Galleries to exhibit Marie Curie's lab

BY DAVE AMBER
The Battalion

In the East Room of the White House the afternoon in late May 1921, President Warren Harding unlocked a doll-house-sized cabinet draped with ribbons and pulled out a small glass tube.

With much pomp, he handed it to Polish physicist Marie Curie. The small glass vial weighed only about a gram, but Curie travelled by ship from France to collect it.

And it contained a fortune.

On her first visit to the United States, the only woman awarded two Nobel Prizes — in 1903 for physics and in 1911 for chemistry — received $100,000 worth of radium, the rare radioactive element she had discovered and named more than 20 years before.

Curie's supply of radium had been exhausted. She and her daughters were the guests of the Marie Curie Radium Fund, a group of American women who collected the $100,000 so that Curie might continue her research into the medically-significant aspects of radioactivity.

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Eight decades later, Texas A&M will host another Curie visit next month, when the J. Wayne Stark Galleries exhibit the original laboratory equipment used by Marie and her husband Pierre Curie in their radioactivity experiments.

On March 4, Marie Curie's granddaughter, Helen Langevin-Joliot-Curie, will present the exhibit to the University.

It will be the second time that the instruments, considered a French national treasure, have traveled outside of their home country.

"Marie Curie built all of her instrumentation. It was primitive but still had to measure minute electrical charges," said Alan Waltar, professor and department head of nuclear engineering. "The fact that these instruments worked is amazing."

The exhibit will also explore the contributions of female scientists over the last 100 years since Curie's original work with radioactivity.

It is part of a month-long "Women in Discovery Program," sponsored by the several offices, including the Provost Office and the Office of Research and Graduate Studies, to focus on attracting women into science and engineering careers.

Besides the exhibit, a symposium March 22-23 will bring women science and engineering pioneers to campus.

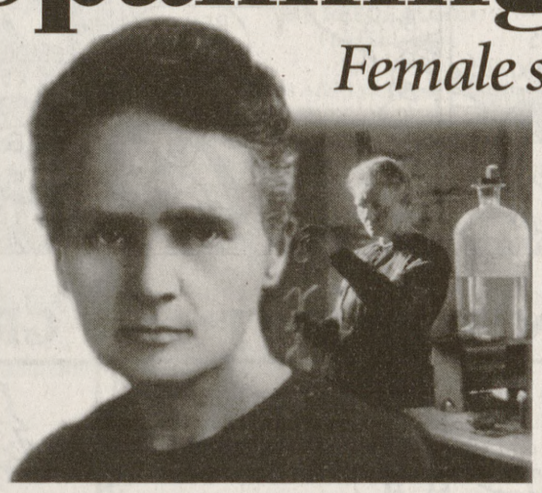
They will include Dr. Mae Jemison, the first African-American woman in space, and Dr. Nancy Dickey, the first woman president of the American Medical Association.

Marie Curie is a role model for women scientists around the world, Waltar said. "She is a real hero. Her original discoveries transformed science in the 20th century."

He said celebrating Curie's life is a way to stimulate young women's interest in science.

Spanning generations

Female scientists look to pioneering leaders

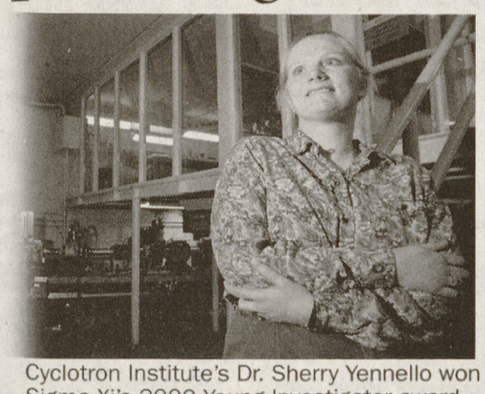


The Nobel Prize and the Curie Dynasty

1903 Physics: Pierre and Marie Curie, for their work on radioactivity

1911 Chemistry: Marie Curie, for her discovery of the radioactive elements Polonium and Radium

1935 Chemsitry: Irene and Frederic Joliot-Curie, for the discovery of artificial radioactivity



Cyclotron Institute's Dr. Sherry Yennello won Sigma Xi's 2000 Young Investigator award

CURIE PHOTOS COURTESY AP ARCHIVES, YENNELLO PHOTO BY CODY WAGES, GRAPHIC BY ROBERT HYNECEK/THE BATTALION

Cyclotron researcher wins 2000 Young Investigator Award

BY SCOTT JENKINS
The Battalion

As a female scientist who had supportive mentors throughout her career, Dr. Sherry Yennello has seen the difference positive role models can make for women at every step in their education.

"I had people who told me, 'Yeah, you can do this,'" said Yennello, a researcher at Texas A&M's Cyclotron Institute.

She said they were the ones who helped her see science as enjoyable, and "an acceptable thing for women to do."

Yennello, a member of the Department of Chemistry, has been awarded the 2000 Young Investigator Award by the scientific research society Sigma Xi for her work on the chemistry and physics of atomic nuclei.

Yennello has always wanted to know how things work, and said her curiosity helped her succeed in science.

Much of her research at the Cyclotron involves accelerating beams of different kinds of charged atoms, called ions, to high energies and studying the collisions of the ions with each other or different targets.

Yennello and the other Cyclotron scientists want to learn more about fundamental aspects of the nucleus, like the forces holding nuclei together and the mechanisms of nuclear reactions.

In its normal state, called the energy ground state, a nucleus can be thought of as a "liquid" consisting of protons and neutrons. "In certain ways, you can make the analogy between a nucleus and a drop of water," Yennello said.

If involved in a high-energy collision, nuclei can form a kind of "vapor" of protons and neutrons in the same way that water can undergo the transition from liquid to gas with energy input.

Yennello and her research group are investigating how this fleeting "vapor" of protons and neutrons is generated with collisions, and then how it behaves after the collisions as energy dissipates.

They are working on a complete understanding of the dynamics of the collisions and the thermodynamics of the resulting "hot" nuclear system.

Yennello said she thinks understanding fundamental science is essential for applications and "spin-offs" that are based on that understanding.

But Yennello thrives on more than research.

She is active in campus committees, such as the Science and Technology Policy Program and Women in Science and Engineering.

She is also serving as chair of the TAMU Women's Week 2000 committee.

Dr. Robert A. Kennedy, vice president of research and A&M associate provost for graduate studies called Yennello "an outstanding scientist who sees the importance of playing a leading role in the formulation of science policy."