

Changes in Membership Dues and American Scientist Format

Electing member representatives on the Board of Directors agreed after careful deliberation that two policy changes needed to occur in this upcoming fiscal year. The changes focus on ensuring the future fiscal soundness of our Society, reducing the environmental impact of our operations, and facilitating greater capability to deliver value to the membership.

First, the annual dues for regular (Full or Associate) members were lowered from \$95 to \$90 (all other dues rates remained the same). Second, all active, dues-paying members would receive a digital version of *American Scientist* rather than a print edition, beginning with the July-August 2012 issue.

Active members who wish to receive the paper edition of the magazine may subscribe separately at the member-discounted rate of \$20 at any time. Details for subscribing will be included in the May-June issue of *American Scientist*—as well as through other member communications.

The savings allow Sigma Xi to develop new services for its members and to support its chapters. Among the new services under consideration are professional development courses and a greatly enhanced digital experience both on our websites and with *American Scientist*.

To ensure that members have access to the digital edition, they are encouraged to verify that we have their current preferred e-mail address on file. To do so, members can log onto the Sigma Xi website www.sigmaxi.org/addresschange and review their contact information. Or, they may e-mail memberinfo@sigmaxi.org or call 800-243-6534 with their e-mail addresses. •

From the President

A letter from a true Sigma Xi supporter

"Your November dues notice worked like a charm, finally forcing me to make a decision about supporting the organization. Knowing that 'no decision' is a type of decision in its way, I have been wrestling with my membership decision since I received my first dues notice in February. You can imagine my dilemma: How does a Baby Boomer, self-employed for 20 years, justify this sort of expense in an environment of 1% interest rates, a 90% decrease in business income and worries about the steadily increasing costs of healthcare, food and just about everything else? In the end, I decided to look at my dues as an investment in the future—not my future, but the future of a worthy organization and its support of young scientists. So, today I gladly submit my dues and modest contribution as I have been doing for many years. Regards, Diane."

Diane contributed an extra \$100 above her membership dues.

Membership in Sigma Xi conveys a number of benefits—foremost among them are the honor of membership and our award-winning magazine. But Sigma Xi has a value beyond "What's in it for me?" There's no question that, in the aggregate, Sigma Xi members have a greater impact for good on the science and engineering community than most of us could muster on our own. It's axiomatic that there is strength in numbers. And that has long been true for Sigma Xi.

Sigma Xi does indeed represent an investment in the future. The Sigma Xi Grants-in-Aid of Research program is a prime example of what we accomplish together. The contributions of members and friends, plus (over the years) a modest portion of dues, has enabled Sigma Xi to award hundreds of small grants annually to further the careers of student researchers. The size of these grants often belies their importance. Sigma Xi grants represent an independent affirmation of a student's research potential, and receiving a Sigma Xi grant often leads to other awards, both internally and externally. A Sigma Xi grant has been an early milestone in many distinguished careers.

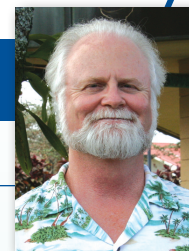
Sigma Xi exerts its greatest influence through the programs and activities of its more than 500 chapters. Chapter activities have noticeable impact not only locally, but at the national and international levels. Many Sigma Xi chapters support their local communities through mentoring partnerships with K–12 schools, serving as judges at high school science fairs and organizing campus research symposia. Offering and fulfilling volunteer opportunities is a big part of what many chapters are all about.

Along those lines, in recent years, Sigma Xi has drawn attention to some "big picture" issues: mitigation strategies for dealing with climate change, the special needs of postdoctoral researchers, food security and safety, the worldwide energy crisis and the global shortage of clean drinking water. Improving science education and underscoring the need for integrity in research are two other areas in which the Society has had a long distinguished history.

Sigma Xi has also been among the sponsors of national events and competitions that further the aims of the Society, such as the Conrad Foundation's Spirit of Innovation Awards, the U.S. Science and Engineering Festival in the nation's capital and the Intel International Science and Engineering Fair—the world's largest international pre-college science competition.

