

Sigma Xi Today

JANUARY/FEBRUARY 2005 · VOLUME 14, NUMBER 1

Sigma Xi to Present PCST Conference

Sigma Xi and the American Association for the Advancement of Science will present the 10th biennial conference of the International Network on Public Communication of Science and Technology (PCST) in Los Angeles in 2008.

In Barcelona last summer, some 650 participants from more than 50 different countries gathered for PCST-8, presenting 340 abstracts on the theme of *Scientific Knowledge and Cultural Diversity*.

The four-day conference typically includes a wealth of workshops and presentations. Details on PCST-10 in 2008 will be forthcoming in future issues of *Sigma Xi Today*.

The PCST network was established in 1989 and includes science writers, informal education experts at museums and science centers, public information officers, academic researchers who study the way science engages its public, researchers who communicate their own science stories and many others with an interest in the topic.

Through online discussions and biennial conferences, always in a different locale, the network fosters dialogue among those varied practitioners, so



that ideas and best practices are exchanged across professional, cultural, international and disciplinary boundaries.

"All of which makes the network a perfect collaborative match for Sigma Xi," says Executive Director Patrick D. Sculley. "Enhancing the public's understanding of science is one of the core missions of our global, interdisciplinary honor society of scientists and engineers."

"Communicating to the public on the outcomes, processes and inherent adventure of science and technology has never been more important," says Martin Baucom, manager of Sigma Xi's Public Understanding of Science program.

"And providing a forum to share ideas internationally and across cultures," he continues, "seems particularly relevant in this shrinking world."

The 2006 PCST conference in Seoul, South Korea, will focus on *Scientific Culture for Global Citizenship*.

Visit www.pcstnetwork.org for more about this fast-growing international science and technology communications network.

Sigma Xi Center Wins Awards

The new Sigma Xi Center in Research Triangle Park, North Carolina, has become a popular venue for scientific meetings and has won several design awards.

The Society's new home opened in December 2003. Approximately one-third of the building is dedicated to meeting and conferencing facilities.

"The synergy among like-minded groups bodes well for future programs and activities of benefit to science and society," says Sigma Xi Executive Director Patrick D. Sculley.

The Society took advantage of historically low interest rates and a lull in construction locally to build its new home at a considerable savings. "The building has already appreciated," Sculley says. "Construction costs, excluding labor, are up 30 percent since construction began."

The Sigma Xi Center won the 2004 Champion Award for Best Office Building from the Triangle Commercial Real Estate Women. It has also won two awards from the *Triangle Business Journal*, one for Partnering Team Approach for Little Diversified Architectural Consulting, and another for top development by Teer Associates.

Visit www.sigmaxi.org for photos of the new building and information about the Society's ongoing capital campaign.

TOYchallenge

Sigma Xi is pleased to be a sponsor again this year of the Sally Ride TOYchallenge.

Visit the TOYchallenge link at www.sigmaxi.org for more about this innovative program that encourages middle school students, and especially young women, to excel in science and technology.

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Honoring Nobel Laureate Paul Lauterbur

This is part of a series on people whom donors to the Sigma Xi Center building fund have honored with their gifts. Visit www.sigmaxi.org for more information about the Center.

"I was fortunate enough to join the research group of Professor Paul C. Lauterbur at the State University of New York at Stony Brook in 1974, not long after he began publishing his work on what he named NMR Zeugmatography," says Sigma Xi member David M. Kramer.

Kramer is today chief scientist for the Toshiba America MRI R&D Center in South San Francisco.

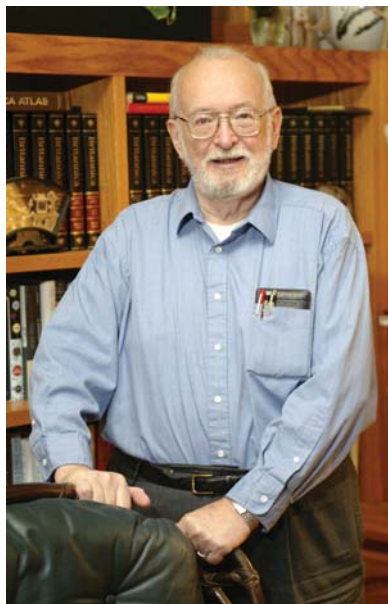
At that time, Kramer explains, there were only a handful of laboratories in the world working in this new field, which later became known as MRI, for magnetic resonance imaging. "Dr. Lauterbur not only came up with the idea of how to form images, but also had to convince a skeptical audience that this was going to be useful."

A long-time Sigma Xi member, Lauterbur is now on the faculty at the University of Illinois at Urbana-Champaign. He shared the 2003 Nobel Prize in Physiology or Medicine for his pioneering work.

He was among the first scientists to use nuclear magnetic resonance (NMR) in the studies of molecules, solutions and solids and the first to produce an image with NMR and apply the technology to medicine.

This led to the development of the magnetic resonance imaging scanner, which has had a revolutionary impact on the medical profession, and not only as a diagnostic tool. Functional imaging of brain activity, for example, has moved MRI into psychology departments around the world.

Kramer has been following in his mentor's footsteps, publishing extensively and earning many patents in the field of medical imaging. He has also served as an adjunct associate



PHOTOGRAPH COURTESY UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Paul C. Lauterbur

professor of physics in the Department of Radiology at the University of San Francisco.

