

On-site registration available

R&D and the Budget Crisis

Eleventh Annual AAAS Colloquium on R&D Policy

26 & 27 March 1986

Capital Hilton ♦ Washington, DC

- ♦ Discussion will be based on *AAAS Report XI: Research and Development, FY 1987*, a timely and comprehensive analysis of the proposals for R&D in the FY 1987 budget, prepared by AAAS and a group of its affiliated scientific, engineering, and higher education associations. Registrants will also receive *Proceedings* following the Colloquium and *Congressional Action on R&D in the FY 1987 Budget* in the fall.
- ♦ Trends and prospects for R&D in defense, energy, health, space, and other areas will be explored by leaders from industry, universities, agencies of the federal government, Congress, the White House, and the scientific and engineering communities.
- ♦ Perspectives will be provided on topics such as impacts of deficit-cutting legislation on R&D, responses by the scientific-technical community, public and private roles in research, and strategies for government-industry cooperation.

For further details, write: AAAS R&D Colloquium, Public Sector Programs,
1333 H Street, NW, Washington, DC 20005

Sponsored by the AAAS Committee on Science,
Engineering, and Public Policy

American Association for the Advancement of Science

AAAS Annual Meeting

Philadelphia, 25–30 May 1986

Food Through Policy

WHEN WE PAUSED IN OUR HEROIC TREK THROUGH ALL of science (see *Science*, 14 February), we were somewhere between the vast depths of outer space and the intimate depths of our innermost selves, engaged in the great quest for habitability. We return now to our story of this quest.

Agriculture ♦ Food Policy. When last pursuing habitability on our planet, we limited our concerns, more or less, to natural phenomena (see **Geology ♦ Ecology**). Now let us see what man hath (or should have) wrought to ensure habitability. Producing food is high on anybody's list, and agriculture is the prime activity for doing this. We first look at some issues in agricultural research and development, including safeguarding our global stock of plant genetic resources, the possibilities of finding beneficial chemicals in plants, and the public health problems raised by the use of antibiotics in raising food animals. We then turn our attention, in four sessions, to the technological, social, economic, and political issues that now face agriculture, looking at both the immediate and long-term prospects for farming as an enterprise.

Environmental Concerns. What is happening to our environment is high on our list of concerns about the habitability of this planet and is next on our tour. Beginning with a look at the contamination and restoration of two of the largest estuaries on the East Coast, the Chesapeake Bay and the Delaware River, both near our host city of Philadelphia, we next turn our attention to an "in-house" habitat problem, viz., that by building on geological formations from which radon seeps, we have contaminated our homes. We then look at other technological hazards in home and workplace, from insidious neurotoxic chemicals through the implications of the Three Mile Island incident and the Bhopal disaster to the general problem of managing these hazards.

Population and Resources. The availability of food and the contamination of our environment are two aspects of the interrelationships among population, resources, and the environment. Again, we begin with an overview and then proceed to specific issues: refugees, drought, famine, use of irrigation, and the role of biotechnology in health care in the Third World. We then consider some broader issues, such as world food production and the future of our energy resources, before summing up through a look at human ecology in more general terms.

Anthropology ♦ Sociology. Population, clearly central to any discussion of the habitability of our planet, is also the central subject of these sciences. In this centennial year of the University Museum of the University of Pennsylvania and of the first U.S. graduate anthropology department, we begin this category with a look at anthropology as it is one hundred years later. A strong program then looks at these specific issues: the evolution of culture, archaeology (a particular forte of the University Museum), the family in prehistory, geophagy (common among nutritionally deprived populations), the

changing nature of religions in contemporary America, and, as a finale, the study of corporate culture—the ubiquitous culture of America.

Sociology of Science. From corporate culture to the culture of science is but a small step, and so we look at the results of turning our scientific cannons on science itself. How unbiased is science, particularly when gender is involved? Is there a bias in its methodologies, in the way it formulates hypotheses? And what, more generally, of the research enterprise—how are scientists motivated and their creativity enhanced and how is it all controlled? Should the enterprise be isolated from the "real world"? What of the influence of the role of science in politics? All important questions as we put the culture of science under the microscope.

