. And it means that cancer patients across Europe will soon have access to the most technically advanced cancer treatments with fewer side effects than conventional radiation therapy."

#### **PBS Dose Distribution Benefits Physicians and their Patients**

According to Mr. Mottet, the combination of this design's refined beam characteristics with cyclotron-based acceleration ensures radial beam symmetry at all gantry angles. *"The system's advanced software and robust performance offer shorter beam delivery times,"* he said. "All in all, performance is superior to anything achieved by other commercial manufacturers. Benchmarks for spot-position accuracy, spot-delivered dose span, spot size at high energy and gamma index are unmatched."

*"Our enhanced PBS technology is, from a scientific perspective, the most advanced cancer treatment available today,"* added Jonathan Farr, Ph.D., Chief Medical Physicist at the WPE. "It offers our professional staff the opportunity to work on the leading edge of cancer treatment and deliver significant benefits to patients on a daily



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basis. And, by having dedicated PBS nozzles at the WPE, we plan to treat more complex cases — specifically patients with lung cancer.”

### **Faster Treatment Times Possible**

Proton Therapy delivered with PBS technology allows a radiation oncologist to basically paint the tumor, layer by layer, with a proton beam tuned to a precise range, as well as adjust the intensity of the beam dynamically to achieve the desired dose distribution. With PBS, scanning magnets manipulate the proton beam more efficiently and quickly than scattered proton beams utilizing apertures and compensators, with far less effort due to the reduction in field-specific hardware. This helps reduce the time the patient spends on the treatment table.

“PBS is currently the most precise treatment for cancer,” said Mr. Mottet. “Given the trend toward more personalized medicine, having the capability to deliver targeted diagnostics and targeted treatments to individuals, as opposed to applying a single protocol for a group, is a great benefit for Proton Therapy patients.”

### **ABOUT IBA**

IBA develops and markets leading-edge technologies, pharmaceuticals and tailor-made solutions for healthcare with a focus on cancer diagnosis and therapy. Leveraging on its scientific expertise, IBA is also active in the field of industrial sterilization and ionization.

*Listed on the pan-European stock exchange EURONEXT, IBA is included in the BelMid Index. (IBA: Reuters IBAB.BR and Bloomberg IBAB.BB).*

Website: [www.iba-worldwide.com](http://www.iba-worldwide.com)

\*CE Mark Certificate LRQ 0960676 for PBS is associated with the Proteus-4 product version of the IBA Proteus 235 Proton Therapy System.

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