

Sigma Xi Today

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W. Franklin Gilmore Elected President



W. Franklin Gilmore, chancellor and campus CEO of Montana Tech of the University of Montana, was elected 2002-2003 president of Sigma Xi at the annual meeting in Albuquerque in November. He will succeed N.C State University Chancellor Marye Anne Fox in July 2002.

Prior to coming to Montana Tech, Gilmore was the executive vice president and vice president for academic affairs at West Virginia University Institute of Technology. For 26 years, he was professor, chair and research professor in the department of medicinal chemistry at the University of Mississippi.

A native of Mississippi, Gilmore earned a B.S. in chemistry at Virginia Military Institute and a Ph.D. in organic chemistry at the Massachusetts Institute of Technology. After service in the Army, he spent a postdoctoral year with DeLos DeTar at the Institute of Molecular Biophysics at Florida State University.

He also attended law classes at the University of Missouri at Kansas City while working for the Midwest Research Institute, and later he attended the Institute of Educational management at Harvard University.

As a graduate student at MIT, Gilmore was elected to full membership in Sigma Xi in 1960. He is a charter member of the University of Mississippi Chapter and served as chapter president on two occasions.

He has served Sigma Xi as a regional director and a director-at-large and as a member of the Executive, Finance and Awards committees. A lifetime member of Sigma Xi, he is currently a member of the Montana Tech Chapter.

For the first 26 years of his academic career, Gilmore was a teacher and mentor to undergraduates, graduate students and postdoctoral associates.

His most innovative research was the statement of and the original validation of the concept of peptidomimetics.

"The heart of Sigma Xi is the chapters and the strong chapter structure," Gilmore said in his candidate's statement. "The lifeline of Sigma Xi is the regions and the constituency groups. Therefore the health of Sigma Xi depends on keeping the chapters, regions and constituency groups strong." He said a major responsibility of the Society's national officers should be to continue to address chapter vitality and to find new ways to assist chapters in promoting research.

"The chapters could enhance service to their members by using the annual Sigma Xi forums as the thematic focus for one or more programs during the year," Gilmore suggested. "For example, the topics addressed by the 2000 forum on new ethical challenges in science and technology could provide timely and provocative chapter programs."

2001 Forum: Science, the Arts and the Humanities

The 2001 Sigma Xi Forum, tentatively titled *Science, the Arts and the Humanities: Connections and Collisions*, will be held on November 8-9 at the Sheraton Capital Center in Raleigh, North Carolina, in conjunction with the Society's annual meeting.

The forum will focus on the reciprocal influences of science, in its endeavor to understand nature, the humanities, in their essential role as the shapers of values, and the arts, as acts of creation that speak to emotions.

Through invited presentations and contributed papers, exhibits, demonstrations and presentations, the 2001 Sigma Xi Forum will endeavor to offer a rich panorama of these influences, both historic and contemporary.

The two-day conference will span a variety of contexts: from the quest for beauty in science to the use of science and technology to create beauty; from the influence of humanistic values and artistic conceptions on how science is conducted to the influence of scientific discoveries on the humanities.

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Rainforest Activist Diane Jukofsky Named Honorary Member



Environmental journalist and activist **Diane Jukofsky** has been elected an honorary member of Sigma Xi. She is director of the Rainforest Alliance's Conservation Media Center, based in San José, Costa Rica.

Since 1983, honorary membership has been conferred on distinguished individuals not otherwise eligible for membership who have served science, or Sigma Xi, in an outstanding way.

The Conservation Media Center is the environmental news hub of the Americas. The program publicizes Latin American conservation efforts and issues, trains journalists in environmental reporting skills, and helps conservation leaders learn from their colleagues, share information about

their projects and design effective communications strategies.

As center director, Diane Jukofsky researches, writes and edits a bimonthly, bilingual newsletter about tropical conservation issues in Latin America, arranges training workshops for U.S. and Latin American journalists and non-governmental organizations, and manages and edits a bilingual Web site called the Eco-Index <www.eco-index.org>, a searchable almanac of conservation initiatives in Mexico and Central America.

Jukofsky helped create the Conservation Media Center in 1990. In 1992, she helped launch and manage the Rainforest Alliance's Conservation Agriculture Network certification program. From 1993 to 1995 she served as environmental advisor to a community ecotourism project in Costa Rica that was sponsored by the Austrian government.

