

## Lectureship Program Celebrates 70th Year

Since 1937, Sigma Xi's Distinguished Lectureships Program has given chapters an opportunity to host visits from outstanding scientists and engineers who communicate their insights and the excitement of research to a broad range of scholars and the public.

"The Sigma Xi Lectureship Program continues to be one of our Society's most successful endeavors," says John A. Watson, committee chair. "It provides outstanding lecturers to chapters and their host institutions and offers an opportunity for outreach to the broader community interested in science, while strengthening the host chapters' programmatic efforts."

Wide-ranging topics typically include science, mathematics, engineering, medicine, the history of science and technology, science philosophy and education.

Visits by Distinguished Lecturers are supported by Sigma Xi members, with additional support for 2007-2008 from the American Meteorological Society, the National Academy of Engineering, the National Academy of Sciences, the National Cancer Institute and the Society for Risk Analysis.

Speaker biographies, contact information, abstracts of talks and additional information can be found under the Distinguished Lectureships Program link at [www.sigmaxi.org](http://www.sigmaxi.org).



## From the President



### The Write Stuff

Global climate change is here. Now. The effects are upon us and visible for all to see, locally and globally. What shall we do? The answer appears below.

A plethora of reports documenting measurable effects of global climate change has been published and widely reported within the past several years, but with startling and alarming frequency more recently. Most climate scientists, governmental organizations, environmental policy groups and the general public seem overwhelmingly convinced that the data confirm significant and accelerating climate change, even if quantifiable causes are still being assessed. The most definitive study of global climate effects is the third periodic report of the Intergovernmental Panel on Climate Change (IPCC) sponsored by the United Nations and published in early 2007. The data are compelling; global climate change is upon us. But, by international mandate, the IPCC was forbidden from offering recommendations for action to respond to climate change.

The United Nations Department of Economic and Social Affairs invited Sigma Xi, The Scientific Research Society, to form a Scientific Expert Group (SEG) to compile information, study alternatives and recommend specific actions to recognize those climate change effects that were beneficial and combat those that were deleterious. Sigma Xi Past-President Peter Raven led the two-year effort, co-chaired by Rosina Beirbaum, of 18 broadly knowledgeable scientists from 11 countries. They accepted the United Nations invitation and wrote the report *Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable*. The full report of 144 pages can be downloaded by visiting [www.sigmaxi.org](http://www.sigmaxi.org). An executive summary appears in this issue of *American Scientist*. The crux of the report is the recommended mitigation measures to prevent the degree of climate change from becoming unmanageable and adaptation measures to reduce the harm from climate change that proves unavoidable.

Sigma Xi formally presented the report to UN Secretary-General Ban Ki-moon at the United Nations on February 27, 2007. Now, Sigma Xi is free to publicize the report and its findings and recommendations and to stimulate actions to respond to the climate crisis. This report is a roadmap for action.

It emphasizes that there is no "silver bullet" single action powerful and inclusive enough to stabilize the situation. Essentially all conceived partial solutions must be implemented. Industrialized nations contribute significantly to the problem, but cannot, themselves, provide the full solution. Developing nations also contribute significantly to climate change in their own unique ways and must also be strategically integrated into the solution. All nations and regions, intergovernmental agencies, local regulatory bodies, and each and every individual on this earth must be enlisted in the thoughtful, difficult but necessary dramatic effort to respond, as recommended by the UN-Sigma Xi report, to the global climate change challenge upon us.

This is a call to action. At the least, every Sigma Xi chapter should take the report's executive summary in this issue of *American Scientist*, reproduce it as necessary and visit and discuss with relevant nearby government policy and commercial groups their particular role and actions in fulfilling the roadmap described here.

With nearly 60,000 active interdisciplinary members in more than 100 countries and 500 local chapters, Sigma Xi has the opportunity to affect policy adoption and regional and local action to implement the report's recommendations. Thus, as concerns the global climate change report, choosing Sigma Xi to manage the task was "The Write Stuff."

James F. Baur

## Hood, Lauterbur Join Inventors Hall of Fame

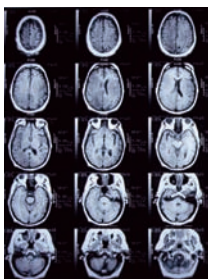
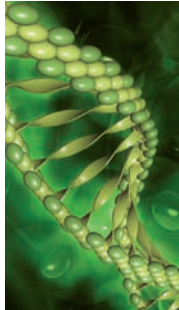
In May, Sigma Xi members **Leroy E. Hood** and **Paul C. Lauterbur** will be inducted into the National Inventors Hall of Fame in Akron, Ohio.

Hood will be recognized for his invention of an automated DNA sequencing technique that, among other things, greatly accelerated the Human Genome Project in the 1990s.

He has also developed several automated biotechnical instruments crucial to the biotech industry.

A member of Sigma Xi since 1964, Hood co-founded the Institute for Systems Biology in Seattle, Washington, to pioneer systems approaches to biology and medicine.

He is the recipient of many awards, including the Lasker Award, the Kyoto Prize and the Lemelson-MIT Prize.



Lauterbur will be honored for his contributions in the development of magnetic resonance imaging (MRI) as an important tool in modern medicine.

At the University of Illinois at Urbana-Champaign, he continues to pursue new applications for bioengineering. A Nobel laureate, he was inducted into Sigma Xi in 1951.

Since its founding in 1973, the non-profit Inventors Hall of Fame has honored 313 men and women responsible for technological advances that have made human, social and economic progress possible. •

## Conservation Biologist to Receive Procter Prize

Watching species fade into extinction in Hawaii in the 1970s motivated **Stuart L. Pimm** to become a conservation biologist and study the scientific issues behind the global loss of biodiversity.

His research covers the reasons why species become extinct, how fast they do so, the global patterns of habitat loss and species extinction, the role of introduced species in causing extinction and the management consequences of this research.

Pimm is known for his ability to translate complex scientific issues for the lay public.

His commitment to the interface between science and policy has led to his testimony before Congressional committees on re-authorization of the Endangered Species Act.

In November, Pimm will receive Sigma Xi's highest honor, the **William Procter Prize for Scientific Achievement**. He will deliver the annual Procter Prize Address at the Society's Annual Meeting and Student Research Conference, set for November 1-4 in Orlando, Florida.

The Procter Prize has been presented annually since 1950 to an outstanding scientist or engineer who is known for effective communication of complex ideas. The prize includes a Steuben glass sculpture and \$5,000. The recipient also selects a young colleague to receive a \$5,000 Sigma Xi Grant-in-Aid of Research.

Pimm is Doris Duke Professor of Conservation Ecology at Duke University. He has written more than 200 scientific papers and four books, including *The Balance of Nature? Ecological Issues in the Conservation of Species and Communities* and *The World According to Pimm: A Scientist Audits the Earth*.

His work has contributed to new practices and policy for species preservation and habitat restoration in many of the world's most threatened ecosystems.

He is currently studying endangered species and ecosystem restoration in the Florida Everglades, setting priorities for protected areas in the Atlantic coast forest of Brazil and for savanna ecosystems in southern Africa, and tracking jaguars in the rain forests of Central America and mongoose-related fossas in the dry forests of Madagascar.

A member of the American Academy of Arts and Sciences, Pimm also holds the position of Extraordinary Professor at the Conservation Ecology Research Unit at the University of Pretoria, South Africa.

In 2006, he received the Heineken Prize for Environmental Sciences from the Royal Netherlands Academy of Arts and Sciences and the LaRoe Memorial Award from the Society of Conservation Biology. •

