The Healing Arts: New MRI-guided radiation therapy system helps artist beat cancer, keep doing what he loves

PITTSBURGH — South Fayette artist Ron Jesiolowski, 73, holds on to most of his oil paintings, pen-and-ink sketches and watercolors, his home studio overflowing with dozens of works accumulated over decades of professional and recreational artistry.

But one of his most recent works — "The Angels Within," a dreamlike oil painting that depicts three angels, shimmering caduceus symbols, and other vibrant references to faith and the healing arts — now hangs in Allegheny General Hospital's Cancer Institute.

The work, which took four months to complete, was inspired by Jesiolowski's own treatment and recovery journey, following a 2023 prostate cancer diagnosis.

He is now in remission.

"When you get hit with a diagnosis, every day you cherish a little bit more," Jesiolowski said.

His treatment and recovery were aided by a new piece of equipment at AGH, the Elekta Unity MR-LINAC system. The MR-LINAC combines advanced MRI-guided imaging with linear-accelerator (LINAC) radiotherapy to target cancer cells with pinpoint precision.

With traditional radiation therapy devices, care teams must target a larger area to account for tumor movement during treatment. But the Elekta Unity MR-LINAC provides real-time, continuous imaging that allows care teams to monitor the position of the tumor throughout the entire treatment, minimizing the radiation spillover to nearby healthy tissue.

"It's night and day compared to 10 years ago," said Paul Renz, DO, a radiation oncologist at AHN. "Because of that real-time tumor monitoring and motion management, we can hit the tumors more precisely and increase the dose to tumors we are treating, improving curable outcomes while avoiding damage to surrounding organs."

Tumors can shift during treatment, Dr. Renz explained, even when the patient is doing his best to remain motionless. Subtle movements by the patient — breathing, digestive movements, even heartbeats — can cause the tumor to move a few millimeters relative to healthy tissues. But the Unity system can track the tumors in real time, and shuts off the radiation beam automatically if the target moves outside its planned delivery envelope.

And because the precision of the device allows for higher radiation dosages, patients don't need as many treatments. Jesiolowski was in remission after just six treatments.

"It was much easier than I thought," he said. "I'd rather do that again than get a root canal. I hope to never need cancer treatment again, but if I do, I'll go to AHN for the MR-LINAC."

In April 2025, Jesiolowski donated "The Angels Within" to AHN. The angels, he noted, are wearing vintage nursing dresses and pinafore aprons, inspired by the historical nursing uniforms that he saw on display near the main AGH lobby. The streaming lights emanating from the upper-right corner of the painting represent the MR-LINAC's radiation beams. The orb at the center of the painting looks a bit like a cell, but is also representative of the bore — or magnetic tunnel — at the center of the MRI machine.

The painting, as well as a plaque bearing a poem that he wrote about his cancer ordeal, are now hanging on a wall in the radiation oncology department at AGH, not far from where Jesiolowski received his MRI-guided radiation therapy.

The Elekta Unity MR-LINAC at AGH is the only one in the Pittsburgh region, and one of just handful in operation across the United States. MR-LINAC technology can be used to treat prostate cancer as well as cancers of the chest and abdomen.

"At AHN, we are continually advancing the frontier of cancer medicine and investing in therapies and technologies that improve care for our patients," Dr. Renz said.

If you are interested in learning more about the Elekta MR-LINAC system, please call AHN's radiation oncology department at 412-359-3400.