TO ADVANCE SCIENCE
AND INNOVATION
THROUGHOUT THE WORLD
FOR THE BENEFIT
OF ALL PEOPLE.

ADVANCING SCIENCE,
SERVING SOCIETY.

»THE AAAS MISSION«
**TABLE OF CONTENTS**

4. Welcome Letter
6. Science Education – Science and Careers
8. Science and Policy
10. AAAS Worldwide
12. How is AAAS Advancing Science and Serving Society?
14. What Were the Major Scientific Developments in 2003?
16. Why Join AAAS?
18. Recognizing Achievement
20. Fellows of AAAS
22. Acknowledgement of Contributors
27. Board of Directors, Association Officers, Association Information
We were reminded almost daily in 2003 that science and technology are inseparable from the most urgent challenges facing humanity. At AAAS, some 350 staff – backed by more than 120,000 members and 10 million affiliated scientists worldwide – worked with dedication to create understanding of these challenges and, wherever possible, to find solutions.

With evidence mounting that the Earth is getting warmer, we joined in the United Nations-backed Millennium Ecosystem Assessment, one of the most ambitious international ecosystem-change studies ever undertaken. With the AIDS epidemic threatening crisis in Asia, award-winning Science correspondent Jon Cohen teamed with photographer Malcolm Linton to report from Thailand, Vietnam, Cambodia and Myanmar. As armed conflicts and the spread of lethal weapons sent ripples into the remotest villages, we received a grant from the John D. and Catherine T. MacArthur Foundation that would lead to the creation of the AAAS Center for Science, Technology and Security Policy.

By engaging with scientists, the public and public officials worldwide to address these and other issues, we sought to accomplish the mission that is at the heart of every AAAS initiative: “To advance science and innovation throughout the world for the benefit of all people.”

Reform of the U.S. health care system dominated our agenda in 2003. We first raised the issue in the Presidential Address at the AAAS Annual Meeting in Denver, Colorado. Four months later in the journal Science, we described a system driven to the brink of collapse by soaring costs, staff shortages and a tangle of paperwork. The article proposed creation of a National Commission to Restore the American Health System; without reform, we warned, our era's most promising medical advances may never be widely available to the American public. [F. Bloom, “Science as a Way of Life: Perplexities of a Physician-Scientist.” Science 300, 1680-1685 (2003)]
A look back at the work and accomplishments of 2003 suggests that health and medical research are more than ever a priority for AAAS. In March, we wrote to U.S. policymakers, expressing support for strong protections to ensure that an individual’s personal genetic information could not be misused. In June, some of the world’s foremost authorities on HIV/AIDS used a Policy Forum in *Science* to call for creation of a global, public-private HIV vaccine enterprise. In November, AAAS urged the United Nations to support therapeutic cloning for research purposes and to ban the use of cloning for human reproduction.

Our work in 2003 attracted international media attention. *The New York Times* covered our prescription for health care reform. The *Financial Times* published our call to break the visa blockade for foreign students and scientists. Hundreds of publications, broadcast stations and Internet sites around the world carried news of our Annual Meeting or the latest revelations in *Science*. And the EurekAlert! news service managed by AAAS continued to grow, logging registration by 4,800 reporters – 52 percent of them outside the United States – and 540,000 public visitors per month. (See [http://www.eurekalert.org](http://www.eurekalert.org))

But if AAAS is to give a voice to the scientific enterprise, it is imperative that we continue to seek a higher profile and that we expand our efforts to reach a diverse, contemporary audience. As part of that effort, we undertook the first phases of a new campaign to sharpen the Association’s identity. The most obvious change is in the AAAS logo – it’s brighter, fresher, more modern. The logo links AAAS and *Science*, conveying that they are partners working toward the same goals. In time, the change will be evident everywhere – from *Science* Careers and the Signal Transduction Knowledge Environment to our website, www.AAAS.org.

