

## Student Science Film Competition to Focus on Water

In conjunction with a year-long focus on the issue of water, Sigma Xi is sponsoring a competition for three-minute student films on aspects of this precious and dwindling natural resource. The entry **deadline is September 1, 2008.**

“Water is among the most crucial issues in science, society, policy, technology and ethics facing the world today,” said Sigma Xi Board Member Linda K. Meadows. “We hope this film competition will enable students to exercise their creativity in exploring the many facets of this complex issue.”

Prizes of \$1,000, \$800 and \$500 will be awarded for the top three films. The competition is open to undergraduate and graduate students, either individually or in teams. There is no entry fee, but individual entrants or at least one member of each team must be members of Sigma Xi.

Winning films will be screened at the 2008 Sigma Xi Annual Meeting and Student Research Conference next November 20-23 in Washington, D.C., during an international forum on the topic of water. Travel costs to the forum will be provided for individual awardees or up to two members of a winning team.

Entries may be scripted or candid, fictionalizations, live video or animation or any combination of these, but must communicate scientific ideas in a manner that the general public can understand. All submissions must be in a DVD format.

Entries will be evaluated for the quality of their production and for the accuracy and depth of the scientific ideas they present. Visit [www.sigmaxi.org](http://www.sigmaxi.org) for the complete competition guidelines. •

## From the President

### Presidential Debate and Policy Advice

In this brief space I would like to introduce you to two initiatives that I think bear great significance for Sigma Xi.

One is Science Debate 2008. We've heard many stories about the candidates who are running for president of the United States. The news is constant and endlessly loops through any perceived missteps. But what have you heard about matters of substance? Have you heard anything about science and research?

There's an interesting movement afoot. It's described as Science Debate 2008, and it calls for the presidential candidates to address issues in science and research. The Pennsylvania primary affords an opportunity grassroots organizers of Science Debate 2008 are putting to good use. As of this writing, they have invited Obama, Clinton and McCain to schedule a science debate in Philadelphia on April 18.

Sigma Xi is one of the organizations that has signed on to Science Debate 2008, and I would like to encourage the membership to participate. Contact the candidates to let them know you think debate on science and technology issues is essential. Offer any questions you think are important for them to deliberate. Host science cafés and hold debates locally. Get people energized and talking about science, research and national policy.

We are all concerned about many issues that face our nation, not least of which are the economy, health care and the war. However, we must not let science and research be eclipsed. They are critical factors in every issue and offer the promise of solutions. To learn more about Science Debate 2008, visit [www.sigmaxi.org](http://www.sigmaxi.org).

The second initiative is one that is gathering momentum. In November 2007, the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, the National Association of Academies of Science and the California Council on Science and Technology held a convocation on *State S&T Policy Advice: Issues, Assets, and Opportunities*.

Their concern is that the states do not have bodies of experts to advise them on S&T policies, such as are available to Congress. Thus they have set forth a resolution advocating the establishment of state-level coalitions for S&T policy advice to local and state governments, including governors, cabinet agencies and legislatures.

This would seem a perfect role for our Society. We have bright minds and locally based chapters that can serve in this capacity. I propose that we give this serious consideration. Please think about it. I would love to hear your views. You can e-mail me at [leadership@sigmaxi.org](mailto:leadership@sigmaxi.org).

James W. Porter



## Boehlert Named Honorary Member

Former Congressman **Sherwood “Sherry” Boehlert** will be inducted as an honorary member of Sigma Xi at the Society’s 2008 Annual Meeting and Student Research Conference in Washington, D.C.



Audubon New York called him “one of the greatest conservation leaders ever to serve in the U.S. House of Representatives.” Boehlert served in Congress from 1982 to 2006 and chaired the House Science Committee. *Congressional Quarterly* named him one of the 50 Most Effective Lawmakers on Capitol Hill.

During his 24 years of service, Boehlert built a legacy as a moderate, focusing on consensus-building and results. Upon retiring from Congress, he joined The Accord Group, where he is of counsel.

*New York Times* science writer and author Natalie Angier will also be inducted as an honorary member at the 2008 meeting. Since 1983 some of the nation’s top science journalists, as well as others who have made important contributions to science or Sigma Xi, have been elected honorary members. •

## awards

### Elachi to Receive Procter Prize

When Charles Elachi was a boy growing up in a small Lebanese town, he liked to sleep outdoors in a sleeping bag on warm summer nights and gaze at the night sky. At the time, he never dreamed that one day, in tribute to his accomplishments in space science and exploration, a heavenly body—an asteroid, to be exact—would be named for him.

Elachi is director of NASA’s Jet Propulsion Laboratory (JPL) and vice president of the California Institute of Technology. This fall, he will add Sigma Xi’s William Procter Prize for Scientific Achievement to a long list of honors that includes the renaming in 1989 of asteroid 1982 SU as 4116 Elachi. The Procter Prize has been presented annually since 1950 and includes the honor of bestowing a \$5,000 Sigma Xi Grant-in-Aid of Research on a colleague working in the same field.

