



## GE Healthcare Introduces a New Virtual Solution with AI Enabled Applications For Precision Health in Nuclear Medicine

May 10, 2021

- *GE Healthcare launches Xeleris V, a new processing and review solution that provides nuclear medicine clinicians secure access to data from anywhere, anytime*
- *Featuring new Artificial Intelligence-enabled (AI) applications, the solution also simplifies and enhances workflows and provides clinicians with the advanced data needed to help them make personalized care decisions and treatment recommendations that are at the heart of precision health*

[GE Healthcare Introduces a New Virtual Solution with AI Enabled Applications For...](#)  
[IMAGE/JPEG - 0.48 MB](#)

**CHICAGO, 10 May 2021** – To help provide nuclear medicine clinicians greater flexibility and more time with patients, GE Healthcare today unveiled Xeleris V – a new virtual processing and review solution. Xeleris V eliminates the need for a standalone nuclear medicine workstation so that clinicians can have secure access to data from various locations. This increase in access – paired with new AI-enabled applications and GE Healthcare's large install base of nuclear medicine cameras – can simplify and enhance workflows to help clinicians quickly discover, diagnose, and treat patients with accuracy.

"As we work to rebuild, recover and reimagine healthcare going forward, we believe AI will be critical in helping healthcare systems maximize resources to more quickly and easily deliver personalized care," explains Jean-Luc Procaccini, President & CEO, Molecular Imaging & Computed Tomography, GE Healthcare. "Xeleris V helps do just that, offering clinicians a new way of working that enables more time with patients and helps them reach quick, confident diagnoses using the latest innovative technologies across all their devices."

Market research shows that 73 percent of radiologists expect operational efficiency to be the main challenge in the next 1-3 years<sup>[i]</sup>, while 64 percent of surveyed clinicians note that physician burnout has intensified during the pandemic<sup>[ii]</sup>. These statistics highlight a growing need for increased flexibility, access and efficiency in healthcare today.

"No one wants to spend their day clicking through windows at a workstation, but today's manual workflows –such as organ segmentation – are time-consuming, tedious and highly operator-dependent processes," explains Michael Soussan, MD, PhD, Professor of Medicine and Chief of the Nuclear Medicine Department at Avicenne Hospital. "Automating these workflows and gaining easy access to reproducible and precise results is essential to providing quality patient evaluation and treatment."

Removing the limitations of a traditional nuclear medicine workstation, Xeleris V offers clinicians a virtualized, flexible AI-powered solution that provides clinicians secure access to data from anywhere – helping them make personalized care decisions and treatment recommendations that are at the heart of precision health.

"With AI-based technologies, we gain speed, confidence and reproducibility – it is transforming the radiology imaging process by delivering precise results that can help expand the utilization of nuclear medicine to personalize the patient treatment pathway," adds Professor Soussan, whose nuclear medicine team at Avicenne Hospital evaluated GE Healthcare's new Q.Lung AI solution. "Even in my own practice, I've observed that as we gain the surgical team's confidence by providing precise results, we have the opportunity to be more involved in guiding the individualized care provided to each patient."

Xeleris V's new AI-enabled clinical applications work to streamline workflows, provide accurate data, and help expedite diagnoses across care areas:

- **Q.Volumetrix AI:** Already, 90 percent of healthcare professionals with AI deployments confirm automating and prioritizing workflows is the technology's key benefit <sup>[iii]</sup>. Q.Volumetrix AI builds on this success, expediting processes by enabling advanced segmentation and quantitation capabilities for SPECT/CT and PET/CT data without impeding workflow for both baseline and longitudinal studies.
- **Q.Lung AI:** For important procedures like lung resection, a reliable pre-operative assessment of lung function is essential. With 2.21 million lung cancer deaths per year<sup>[iv]</sup>, uncertain estimations provided by existing planar imaging techniques are not enough. To assist with diagnoses, Q.Lung AI automatically segments lung lobes for preoperative functional assessment of lung cancer cases. For pulmonary embolism cases, it automatically segments the lungs and trachea for 3D evaluation of ventilation and perfusion. In turn, Q.Lung AI demonstrated an overall success rate of 89 percent<sup>[v]</sup> and reduced the number of manual clicks by an average of 57 percent<sup>[vi]</sup>.
- **EXINI Bone:** An estimated 3,610 individuals in the United States will be diagnosed with cancer of the bone and joints in 2021<sup>[vii]</sup>. Leveraging the power of AI, EXINI Bone provides clinicians with anterior and posterior whole-body bone scan images, segmentation of skeletal regions, highlights of hotspots with locally increased uptake, and calculation of bone scan

index – helping clinicians discover, diagnose, and treat patients quickly and accurately.

