
PRESS RELEASE

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Raysearch enters into the field of Boron Neutron Capture Therapy

RaySearch and Neutron Therapeutics, Inc., based in Danvers, US, have entered into an agreement regarding treatment planning for boron neutron capture therapy (BNCT), which is a unique type of radiation therapy that enables targeting of cancer at the cellular level.

BNCT uses a two-step process. First, the patient is injected with a tumor-localizing drug containing the non-radioactive isotope boron-10. In the second step, the target area is exposed to a beam of low-energy neutrons, many of which are absorbed by the boron-10. The absorption initiates a reaction in which short-range, high-energy charged particles are emitted. These particles systematically destroy the tumor cells, with minimal damage to adjacent healthy tissue.

As part of this agreement, RayStation's functionality will be extended to support BNCT planning requirements*. BNCT will be an additional treatment modality in RayStation, alongside the existing options for photon, electron, proton, and carbon ion* therapy. Users of BNCT will have access to the full range of advanced functionality in RayStation, such as atlas-based segmentation, deformable image registration and scripting.

Neutron Therapeutics is developing a complete single-room solution for BNCT, including an accelerator-based neutron source, treatment room equipment, and a dose engine interfaced to a RayStation treatment planning system. The first installation of the system will be at Helsinki University Hospital, and the facility is scheduled to open in 2018.

Theodore Smick, CEO of Neutron Therapeutics, says: "We are glad to have RaySearch as a partner in the effort to create a comprehensive solution and make the benefits of BNCT available to the patients who need it. Clinics that want to adopt this powerful treatment technique will need high-quality, BNCT-specific treatment planning software, which RaySearch can provide."

Johan Löf, CEO of RaySearch, says: "We are very pleased to extend RayStation's capabilities to support BNCT and integrate with Neutron Therapeutics technology. BNCT has great potential and I'm excited to explore the clinical benefits and enable the use of this treatment technique in routine hospital workflow."

About Neutron Therapeutics

Neutron Therapeutics is a medical equipment company that is developing a comprehensive solution for BNCT. The company was founded in 2014, with a mission to apply high-power proton accelerator technology to the challenge of a practical in-hospital neutron source.

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 and proton and carbon ion therapy. The system is built on the latest software architecture and has a graphical user interface offering state-of-the-art usability.

About RaySearch

RaySearch Laboratories is a medical technology company that develops advanced software solutions for improved radiation therapy of cancer. RaySearch markets the RayStation treatment planning system to clinics all over the world. In addition, RaySearch's products are distributed through licensing agreements with leading medical technology companies. RaySearch's software is used by over 2,600 clinics in more than 65 countries. RaySearch was founded in 2000 as a spin-off from the Karolinska Institute in Stockholm, and the company is listed in the Mid Cap segment on NASDAQ OMX Stockholm.

* Pending regulatory clearance in some markets

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