All of these activities impart a value to Sigma Xi that is difficult to quantify. But clearly we can all take pride in belonging to a society that has a broad outlook and is working on a number of fronts to improve the human condition.

Michael Crosby



Sigma Xi's First Electronic Election Results

The results are in from Sigma Xi's first electronic election for society officers, in which all active Sigma Xi members could participate. **Thomas Acker**, president emeritus of Wheeling Jesuit University, is the new president-elect designate. He will begin his service as Sigma Xi president-elect on July 1, 2012. **Ronald Millard**, professor at the University of Cincinnati, is the new treasurer.

Three new directors were also elected. **Terry Schwaner** is the new Baccalaureate Colleges Constituency Director. Schwaner is professor of biology and dean of the College of Sciences at the University of Findlay. **Robin Moore-Orr** is the new Canadian and International Director. She is adjunct professor at Memorial University of Newfoundland. **Linda Mantel**, associate research professor in the Center for Science Education at Portland State University, was reelected Northwest Regional Director.



Acker received his doctorate degree in biology from Stanford University. He joined Sigma Xi as a student member at Stanford in 1959. While continuing research

on reproduction in insects, he completed studies in theology and was ordained as a Jesuit Catholic Priest. He taught biology for two years at John Carroll University in Cleveland and seven years at the University of Detroit Mercy.

In 1972, he received a Fulbright Scholarship to Nepal and worked to redo and implement a new biology curriculum for the entire country. Following Nepal, he was an associate professor of biology at the University of San Francisco and then became dean of Arts, Sciences, and Business at St. Joseph's University, Philadelphia.

In 1982, he was elected president of Wheeling Jesuit University and served there for 18 years. He was then elected president emeritus. He moved to southern West Virginia to work in economic development. Here he built and directed a new public college campus combining five public colleges, was able to obtain a health clinic in a struggling area of southern West Virginia

and secured over \$45 million in grants that promoted southern West Virginia.

During this period, Acker served as dean at Future Generations Graduate School while they were obtaining their accreditation from the Higher Learning Commission of the North Central Association. In his 11 years in southern West Virginia, he was chairman and CEO of the Higher Education Foundation and the CEO of Forward Southern West Virginia, Inc. In 2010, he was elected president of the Greenbrier Valley Chapter of Sigma Xi and headquartered it at the West Virginia School of Osteopathic Medicine. With the cooperation of his colleagues, they increased the membership fourfold in one year.



As a new member of Sigma Xi, and as president of the University of Cincinnati Sigma Xi Chapter, Ronald Millard is well positioned to bring a fresh perspective to

the Office of Treasurer of the Society. He earned a B.S. degree in chemistry from Tufts University and subsequently served on the Tufts University Alumni Council, earning a doctoral in medical science (systems physiology) from Boston University. He completed postdoctoral training at the University of Washington (Seattle), Scripps Clinic and Research Foundations and the University of California in La Jolla, and at the Maine Medical Center (Portland).

He is a Fulbright Senior Fellow (Denmark) and has previously served as a consultant to the Council for the International Exchange of Scholars, the National Academies of Science/Ford Foundations Fellowships Selections, the National Science Foundation and the National Institutes of Health. Millard also has a successful record of organizing international science meetings, raising sponsor funding, and based on these successes, was subsequently invited to serve as consultant for follow-on science meetings. He has held full-time faculty posts at Harvard University Medical School, Brown University and the University of Cincinnati, where he is a professor of pharmacology and cell biophysics. •

Collin Named Sigma Xi COO



Barry C. Collin has been named chief operating officer of Sigma Xi. He comes to the Society from the Collin Group, Inc. where he was chief innovation officer.

For more than 25 years and across diverse industries, Collin's work has created billions of dollars in new opportunities for small businesses through Fortune 500 enterprises. He has disrupted and even created entirely new markets and changed the way many products and services are sold and used. An expert at "modding," Collin leverages companies' products, services and capabilities in new ways in order to grow fast and at maximum ROI.

