

## **PRESS RELEASE**

### **Next Generation ExacTrac Broadens Clinical Workflows**

Market-leading technology now consolidates multiple spatial tracking technologies

MUNICH, Sunday, October 21, 2018 — Brainlab unveils ExacTrac Dynamic® at the American Society for Radiation Oncology (ASTRO) meeting in San Antonio, Texas. This forward-thinking universal concept for radiotherapy patient positioning and monitoring offers value on multiple fronts, including expanded clinical indications, broad technological advancements, enhanced user and patient experience, and technology consolidation. ExacTrac Dynamic is the next generation of ExacTrac X-Ray, a clinically proven positioning and monitoring solution for radiotherapy treatments for almost two decades. Since its release in 1999, ExacTrac systems have been used in more than one million treatments worldwide.

ExacTrac Dynamic addresses a full range of patient positioning and monitoring requirements that heretofore have been achieved, in most cases, by employing multiple systems combined with different internal tracking and surface scanning technologies. ExacTrac Dynamic is seamlessly integrated with a wide range of high-end linear accelerators and designed to deliver high precision tracking and verification while addressing the challenges associated with treating moving targets, all of which are critical requirements for delivering extremely effective and high doses in precision radiotherapy. Developed in close collaboration with leading experts in radiation oncology, ExacTrac Dynamic introduces a new dimension in patient positioning and monitoring.

“We had the opportunity to be the first institution to enter into a strategic partnership for the development of ExacTrac Dynamic, as we were looking for a technology that could become the new standard for patient positioning and monitoring in Copenhagen,” commented Lars Dahl Allerup, New Business Development Manager, Corporate Procurement, Capital Region of Denmark. “As a long standing partner of Brainlab, we have always been convinced of the superior performance of ExacTrac X-Ray for cranial treatments. What is important for us moving forward is to source technology like ExacTrac Dynamic that allows us to continue treating cranial indications but also take care of the larger patient population at the Herlev Hospital and Rigshospitalet, with a platform re-designed to monitor all external beam treatment indications.”

#### **Thermal tracking adds fourth dimension**

New high-speed surface tracking incorporates 300,000 3D surface points to externally monitor patient position and detect movement during treatment. Each of the surface points acquired by the ExacTrac Dynamic structured light system are matched to a heat signal generated by a thermal camera, creating another dimension in which to track the patient's position consistently and with great accuracy. The advanced surface tracking with ExacTrac Dynamic is not impacted by room lighting, reflections or skin tone, and has very low latency.

Internal motion caused by normal respiration must be addressed to ensure safe and effective treatments. In addition to external tracking, integrated X-Ray monitoring with ExacTrac Dynamic verifies the patient's position internally with real-time imaging, at any treatment position. The system offers ways to monitor clinical indications that are complicated by internal motion with additional workflows, such as deep inspiration breath hold and internal anatomy verification, providing confidence in true dose sparing of critical anatomy. This integrated combination of both internal and external tracking provides a new level of precision in radiotherapy.

#### **Complete package for all workflows**

Customers will still take advantage of the benefits they've always relied on with ExacTrac X-Ray, including superior performance, non-coplanar capabilities and submillimetric precision. Cranial positioning and monitoring offers streamlined immobilization, non-coplanar imaging, Mu-triggered monitoring and gantry-angle triggered monitoring.

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ExacTrac Dynamic simplifies frameless fixation with three moldable thermoplastic mask options designed with patient comfort in mind. Deep integration with linear accelerators from both Elekta and Varian Medical Systems allow positioning and monitoring workflows to function seamlessly, including automatic patient loading, gantry triggered imaging and automated beam-hold.

“We’ve taken a quantum leap forward with ExacTrac Dynamic, delivering a solution that addresses a full range of patient positioning and monitoring beyond what is achievable with linear accelerators alone,” said Stefan Vilsmeier, Brainlab President and CEO. “This positioning technology will be an influential force in moving precision radiotherapy forward, with a well-engineered, user-centric workflow and GUI design. Before, hospitals typically incorporated two to three different systems to meet the positioning and monitoring needs for all clinical indications in radiotherapy. Now they have a one-stop solution in ExacTrac Dynamic, aiming to increase versatility and patient volumes while economizing costs and resources.”

Please visit Brainlab at ASTRO Booth #2311 and at [Brainlab.com/exactrac](http://Brainlab.com/exactrac).

**About Brainlab:** [www.brainlab.com](http://www.brainlab.com)

Brainlab, headquartered in Munich, develops, manufactures and markets software-driven medical technology, enabling access to advanced, less invasive patient treatments. Core products center on information-guided surgery, radiosurgery, precision radiation therapy, digital operating room integration, and information and knowledge exchange. Brainlab technology powers treatments in radiosurgery and radiotherapy as well as numerous surgical fields including neurosurgery, orthopedic, ENT, CMF, spine and trauma.

Privately held since its formation in Munich, Germany in 1989, Brainlab has more than 12,300 systems installed in over 100 countries. Brainlab employs more than 1,350 people in 18 offices worldwide, including more than 420 research & development engineers, who form a crucial part of the product development team.

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