LIFESTYLES

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"If Albert Einstein where here, he couldn't come over and do this job without two years of university study and a residency."

— Michael Gossman, chief medical physicist at Tri-State Regional Cancer Center

Medical multitasker

Local physicist called on to serve in many roles

By LEE WARD
The Independent

ASHLAND Michael Gossman is a rare kind of guy.

In fact, there are only two of his type in the state east of Lexington.

Gossman is chief medical physicist at Tri-State Regional Cancer Center in Ashland.

A medical physicist "assures the safe and effective delivery of radiation" in the diagnosis or treatment of a patient, as prescribed by a physician or other practitioner, according to the American Association of Physicists in Medicine.

thor of more than 12 journal articles and his research has been published in three books.

Getting grants

Since he's lived in Ashland, Gossman has received two international medical science grants. One, from Bard Access Systems valued at $29,000, was for studying the effects of radiation on vascular access ports. It was important, he said, because some radiation patient have ports for receiving medication, such as chemotherapy; it is more difficult to accurately calculate radiation dosages to

tive of Jeffersonville, Ind., Gossman always had an interest in science, originally hoping to work with the U.S. Navy on submarine propulsion. He earned a bachelor of science in 1995 and a master of science in 1997 from Indiana University and the University of Louisville, specializing in atomic physics.

He said he didn't know about medical physics until he attended a lecture about the field at The University of Louisville.

"That was it," he said. "I was hooked."

He studied

Vanderbilt University and did an academic residency to become a medical physicist.

When he was looking for a full time job, he had a choice between the one he has currently and medical physicist for St. Jude's Children's Research Hospital, but he chose to come to Ashland because he said he could see every employee of the cancer center was fully dedicated to doing their very best and to making the cancer center the best it could be.

"I felt like I had the same kind of interest and we would be in harmony and I think that's how it'

At the cancer center, Gossman works with doctors, making calculations to determine the amount of radiation a patient receives. He makes sure the machines are correctly calibrated to deliver that right amount of radiation.

Gossman said a medical physicist is the highest-ranking scientist at a hospital.

"You can't hop from one field to another and do this job," Gossman said. "If Albert Einstein where here, he couldn't come over and do this job without two years of university study and a residency."

He also takes care of safety concerns at the center and is in charge when a machine breaks.

Many duties

But there are other responsibilities for Gossman.

He is the only medical physicist on a team of seven medical consultants to the Nuclear Regulatory Commission. His role is to respond to medical events, regulatory compliance, guidance formalism and to provide legal expert testimony anywhere in the country. He said the NRC calls on him once or twice a year.

"I am rarely needed, but when I am, it's extremely important," he said.

Gossman also serves roles in the area.

He is radiological triage physicist liaison for Greenup County and radiation safety adviser for Ashland, Catlettsburg and Boyd County. In that capacity, Gossman would be a first responder in case of a bomb in the area or in case of a spill of radioactive material along a highway or in a place of business. "My skills allow me to tell what the material is without it being labeled," he explained.

Editor of journals

He also is an editor and editorial board member for the Medical Dosimetry Journal and the Journal of Applied Clinical Medical Physics, where he previously served as editorial reviewer and advisory editor. His primary role is to find reviewers of articles to be published in the journals.

Gossman also is the primary au-

those patients if that port could be in the path of radiation.

The same is true of a pacemaker. Gossman's other major grant was from the Medtronic corporation. This grant, valued at $219,000, studied the same problem with pacemakers and radiation treatment.

Both sets of data have been published in professional journals. Gossman said they were the first studies of their kind and now are available internationally to physicians.

"Now that the research is published, the medical community is now aware of the magnitude of changes that occur for various types of devices when treatment is simulated on computer, whether they are vascular access ports or electronic heart rhythm devices," he said.

Interest in science

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played out," he said. "I feel like I've been able to help the institution great, with a lot of support from my colleagues, Dr. Lopez and Dr Justice."

Tri-State Regional Cancer Center's radiation oncology practice received three-year full accreditation from the American College of Radiation Oncology in May last year.

Despite his busy schedule — Gossman said he works about 55 hours a week — he has time for family.

His wife, Crystal, is from Flatwoods and they have three daughters.

"I'm happy as can be," he said of living in the Tri-State. "I'm not going anywhere."

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