



Flash Irradiation Delivered in a Proteus®ONE Treatment Room

Successful Ultra High Dose Rate delivered at Isocenter in IBA's compact proton therapy solution

Louvain-la-Neuve, Belgium, 11 June 2019 – IBA (Ion Beam Applications SA), the world's leading provider of proton therapy solutions, is pleased to announce the first Flash irradiation in an IBA Proteus®ONE compact gantry treatment room at the Rutherford Cancer Centre Thames Valley in Reading, United Kingdom, on June 8, 2019. This represents another major milestone for IBA and its medical and research partners in their work to lead the development of Flash irradiation.

Flash therapy has the potential to dramatically change the landscape of radiotherapy and patient cancer care, making it more effective, cheaper and therefore more accessible. Flash irradiation is a fast and powerful treatment that delivers a high dose of radiation at an ultra-high dose rate. This novel technique could potentially shorten treatment from 6-8 weeks to 1-2 weeks and has the potential to reduce side effects for patients.

IBA has always led research in proton therapy and has filed its first patent related to Flash in 2010. This early development work enables IBA today to deliver Flash irradiations on both its current single and multi-room proton therapy platforms in clinical environment. In March, IBA successfully performed a [Flash irradiation in its Proteus®PLUS clinical treatment room](#) at the University Medical Center of Groningen. With this latest milestone, IBA demonstrates that its full range of Proteus® equipment is Flash-capable.

As the world's leader in protontherapy, IBA will share the latest developments on Motion Management, Arc Therapy and Flash during [its symposium at the PTCOG Congress](#) in Manchester on Friday June 14.

A video showing Flash irradiation delivery at the Rutherford Cancer Centre Thames Valley in Reading is available below:





This video clearly demonstrates the current capability of IBA's Proteus®ONE platform and the tremendous potential of IBA's Flash therapy research program which is conducted in close collaboration with research centers around the world.

Olivier Legrain, Chief Executive Officer, IBA: "We are delighted about the results obtained at the Rutherford Cancer Center in Reading, demonstrating IBA's technology leadership in Flash therapy research, now for both our multiroom and compact proton therapy solutions. Building on our unique and open culture of collaborative innovation, IBA continues its commitment to further develop Flash therapy. To achieve this we will continue to partner with the most experienced user community to study the radiobiology of proton Flash irradiation and help our clinical partners by accelerating access to the latest innovations in proton therapy."

Prof. Karol Sikora, Chief Medical Officer at Proton Partners International: "We are pleased to be working closely at developing futuristic therapies with IBA - the world's leading proton equipment manufacturer. We are delighted that our patients will be amongst the first to gain from the convenience of short course radiotherapy and look forward to pioneering the latest developments in this exciting area."

About Flash Therapy

Flash radiotherapy is a novel external non-invasive radiotherapy technique that consists of delivering a high dose of radiation at an ultra-high dose rate. When compared to radiotherapy delivered at conventional dose rates (1 – 7 cGy/sec), the Flash phenomenon seems to appear when irradiation is delivered with a dose superior to 8 Gy and at a dose rate above 33 Gy/sec in a very short time (less than a second). In other words, healthy tissue seems to withstand this novel method of irradiation better, while the tumor has the same level of sensitivity to Flash irradiation as to conventional treatment.

More information can be found at <https://www.ncbi.nlm.nih.gov/pubmed/25031268>

About IBA

IBA (Ion Beam Applications S.A.) is a global medical technology company focused on bringing integrated and innovative solutions for the diagnosis and treatment of cancer. The company is the worldwide technology leader in the field of proton therapy, considered to be the most advanced form of radiation therapy available today. IBA's proton therapy solutions are flexible and adaptable, allowing customers to choose from universal full-scale proton therapy centers as well as compact, single room solutions. In addition, IBA has a radiation dosimetry business and develops particle accelerators for the medical world and industry. Headquartered in Belgium and employing about



1,400 people worldwide, IBA has the largest number of installed proton therapy systems across the world.

IBA is listed on the pan-European stock exchange NYSE EURONEXT (IBA: Reuters IBAB.BR and Bloomberg IBAB.BB).

More information can be found at www.iba-worldwide.com

About the Rutherford Cancer Centres

The Rutherford Cancer Centres are at the forefront of providing advanced cancer care and creating a better future for cancer patients. The centres provide an all-encompassing cancer service, delivering world-class imaging, chemotherapy, immunotherapy, radiotherapy and proton beam therapy treatment.

The Rutherford Cancer Centres feature the most advanced technologies and Proton Partners International has formed a partnership with IBA (Ion Beam Applications), the world's leading provider of proton beam therapy solutions and Philips, a leader in health technology.

All centres offer proton beam therapy to medically-insured private patients, self-paying patients and NHS patients where the Rutherford is commissioned to provide these services.

For more information on the Rutherford Cancer Centres, please visit: <http://www.therutherford.com>

Follow the Rutherford Cancer Centres on twitter: @therutherford_c

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