Before joining the Rainforest Alliance, Jukofsky was vice president of the Scientists' Institute for Public Information. She also served as press secretary to U.S. Rep. Sam Gejdenson, editor of the Minneapolis-St. Paul public television magazine, lobbyist and editor for the Minnesota Conservation Federation, public information officer for the National Wildlife Federation and a reporter for Prentice-Hall Publishing.

Her articles have appeared in *National Wildlife*, *Popular Science*, *Wildlife Conservation*, *Equinox*, *American Forests*, *Journal of Forestry*, *Nature Conservancy* and many other magazines.

Jukofsky is a board member of World Teach-Costa Rica and the Rainforest Alliance, and is also a member of the Society of Environmental Journalists and the National Association of Science Writers. She received a B.A. from Mount Holyoke College.

Stephen Rich Receives Procter Prize Grant-in-Aid of Research

Stephen M. Rich, an assistant professor in the Division of Infectious Diseases at Tufts University, was selected by Francisco J. Ayala to receive the 2000 William Procter Prize Grant-in-Aid of Research.

Each year, the Procter Prize recipient selects a young colleague, usually working in the same field, to receive the \$5,000 Grant-in-Aid that comes with the award.

Rich did his doctoral work under Ayala at the University of California at Irvine and has co-authored a number of papers with him. He received his M.S. in zoology at the University of Vermont and his B.S. in biology at St. Lawrence University.

Rich's research focus is on population genetics and the molecular evolution of the agents and vectors of human infectious diseases, namely the evolutionary dynamics of parasite and host populations.

He is particularly interested in the processes that have altered the genes and genomes of these organisms in a way that has facilitated their continued interaction.



"Some parasite-host associations date far back in the geologic record," he said, "while in other cases, these associations have come about quite recently. In either instance, their shared evolution is marked by antagonism, with each species striving to overcome the genomic innovations of the other. Unraveling the processes and order of events will provide great insights to better understanding not only where

these pathogens have come from, but what potential they may possess to overcome practical efforts to control them."

To date, his research efforts have centered primarily on two distinct human pathogen systems: the tickborne spirochetes of Lyme disease and relapsing fever, and the mosquito-borne, protozoan agent of malignant malaria.

"These two disease systems are fascinating models for studying complex interactions of pathogen-vector-host co-evolution," Rich said. "My research aims are to discern the importance of various factors-such as natural selection, horizontal exchange of genetic material, population structure and development of novel gene functions-in shaping past and present host-parasite interactions."

Packard Initiative Promotes Formation of New Chapters Around the World

Led by a group of long-time Sigma Xi members, a new chapter is being organized in Buenos Aires, Argentina, that will promote student research activities, organize events to inform the public about national and international scientific achievements, and facilitate student exchanges with North American universities.

The new Buenos Aires chapter is part of a Sigma Xi initiative supported by the David and Lucile Packard Foundation to encourage communication and collaboration among scientists in developing countries and research colleagues around the world.

Chapters formed under the initiative will receive direct financial support for organizational activities. In addition, travel funds are available for networking activities and attendance at Sigma Xi's annual meeting.

Other chapter development highlights include a cadre of researchers in Ensenada, Mexico, working closely with the San Diego chapter to form a new chapter there. Discussions also have begun with researchers in Mongolia about starting a chapter.

In Moscow, 37 researchers are working to form a chapter that would focus on presenting a series of public lectures, while a proposed Ugandan chapter would facilitate student exchanges with universities abroad, bring scientists to Uganda to train students and researchers, and assist in re-establishing the *Uganda Journal of Medicine*.

Over the years a number of researchers in Beijing have become members of Sigma Xi with the assistance of the McGill Chapter. They've recently become interested in forming a chapter aimed at increasing contact with researchers outside of China and enabling students to have a greater variety of research experiences.

To further the Packard Initiative, chapters and individual Sigma Xi

members are encouraged to volunteer their time and expertise. You can assist by exchanging graduate students, hosting visits by researchers from developing countries, sharing examples of successful chapter activities and nominating researchers for membership.

Individuals can assist by setting up joint research projects and agreeing to a mutual research review, mentoring graduate students from developing countries and exchanging information about research.

A small group of staff and volunteers is currently exploring the possibility that Sigma Xi could help encourage and coordinate "editor exchanges" between North American and Latin American journals. The goal is to increase international scholarly communication and help regional journals improve the quality of peer review.

Exchanges would provide experienced referees to journals in areas with low concentrations of scientists and also offer geographically isolated scientists experience on North American editorial boards. Volunteers, especially bilingual scientists with extensive experience as referees, are encouraged to assist with this effort.

