Sigma Xi Today

SEPTEMBER/OCTOBER 1998 · VOLUME 7, NUMBER 5

Maurice Strong Named Honorary Member

Maurice Strong, special adviser to the United Nations secretary-general, will be inducted as an honorary member of Sigma Xi at the 1998 Annual Meeting in Vancouver, British Columbia.

Strong is a native of Oak Lake in the Canadian province of Manitoba. His first major U.N. role came in 1972 when he organized and chaired the U.N. Conference on the Human Environment in Stockholm, Sweden. He then went on to become the first executive director of the United Nations Environment Programme and executive coordinator of the U.N. Office for Emergency Operations in Africa during the famine relief effort of 1984-86.

One of his most visible roles was as secretary-general of the 1992 U.N. Conference on Environment and Development, otherwise known as the Rio Earth Summit. More recently, U.N. Secretary-General Kofi Annan named him executive coordinator for United Nations reform.

Maurice Strong's involvement in Canadian public life has been equally prolific. A member of the Queen's Privy Council, recipient of the Order of Canada, the Pearson Peace Medal and 27 honorary degrees, Strong has held many high-ranking positions in both government and the private sector.

He has been president of the Canadian International Development Agency and Power Corporation, president and chairman of the International Development Research Centre and Petro Canada, and more recently chairman and chief executive officer of Ontario Hydro.

He has served as president of the World Federation of United Nations Associations, as a member of the World Commission on Environment and Development and as chairman of

the International Union for Conservation of Nature and Natural Resources. Currently Strong is the president of the Earth Council, a global coalition that facilitates links between governments, non-governmental organizations, the private sector and individuals as they search for a new development paradigm.

Since 1983, honorary Sigma Xi membership has been conferred on 23 distinguished individuals, in recognition of their service to science or the Society, who are not otherwise eligible for membership. Recent inductees include television broadcaster Bill Kurtis and *Time* science correspondent J. Madeleine Nash.

INSIDE

Lane, Colwell Assume New Posts

Two recent Sigma Xi presidents, Neal F. Lane and Rita R. Colwell, have been named by President Clinton to key national science and technology positions. Lane, who resigned as Sigma Xi president in 1993 to head the National Science Foundation (NSF), will succeed John H. (Jack) Gibbons as director of the White House Office of Science and Technology Policy (OSTP).

In this capacity, Lane also serves as President Clinton's chief science adviser, with responsibility for providing advice in all areas of science and technology policy.

A former provost at Rice University, where his tenure began in 1966 as an assistant professor of physics, Lane served as chancellor of the University of Colorado at Colorado Springs from 1984-86 and, later, as director of the NSF Division of Physics.

Colwell was president of the University of Maryland Biotechnology Institute and a professor of microbiology before succeeding Lane this summer as NSF director. She served as 1991-92 president of Sigma Xi. An independent federal agency, the NSF initiates and supports fundamental, long-term, merit-selected research in all areas of science and engineering.

Colwell is active in national and international research and teaching in the areas of marine microbiology and the molecular genetics of marine and estuarine bacteria. She is a past president of the American Association for the Advancement of Science, the American Society of Microbiology and the International Union of Microbiological Societies and has been a member of the National Science Board.

BW Fund Supports MediaResource Database Update

The Burroughs Wellcome Fund, which provided key support for the relocation of the non-profit Media Resource Service (MediaResource) to Sigma Xi's administrative offices in Research Triangle Park, has made a grant of $25,000 to the service, to be used in updating its computer database and equipment.

Every day, journalists from large and small media outlets contact MediaResource toll-free at 800-223-1730 for help in locating experts in science and technology to interview for their news and feature stories. Representative media outlets that use the service include the major television and radio networks, as well as the Associated Press, *Chicago Tribune, Houston Chronicle, Los Angeles Times, The Washington Post* and TV Ontario, among others.

Many calls come from journalists at more specialized print and broadcast media such as *Medical Tribune, Parenting, Popular Science* and *Scientific American.*

Begun by the Scientists' Institute for Public Information (SIPI) in 1980, MediaResource has been operated by Sigma Xi since 1996. The service relies primarily on foundation and corporate grants for support.

This latest grant from the Burroughs Wellcome Fund will be used to update the primary computer resource for the service—its database of experts in science and technology and the media who rely on it for help in locating reputable sources for commentary and perspective.

The Burroughs Wellcome Fund is an independent, private foundation established to advance the medical sciences by supporting research and other scientific and educational activities. A high percentage of inquiries from journalists to MediaResource involve health and medicine. To learn more about the service, visit <www.mediaresource.org>.

