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## **AAPM 2022 meeting highlights ever-growing evidence for radiation therapy with Elekta Unity**

*Presenters from Elekta Unity MR-Linac centers to reveal findings in 36 abstracts*

WASHINGTON DC – Users of Elekta Unity, the world's first and only high-field magnetic resonance linear accelerator MR-Linac, continue to make great strides in their clinical and technical research harnessing the groundbreaking treatment platform. Representatives from the Elekta MR-Linac Consortium are presenting 36 abstracts on MR-guided radiation therapy (MRgRT) at the American Association of Physicists in Medicine (AAPM) 64<sup>th</sup> Annual Meeting & Exhibition, July 10-14 in Washington, D.C.

Twenty-two of the Consortium member abstracts will focus on Elekta Unity workflow, motion management and deep learning. Anatomical sites of particular emphasis are the abdomen and heart, followed by spine, head-and-neck, liver and upper gastrointestinal sites.

"The growing number of Elekta MR-Linac Consortium member institutions – up from 60 in 2020 to 75 today – are exploring the capability and potential of MR-guided radiation therapy, at an ever-increasing rate," says Kevin Brown, Distinguished Scientist, Elekta.

Two abstracts of note concern the use of the MR-Linac to treat moving targets. A future-looking abstract deals with treating targets in the heart, a particularly challenging disease site due to its rapid motion. However, the team from University Medical Center Utrecht shows that the Unity radiation beam can be moved fast enough to keep up with the heart using a technique called: "MLC-tracking". This article is titled: "*Technical Feasibility of Real-Time Cardiorespiratory Motion Mitigation Using MRI-Guided MLC-Tracking on the Unity MR-Linac*".

Researchers at Froedtert & the Medical College of Wisconsin Clinical Cancer Center at Froedtert Hospital show that Unity is capable of gated treatments as the patient breathes – the beam is turned on (i.e., delivered) when the target is in the correct position and off when breathing puts the target out of position. The article is titled: "*Gated Beam Dosimetry Properties of a 1.5T MR-Linac*."

"MLC-tracking has been successfully demonstrated for respiratory motion, but it is exciting to see that the performance of Unity is sufficient for real-time, motion-compensated deliveries for targets subject to complex cardiorespiratory motion," Brown says. "The groundbreaking capabilities of Elekta Unity have helped users generate close to 700 abstracts and over 500 peer-reviewed articles. It is wonderful to see our user community's excitement as they discover that Elekta Unity enables them to really 'see what you treat' and all that this means."

To learn more about Elekta Unity, visit <https://www.elekta.com/products/radiation-therapy/unity/>.

*\*Elekta Unity has CE mark and 510(k) clearance but is not available in all markets.*

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**For further information, please contact:**

Mattias Thorsson, Vice President, Head of Corporate Communications

Tel: +46 70 865 8012, e-mail: [Mattias.Thorsson@elekta.com](mailto:Mattias.Thorsson@elekta.com)

Time zone: CET: Central European Time

Raven Canzeri, Global Director, Media Relations

Tel: +1 770-670-2524, e-mail: [Raven.Canzeri@elekta.com](mailto:Raven.Canzeri@elekta.com)

Time zone: ET: Eastern Time

**About Elekta**

As a leader in precision radiation therapy, Elekta is committed to ensuring every patient has access to the best cancer care possible. We openly collaborate with customers to advance sustainable, outcome-driven and cost-efficient solutions to meet evolving patient needs, improve lives and bring hope to everyone dealing with cancer. To us, it's personal, and our global team of 4,700 employees combine passion, science, and imagination to profoundly change cancer care. We don't just build technology, we build hope. Elekta is headquartered in Stockholm, Sweden, with offices in more than 120 countries and listed on Nasdaq Stockholm. For more information, visit [elekta.com](http://elekta.com) or follow [@Elekta](https://twitter.com/Elekta) on Twitter.