"We are pleased with the progress that's been made in the first year of this three-year initiative," said Sigma Xi Executive Director Peter D. Blair, "and hope to involve more Sigma Xi members and chapters as this exciting international expansion continues."

Those interested in assisting with chapter development, the "editor exchange" program or contact information for researchers in developing countries are encouraged to contact Lisa Rhoades at 800-243-6534 ext. 204, lrhoades@sigmaxi.org, or visit <www.sigmaxi.org>.

Blair Leaving for National Academy

After five years as executive director of Sigma Xi, **Peter D. Blair** is leaving in July to direct the newly created Engineering and Physical Sciences Division of the National



Research Council, the operating arm of the National Academy of Sciences, the National Academy of Engineering and the Institute of Medicine.

"This opportunity reconnects me," Blair said, "with many of the substantive issues of research and policy that I dealt with in former stages of my career—such as energy, industry, defense, telecommunications, space and the basic sciences.

"Just as important, though," he continued, "this opportunity comes at a time when I feel comfortable turning over the reins of Sigma Xi's management and administrative offices to a successor."

Among the accomplishments of the past five years at Sigma Xi, Blair has to his credit bringing the Society into the electronic age, with both a Web site and a broad range of e-mail capabilities; creating a new sense of mission in new programs; being better connected with the chapters and members; and advancing the programs and plans for the Sigma Xi Center in Research Triangle Park, North Carolina.

Before coming to Sigma Xi, Blair served as assistant director of the Congressional Office of Technology Assessment and director of that agency's Industry, Commerce, and International Security Division, where he directed research programs on energy, transportation and infrastructure, on international security and space, and on industry, telecommunications and commerce.

Chapters Receive Program Awards

Sigma Xi initiated a new chapter recognition program this year, honoring outstanding programmatic efforts. While many chapters organize programs of interest to researchers and the community at large, the following were singled out for special recognition for the breadth and quality of their programs during the year.

The **Louisiana State University Chapter** sponsored a scientific writing prize awarded to undergraduate and graduate students to encourage and recognize high quality writing in the sciences, with the goal of better communicating scientific discovery to scientists and the public.

The **Middle Tennessee State University Chapter** sponsored its annual Expanding Your Horizons in Math and Science program, a day-long conference designed to introduce more than 250 middle school girls to careers in science, math, engineering and technology.

The goal of the **Pace College Chapter's** annual ethics forum is to encourage students to become critical thinkers as they confront cutting edge issues in research. The forum also acknowledges the importance of these issues and the fact that university campuses are the best, most logical places for these discussions to happen.

The **San Diego Chapter** initiated eight full members associated with various scientific research institutions in Ensenada and hopes they will form the nucleus to found Sigma Xi's second chapter in Mexico.

In the **University of Calgary Chapter's** High School Enrichment Program, 40 academically advanced seniors spent one school day a week, for up to five months, in university labs working side-by-side with professors and/or graduate students on individual or group projects. At the end of the year, students received Sigma Xi certificates of achievement at a symposium where they presented their research.

The **University of New Mexico Chapter** hosted 10 Sigma Xi Distinguished Lecturers (one per month) from all over the country for its Public Talks in Science and Society series, which has been rated the best program on campus for the past 11 years.

The **Whitman College-Walla Walla College Chapter** started a science book club last year and also developed an e-mail distribution list to which anyone interested can subscribe. Notices were sent out to area doctors, teachers, friends and the entire Whitman College faculty, which resulted in a good cross-section of people interested in science.

Chapters Honored for Most Initiates

Sigma Xi awarded Certificates of Recognition to the following chapters, which initiated the most new members last year.

Brown University
Carnegie Mellon-University
Claremont Colleges
Colorado State University
Georgetown University
Massachusetts Institute of Technology
Mount Holyoke College
Princeton
Smith College
Southern Maine
Swarthmore College
Texas A&M University
University of Texas Medical Branch
Washington University
Williams College

2002 Award Nominations Deadline June 1

Nominations for **Sigma Xi's 2002 Young Investigator Award** in the physical sciences are due by June 1.

The 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 nominees and nominators 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.

Surveying Expands to Texas and Ohio

After a successful pilot e-mail survey in Alaska and Delaware last summer, Sigma Xi is expanding its polling efforts to members in Texas and Ohio during the first quarter of this year.

As before, results will be compared to polling data of the general public in both states, supplied by Research!America, a national, non-profit advocacy group for research.

The major goal of this effort is to help facilitate and enhance communication with scientists and the general public. These data will be available to chapters to incorporate into their outreach and advocacy programs