At year’s end, we owe special thanks to William T. Golden, a longtime adviser to U.S. presidents on science policy matters. His donation of $5.25 million is the largest gift AAAS has ever received in its 155-year history. In years ahead, the William T. Golden Endowment Fund for Program Innovation will be applied to the sort of creative, path-breaking projects that have distinguished our best efforts in 2003.
Science Education – Science and Careers

Improving society’s education about science is essential to the goal of advancing science and technology to ensure a better world for everyone. AAAS aims to improve understanding through its two educational program areas: Education and Human Resources, and Project 2061. During 2003, AAAS education programs and partnerships made some important steps in promoting understanding of and engagement with science.

Library Project Boosts Health Awareness
The Healthy People Library Project is designed to provide minority groups and other consumers easy access through libraries to current, reliable information on selected health topics. AAAS has developed seven plain-language health booklets for public libraries, as well as a tool kit to help them effectively use and promote the materials. All booklets are freely available at http://www.healthlit.org

Science Update – A Clear Winner
Science Update is a 90-second radio feature produced by AAAS that reports on current scientific research and answers scientific questions from listeners. The program is heard coast to coast in the U.S. on over 300 radio stations. In 2003, Science Update earned two Crystal Awards of Excellence in the prestigious Communicator Awards Audio Competition, among other honors. (See http://scienceupdate.org)

Science Literacy Message Reaching Wide Audience
The Partnership for Science Literacy aims to increase awareness among parents and families of the value of science literacy for all children. The partnership stepped up its public awareness initiative during 2003. Advertisements in both English and Spanish have appeared on television, as well as in magazines such as Parents and National Geographic. (See http://tryscience.org)

Portal Brings Bioscience Teaching to Life
In 2003, the BioSciEdNet (BEN) Collaborative launched its BEN portal site (http://www.biosciednet.org), a digital library of teaching resources for biological sciences teachers. Managed by AAAS, BEN offers access to the biology education resources of its 21 partners. Over 2,500 reviewed resources covering 74 biological sciences topics are now available. The BEN Collaborative is composed of 11 professional societies and coalitions for biology education, spearheaded by AAAS.

Technology Gap Needs Affirmative Opportunities
Filling the science and technology gap has been an important focus during 2003. The U.S. Supreme Court ruled in support of generalized programs to promote underrepresented minorities in science and engineering, yet targeted recruitment efforts came under fire. Shirley Ann Jackson, now AAAS president, has worked to highlight the underrepresentation of women and minorities in the sciences, engineering and technology, and to emphasize the importance of diverse talent.

Graduate Scholars Program Promotes Scientific Well-Being
The consideration of diverse perspectives is essential to the future health of science. During 2003, AAAS took over the Graduate Scholars Program, supported by the David and Lucile Packard Foundation. The program assists graduates of historically black colleges and universities who are pursuing doctoral degrees in the sciences, mathematics and engineering.

Fellowship Programs Cause for Celebration
This year marked the 30th anniversary of the Science and Technology Policy Fellowships Program. The fellowships have continued to increase in scope – AAAS now sponsors 10 programs that give postdoctoral to mid-career scientists and engineers the opportunity to contribute to the U.S. government’s public policymaking process. A new fellowship within the Department of Homeland Security was established in 2003. Meanwhile, the AAAS Mass Media Science and Engineering Fellows Program is also approaching its anniversary as it strengthens connections between scientists and journalists. The program places advanced science, mathematics and engineering students in newsrooms across the country each summer.

Science Careers Just the Job
Science Careers, the online recruitment service of Science, strengthens the industry through its services to scientists and recruiters. Resources such as job postings, career advice and meetings and announcements generated millions of visits to the Science Careers website during 2003.

Project 2061 Aligning K-12 Assessments
Project 2061 is a long-term initiative dedicated to helping reform K-12 education in the United States to ensure that all high-school graduates are literate in science, mathematics and technology. The project was founded in 1985 – the year Halley’s Comet was last visible from Earth. The comet will return in 2061. An important focus in 2003 has been to develop new strategies and tools for evaluating the alignment of K-12 assessments in science and mathematics with national and state standards and benchmarks.
How does AAAS help young scientists get the support they need?

