

Radiology can be considered a 'premonition of life'

By BRENDA McHUGH
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They say a picture is worth a 1,000 words. In the case of radiology, make that 10,000 words.

The first week of November commemorates the anniversary of the X-ray machine's invention by Wilhelm Conrad Röntgen in 1895. Röntgen was working on experiments with a tube covered in black cardboard when he saw fluorescent spots on a piece of barium platinocyanide paper on a table across the room.

The fluorescence could have been caused only by light. Further tests at different distances and through various objects gave the same result.

He named the discovery X-rays — "X" being the algebraic symbol for the unknown.

Röntgen spent the next seven weeks secluded in his laboratory, repeating and studying his experiments. He even moved his bed into his work space. At one point, he persuaded his wife to serve as a subject for one of the tests.

She held her hand under his rays for 15 minutes. As the story goes, when she saw the plate with the skeletal image, she shuddered and nearly cried because it was "a vague premonition of death."

Today's radiology can be considered to be more of a "premonition of life."

"Behind the images that radiologic technicians make are real people with real stories," said Terry Reid-Paul, Radiology Program director for Keiser University in Fort Lauderdale. "The technology allows us to help diagnose life-threatening conditions.

Without radiology, the medical field might need to use hit-or-miss treatments. Perhaps that is the reason the field is so popular with caregivers as well as patients.

Michelle Stephens, with the American Society of Radiologic Technologists, said, "Innovations in imaging, such as virtual colonoscopy, molecular imaging, and three-D (three-dimensional) reconstruction will continue to replace the need for certain invasive procedures.

"That will increase the demand for skilled radiologic technicians in the future," according to Stephens. Formal training in the field is offered by hospitals, colleges, universities and vocational-technical institutes. It ranges from one to four years, depending upon whether one is earning a certificate, an associate's degree or a bachelor's degree.

In addition, Florida, like most states, requires certification to administer X-ray or other ionizing radiation.

An examination is given for all categories, with the exception of ultrasound and magnetic resonance imaging (MRI), according to the Florida Department of Health. Most employers prefer job applicants to have a national license in all areas of radiology.

For those who complete the training, the rewards are worth the effort.

Maurisse Guinness is a 38-year-old mother of two in Fort Lauderdale. Like many adults, she dabbled in a different profession for a while, then decided to pursue a career in health care. Guinness is currently a student at Keiser University.

"I was always interested in photography," she said. "Imaging made sense to me. I have a natural eye for composition. And this is great blend of both art and science. It is not just pushing a button. It is about truly understanding the human body, and the picture, and knowing where to look so that we can give the most accurate information to the radiologist.

"That is the kindest thing you can do for the patient," Guinness added.

Once she graduates in six months, she will most likely have a job already waiting for her. It might be at a physician's or a dentist's office, at a hospital or in a

diagnostic center.

She can expect to earn from \$32,750 to \$57,940 annually, depending on her education and position, according to a U.S. Bureau of Labor and Statistics survey from 2006.

Raymond Mata, program director for the School of Radiologic Technology at West Boca Medical Center, said that the profession provides valuable perks.

For example, he and his students often volunteer at the Caridad Center in Boynton Beach, which provides free medical and dental care to agricultural workers, laborers and the working poor of Palm Beach County.

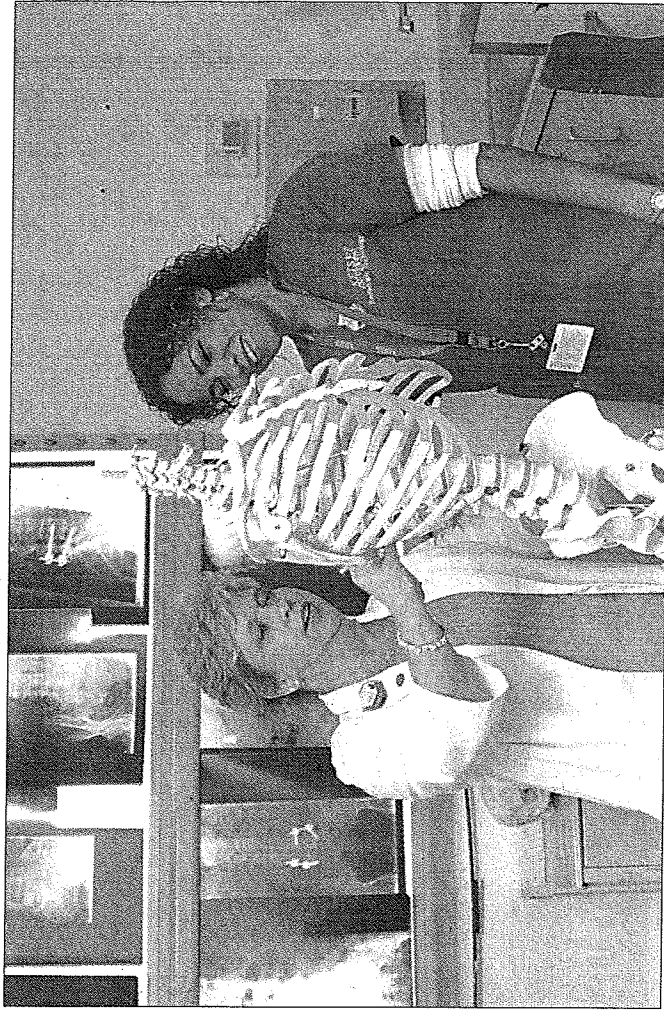
"After 30 years of working in the field of radiology, it's a tremendous reward watching these young men and women come into the profession, and going out there and taking care of these patients and giving back to the community," Mata said.

Perhaps one of those students will follow in X-ray founder Röntgen's footsteps and receive a Nobel Prize in Physics. Röntgen was granted the very first one in 1901. He deserved it.

After all, who could have guessed that a tube covered in black cardboard would change the basics of medical diagnostics in the 21st century? But that technology, and the image it creates, is now worth every one of those 10,000 words.

Wilhelm Conrad Röntgen is credited with creating the first X-ray. This photo is of his labatory in 1895, where he became fascinated with the way that light reflected across the room through a tube covered with black cardboard. November marks his discovery. Röntgen was granted the first Nobel Prize in Physics 1901.

Photo credit: National Institutes of Health



Keiser Regional Radiology Program Director Terry Reid-Paul works with Marisse Guinness, radiology technology student.