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# PRESS RELEASE

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## RaySearch to demonstrate the power of automation with new machine learning applications at ASTRO

*During October 21- 23, RaySearch will exhibit its latest advances in oncology software at the ASTRO 2018 annual meeting in San Antonio, Texas, US. RaySearch is putting a strong focus on making smarter and faster software through machine learning and user-friendly tools to enable optimal use of the clinical resources. RaySearch will show its latest development in machine learning technology and automation in both RayStation\*, the innovative treatment planning system (TPS) and RayCare\*, the groundbreaking oncology information system (OIS). Attendees are welcome to visit RaySearch at booth #1833, and demonstrations can be booked now at [www.raysearchlabs.com/astro-2018/](http://www.raysearchlabs.com/astro-2018/).*

### Machine learning and automation in RayStation

With its in-house machine learning department, RaySearch is currently developing machine learning and deep learning prototypes for areas such as treatment plan generation, organ segmentation and target volume estimation. RaySearch is also developing techniques for efficient large-scale data extraction and analysis. The first clinical applications of machine learning are automated treatment planning and automated organ segmentation and will be included in the next RayStation release\* in December. These applications will revolutionize the way radiation oncology treatment planning is done and offer an enormous efficiency boost for cancer clinics. Attendees can get a demonstration of these features at the RaySearch booth.

### RayCare in clinical use

The RayCare next-generation OIS is now directly connected to the treatment delivery system at the Provision Cares Proton Therapy facility in Nashville, US. RayCare is used to manage the treatment sessions. The Nashville center treated their first patient on October 8 and utilizes the RayCare OIS together with the RayStation TPS to plan and manage its proton treatments.

RayCare 2B was released early October and will be displayed at the show. This version introduces new features and usability improvements throughout the system, including a feature to support a full treatment delivery and management workflow and task-based offline image review. Other care administration features include support for financial information, such as insurance information and authorization management, and support for managing external contacts, referring clinicians and other external entities.

### Joint demonstrations

#### *Online adaptive proton therapy workflow with IBA*

IBA and RaySearch will present their online adaptive proton therapy workflow\*, where daily optimized plans are created for the individual patient, based on cone beam CT images to preserve the original

treatment intent. Both companies will offer demonstrations including RayCare, RayStation, the AdaPT Insight imaging platform and the AdaPT Deliver treatment delivery. The solution can automatically suggest, to the care team, an adapted treatment plan which considers the most up-to-date patient's anatomy. This workflow offers more accurate treatment plans as well as faster plan adaptation to the benefit of patients. Demonstrations can be booked by visiting RaySearch's and IBA's respective booths.

#### *Support for TomoTherapy treatment management and planning*

In the Accuray booth, presentations of RayStation and RayCare for the TomoTherapy® platform will be available. RayStation 8A, released earlier this summer, includes full support for the TomoTherapy and Radixact® Systems. All TomoTherapy and Radixact users can now get access to advanced RayStation features, including multi-criteria optimization (MCO), adaptive planning and Plan Explorer. Demonstrations can be booked by visiting RaySearch's and Accuray's respective booths.

RaySearch's deputy CEO Björn Hårdemark will hold a presentation at Accuray's AERO™ Academy on Tuesday, October 23 at 10:45 am. The theme of his talk is "Full Integration of TomoTherapy®, RayStation and RayCare".

#### *Proton planning for MEVION S250i HYPERSCAN™*

Mevion Medical Systems will show the latest of their proton news with the MEVION S250i system with HYPERSCAN™ Pencil Beam Scanning demonstrations, using RayStation. Demonstrations can be booked by visiting RaySearch's and Mevion's respective booths.

#### *A night with RaySearch*

On Monday 22 October, 7 PM at The St. Anthony Hotel, RaySearch will host an exclusive evening event. Founder and CEO of RaySearch, Johan Löf, will hold a presentation on the theme of "Redefining Cancer Care". For more information, welcome to booth #1833.

### About RayCare

RayCare represents the future of OIS technology, developed from the ground up by RaySearch to support the complex logistical challenges of modern, large-scale radiation therapy centers. RayCare will integrate the high-performance radiation therapy algorithms available in RayStation with advanced features for clinical resource optimization, workflow automation and adaptive radiation therapy.

### About RayStation

RayStation integrates all RaySearch's advanced treatment planning solutions into a flexible treatment planning system. It combines unique features such as multi-criteria optimization tools with full support for 4D adaptive radiation therapy. It also includes functionality such as RaySearch's market-leading algorithms for IMRT and VMAT optimization and highly accurate dose engines for photon, electron, proton and carbon ion therapy. The system is built on the latest software architecture and features a graphical user interface with state-of-the-art usability.

### About RaySearch

RaySearch Laboratories AB (publ) is a medical technology company that develops innovative software solutions for improved cancer treatment. RaySearch markets the RayStation treatment planning system and the RayCare oncology information system to clinics all over the world and distributes products through licensing agreements with leading medical technology companies. RaySearch's software is used by over 2,600 clinics in more than 65 countries. The company was founded in 2000 as a spin-off from Karolinska Institute in Stockholm and the share has been listed on Nasdaq Stockholm since 2003.

*To learn more about RaySearch, go to: [www.raysearchlabs.com](http://www.raysearchlabs.com)*

\* Subject to regulatory clearance in some markets.

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