One way is through promoting and recognizing mentoring. AAAS works to foster understanding of the importance of mentoring in developing a broad base of scientific talent. AAAS mentoring awards recognize good practices.

How does AAAS help to ensure everyone gets access to health information?

Through developing accessible materials and encouraging others to do the same.

How does AAAS support informal science learning?

Through a range of innovative projects such as Kinetic City, an Internet-based after-school program, and the award-winning Science Update radio program.

How does AAAS support science teachers?

With no-cost online education resources including Science NetLinks and BioSciEdNet (BEN).
Science and Policy

Science and technology have an increasing impact on every area of our lives. AAAS aims to ensure that the benefits of science and technology reach as many areas of society as possible by working with government and taking part in the policymaking process. AAAS serves society, government and the research community through a diverse range of activities, to promote human welfare and foster scientific freedom and responsibility.

It has been an eventful year. In the aftermath of terror attacks, U.S. homeland security and the war against terrorism have become critical issues with repercussions for every sphere of our society, including science. AAAS activities in this area have never been more important than they are today.

**Homeland Security Under the Microscope**

In 2003, AAAS started an analysis of research and development in homeland security, encompassing the work of the newly created U.S. Department of Homeland Security. Several comprehensive reports have been published, examining research and development spending in the context of the wider federal budget.

**Security Concerns Top Forum Agenda**

The 2003 AAAS Forum on Science and Technology Policy attracted the second-highest attendance ever. In addition to the customary analysis of the federal research and development budget, several issues of concern were in the spotlight, including homeland security, the war in Iraq, SARS, and other new public health challenges.

U.S. Presidential Science Adviser John H. Marburger III gave the keynote speech. He outlined the government's strategy for science and technology, and discussed the roles of the OSTP and federally funded science in the war on terrorism. He also addressed the scientific community's concerns about the increasing difficulty overseas students and scholars in science and technology are experiencing in obtaining visas, due to concerns about terrorism.

**Advancing Ethical Science Standards**

Scientific advances in recent years have led to increasingly complex ethical dilemmas for society. AAAS continues to promote high ethical standards in science.

AAAS and The Hastings Center are collaborating on a project to provide tools for open and informed public discussion about the ethical and social issues raised by behavioral genetics. In May 2003, a public meeting was held to explore the promises and limitations of the science of behavioral genetics, and the social implications of behavioral science research.

**Bridging Science and Religion**

AAAS aims to facilitate communication between scientific and religious communities. The field of astrobiology has been an important focus during 2003, and the goals of current astrobiology initiatives – to explore the origin, extent and future of life – raise fundamental philosophical, ethical and theological questions.

As part of this effort, AAAS held the first two of a series of three workshops to address issues associated with astrobiology. Participants included astrobiologists, theologians, ethicists, philosophers and historians.

**Human Rights Program Seeks the Truth**

Transitional justice research is a priority area for AAAS. It concerns societal responses – to severe repression, societal violence and systematic human rights violations – that seek to establish the truth about the past, determine accountability, and offer some form of redress. During 2003, the program provided scientific and technical assistance to truth commissions in Peru, Sierra Leone, East Timor and Ghana, and to other human rights groups in Ghana, Colombia and Chad.

**Action Network Furthers Fight for Rights**

Since 1993, the AAAS Human Rights Action Network has coordinated the efforts of scientists around the world to appeal to governments on behalf of colleagues whose human rights are being violated.

Over the past three years, the network campaigned on behalf of the Egyptian sociologist Dr. Saad Eddin Ibrahim, who suffered persecution for his advocacy work and analysis of Egypt's social problems. In February 2003, AAAS recognized his courage and commitment to human rights in a special reception at the AAAS Annual Meeting.
How can a scientist or engineer get practical experience in the policy world?

In the AAAS Science and Technology Policy Fellowship Program. The program provides opportunities to work in a congressional office, on a committee staff, or in U.S. Executive Branch agencies ranging from the U.S. Environmental Protection Agency to the National Science Foundation and the Pentagon.