International Science Fair Winners

More than 1,000 high school students from the U.S. and abroad participated in the 49th International Science and Engineering Fair this past spring in Fort Worth, Texas. Winners of the Sigma Xi awards were: (front row, left to right) Twila Peterson and Heather Matthews, both of W.J. Palmer High School in Colorado Springs, Colorado, and Gwenivere Thomas of Banquete High School in Banquete, Texas; (second row, left to right) Evan Ferguson, deputy director of Sigma Xi, with award winners Roberto Eduardo Morrison and Fernando Basilio Avila, both of de la Salle School in Talca, Chile. A sixth award winner, Kimberly Buehring of Banquete High School, was not present for the photo.

Haskins Intern Joins Magazine

This fall, Sigma Xi will welcome its second Caryl P. Haskins Editorial Intern to the staff of *American Scientist*. The internship is supported by a fund established by Haskins, a former president of the Carnegie Institution in Washington and a past president of Sigma Xi.

A chemistry and philosophy major at Williams College, Daniel B. Radov comes to the magazine from the University of Cambridge, where he completed a master's degree in the history and philosophy of science.

In applying for the internship, Radov wrote, "The public understanding of science is unquestionably important, but, ideally, the science journalist should be in conversation with both specialists and non-specialists. He or she should facilitate communication between the two groups. This task would suit me well."

Magazine Wins SNAP Award

American Scientist has been recognized with a first-place award in this year's EXCEL competition, sponsored by the Society of National Association Publications (SNAP).

The Gold Award in the feature article (scholarly journals) category was presented at SNAP's annual convention in Washington, D.C. in June. The article honored was "Condoms and the Prevention of AIDS," by Steven D. Pinkerton and Paul R. Abramson, in the July-August 1997 issue.

SNAP, with more than 750 member associations and publications, sponsors the annual competition to honor excellence in publishing by non-profit associations. *American Scientist* has won five EXCEL awards since 1993.

"The competition for EXCEL awards has grown each year," said Rosalind Reid, editor of *American Scientist.* "Therefore we were especially pleased to win a first-place award this year. The recognition of Drs. Pinkerton and Abramson for their important and timely article is especially appropriate."

1998 Sigma Xi Forum Preliminary Program
International Cooperation in Science and Technology

November 12-13, 1998 • Vancouver, British Columbia, Canada

Topic and Format

In recent years, many technological developments have facilitated international cooperation, and declining government sponsorship has encouraged the science and technology community to consider the economic advantages of international collaboration. There is a long tradition of cooperation in areas such as "big science," global environment, health science, and international security, and the number and scale of cooperative projects is increasing rapidly. Economic globalization complicates cooperation, however, with both logistical and geopolitical issues. As R&D moves off-shore, and firms encounter different legal environments, there are increasing political, educational, and scientific implications. Cooperation is complicated by economic and political disparities, and recent developments in many scientific areas raise difficult international issues.

With an emphasis on the science involved in international collaborations, this forum will chronicle cooperative experiences in areas such as health science, space, the environment, education, atmospheric and oceanic science, and international security, and will address the practical issues that complicate or facilitate international collaboration, such as geopolitical influences, funding mechanisms, and the evolving role of the Internet. This is the first time the Forum will be convened outside the United States.

Forum sessions will take place on Thursday and Friday, November 12-13. Topics listed here were confirmed as of the publication date of late July and are subject to change. Please visit the Sigma Xi Web site at <www.sigmaxi.org> for the most current program including speakers.

Annual Meeting

The Sigma Xi Annual Meeting will be held following the forum, beginning mid-afternoon on Friday November 13 and continuing through noon on Sunday, November 15. Individuals who register for the forum may attend the annual meeting at no additional cost; however, individuals wishing to attend the annual meeting only may pay the lower annual meeting registration fee but may not attend forum sessions. Please contact the Sigma Xi office or visit the Sigma Xi Web site to receive registration information.

Plenary Talks

- ***Efforts to Assist in the Safety and Closure of Chornobyl*** - Laurin Dodd, Senior Project Manager, Pacific Northwest National Laboratory
- ***A Host of Challenges, A World of Opportunities: Strategies for Science and Engineering Education in Canada*** - Claudine Simson, Vice President for Global External Research and Intellectual Property, Nortel
- ***Red Tides*** - Max Taylor, University of British Columbia
- ***Science Quests on the Deep Sea Floor*** - Verena Tunnicliffe, University of Victoria
- ***International Space Station: Enabling World Class Science*** - Kathryn I. Clark, ISS Chief Scientist, NASA (to be confirmed)
- ***McGovern Science & Society Lecture*** - Gro Harlem Brundtland, Incoming Head of World Health Organization, former Prime Minister of Norway, and one of four-ever Distinguished International Fellows of Sigma Xi (invited)
- ***The Globalization of "Big" and "Small" Science*** - speakers to be announced
- ***International Access to the Internet*** - speaker to be announced
- ***Mapping the Human Genome*** - speaker to be announced