Collin is also noted for having coined the term "CyberTerrorism," and was a Senior Research Fellow for the Institute for Security and Intelligence (Stanford, CA). He was a consultant and speaker for the U.S. Department of Defense, the State Department, the Treasury, and other federal, state and local agencies. His founding of the study of terrorists' use of advanced technology and its impact on critical infrastructure is credited for having helped protect hundreds of millions of lives. •

2012 Sigma Xi Awards Honor Leading Scientists

Every year, Sigma Xi presents several prestigious awards to honor outstanding researchers, communicators and educators. These recipients are recognized for their exemplary accomplishments in science and engineering. Visit the Sigma Xi website for more information.

William Procter Prize



Solomon W. Golomb at the University of Southern California has been selected to receive Sigma Xi's 2012 William Procter Prize for Scientific Achievement, the society's highest honor.

While assistant chief of the Telecommunications Research Section at the Jet Propulsion Laboratory, Golomb played a key role in formulating the design of deep-space communications for lunar and planetary explorations.

The Procter Prize has been presented annually since 1950 to an outstanding scientist or engineer who is known for effective communication of complex ideas.

Golomb, while completing his Ph.D., spent a year in Norway as a Fulbright Fellow. He then worked as a Senior Research Mathematician at Jet Propulsion Laboratory, later becoming Research Group Supervisor and then Assistant Chief of the Telecommunications Research Section. Past recipients include Herbert Simon, Benoit Mandelbrot, Margaret Mead, Jane Goodall, Michael DeBaakey and Stephen Jay Gould.

Golomb, who joined USC as a professor in 1963, is a member of the National Academy of Engineering and a Fellow of both the IEEE and AAAS. He received the USC Presidential Medallion in 1985, was awarded the title of University Professor in 1993 and won the Shannon Award of the Information Theory Society of the IEEE in 1985. He was appointed the first holder of the Viterbi Chair in Communications in 1999. He holds a joint appointment in the Department of Mathematics.

John P. McGovern Science and Society Award



World-renowned chemist **Marye Anne Fox** at the University of California, San Diego will receive Sigma Xi's John P. McGovern Science and Society Award. Fox is the seventh chancellor of UC San Diego and a

distinguished professor of chemistry.

Since her appointment as chancellor, the university has established new research and partnership ventures to further innovation and increase international collaboration, achieved an ambitious \$1 billion campaign goal, expanded academic and campus programs and facilities, received national and international recognition in prominent university rankings and assembled a strong, diverse leadership team to ensure the university's continued rise in excellence.

Before her current appointment, Fox served as North Carolina State University's 12th chancellor, as distinguished university professor of chemistry at N.C. State and as Waggoner Regents Chair in chemistry and Vice President for Research at the University of Texas at Austin.

Walston Chubb Award for Innovation



Joseph DeSimone at the University of North Carolina at Chapel Hill will receive the 2012 Walston Chubb Award for Innovation. DeSimone is the Chancellor's Eminent Professor

of Chemistry at UNC and William R. Kenan Jr. Professor of Chemical Engineering at North Carolina State University. He is also an adjunct member of the Sloan-Kettering Institute for Cancer Research in New York. DeSimone has more than 15 issued patents and more than 120 patents

pending. In 2005 DeSimone was elected into the National Academy of Engineering and the American Academy of Arts and Sciences. DeSimone has received 40 major awards and recognitions including the 2009 NIH Director's Pioneer Award; the 2009 North Carolina Award; and the \$500,000 Lemelson-MIT Prize for Invention and Innovation.

The Chubb Award is designed to honor and promote creativity among scientists and engineers.

Young Investigator Award



Sivaguru Jayaraman at North Dakota State University will be honored with Sigma Xi's 2012 Young Investigator Award. His research involves the use of light to initiate chemical reactions and control

photoreactivity in the excited state using molecular design and nanoconfinement. The cornerstone of Siva's program involves synthetic effort that allows a freedom of design to produce new structural motifs not only for studying stereoselective reactions, but also for chemical and bio-molecular recognition of encapsulated guests within water soluble nano-reaction vessels. Siva's research investigates the molecular and supramolecular assembly characteristics of systems to gain a deeper understanding of the interplay between molecular structure, assembly, dynamics and the role of external interactions critical for molecular recognition events in light-initiated reactions.