Where can I get up-to-date information on the federal U.S. budget and government funding for R&D?

From the AAAS R&D Budget and Policy Program’s website and publications. Everything you always wanted to know and more about the U.S. President’s budget and congressional appropriations for R&D can be found there.

Who is fighting for the human rights of scientists, engineers and health professionals around the world?

The AAAS Science and Human Rights Program. The program publicizes cases of scientists, engineers and health professionals whose rights are threatened or violated, and helps mobilize support for them. Many victims have been released from unjust imprisonment as a result of international pressure in which the AAAS program played a key role.
AAAS Worldwide

Science has the capacity to improve life for people around the globe. AAAS is dedicated to building cooperation between U.S. scientists and engineers and those in other parts of the world. Its projects aim to strengthen the role of scientists and engineers in developing countries, as well as the role of science and technology in solving global and regional problems. In 2003, AAAS refocused its international effort toward three main themes, building on strengths and assets found across AAAS: international scientific cooperation; workforce and capacity development; and science, innovation and sustainable development.

A CHALLENGE TO THE WORLD’S SCIENTISTS

“The application of scientific knowledge continues to furnish powerful means for solving many of the challenges facing humanity. “...At the same time, the way in which scientific endeavors are pursued around the world is marked by clear inequalities... This unbalanced distribution of scientific activity generates serious problems not only for the scientific community in the developing countries, but for development itself. It accelerates the disparity between advanced and developing countries, creating social and economic difficulties at both national and international levels... It will require the commitment of scientists and scientific institutions throughout the world to change that portrait to bring the benefits of science to all.

“...The agenda is broad and the needs immense, but together we are equal to these challenges. The United Nations system and I personally very much look forward to working with scientists throughout the world to support your work and spread its blessings even further, even deeper, in the years to come.”

Kofi Annan, United Nations Secretary General
Science 7 March 2003

FURTHERING WOMEN’S PARTICIPATION

The Women’s International Scientific Collaboration Program (WISC), a partnership between AAAS and the National Science Foundation, continued to increase the participation of women in international scientific research. During 2003, WISC travel grants enabled more than 100 U.S. scientists to plan and design new collaborations with colleagues around the world. WISC awardees have conducted research in 54 countries. This network offers a powerful voice for promoting the international culture of science.

COURSE INTEGRATES SCIENCE AND FOREIGN POLICY

Science and technology issues are increasingly important to U.S. international and economic security interests and to the welfare of U.S. citizens at home and abroad. As part of its ongoing commitment to science and diplomacy, AAAS delivered two week-long courses to foreign service officers and other government personnel on environment, science, technology and health.

CONNECTING SCIENCE AND POLICY IN CENTRAL ASIA

In February 2003, AAAS co-sponsored a workshop with the Center for Global Security Research on concrete ways in which U.S. policy goals in Central Asia can be strengthened through science and technology. Participants included 54 policy and science and technology experts from 36 governmental and non-governmental organizations. They constitute a broad-based coalition that policymakers can tap as they address U.S. security and development concerns in Central Asia.

CONSORTIUM BOOSTS INTERNATIONAL EXCHANGE

The Consortium of Affiliates for International Programs (CAIP) is a multidisciplinary network of scientific and engineering societies active in the international dimensions of their disciplines. Some 100 AAAS-affiliated societies and 150 foreign corresponding members comprise the CAIP. It provides a forum for networking and for taking forward common concerns to change the ways science and engineering serve societies around the world. The 2003 CAIP meeting was devoted to discussions of how to build science and technology capacity for sustainable development.

STRENGTHENING CONNECTIONS FOR SUSTAINABILITY

Helping society achieve sustainable development is one of the great scientific challenges of the 21st century. Progress will require advancing the study of human-environment interactions, building scientific understanding where it is most needed, and improving society’s capacity to generate and use knowledge for decision-making.

During 2003, the AAAS Center for Science, Innovation and Sustainable Development was established to meet these challenges by building science and policy communities that can realistically address local sustainability issues.