Forum Sessions

Each session will feature three speakers who will discuss various perspectives on the session topic. A moderated discussion with the audience will follow the presentations. Because the publication deadline for this information occurred in late July, we encourage you to consult the Sigma Xi Web site <www.sigmaxi.org> for a full program including times and confirmed speakers. The Web site also includes a variety of links associated with the speakers and the topics being discussed at this forum. If you do not have access to the World Wide Web, we will e-mail or mail you the current program upon request to forum98@sigmaxi.org.

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International Cooperation in Technology Development

The economy is becoming global in scale and scope. The Pacific Rim is beginning to eclipse Europe and, perhaps eventually, the U.S. as the center of gravity in the world economy. As the role of multinational corporations begins to dramatically affect the location and pace of technology innovation around the world, the opportunities for and consequences of international collaboration in technology development have become key considerations in many industries. This panel will discuss the pros and cons of international cooperation for technology development and the current trends in a variety of industries.

Severe Local Storms: Impacts and Predictions

The study and prediction of severe weather events has always been of intense local interest all around the globe. Increasingly, new technology and new understanding of severe local storm phenomena have enabled significant advances in the area of local storm prediction. This session will chronicle new developments and address the growing array of societal and scientific impacts of these developments that now cross international boundaries.

Using Information Technology for International Collaboration

In recent years, rapidly-evolving information and communications technologies have played an increasing role in facilitating international collaboration in a wide variety of scientific disciplines. For example, applications from following earthquakes, to tracking the migration of sea mammals, to controlling telescopes over the internet have all become commonplace in recent years. This session will highlight several of the best developed of these applications, focusing specifically on large-scale efforts that utilize these technologies world-wide for cooperative research and education.

Mapping the Human Genome

Many argue that humankind is emerging from the age of physics into the age of biology, a position highlighted by the breathtaking advances in molecular biology. Perhaps the most intriguing of such advances is pace of development in human genetics. Developments in this area have prompted a host of societal and ethical challenges that must be faced by all countries. In this session, panelists will address both the science and its widespread implications for the international community.

International Space Station: Enabling World Class Science

This session will focus on the challenges and opportunities of international collaboration in the engineering of the ISS, and in planning for research to be carried out on the ISS. Space Station scientists and administrators will discuss the ISS as a very large scale engineering project that will enable a large variety of scientific research to be conducted in the life and physical sciences. A variety of programmatic, policy and research perspectives will be presented.

The Use and Misuse of Science in Fisheries Management

Science, economics and politics clash frequently on the high seas, where fishing issues become the focal point of many international disputes. Recent collapses of important fish stocks beg for explanation: bad management, bad science, bad weather or extreme pressures from stakeholders? Can scientists, politicians and stakeholders work together toward sustainable "scientific management" of ocean resources?

The International Impact of Emerging and Re-emerging Diseases

Breathtaking advances in the health sciences and the ability to carry out large international studies have enabled major changes in the understanding of emerging and re-emerging diseases around the world. The prospect of improving methods and practice to challenge the speed with which diseases can spread in our mobile world is one of our planet's greatest challenges. Through cooperation between many countries, the international community is playing an increasing role in the treatment and prevention of emerging and re-emerging diseases. This panel of will discuss the scientific, ethical, political and technological issues associated with responding to these threats.

Weapons of Mass Destruction: The Technology and Politics of Verification

The methods of verification of the existence of weapons of mass destruction and for the design and enforcement of nonproliferation treaties are technically and politically very challenging tasks. Methods are being stretched to unprecedented limits as the world emerges from a bi-polar world of the West versus the Soviet Union to one where terrorism and the potential of regional violence in many parts of the world simultaneously become increasing threats. The evolution of the science base and its interaction with the geopolitical dimensions of verification in a post cold war world will be the focus of this session.

The Science and Politics of Large-Scale International Collaboration

Large-scale international collaborations have resulted in both impressive advances and spectacular failures. This session will review case studies of both successful and unsuccessful projects and will explore the implications of those experiences for the promises and pitfalls of current and future large-scale international collaborations such as those in high energy physics, fusion energy, global climate change, and other areas.

Sigma Xi extends appreciation to the Burroughs Wellcome Fund, NASA, Nortel, and the U.S. Department of Energy for preliminary support for this conference.

For Registration Information

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