

Sigma Xi Today

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Fox Elected President-elect of Sigma Xi

North Carolina State University Chancellor Marye Anne Fox was elected president-elect of Sigma Xi at the annual meeting in Minneapolis in November and will succeed John H. Gibbons as president of the Society in July 2001.

A member of the National Academy of Sciences, Fox is a noted physical organic chemist whose work has application in materials science, solar energy conversion and environmental chemistry. Prior to her appointment at N.C. State, she was the Waggoner Regents Chair in Chemistry and vice president for research at the University of Texas at Austin.

Born in Canton, Ohio, in 1947, Fox received her B.S. from Notre Dame College and her Ph.D. from Dartmouth. After a postdoctoral appointment at the University of Maryland, she joined the faculty at Texas in 1976.

Fox has received a number of teaching and mentoring awards throughout her career, and is active as a lecturer nationally on science education. In 1996, she received Sigma Xi's Monie A. Ferst Award from the Georgia Institute of Technology Chapter in recognition of her contributions to research through education. She also advises state and national organizations on science, technology and chemistry.

She has served as co-chair of a joint National Science Foundation-National Science Board taskforce on graduate education and on National Research Council, Texas and Louisiana K-12 advisory panels. She chairs the NRC Committee on Undergraduate Science Education.

Fox has served as a member of the executive committee of the National Academy of Sciences, and was vice



chair of the National Science Board from 1994 to 1996. She has served on 14 editorial boards, including the *Journal of the American Chemical Society*.

A fellow of the American Academy of Arts and Sciences and the American Association for the Advancement of Science, Fox has received the Garvan and Southwest Regional awards from the American Chemical Society and has also been honored with international research awards from Spain, Holland, Germany and Russia.

"Sigma Xi – with its history of promoting the health of the scientific enterprise, honoring scientific achievement and fostering international cooperation – exemplifies the importance of the link between science and continued progress in our society," she said in her candidate's statement. "Unfortunately, however, the lack of appreciation of this relationship by so many denies them full participation in this increasingly technological world. Sigma Xi, with more than 80,000 members in over 500 chapters, with its award-winning magazine, and with its firm commitment to honoring scientific achievement, is in a key position to enhance knowledge creation and dissemination throughout the world."

Constituency Group Directors Elected at Annual Meeting

Two new directors were elected at Sigma Xi's annual meeting in November. Sue Ann Miller (Hamilton College Chapter) was elected director of the Baccalaureate Colleges Constituency Group, and M.A. "Tony" Whitehead (McGill University Chapter) was elected director of the Canadian/International Constituency Group. They will serve three-year terms.

Associate directors were elected for three-year terms beginning July 1, 2000 for the following groups: Kathleen M. Antol (University of Notre Dame Chapter) - North Central Region; David D. Cass (University of Alberta Chapter) - Canadian/International Constituency Group; Lawrence K. Duffy (Alaska Chapter) - Northwest Region; David Pearson (Bucknell University Chapter) - Baccalaureate Colleges Constituency Group.

The associate directors were the first elected in Sigma Xi under the new governance structure, and, although not members of the board of directors, they will represent their group if the director is unable to attend a board meeting.

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Packard Grant to Fund Sigma Xi Global Networking Effort

Sigma Xi has received a three-year grant of more than \$570,000 from the David and Lucile Packard Foundation for a pilot program designed to facilitate interaction between scientists in developing countries and research colleagues around the world. The grant will also help enable scientists in developing countries to gain better and more timely access to the primary scientific literature via the Internet.