Through the Environmental Areas of Responsibility Initiative, AAAS is helping to coordinate and communicate research, non-governmental organization projects, and management activities related to sustainable management, disaster mitigation, and climate change across the Plata River Basin in South America.
Why is it important to promote international science?
Inequalities in scientific activity between developed and developing countries hinder development and contribute to societal problems. The growing awareness that nations cannot tackle these challenges alone has led AAAS to work with governments and international organizations to seek international solutions.

How much of the world does AAAS reach?
There are AAAS members on every continent, including scientists working in Antarctica. In addition to running programs in many parts of the world, we work with international governmental and non-governmental organizations in most nations, and with representatives of national governments on common concerns.

How can AAAS help if I want to work internationally?
We run programs worldwide to increase international scientific cooperation. Go to http://www.aaas.org/programs/international to find out more.
How is AAAS advancing science and serving society?

1. **Boosting Scientific Journalism Worldwide**
   The South African Broadcasting Corporation sent five radio journalists to AAAS in Washington, D.C., for a four-week period to study science journalism. In addition, 12 science journalists from developing countries were selected in 2003 to participate in a special science-writing program at the 2004 Annual Meeting.

2. **Promise of Technology in Addressing Disease**
   The 2003 AAAS Advancing Science Seminar focused on technology and its promises for health. At the October meeting, participating researchers described cutting-edge technologies that offer advances in diagnosis, treatment and prevention of cancer, heart disease, and neurodegenerative diseases.

3. **30th Anniversary**
   The AAAS Science and Technology Policy Fellowship Program celebrated the 30th year of its existence. Over that period, more than 1,600 scientists and engineers have held year-long appointments in jobs that allow them to provide S&T support to members of Congress and to administrators at federal policy agencies. This year saw the launch of the new Science and Technology Fellowships Program at the U.S. Department of Homeland Security.

4. **New Web Portals for Scientific Journalism**
   New EurekAlert! (http://www.eurekalert.org) website initiatives include web portals for journalists and the general public on diseases in the developing world, marine sciences and multilanguage news. These and other new initiatives were funded by a portion of the $5.25 million gift received from William T. Golden for supporting new ideas and programmatic initiatives. EurekAlert! serves 4,800 reporters and 540,000 public visitors per month.

5. **Supporting Young Researchers**
   With help and support from AAAS, the new National Postdoctoral Association was founded with a grant from the Alfred P. Sloan Foundation. The group provides a voice for postdoctoral researchers, works to help improve the postdoctoral experience and gives mentoring advice to young researchers early in their scientific careers.
Here are the top ten in 2003.

6. **Supporting Human Rights**
   The Science and Human Rights Program developed methodologies and resources for monitoring human rights. In 2003, the program completed manuals related to the protection of traditional ecological knowledge and indicators for the environmental dimensions of the right to health. It also developed manuals for monitoring the right to health and the right to water.

7. **The Relationship Between Genes and Behavior**
   AAAS held a major conference on behavioral genetics, in cooperation with The Hastings Center, which involved scientists, ethicists, patient advocates and journalists in an examination of behavioral genetics and its broader ethical and social implications. One of the outcomes was a book entitled *Behavioral Genetics: An Introduction to How Genes and Environments Interact Through Development to Shape Differences in Mood, Personality, and Intelligence.* (See [http://www.aaas.org/spp/bgenes/](http://www.aaas.org/spp/bgenes/))

8. **Informing the Public About Health Research**
   Healthy People Library Project published the first book in a series entitled “The Science Inside,” aimed at minority populations. The purpose of the project is to provide libraries with resources for informing the public about health research, with the ultimate goal of enabling people to make healthier choices from advances that emerge from research. (See [http://www.healthlit.org](http://www.healthlit.org))

9. **Improving Student Science Achievement**
   Recruiting the first group of graduate students and postdoctoral fellows for the new NSF-sponsored Center for Curriculum Materials in Science. Project 2061 at AAAS launched a joint venture with The University of Michigan, Michigan State and Northwestern University. The center’s activities are focused on the analysis, design and use of science curriculum materials and the development of new leaders in science education.