- **Q.Thera AI**<sup>[viii]</sup>: The industry-wide trend toward precision care has increased the complexity of manual workflows like organ segmentation and dose calculations. Q.Thera AI is designed to help clinicians automatically and accurately segment organs for quantitation and dosimetry calculations, all with the goal to help reduce the time required for the user to process and calculate dose by more than 55 percent – enabling them to spend more time with patients.

Xeleris V and its advanced applications are offered as an upgrade to existing Xeleris workstations or by acquiring Smart Subscription, GE Healthcare's innovative subscription service that keeps hospital system devices synchronized to each other and to the latest software<sup>[ix]</sup>.

Altogether, Xeleris V and its advanced AI applications combined with GE Healthcare's 800 and 600 Series nuclear medicine scanners provide clinicians with easy and fast access to the data they need to help them make personalized care decisions and treatment recommendations. GE Healthcare is uniquely positioned to advance these precision health efforts as the only partner with solutions spanning from pharmaceutical diagnostics, cyclotrons, chemistry synthesis, PET/CT, PET/MR, nuclear medicine, advanced digital solutions and pharma partnerships, covering the breadth of steps from discovery to diagnosis to treatment.

For more information on GE Healthcare and Xeleris V visit [gehealthcare.com](https://www.gehealthcare.com).

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#### About GE Healthcare:

GE Healthcare is the \$16.7 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.

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<sup>[i]</sup> GE Healthcare data on file.

<sup>[ii]</sup> Physician Income Drops, Burnout Spikes Globally in Pandemic, Medscape Medical News, Marcia Frellick, September 11, 2020.

<sup>[iii]</sup> MIT Technology Review in partnership with GE Healthcare, "The AI Effect: How Artificial Intelligence is Making Health Care More Human"

<sup>[iv]</sup> Cancer. (2021, March 3). Retrieved April 27, 2021, from [https://www.who.int/news-room/fact-sheets/detail/cancer#:~:text=lung%20\(1.80%20million%20deaths\)%3B,liver%20\(830%20000%20deaths\)%3B](https://www.who.int/news-room/fact-sheets/detail/cancer#:~:text=lung%20(1.80%20million%20deaths)%3B,liver%20(830%20000%20deaths)%3B)

<sup>[v]</sup> As demonstrated in an evaluation consisting of 99 SPECT/CT cases and three physicians, where each case was segmented manually and using the AI-based algorithm and evaluated by one of the physicians. In 89 of the cases, the AI-based segmentation met the success criteria of (a) less than three manual edits, and (b) lobe volume and activity within a predefined threshold compared to manual segmentation.

<sup>[vi]</sup> Compared to Q.Lung on Xeleris 4 DR. As demonstrated in bench test using five SPECT/CT cases. The bench test covered the workflow for pulmonary embolism diagnosis and lung function assessment. Results may vary.

<sup>[vii]</sup> Key Statistics About Bone Cancer. (2021, January 12). Retrieved April 28, 2021, from <https://www.cancer.org/cancer/bone-cancer/about/key-statistics.html>

<sup>[viii]</sup> CE marked. Not for sale in the U.S. Not cleared or approved by the U.S. FDA.

<sup>[ix]</sup> Q.Thera AI: CE marked. Not for sale in the U.S. Not cleared or approved by the U.S. FDA.

#### For media inquiries, please contact:

Margaret Steinhafel  
1 608 381 8829  
[Margaret.Steinhafel@ge.com](mailto:Margaret.Steinhafel@ge.com)