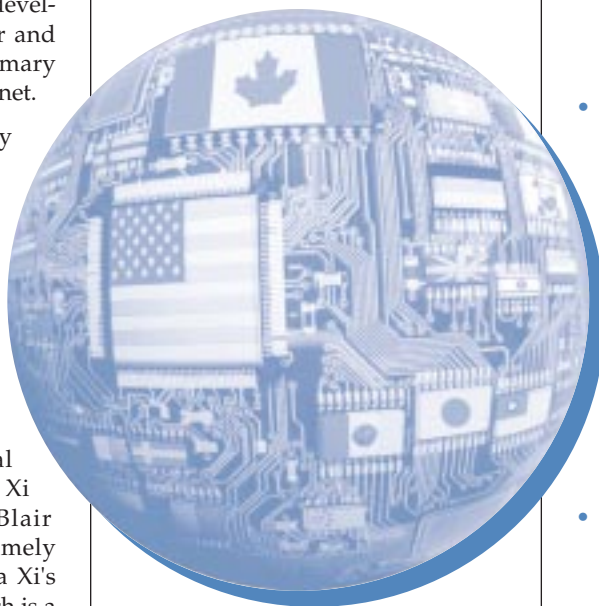
"Because of its multidisciplinary nature and international reach, Sigma Xi is well positioned to contribute to our strategy of capacity building for scientific research and education in developing countries," said Packard Foundation Director of Science Jaleh Daie. In describing how the Packard Foundation grant fits into Sigma Xi's international portfolio of activities, Sigma Xi Executive Director Peter Blair noted: "This award is very timely and will serve to boost Sigma Xi's global networking efforts, which is a longstanding goal of the Society."

Activities to promote science networking will vary enormously according to different communities of scientists in developing countries. While some developing country scientists simply need better access to the Internet, most need to be much better-connected to their peers around the world and to the primary scientific literature. With the Packard Foundation grant, Sigma Xi plans to support new chapters established in developing countries that would be used as the framework for establishing and building such networks.

The Internet provides a very efficient mechanism for providing scientists and engineers in developing countries with much of the primary scientific literature to which they would otherwise not have access. More importantly, however, the broad diversity in disciplines, interests and expertise of the Sigma Xi

membership will be crucial in connecting developing country scientists to colleagues around the world.

Sigma Xi immediate past president Robert Frosch chaired the recent National Academy of Sciences (NAS) study on science and technol-



ogy in foreign policy, and Sigma Xi president-elect and former presidential science advisor Jack Gibbons is currently advising the U.S. State Department on reviewing and implementing many of the recommendations put forth in the NAS report. "Sigma Xi's diverse membership and grass roots infrastructure may offer some important benefits for promoting the role of science and technology in international affairs, and especially in developing countries," according to Blair.

Because science is a global activity, Sigma Xi has among its goals the extension of that communal spirit around the world, in order to:

- Help coordinate and emphasize the global voice of scientific and engineering research and information on all issues that are increasingly of importance to the global community;

- Improve the global network of scientists and engineers across disciplines, to better facilitate communication and integration of scientific and engineering knowledge, to enhance that knowledge and also the public knowledge of science and engineering so as to improve human welfare and ameliorate human needs on a global scale;
- Facilitate greater cooperation and sense of community among scientists and engineers globally, and especially to increase our ability to bring scientists of developing nations more effectively into international scientific and engineering endeavors;
- Encourage interdisciplinary dialogue by organizing convocations at regional and national levels among the global membership; and,
- Provide encouragement, companionship and support to younger scientists and engineers at the international level through attendance at Sigma Xi annual meetings and, locally, through the traditional role of Sigma Xi chapters as centers for scientific dialogue and intellectual stimulation.

Currently, 18 of Sigma Xi's 518 chapters are located outside the United States, with five centered in developing countries.

For almost its entire 113-year history, Sigma Xi has provided scientists and engineers from around the world opportunities to interact and collaborate with members, locally, through chapter meetings, and globally, through the Society's annual meetings. In the last decade, the Society has added satellite videoconferences, Internet capabilities and World Wide Web interactions for members of its global network. This new project sponsored by the Packard Foundation will add a dynamic new dimension to the Society's international efforts.

Wulf, Rubenstein to Speak at Ethics Forum

William Wulf, president of the National Academy of Engineering, and Arthur Rubenstein, dean of the Mount Sinai School of Medicine, have accepted invitations to give plenary talks at the 2000 Sigma Xi Forum on ethics in research, scheduled for November 9-10 in Albuquerque, New Mexico, in conjunction with the Society's annual meeting.