10. **9/11: The Impact on Science**
    Science and Policy at AAAS initiated a project to monitor the impact of security policies put in place since September 11 on the conduct of research and on higher education, and to coordinate the activities of major professional science, engineering and higher education organizations in response to issues raised by these new policies.
What were the major scientific developments in 2003?

1. **Light shed on dark universe**
   In February, the Wilkinson Microwave Anisotropy Probe produced an image of the infant cosmos that, combined with a new galaxy map, has changed our view of the universe forever. *Science* called it the Breakthrough of the Year when reporting how the most detailed picture ever of the cosmic microwave background, the oldest light in the universe, has helped dispel decades of confusion about the nature of the universe. It confirms that the universe is made up largely of mysterious dark energy and dark matter, and also gives it a firm age and a precise speed of expansion.

2. **The cold facts about global warming**
   Climate researchers have a century's worth of temperature measurements to show that the globe has been warming. New work shows that the Earth's environment has taken notice of the change. A stream of studies about global warming's impact on Earth and its inhabitants, published in *Science* and elsewhere, accumulated in 2003. There were important new findings about rates of melting ice, changes in plant and animal distributions and breeding cycles, and the coupling between ocean circulation and the atmosphere.

3. **SARS: a pandemic prevented**
   When the world first heard about severe acute respiratory syndrome (SARS) in March, the disease seemed unstoppable. Experts warned that it could ignite a pandemic. But by July, it had subsided – at least for a while. Epidemiological studies and identification by sequencing, published in *Science*, were important in gaining control. The outbreak is a chilling reminder that new infectious diseases are always lurking. The episode showcased public health and science at their best (and occasionally their worst) in response to a new challenge.

4. **Thailand unveils experimental AIDS vaccine first**
   The first AIDS vaccine efficacy trial ever held in a developing country was completed in 2003. Regardless of the ultimate results, the trial is a significant achievement. The volunteer subjects were 2,545 injecting-drug users. At the study's close in June, project staff had administered more than 17,000 doses, drawn more than 40,000 blood samples, and processed half a million forms charting the results.

5. **Stem cell discovery shakes ethical foundations**
   At least one observer called the surprise discovery an “ethical earthquake” – mouse embryonic stem cells can develop into both sperm and egg cells in culture dishes. The work raised both scientific and ethical questions. In the short term, the discoveries should help reveal how germ cells develop. If the feat can be reproduced in human cells, it could provide a renewable source of human eggs or sperm for research. But it also opens a Pandora's box of ethical questions: could a child be born whose genetic parent is a cell line?
6. **Dietary Change Can Affect Lifespan — At Any Age**
Research published in *Science* in 2003 shows that when organisms as diverse as yeast and rodents are subjected to a restricted diet, they live longer. The good news is that switching to a restricted diet at any age can yield the benefit of increased longevity – at least in flies. These findings are important for dietary-restriction research, and also from the broader perspective of what determines longevity. Mortality, even at advanced ages, is strongly affected by current conditions and behaviors.

7. **Mixed Message Could Prove Costly for GM Crops**
The results of the largest-ever field trials of genetically modified crops, a three-year experiment in the United Kingdom, were unveiled in October 2003. The results did not boost prospects for the technology, and have made the future of GM crops in Europe more uncertain than ever. Cultivation of modified beets and oilseed rape had clearly negative effects on wildlife and native plants. Only GM maize proved more environmentally friendly than its non-GM counterpart.

8. **Economic Decision-Making — A Game of Nerves**
New neuroeconomics research published in 2003 used functional magnetic resonance imaging of subjects playing the Ultimatum Game, a decision-making exercise, to investigate neural substrates of cognitive and emotional processes involved in economic decision-making. Players were scanned as they responded to fair and unfair proposals. Unfair offers elicited activity in brain areas related to both emotion and cognition. Significantly heightened activity in the emotion area suggests an important role for emotions in decision-making.