"Prof. Lauterbur was a dedicated teacher and was always available to discuss the experiments we were carrying out," he recalls.

"I learned much from him beyond the chemistry and physics. His scholarly approach to problem solving and debate has always been an inspiring model for his students."

He says Lauterbur has been a mentor to many people of varied academic backgrounds.

"When I received a letter from Sigma Xi requesting contributions for the new Sigma Xi Center," Kramer continues, "I immediately thought that it would be a grand opportunity to donate in his honor."

It was Lauterbur who introduced him to Sigma Xi at a membership desk during an American Chemical Society meeting in Philadelphia in 1975.

"It is a pleasure to be able to make my own personal statement of thanks to him," Kramer says, "in a place that represents all of scientific research."

A Lasting Legacy

Although Sigma Xi members have many reasons for including the Society in their estate planning, the outcome is a legacy of giving that benefits future generations of scientists and engineers and honors a life's work.

Throughout its history, bequests have been vitally important in the life of Sigma Xi, providing much needed assistance for future generations of researchers as well as support for programs that promote the health of the research enterprise and for the general operations of the Society.

For more information on planned giving, visit the "Support Sigma Xi" link at www.sigmaxi.org or contact development@sigmaxi.org.

Rose Wins Nobel

In October, chemist Irwin Rose at the University of California at Irvine became the 198th member of Sigma Xi to receive the Nobel Prize. A total of 200 Nobel Prizes have been won by the 198 laureates.

A researcher in the UC Irvine College of Medicine, Rose shared the 2004 Nobel Prize in Chemistry with two Israeli scientists for their discovery of the major pathway through which cellular building blocks called ubiquitin proteins are regulated by degradation.

Cancer and some neurodegenerative diseases are thought to be related to disruptions in this pathway.

Rose received his doctorate at the University of Chicago and was inducted into Sigma Xi in 1951 by the chapter there.

The names of Sigma Xi members who have won the Nobel Prize are inscribed on granite panels in the Hall of Honor at the Sigma Xi Center.

Grants-in-Aid Testimonials

In 1952, graduate students Thomas Eisner and Edward O. Wilson received a Sigma Xi Grant-in-Aid of Research to take an entomological field trip across America.

Both scientists went on to receive Sigma Xi's highest honor, the William Procter Prize for Scientific Achievement, and both credit their Grant-in-Aid as the key to their early success.

"What a trip. I don't think I ever learned so much in such a short time in my whole life!" recalls National Medal of Science recipient Eisner at Cornell University. "And it was really that Grant-in-Aid that allowed us to do it. I remain to this day eternally grateful."

"It was one of the formative experiences of our lives," agrees Wilson at Harvard University, who has won two Pulitzer Prizes, "setting not just our doctoral thesis research, but the course of our entire lives."

Have you ever received a Sigma Xi grant? If so, we'd love to hear from you. To help promote the value of the program, we are seeking brief testimonials about the importance of Sigma Xi Grants-in-Aid to research careers.

Send testimonials (a paragraph or two) to giar@sigmaxi.org or by mail to Grants-in-Aid of Research, Sigma Xi, P.O. Box 13975, Research Triangle Park, NC 27709. Please include your full name and mailing address.

Next Deadline March 15

March 15 is the next application deadline for Sigma Xi's popular student research grants. Undergraduate and graduate students are encouraged to apply for awards of up to \$1,000 in all fields of the sciences and engineering.

Special Grants-in-Aid of up to \$2,500 are available for astronomy and eye/vision research. Visit www.sigmaxi.org for an online application, guidelines and helpful tips.



Participants at the UNAM "Picturing Science" workshop use drawings to describe their work. It was led by *American Scientist* Editor Rosalind Reid.

Ceremony Honors Members in Mexico

In October, new Sigma Xi members in the Mexico City area were recognized in an event organized by Rosaura Ruiz, secretary of the Mexican Academy of Sciences and a top administrator at the National Autonomous University of Mexico (UNAM).

Octavio Paredes, current president of the academy, presided over the ceremony, which was followed by a luncheon and a lively bilingual workshop on "Picturing Science," led by *American Scientist* Editor Rosalind Reid.

Both events were linked to Sigma Xi President Francisco Ayala's initiative to start several new Sigma Xi chapters in Mexico.

Coordinating these efforts and also on hand for the events were Ana Barahona, a professor at UNAM and member of the Sigma Xi International Committee, and Marlene de la Cruz, assistant director of Biological Sciences-Minority Science Programs at the University of California Irvine.

Nominations Due April 1

The nominations deadline is April 1 for Sigma Xi president-elect, treasurer, regional and constituency elections.

Sigma Xi members may submit nominations directly to the Committee on Nominations at the Society's administrative offices by forwarding an e-mail to ctte-nominations@sigmaxi.org that includes the nominee's name, contact information and brief biographical information.

At least two nominations for president-elect and two for treasurer will be considered by the November 2005 Assembly of Delegates.

Candidates are being sought for directors in the Baccalaureate Colleges and the Canadian/International constituency groups.

Associate directors will be elected for the North Central, Northwest, Southeast and Southwest regions as well as in the Research & Doctoral Universities constituency group.

Committee on Nominations seats are open for the Mid-Atlantic and Northeast regions and the Comprehensive Colleges & Universities and Area Groups, Industries, State & Federal Laboratories constituency groups.