The two-day forum will combine plenary addresses and break-out group discussions on a variety of topics, from university/industrial conflicts of interest and ethical issues in biomedical research, to the teaching of ethics and how grant pressures and other time-consuming factors are affecting the mentoring process.

When Sigma Xi held its last major forum on ethics in research in 1993, the topic was commanding a great deal of national attention. At that time, various scandals involving scientific misconduct had prompted hearings in Congress by Rep. John Dingall, and there was concern that perhaps the scientific community needed to have much greater oversight. Amid widespread criticism of science, the 1993 Sigma Xi Forum *Ethics, Values and the Promise of Science* attempted to focus on the positive aspects of science and good research practices.

While the public and Congress seem less concerned today with ethical issues in science, many research institutions have come to realize that misconduct is a low-probability, high-impact problem that merits serious attention. At the same time, university/industrial partnerships have proliferated to an extent that conflicts of interest, commitment and effort have added new complexities to ethical concerns in research.

Problems that were just beginning to surface back in 1993 have become much more prominent, including such issues as intellectual property rights – what belongs to industry, what belongs to the university, what belongs to the individual professor. In some instances, industrial research funding comes with strings attached, such as the right to review research papers before publication. To what extent is this inhibiting the free exchange of ideas that has been a cornerstone of scientific advancement?

These and other issues will be addressed at the 2000 Sigma Xi Forum in Albuquerque in November. Additional information and program updates will be posted on the Web at <www.sigmaxi.org> as they become available.

Young Investigator Award Nomination Deadline is June 1

Nominations for Sigma Xi's 2001 Young Investigator Award in the life sciences, including social sciences, are due by June 1.

This award recognizes the accomplishments of researchers early in their careers and their ability to communicate the importance of their work to the general public. The winner receives a certificate of recognition and \$5,000.

Presented annually, the Sigma Xi Young Investigator Award alternates between the life sciences and the physical sciences. Prospective recipients must be within 10 years of their highest earned degree at the time of nomination, and both the nominee and nominator must be active Sigma Xi members.

A nominating statement and three letters of recommendation are required and should be forwarded to the Committee on Awards at the Society's administrative offices. Consult the "Programs" section of the Sigma Xi Web site at <www.sigmaxi.org> for full guidelines.

Harris Cartoon Book Sells Out

There Goes Archimedes, one of cartoonist Sidney Harris's 12 collections, has completely sold out, but two others – *All Ends Up* (1980) and *At Home With the Einsteins* (1996) – are available from Sigma Xi for \$14.45 each, plus \$4 shipping and handling.

Also available are 100-percent cotton T-shirts with the *American Scientist* logo on the front and a Sidney Harris cartoon on the back. These sell for \$15 each and come in either natural or white, in sizes M, L, XL and XXL.

Considered America's foremost science cartoonist, Harris was elected an honorary member of Sigma Xi in 1997. Since 1970, *American Scientist* has published more than 600 of his cartoons, and his work has also appeared in such publications as *Science*, *Discover*, *Physics Today*, *The New Yorker* and *The Wall Street Journal*.

"It was inevitable that Sidney Harris should appear in the world," Linus Pauling noted in his foreword to *All Ends Up*. "Students of evolution tell us that some species of living organism develops to fill every niche... We are fortunate that Mr. Harris is filling his 'nitch,' because it might have been occupied by some lesser species, and that would have meant that we – scientists and laymen alike – would have been deprived of some of the joy of life."



Sigma Xi Expeditions Explore the World

Sigma Xi members will be exploring the world this year, from the back roads of China to the waterways of Southeast Alaska, as part of a special member benefit program called Sigma Xi Expeditions. On these educational trips, Sigma Xi members enjoy excellent itineraries, led by experts, and congenial groups of like-minded travelers who share a love of learning and discovery.

