

Researchers develop technology to improve lung cancer detection and treatment

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Researchers from Loyola University Chicago Stritch School of Medicine have developed a technology that improves the detection of tumors during radiation therapy for early-stage lung cancer.

John Roeske, PhD, and colleagues presented how they developed and evaluated the technology at the recent annual meeting of the American Society for Therapeutic Radiology and Oncology.

Their approach uses dual-energy imaging combined with fluoroscopy to view tumors during [radiation therapy](#). This technology does not require an X-ray that produces both high-and low-energy images. Existing hardware can be used to eliminate visuals of the ribs and other bones making it easier to see the tumor.

"Dual-energy imaging has been used for decades by radiologists to detect [lung tumors](#)," said Roeske, professor and director of Radiation Physics, Department of Radiation Oncology. "When combined with fluoroscopy, the hybrid dual-energy technology can enhance the visibility of tumors to improve treatment for patients."

Roeske and his colleagues have a patent on the technology. They report that if it becomes commercially available, their approach would provide a cost-benefit to hospitals.

"This technology does not require that hospitals replace their standard X-ray machines since the dual-energy images are created using a software

approach," Roeske said. "The hybrid technique removes present obstacles making this a great benefit to clinicians and patients."

Provided by Loyola University Health System

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