



GE Healthcare to Offer End-To-End Deep Learning Solutions with Spectronic Medical to Improve Accuracy for Radiation Oncology Treatment

July 9, 2021

Chicago/Helsingborg, Sweden July 9, 2021: GE Healthcare announces the integration of Spectronic Medical AB AI-based software^[1] for more precise cancer treatment planning. This AI solution, in combination with GE Healthcare's industry leading AIR Recon DL technology, enables MR-only based radiotherapy planning for better soft tissue differentiation than traditional CT, so clinicians can better direct radiotherapy.

[GE Healthcare to Offer End-To-End Deep Learning Solutions with Spectronic...](#)
[IMAGE/PNG - 1.53 MB](#)

About sixty percent of patients with cancer need radiation therapy^[2], which requires high quality images to precisely target lesions while sparing healthy tissue. Currently, CT images are the industry standard for radiation treatment planning; however, these images do not provide appreciable soft tissue contrast, which is especially important for the most common types of radiation oncology therapies in the brain, head-neck and pelvis.

In response, GE Healthcare and Spectronic Medical are combining technologies to offer a complete deep learning solution. The process begins with GE Healthcare's AIR Recon DL, a deep learning image reconstruction technology that makes full use of all the raw data coming off the MR scanner to reduce image noise, maximize image quality and resolution, and shorten scan times. The high-quality MR images generated by the GE scanner are then converted into synthetic CT images by Spectronic Medical's AI-based solution, providing clinicians with the CT images they have come to expect with the MR soft tissue details they need to more accurately target lesions and help improve patient outcomes.

"We have found MR imaging in radiation therapy improves the accuracy of our treatment delivery," said Adalsteinn Gunnlaugsson, MD, PhD at Skåne University Hospital, Lund, Sweden. "With the single sequence approach of the Spectronic MRI Planner software, generated synthetic CT allows us to eliminate conventional CT examination and the need for multimodal image registration. MR only radiation therapy planning with our GE SIGNA Architect MR Radiation Oncology Solution allows us to streamline our clinical workflow and deliver treatment more precisely to our patients."

"By using an MR image and creating a synthetic CT image, our MRI Planner software is designed to improve accuracy, increasing the precision by which radiotherapy can be delivered to the patient, as well as simplifying the physician's workflow," said Spectronic Medical CEO Carl Siverson. "Our customers say the benefits are enormous – it could increase the chances of successful cancer treatment and minimize the negative side-effects from radiotherapy, which often follow patients throughout their lives."

"Already, AIR Recon DL has benefited over a half a million patients around the world, with clinical users observing sharper and less noisy images and up to a 50% reduction in exam times^[3]," said Ben Newton, general manager, Oncology, at GE Healthcare. "Now, we are delighted to combine this breakthrough image reconstruction technology with Spectronic's AI-based software for use in brain, pelvic, head and neck radiotherapy planning ^[4]. Together, we are introducing a full AI and Deep Learning based MR radiation oncology solution to healthcare providers to help enable high-precision treatment planning and improve clinical outcomes for thousands of radiotherapy patients."

For more information on GE Healthcare's Radiation Oncology and MR solutions, visit gehealthcare.com. For more information on Spectronic Medical's MRI Planner technology, visit medical.spectronic.se.

###

About GE Healthcare:

GE Healthcare is the \$18 billion healthcare business of GE (NYSE: GE). As a leading global medical technology and digital solutions innovator, GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 50,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

Follow us on [Facebook](#), [LinkedIn](#), [Twitter](#), and [Insights](#) for the latest news, or visit our website www.gehealthcare.com for more information.

About Spectronic Medical AB:

With roots in development of innovative and cutting-edge technology for five decades, Sweden based Spectronic Medical is dedicated to improving clinical workflow and increasing the quality of patient care in radiation oncology worldwide. The Spectronic Medical MRI Planner software uses leading AI deep-learning technology to create synthetic CT from a single MR sequence and it is supported by strong scientific validation published by leading university hospitals. MRI Planner enables oncology departments to use an MR only workflow in radiation therapy planning.

^[1] MRI Planner Software is CE Marked in Europe and 510(k) pending with the U.S. FDA. Not available in all markets.

^[2] NIH National Cancer Institute, *Radiation Therapy and You: Support for People with Cancer*, NIH Publication No. 17-7157, October 2016.

^[3] GE Healthcare data on file

^[4] Spectronic Medical software is now CE marked and approved for use in brain, pelvic, head and neck radiotherapy planning in Europe, and it is

510(k) pending in the US

For media inquiries, please contact:

Hannah Huntly
+44 7887 824201
Hannah.Huntly@ge.com
Europe/London

Margaret Steinhafel
+1 608 381 8829
Margaret.Steinhafel@ge.com
America/Chicago