

Sigma Xi Hosts Ethics Summit

In June, the Sigma Xi Center hosted an Ethics Summit to discuss issues related to peer review and authorship.

Attended by more than a dozen participants, the summit was the initial step in developing a proposed new booklet to complement Sigma Xi's highly successful *Honor in Science* (1984) and *The Responsible Researcher: Paths and Pitfalls* (1999).

The new booklet on peer review and authorship might also be accompanied by a workshop curriculum designed to help Sigma Xi chapters stimulate discussion and distribute the booklets in a meaningful context.

Since its founding in 1886, Sigma Xi has stressed that integrity is vital to science. Ethical research practices directly impact the validity of scientific results, and also shape public trust in the scientific process.

Among the issues that detract from the credibility of the scientific process are unethical publication practices. In recent months, high profile examples include a *PNAS* paper subjected to a highly suspect review process; discussion of ghost-written medical studies; and the hacked climate e-mails that referred to interfering with the peer review process.

These high-profile cases are a small sample of the poor practices that, even when they do not become news, affect the reliability of scientific information and alter researchers' careers.

Clearly, ethical peer review and authorship practices are key to maintaining the integrity and efficiency of the scientific process. Yet these topics are often a source of confusion.

Misunderstandings are especially likely in the case of interdisciplinary collaborations, where partners from different fields may bring different ethical standards or assumptions to the publication process, and may be unable to evaluate the validity of one another's contributions to a study.

Similarly, international students working outside their native cultures may be unaware of expected practices. And beginning graduate students may simply adopt their advisors' peer review and authorship practices with little awareness of broader ethical considerations.

These are among the issues Sigma Xi's new ethics booklet on peer review and authorship will seek to address. •

From the Executive Director

The Sigma Xi Distinction

As professional scientists and engineers, we network, compare notes, exchange information and pursue new knowledge within our specialized disciplines. We are members of multiple professional societies to help facilitate our teaching and research goals.

Each professional society membership helps to define what type of science or engineering knowledge we might possess. Therefore, what does membership in Sigma Xi, The Scientific Research Society say about you?

I think it should signify to our colleagues and our stakeholders that we are defined not merely by our individual scientific disciplines, but are also united by core values and principles that transcend disciplinary lines. We hold ourselves accountable, and we seek to uphold high ethical standards in our professional lives.

This past year I took the opportunity to call and visit with the presidents of many Sigma Xi chapters. This was a valuable activity, and I gained considerable knowledge of the challenges facing our chapters. Many of those with whom I spoke acknowledged that it is difficult to find members who are able to devote the time needed to keep chapters vibrant and growing.

I heard that membership does not seem to be as relevant today as it was a few years ago. I heard that finding individuals willing to serve as chapter officers is becoming more difficult. One president told me that they drew straws to see who would attend the annual meeting.

As you read this, you may be saying that this is depressing. However, I see this as an opportunity to remind you (and your colleagues that have allowed their active membership status to lapse) that being a Sigma Xi member is an honor, and it sets you apart. It carries with it the responsibility to "come up higher."

Although I was made aware of some of the problems facing chapters, I also heard about chapters that are still strong and engaged in nurturing young scientists. There are many chapters that have not forgotten the mission of Sigma Xi. There are chapters that have adapted to the challenges facing each scientist who is tasked with securing extramural funding and without enough time to do so.

Chapters have pushed onward despite reluctant members, and they are making a difference because they are rewarding young scientists with the honor of membership. We need more chapters to commit to securing our future. Ten years ago we inducted twice as many new members as we did last year.

This past year we had many success stories, and we worked to hold down expenses. This resulted in a slightly better financial picture than the previous year. We still have a long way to go to restore the financial balance sheet to where it was a few years ago. The Board of Directors has worked hard to balance the budget.

In FY2010 members of the board made contributions to the annual fund, demonstrating their commitment to the Society. Members of the board not only worked to recruit new members, but also contacted Sigma Xi members that were not active and encouraged them to renew their membership. Just as the members of the Board of Directors gave of their time and money last year, I encourage each of our members to follow their lead in this new fiscal year.

Jerome F. Baker



Award Nominations Due October 1

Know an outstanding scientist or engineer whom Sigma Xi should honor? The Society's prestigious annual awards recognize excellence in research and communication. The nominations deadline is October 1. Visit www.sigmaxi.org for guidelines, past recipients and other details.

William Procter Prize

Presented annually since 1950, the Procter Prize recognizes a scientist or engineer who has made important contributions to research and demonstrated an ability to communicate that research to scientists in other disciplines. Past recipients include E. O. Wilson, Jane Goodall and Philip Morrison.