9. **Mental Illness Mysteries Unraveled**
Schizophrenia, depression and bipolar disorder often run in families, but only recently have researchers identified particular genes that reliably increase risk. Now they’re unraveling how these genes can influence the brain’s information processing. Work in New Zealand demonstrated that a gene and a stressful experience in early adult life can interact to edge someone into a clinically depressed state. It was also shown that antidepressant drugs restore the ability of the hippocampus to generate new nerve cells.

10. **State of the Planet Reviewed**
In a special series of issues on the State of the Planet, *Science* authors provided a sobering report on the status of Earth’s major natural and human resources. Topics included population, water and air quality, soils, biological diversity, energy availability, and projections of how these resources might be stressed during this century. This assessment set the stage for another special issue, marking the 35th anniversary of the classic “Tragedy of the Commons” paper by the late Garrett Harden.
Why join AAAS?

Ask the members.

When you join AAAS, you become part of an international community of scientists. Membership also brings a wide range of benefits, such as print and online publications including Science, special offers and discounts, and participation in AAAS activities.

But more than this, your membership helps to strengthen the role of science throughout the world, supporting science education, public understanding of and engagement with science, and scientific freedom and responsibility.

I joined AAAS because I needed to keep in touch with important science news and employment opportunities. The AAAS website is a great resource for science and technology-related information. I think it’s very important for scientists from all disciplines to have a common forum for publishing key research and voicing common interests. But what I appreciate most about AAAS is its sheer enthusiasm for science and for helping scientists.

Laura Biven
Max-Planck-Institut für Physik Komplexer Systeme, Germany

“AAAS provides a unique forum for interdisciplinary communication of science. Its publications, and the wide variety of committees and topical conferences it supports throughout the year, provide an opportunity to learn from research in other fields than one’s own. Membership in AAAS has been extremely rewarding for me as an agricultural economist, and I encourage anyone involved in research and teaching, as well as those merely interested in results from ongoing science, to join AAAS.”

Per Pinstrup-Andersen
Chairman, CGIAR Science Council, Cornell University, USA
I joined AAAS when I was a graduate student. At that time I simply wanted to have my own copy of *Science* that I could read any time. Today, I’m also proud to be a member of AAAS because of its dedication to the whole of society. It works to improve the lives of people around the world by advancing science and technology objectively, guiding responsible conduct of scientific research and application, and fostering public communication and appreciation of science.

**Lei Wang**  
Dept. of Pharmacology, UCSD; Amersham/Science Young Scientist grand prize winner

Being a member of AAAS helps give me a wider perspective for my own work. I also like the fact that my membership helps support science around the world.

**Anne Burrows**  
Director Marketing Research, GE Healthcare, Sweden

AAAS has opened up a new world of science for me. I had the option of returning to work as a medical doctor, but participating in the Young Scientist Prize made me realize that I am a member of a huge society of science that warmly supports me. This directed me to become a scientist. And in the future, I hope I can encourage young researchers to reveal the truth of science, in the same way my mentors encouraged me.

**Mitsutoshi Setou**  
Associate Professor, National Institute of Physiological Science, Japan; Amersham/Science Young Scientist prize winner
Recognizing Achievement

AAAS is proud to recognize the extraordinary achievements of the scientists, engineers and journalists who are the recipients of the 2003 AAAS Awards. We extend our appreciation and congratulations to these distinguished individuals for their dedication and commitment to furthering the scientific enterprise. The awards were presented at the Annual Meeting in Denver, Colorado, in February 2003.

2003 AAAS Awards Highlights

PHILIP HAUGE ABELSON PRIZE
The prize honors a public servant for exceptional contributions to advancing science, or a scientist or engineer for a distinguished career of scientific achievement and service to the community.

Dr. Norman P. Neureiter was honored for his substantial contributions in building more effective relationships between the diplomatic and the scientific communities, and in increasing both communities’ awareness of the importance of science and its value in international statecraft.

AWARD FOR PUBLIC UNDERSTANDING OF SCIENCE AND TECHNOLOGY
The award recognizes working scientists and engineers who make outstanding contributions to the popularization of science.