Additionally, Siva's research group uses modern molecular tools and spectroscopic techniques to gain deeper understanding of molecular interactions in chemical and biological systems, using light as both a reagent that initiates the chemistry and as the product of excited state reactivity of organic molecules. The Young Investigator Award includes \$5,000 and a certificate of recognition. Sigma Xi members within 10 years of their highest earned degree are eligible for this award.

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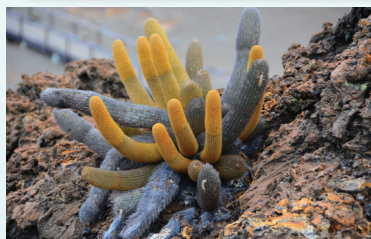
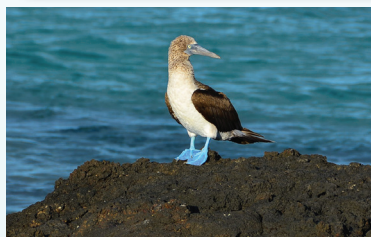
Sigma Xi Expeditions

Since 1997, **Sigma Xi Expeditions** (in partnership with **Betchart Expeditions Inc.**) have given members the opportunity to travel with fellow companions in zealous research to destinations that offer educational and cultural experiences to enrich lives and careers.

In December 2011, Jerry Baker, Executive Director of Sigma Xi, traveled with 22 fellow Sigma Xi members and other guests to the Galápagos Islands for a cruise onboard the *National Geographic Endeavor*. As a geneticist, Dr. Baker was fascinated by the rich diversity of flora and fauna species found only on the Galápagos Islands. “There have been several articles in *American Scientist* previously that have described research being conducted on the islands and seeing firsthand the adaptation of various species is truly worthwhile,” said Jerry Baker. However, he believes the islands would be fascinating to scientists and engineers from many if not all disciplines.

The members and guests were accompanied by highly qualified naturalists who were able to make the experience very informative and educational for those onboard. The schedule is rigorous with early morning pre-breakfast excursions and late evening discussions, but each day exposed the participants to something new to discover and learn.

To learn more about Sigma Xi Expeditions and the educational trips available please visit <http://www.sigmaxi.org/member/membersonly/expedition.shtml>. We invite all members who have participated in an expedition to share their experience and photographs. •



2012 Sigma Xi Awards

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Honorary Life Member



Science author and journalist **Dennis Meredith** will be inducted as an Honorary Life Member of Sigma Xi. Meredith's career as a science communicator has

included service at some of the country's leading research universities, including MIT, Caltech, Cornell, Duke and the University of Wisconsin. He has worked with science journalists at all the nation's major newspapers, magazines and radio and TV networks and has written well over 1,000 news releases and magazine articles on science and engineering over his career.

He has served on the executive board of the National Association of Science Writers and is a contributor to its magazine *Science Writers*. He wrote the NASW handbook on media relations, *Communicating Science News*. He has also served as a judge for the NASW Science-in-Society Awards and the AAAS Science Writing Awards. He won the latter award himself—for newspapers under 100,000 circulation—in 1974. He was a creator and developer of EurekAlert!, working with AAAS to establish this international research news service, which now links more than 4,500 journalists to news from 800 subscribing research institutions.

Evan Ferguson Award



Nancy Elwess at the SUNY Plattsburgh Chapter will receive the Evan Ferguson Award for Service to Sigma Xi. She is a past president and vice president and currently secretary

of the SUNY Plattsburgh Chapter. Since joining Sigma Xi in 1999, she has nominated 63 research students for membership. She strongly encourages her research students to apply for grants early in their careers, and several have received Sigma Xi Grants-in-Aid of Research. President Obama named Elwess a recipient of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. She is one of a handful of college faculty from across the country to receive this award. •