Elachi holds a doctorate in electrical sciences from Caltech and has a master’s degree in business administration from the University of Southern California and another in geology from UCLA. He joined JPL in 1970. As director for space and Earth science programs from 1982 to 2000, he was responsible for the development of numerous flight missions and instruments for Earth observation, planetary exploration and astrophysics.

He has been a principal investigator on a number of research and development studies and flight projects sponsored by NASA. Elachi has played a leading role

in developing space borne imaging radar into a major field of scientific research and application, helping to make JPL and NASA world leaders in the field.



He was the first to employ the space shuttle as a platform for imaging radar studies. Other projects include the Magellan radar imaging of Venus and the Cassini imaging of Saturn’s moon Titan. He has published more than 230 scientific papers and three textbooks, primarily in the fields of active microwave remote sensing and electromagnetic theory. He holds several patents in those fields.

His numerous awards have included being honored as one of “America’s Best Leaders” by *U.S. News & World Report* (2006), the Royal Society of London’s Massey Award (2006), Lebanon’s Order of Cedars (2006), the American Astronautical Society’s Space Flight Award (2005), the National Defense Industrial Association’s Bob Hope Distinguished Citizen Award (2005) and the NASA Exceptional Service Medal (2005).

Inducted into Sigma Xi in 1975, Elachi was elected to the National Academy of Engineering at age 42. He is a fellow of the Institute of Electrical and Electronics Engineers and the American Institute of Aeronautics and Astronautics and a member of the International Academy of Astronautics. •

## Critical Issues in Science: The Year of Water

Most of planet Earth is in the throes of a severe water shortage. Why? Over-development. Re-engineering of water flows. Damaged and destroyed ecosystems. Deforestation. Pollution of oceans, rivers and streams. Agricultural and lawn chemical run-offs. The politics of water access and distribution. Climate change.

In the very near future, wars could be fought over water. Economies could suffer. Mass migrations could occur. What is the role for science in this bleak forecast?

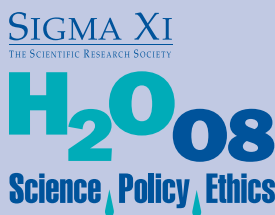
The answer is research. Scientists and engineers are joining forces to mitigate damage,

find new methods of delivering clean water and discover innovations that will change the course of the future.

Sigma Xi is putting a spotlight on this issue in 2008 through science cafés, blogs, podcast interviews and other ongoing activities designed to bring scientists together to

address the monumental challenges that water poses to society’s future.

You’re invited to participate in conversations, especially about the scientific aspects of water, with some of the foremost scientific thinkers and researchers in the world today. Visit [www.sigmaxi.org](http://www.sigmaxi.org) to learn more. •



## An Interview with New Executive Director Jerome F. Baker

*Jerry Baker, Sigma Xi's new executive director, has broad experience as a researcher and administrator. He comes to Sigma Xi from the Federation of Animal Science Societies, where he was chief executive officer. He has also been a faculty member at Texas A&M University, the University of Georgia and the University of Nebraska. He began his new duties April 14.*

**Q When did you first become interested in pursuing a research career?**

**A** I can't remember a time when I wasn't interested in science. I had a phenomenal chemistry teacher in high school, and that experience led me to major in biology and chemistry as an undergraduate. I knew that I wasn't going to be satisfied with just a bachelor's degree, even though I wasn't certain at the time which field I wanted to pursue.

I took courses in environmental science, ecology and plant genetics. I was intrigued with the idea of helping to improve food production and safety. I grew up on a farm and had cattle and horses. In high school, I even rented some land to farm. When the time came for graduate school, I decided on Texas A&M and animal genetics. After getting my Ph.D., I had the opportunity to work at the USDA Meat Animal Research Center in Nebraska.

**Q Who influenced you along the way?**

**A** The first time I presented a paper at a scientific conference I met USDA-ARS geneticist Gordon Dickerson. He was a widely respected and very interesting man who stayed active late into his life. When I finished presenting my paper, he stood to ask a question, as he had of other presenters. And he had asked some hard questions. But it turned out that the question he had for me was a simple one. I gave the answer and gained a lot of confidence. I later went to work with him as a postdoctoral research fellow.



**Q You've been a Sigma Xi member since 1990. What has the Society meant to you?**

**A** I knew I wanted to stay in academia and began my career at Texas A&M University. Then an opportunity came up at the University of Georgia to focus on research and manage their beef cattle units, which allowed me to get into management.

I was inducted into Sigma Xi at UGA, and what really struck me was that the members of the Sigma Xi chapter there represented a wide spectrum of science and engineering. This was important to me, because I wanted a bigger perspective. We all belong to societies relevant to our disciplines, but we can't really succeed off by ourselves. It's important to broaden our point of view, and that is a real strength of Sigma Xi.