Dr. John Allen Paulos was honored for his substantial contributions in promoting mathematics to large audiences.

AWARD FOR INTERNATIONAL SCIENTIFIC COOPERATION
The award recognizes extraordinary contributions to furthering international cooperation in science and engineering.

Dr. Mahabir P. Gupta was honored for his continuous efforts in the promotion of international scientific cooperation in the Ibero-American countries, and for the study and use of biodiversity as a source of novel pharmaceuticals for the benefit of all people.

AWARD FOR SCIENTIFIC FREEDOM AND RESPONSIBILITY
The award honors scientists and engineers whose exemplary actions, often taken at significant personal cost, have served to foster scientific freedom and responsibility.

Dr. Walter Reich was honored for his longstanding devotion to human rights issues, particularly his role in making known the abuses of psychiatry in the Soviet Union, and for spearheading an international effort to condemn such practices.

MENTOR AWARD
The award honors early or mid-career members who have mentored and guided significant numbers of underrepresented students toward a PhD in the sciences, as well as scholarship, activism, and community-building on behalf of underrepresented groups.

Dr. Michael F. Summers was honored for his contributions in mentoring students from underrepresented groups and leadership in promoting PhD careers in science and engineering for underrepresented groups.
MENTOR AWARD FOR LIFETIME ACHIEVEMENT
The award honors members who, for more than 25 years, have mentored and guided significant numbers of underrepresented students toward a PhD in the sciences, as well as scholarship, activism, and community-building on behalf of underrepresented groups.

Dr Carlos G. Gutiérrez was honored for substantial contributions in mentoring students from underrepresented groups and leadership in promoting PhD careers for underrepresented groups in chemistry and the biosciences.

SCIENCE JOURNALISM AWARDS

- Large Newspaper – Dan Fagin of Newsday
- Small Newspaper – Nadia White of the Casper Star-Tribune
- Magazine – David Ewing Duncan of Wired
- Television – Renata Simone of WGBH/Frontline/World
- Radio – David Kestenbaum of National Public Radio
- Online – Daniel Grossman of WBUR

2003 Co-Sponsored AAAS Prizes

AMERSHAM BIOSCIENCES/SCIENCE YOUNG SCIENTISTS PRIZES
The prize recognizes outstanding PhD thesis work in molecular biology from around the world.

Grand prize winner: Lei Wang was honored for his essay “Expansion of the Genetic Code,” in which he describes how he engineered the bacteria Escherichia coli to make unnatural amino acids.

Regional winners: • North America – Jeff Levsky • Europe – Rut Carballido-López and Ravi Kamath • All Other Countries – Qing Chen (China) and David Lando (Australia)

NEWCOMB CLEVELAND PRIZE supported by Affymetrix
The prize acknowledges an outstanding paper published in the Research Articles or Reports sections of Science.

Thomas A. Volpe, Catherine Kidner, Ira M. Hall, Grace Teng, Shiv IS. Grewal and Robert A. Martienssen were acknowledged for the research article, “Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi,” published September 13, 2002.

Ira M. Hall, Gurumurthy D. Shankaranarayan, Ken-ichi Noma, Nabieh Ayoub, Amikam Cohen and Shiv IS. Grewal were acknowledged for the research article “Establishment and Maintenance of a Heterochromatin Domain,” published September 27, 2002.
Fellows of AAAS

AAAS Fellows are elected annually by the AAAS Council for meritorious efforts to advance science or its applications. Fellows have made significant contributions in areas such as research, teaching, technology, services to professional societies and communicating science to the public.

The following were elected Fellows at the 2003 Annual Meeting. AAAS would like to congratulate them and thank them for their services to science and technology.
Thank You for Your Generous Support

The AAAS Board of Directors gratefully acknowledges the philanthropic support of the following individuals, foundations, corporations and government agencies whose gifts, over and above membership dues, enabled AAAS to undertake new initiatives, supplement program funding, and address the issues and concerns of the scientific community.
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