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# PRESS RELEASE

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## RAYSEARCH LICENSES AI TECHNOLOGY FOR AUTOMATED TREATMENT PLANNING FROM UHN

*University Health Network (UHN) in Canada has exclusively licensed a new artificial intelligence (AI) technology for automated radiation therapy treatment planning to RaySearch, for incorporation\* into the RayStation® treatment planning system. The technology was developed by the Techna Institute, which is a collaboration between UHN and the University of Toronto.*

The license gives RaySearch the ability to integrate deep-learning algorithms from Princess Margaret Cancer Centre's AI automated planning technology platform into RayStation. The technology will be built into RayStation's module for automated treatment planning across multiple treatment sites, enabling rapid adoption by clinical customers.

Princess Margaret Cancer Centre has been developing AI technologies to automate radiation therapy processes over the last several years. AutoPlanning, developed by Physicist Dr. Tom Purdie and Researcher Dr. Chris McIntosh at Princess Margaret, provides a fundamentally different paradigm for generating radiation therapy treatment plans compared with both current manual and automated methods. Conventional methods have focused on learning a few treatment parameters, whereas AutoPlanning learns to model the shape and intensity of the radiation treatment as it is related to the patient's images, reducing planning times from hours to minutes, while requiring minimal upfront preparation or user interaction.

The AutoPlanning AI technology uses customized machine learning and image processing to determine the relevant features of treatment plans and learn quantitative relationships between patients in order to create radiotherapy treatment plans. Specifically, it utilizes a database of thousands of high-quality plans to generate optimal solutions to the planning problem.

Dr. Tom Purdie of Princess Margaret Cancer Centre, says: "AutoPlanning has a machine-learning engine that automatically learns from previous plans and determines what the best plan for a new patient is supposed to look like. The license to RaySearch will make AutoPlanning available to hospitals across the globe, allowing them to create better plans more efficiently."

Johan Löf, CEO of RaySearch, says: "This technology has the potential to make a huge contribution to patient care. I am delighted to be able to bring its benefits to centers around the world as part of the RayStation platform. This development fits perfectly with our strong focus on advanced automation features in RayStation."

\* Subject to regulatory clearance in some markets

### About UHN

University Health Network (UHN) is a healthcare organization in Canada that includes Toronto General and Toronto Western Hospitals, Princess Margaret Cancer Centre, the Toronto Rehabilitation Institute and the Michener Institute for Education at UHN. The scope of research and complexity of cases at UHN has made it a national and international source for discovery, education and patient care. UHN has the largest hospital-based research program in Canada, with major research in cardiology, transplantation, neurosciences, oncology, surgical innovation, infectious diseases, genomic medicine and rehabilitation medicine.

### 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 radiation therapy of cancer. RaySearch markets the RayStation treatment planning system to clinics all over the world and distributes products through licensing agreements with leading medical technology companies. The company is also developing the next-generation oncology information system, RayCare<sup>®\*</sup>, which comprises a new product area for RaySearch, and which will be launched in 2017. 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 Institutet in Stockholm and the share has been listed on NASDAQ Stockholm since November 2003.

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*More information about RaySearch is available at [www.raysearchlabs.com](http://www.raysearchlabs.com)*

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