My first experience with a cross disciplinary project involved a computer simulation program for beef cattle genetics. I knew Fortran, but not all the tricks. I worked with someone from the computer science school. That kind of collaboration has become more and more common.

Science in general has become more interdisciplinary. The University of Minnesota has introduced the idea of a multiple author thesis. All of this is very much in keeping with the history and traditions of Sigma Xi, perhaps best embodied by its magazine, *American Scientist*.

**Q Could you talk about your work with other scientific societies?**

**A** When I became a board member for the American Society of Animal Science, I gained a new appreciation for how scientific organizations work. I had been involved on various committees, but the importance of board service made an impression on me. I began to understand the different perspectives that people bring to the table. An active board provides an important opportunity for the exchange of ideas, always with an eye toward the mission and vision of the society. It's my impression that that's very much true at Sigma Xi.

In my former position with the Federation of Animal Science Societies, there were three founding societies, plus nine others, for which we offered leadership and management services. I attended approximately 20 board meetings a year and helped several groups get back on track financially. There are only a couple of ways you can do that, either through dues or programs and products. You can't just market yourself like a for-profit company.

When I took over at the federation, there were budgetary problems. We looked at what we did well and how we could capitalize on that. By taking in clients, in our case other societies, we could spread the costs among all involved.

We can't do that at Sigma Xi. But we can re-engage our chapters and emphasize the important role that our members play in the life of the Society. A membership reactivation program involving peer-to-peer contact may be the most effective approach we can take. If Sigma Xi members will make an effort to contact colleagues and urge them to reactivate, that could go a long way in turning our membership decline around.

Visit [www.sigmaxi.org](http://www.sigmaxi.org) for more about Sigma Xi's new executive director. •

## New Online Marketplace Offers Sigma Xi Merchandise

Sigma Xi has joined forces with CafePress.com, an online marketplace with complete e-commerce services, to sell a wide variety of Sigma Xi and *American Scientist* branded products.

We have developed customized merchandise through CafePress' print-on-demand service. The assortment includes items such as:

- Golf shirts
- T-shirts
- Sweatshirts
- Baseball caps
- Tote bags
- Coffee mugs
- Magnets
- Note cards
- Bumper stickers



Package of 10 note cards and envelopes with the March-April 2008 cover of *American Scientist*. \$14.99

You can find the Sigma Xi online marketplace at [www.cafepress.com/sigmaxi](http://www.cafepress.com/sigmaxi). The prices on all products sold through the online store include a small mark-up that benefits the Society. The online store offers the convenience of secure credit card purchase.

Browse the site to find your favorite items. And please let us know about any special items you would like us to add to the store. Contact [merchandise@sigmaxi.org](mailto:merchandise@sigmaxi.org).

## SITN Celebrates 10th Anniversary

This year marks the 10th anniversary of *Science in the News*, Sigma Xi's free daily and weekly e-newsletters. Both provide concise round-ups of science and technology news articles from the mainstream media.

Each weekday, more than 30 media outlets are surveyed to compile the daily e-newsletter. The weekly version distills the top news stories of the previous week.

*Science in the News* seeks to inform about important scientific developments, shed light on what research makes news and how it's covered by the media and show how research interacts with policy and society at large. The e-newsletters are part of the Society's public understanding of science efforts.

Sigma Xi also offers two monthly e-newsletters. *American Scientist Update* provides concise summaries of each issue of the magazine, plus online interviews and content not available elsewhere. In odd-numbered months, the bulletin includes Sigma Xi news items.

*Scientists' Bookshelf Monthly* offers book news, discussion and reviews from *American Scientist Online*, including previews of new book reviews when they are first posted, links to exclusive author interviews, highlights of forthcoming science books and book chat from the editors.

To subscribe to any of our free e-newsletters, go to [www.sigmaxi.org](http://www.sigmaxi.org) and click on the "free e-newsletters" button.

## Brodie Receives Fulbright Scholarship

Christopher R. Brodie, an associate editor of *American Scientist*, has been named a Fulbright Scholar for 2008-2009.

His Fulbright project aims to help scientists learn how to explain their work in plain language. Starting in August, he will conduct science-writing workshops at the Norwegian Academy of Science and Letters in Oslo.

"This activity is a natural extension of what I do as an editor at *American Scientist*," he says. "I will also be helping the Academy plan a symposium on the coverage of science in Norwegian media."

He will serve as a kind of ambassador between journalists and scientists. "Ultimately, I hope these activities will yield long-term benefits for public engagement in science and richer collaborations between Norway and the U.S.," Brodie says.

In addition to teaching, he plans to attend seminars on immunology, ecology and geology, noting that "deeper understanding of these fields will help me become a better editor."

Inducted into Sigma Xi in 2004, Brodie received a Ph.D. in molecular, cellular, developmental biology and genetics from the University of Minnesota-Twin Cities and undergraduate degrees in biology and English from the University of Georgia. He was a postdoctoral fellow in neurobiology at Duke University.