Classicist and naturalist Mark Walters will lead the Sigma Xi group April 6-20 on a tour of Minoan archaeological sites and the historic wildflower-lined pathways of "Backcountry Crete." British birder, artist and naturalist Derick Watson will lead the Sigma Xi "Wild Britain Expedition" May 3-15, which combines historic sites in East Anglia and Scotland with some of the finest wildlife refuges in all of Europe.

In June, Sigma Xi members will explore the spectacular, little-known mountain country of Sichuan Province on the "Secrets of Sichuan Expedition" June 16-July 2, led by Chris Carpenter. Participants will visit several sanctuaries and reserves of the giant panda and will travel up the Min River Valley high

into the Minshan Mountains to visit remote villages, enjoy spectacular vistas and look for alpine wildflowers. The group will visit the Wolong Panda Reserve and also the panda breeding center in Chengdu, as well as Juizhaigou National Park, a UNESCO World Heritage Site.

Alaska and the Galapagos Islands are popular expeditions, scheduled for June 24-July 1 and July 21-30. August 11-25, the "Siberia and Lake Baikal Expedition" will offer an uncommon opportunity to explore the great beauty of Siberia in association with a team of Russian scientists.

Fall voyages are to the Pacific Northwest, September 6-12, and to the Columbia River on the "Lewis and Clark Expedition," October 8-14. The popular annual "Backroads China Expedition" October 20-November 5 will be led by Ted Elliman, and an excursion to Nepal with Robert Zomer will depart November 17. The popular New Year's "Sea of Cortez Expedition" with Roger Luckenbach is scheduled for December 27-January 3.

For further information, please call Sigma Xi Expeditions at 800-252-4910 or 408-252-4910.

Annual Meeting Delegates Approve Dues Increase

At Sigma Xi's annual meeting in November, delegates voted to increase dues for fiscal year 2001 to \$50 (U.S.) for regular members, \$20 for student members, \$25 for emeritus members and \$1,075 for life members (payable in three installments). Local support payments to chapters were also increased to \$7.89 per regular member.

The Assembly defeated a resolution from the Quinnipiac Chapter that would have enabled the Society to experiment with addressing issues and elections by e-mail in advance of the annual meeting.

During the meeting, workshops were held on issues involving the Society and on issues involving science and society, including the influence of gender and ethnicity on student learning, ethics in science and engineering, challenges in managing a successful Sigma Xi chapter, science advocacy, issues for graduate students from under-represented groups, chapter-based K-12 outreach programs and designing a chapter Web site.

Delegates also had the opportunity to interact with the student authors of the nearly 60 undergraduate research posters on display. The undergraduate poster session was hosted by the University of Minnesota Chapter and the chapters in the North Central Region and was arranged by Sagar Krupa and Michael Russelle of the University of Minnesota Chapter. In addition, delegates had the opportunity to view more than 25 chapter posters and about 35 scientific posters that were displayed by delegates.

Grants-in-Aid Deadline is March 15

March 15 is the deadline for spring Grants-in-Aid of Research (GIAR) applications. The next GIAR deadline after that is October 15.

Since 1922, Sigma Xi Grants-in-Aid of Research have represented an investment in the future of science by helping to advance the careers of more than 25,000 young scientists and engineers. Research awards of up to \$1,000 (the average award is \$600) are made to support research in any field. Some special funds allow higher awards in specific areas of research.

In astronomy and eye or vision research, National Academy of Sciences grant funds administered by Sigma Xi allow for awards up to \$2,500. In the field of plasma research, the Sigma Xi-Consortium for Plasma Research Fund allows for awards of \$5,000 to graduate/medical students and postdoctoral professionals whose work involves advancing the safety of the world's blood supply.

For application forms, complete guidelines or more information, call 800-243-6534 or visit the "Programs" section of the Sigma Xi site at <www.sigmaxi.org>.

www.sigmaxi.org

For the latest Sigma Xi news, membership forms and chapter links, as well as guidelines for grants and awards, visit the Sigma Xi Web site.