John P. McGovern Award

Since 1984, the McGovern Award has honored those who have made outstanding contributions to science and society. Past recipients include Sylvia Earle, David Suzuki and Mario Molina.



Walston Chubb Award

The Chubb Award honors and promotes creativity among scientists and engineers.



Young Investigator Award

Honoring researchers early in their careers, this award alternates between the physical sciences and engineering, including mathematics, and the life and social sciences.



Evan Ferguson Award

Named for Sigma Xi's longtime deputy director, the Ferguson Award recognizes service to the Society.

Honorary Membership

Honorary membership is bestowed on those not otherwise eligible for membership in Sigma Xi, who have served science, or the Society, in a manner or to a degree that merits such recognition. •



Moskowitz to Receive 2010 Walston Chubb Award



Howard R. Moskowitz created a new technology, called Mind Genomics, to better understand the way consumers think about products and social issues. For that and other achievements, he will receive Sigma Xi's 2010 Walston Chubb Award for Innovation.

Mind Genomics creates and links scientific based databases into a system called Rule Developing Experimentation (RDE). RDE helps companies worldwide to optimize products, messaging and graphics design.

The Chubb Award is designed to honor and promote creativity among scientists and engineers. Previous recipients include Patrick Usoro, Stan Ovshinsky and Mark Holtzapple.

Moskowitz is CEO of i-Novation as well as president of Moskowitz Jacobs Inc. in White Plains, New York, a firm he founded in 1981. He is both a well-known experimental psychologist in the field of psychophysics and an inventor of world-class market research technology. He graduated from Harvard University and from Queens College (New York), Phi Beta Kappa, with degrees in mathematics and psychology.

He has written/edited 20 books, has published well over 400 articles, chapters and conference papers and serves on the editorial board of major journals. He also founded the journal *Chemical Senses*. His extensive speaking engagements span both scientific and market research conferences, as well as guest lectures at leading business schools and food science schools.

His latest book, with co-author Alex Gofman, called *Selling Blue Elephants*, demonstrates and popularizes how IdeaMap (i-Novation's flagship product) creates new products and messages from areas as diverse as credit cards, jewelry offers, presidential messaging during election years, stock market communications and trans-national innovation. His forthcoming book, *You! What You MUST Know to Start Your Life as a Professional*, describes the formative years of a research professional's development.

Moskowitz has won numerous awards, among them the Scientific Director's Gold Medal for outstanding research at the U.S. Army Natick Laboratories, and the 2001 and 2003 awards by the European Society Of Market Research for his innovation in Web-enabled, self-authored conjoint measurement, and for weak signals research in new trends analysis and concept development.

In 2004, Moskowitz was elected as an IFT Fellow, and also was awarded the David R. Peryam Award from ASTM in recognition of outstanding contributions to the field of basic and applied sensory science. He is also the recipient of the Charles Coolidge Parlin Marketing Research Award, ARF Research Innovation Award and The Market Research Council Hall of Fame Award.

From 2004-2006, Moskowitz appeared weekly on *ABC News Now* as the Food Doctor. His segment highlighted the most innovative and interesting aspects of the food industry. He was inducted into Sigma Xi in 1968 at Harvard. •

Barbara Gastel to Receive 2010 John P. McGovern Award

Barbara Gastel, a physician specializing in biomedical writing and editing, will receive Sigma Xi's 2010 John P. McGovern Science and Society Award. She is professor of integrative biosciences and of humanities in medicine at Texas A&M University, where she coordinates the master's degree program in science and technology journalism. The McGovern Award has been presented annually since 1984.

Gastel earned a B.A. from Yale and an M.D. and an M.P.H. from Johns Hopkins. After medical school, she did an American Association for the Advancement of Science (AAAS) mass media fellowship at *Newsweek*. She then worked in communication and administration at the National Institutes of Health.

She also has taught science writing at the Massachusetts Institute of Technology and spent two years as visiting professor

of technical communication at Beijing Medical University (now Peking University Health Science Center).

Before coming to Texas A&M University in 1989, Gastel was assistant dean for teaching at the University of California, San Francisco School of Medicine. Gastel is the author of three books: *Presenting Science to the Public*, *Teaching Science: A Guide for College and Professional School Instructors* and *Health Writer's Handbook*.

In addition, she co-authored the sixth edition of Robert Day's *How to Write and Publish a Scientific Paper* and is co-authoring the seventh edition. She also has written many articles and chapters on writing, editing, teaching and medical topics.

From 1996 through 2007, Gastel directed the U.S. aspect of a program, funded by the China Medical Board of New York, to teach English-language

biomedical writing and editing in Asia.

Since 2007, she has been Knowledge Community Editor for AuthorAID at INASP (www.authoraid.info), a program to help researchers in developing countries to write about and publish their work.

Gastel is editor of *Science Editor*, the periodical of the Council of Science Editors. She also is active in the American Medical Writers Association. She has received distinguished service awards from these two organizations, and she is a fellow of the AAAS.

In 1996, she was recognized by the Board of Editors in the Life Sciences as an Honored Editor. She is only one of four editors to be so honored in the nearly 20 years of the organization's existence. •



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National Academy of Sciences Elects 24 Sigma Xi Members

Twenty-four Sigma Xi members were among the 72 new members and 18 foreign associates elected this spring to the National Academy of Sciences in recognition of their distinguished and continuing achievements in original research. The spring election brings the total number of active members to 2,097.

The National Academy of Sciences is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare.

It was established in 1863 by a congressional act of incorporation signed by Abraham Lincoln that calls on the Academy to act as an official adviser to the federal government, upon request, in any matter of science or technology.

Newly elected Sigma Xi members and their affiliations at the time of election are:

Alexis T. Bell (SX 1964), Dow Professor of Chemical Engineering, University of California, Berkeley.

H. Russell Bernard (SX 1964), professor emeritus, University of Florida, Gainesville.

Mina J. Bissell (SX 1988), Distinguished Scientist, life sciences division, E.O. Lawrence Berkeley National Laboratory.

Douglas W. Burbank (SX 1983), professor of geology and director, Institute for Crustal Studies, University of California, Santa Barbara.

Roger D. Cone (SX 1981), chair, department of molecular physiology and biophysics, Vanderbilt University School of Medicine.

Persis S. Drell (SX 1977), professor, Stanford University, and director, SLAC National Accelerator Laboratory, Menlo Park, California.

Robert J. Fleterick (SX 1969), professor of biochemistry, University of California, San Francisco.

James E. Haber (SX 1968), Abraham and Etta Goodman Chair of Biology and director, Rosenstiel Basic Medical Sciences Research Center, Brandeis University.

Gary T. Horowitz (SX 1976), professor of physics, University of California, Santa Barbara.

Barbara Imperiali (SX 1983), Class of 1922 Professor of Chemistry and professor of biology, Massachusetts Institute of Technology.

Lewis L. Lanier (SX 1980), professor, Cancer Research Institute, and professor and vice chair, department of microbiology and immunology, University of California, San Francisco.

Jonathan I. Lunine (SX 1983), professor of planetary sciences and professor, Lunar and Planetary Laboratory, University of Arizona, Tucson.

Allan H. MacDonald (SX 1996), Sid W. Richardson Foundation Regents Chair, department of physics, University of Texas, Austin.

Trudy F.C. Mackay (SX 2003), William Neal Reynolds Distinguished University Professor of Genetics and Entomology, North Carolina State University.

Emilio F. Moran (SX 1980), Distinguished Professor and Rudy Professor of Anthropology, Indiana University, Bloomington.

Lynn M. Riddiford (SX 1958), senior fellow, Howard Hughes Medical Institute, Janelia Farm Research Campus, Ashburn, Virginia.

Ignacio Rodriguez-Iturbe (SX 1967), James S. McDonnell Distinguished University Professor of Civil and Environmental Engineering, Princeton University.

Lee D. Ross (SX 1981), Stanford Federal Credit Union Professor of Psychology, Stanford University.

Thomas C. Spencer (SX 1973), professor of mathematics, Institute for Advanced Study, Princeton, New Jersey.

Attila Szabo (SX 1994), chief, section on theoretical biophysical chemistry, Laboratory of Chemical Physics, National Institute of Diabetes and Digestive and Kidney Diseases.

Susan E. Trumbore (SX 1988), director, Institute for Geophysics and Planetary Physics, and professor, department of earth system science, University of California, Irvine.

Zena Werb (SX 1967), professor and vice chair, department of anatomy, School of Medicine, University of California, San Francisco.

Jack Keil Wolf (SX 1957), Stephen O. Rice Professor, Center for Magnetic Recording, University of California, San Diego, La Jolla.

King-Wai Yau (SX 1971), professor of neuroscience and ophthalmology, Johns Hopkins University School of Medicine.



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Sigma Xi also has a page on [Facebook](#) for Society news and events, as well as a members-only professional network on [LinkedIn](#).

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