History and Philosophy of Science. From the microscope we move to a broader view, looking at how scientific ideas developed historically and are applied, examining the specific case of fluorine on the centennial of its discovery, and also considering the role of chance in scientific discovery. Our broader view continues with such issues as: whether there is a consensus in the philosophy of science, and whether agreement exists about values in science. Finally, we look at changes in the Third World brought about by our advances in scientific knowledge.

Science: Education and Public Understanding. Science is an enterprise and a way of knowing. It has major implications for society, and we must ask how well this scientific knowledge and its implications are communicated to the public and, in particular, to the next generation. We examine what recent developments in cognition imply for teaching methodologies and the role of parents in the education process. We look at professional education in science and engineering, including recent state initiatives. We return to questions about gender and racial bias and move on to ways to encourage new opportunities for the disabled brought about by new technologies. Finally, we ask how well the public is informed: What is the status of scientific literacy? How well do the media report science information?

Scientific Freedom and Responsibility. Before leaving the scientific enterprise and its "product," we take a closer look at the interaction between this enterprise and the larger society. We look at the conflict between the need for freedom in the pursuit of science and the restrictions made for reasons of national security and of individual rights, particularly in regard to the guarantees in the First Amendment. We ask such questions as: Who owns the data produced by science? What are the security implications of the international flow of information, primarily to and from the Third World? We look at sessions on human rights: considering ways to determine the extent of the problem and to track violations, and examining the status of refugee scientists from oppressive regimes, especially that of South Africa.

Science, Arms Control, and National Security. After this extended excursion into the nature of the scientific enterprise and its interrelation with society, we return to our leitmotif with the

question: What hath science wrought regarding global habitability? We survey the balance of terror: United States and Soviet missile defenses, antisatellite weapons, antisubmarine warfare, and biological warfare. Finally, we are led to arms control: the Soviet approach, our negotiations in Geneva, and the prospects for verification of arms control agreements.

International Science and Technology. The obverse to what science hath wrought is what science can do to improve the international situation. We begin by looking at the status of science in the Caribbean (with a report from the newest AAAS Division) and of recent developments in China. Next, we consider transfer of technology in international trade, the status of scientists and engineers "abroad," and finally, international cooperation in science as a way of building essential connections among nations.

Science and Technology Policy. The final chapter in our story of the quest for habitability and the special role of science and engineering in that quest focuses on policy. Vannevar Bush's classical vision published in his *Endless Frontier* is updated and followed by a look at the impact of the new information technolo-

gies, the role of government in managing technological change, the impact of our rising support for national defense, the virtues of sharing research facilities, and the importance of state (as opposed to federal) science initiatives. We sum up with a session that looks at the larger question of matching our intellectual resources with our global needs, accompanied by a coordinated special debate between former AAAS president Kenneth E. Boulding and the acting science adviser to President Reagan, John P. McTague, on "The Responsibility of the Scientist Toward the World, the Nation, and the Future of Science."

This brings us to the end of our journey through some 150 wide-ranging symposia awaiting you in May. We have traveled from the universe to our inner selves, from institutions to the nature of science, from what we have done to our planet to what we can do for our planet and its habitability. Now that I have piqued your interest, you certainly will want to experience this feast of science firsthand. Run, do not walk, through the next few pages to the registration forms and send yours in today! You will thank me when we meet in Philadelphia. ■ ARTHUR HERSCHMAN

Preliminary Program, II

11. Agriculture Research and Policy

11-1. New Frontiers in Agricultural Research (26 May). Organized by SHU-I TU and THOMAS KUMOSINSKI (*U.S. Department of Agriculture-Agricultural Research Service*).

11-2. Seeds and Sovereignty: Debate over Control of Plant Genetic Resources (28 May). Organized by JACK KLOPPENBURG, JR. (*University of Wisconsin*).

11-3. Public Health Impact of Subtherapeutic Use of Antibiotics in Food Animals (27 May, 2 sessions). Organized by VIRGIL W. HAYS (*University of Kentucky*) and GERALD B. GUEST (*U.S. Food and Drug Administration*).

11-4. Beneficial Chemicals from Native Plants (26 May). Organized by MARTIN JACOBSON (*U.S. Department of Agriculture*).

11-5. A Proposed New Structure for U.S. Food and Agricultural Policy (28 May). Organized by SANDRA S. BATIE and J. PAXTON MARSHALL (*Virginia Polytechnic Institute*).

11-6. Social and Institutional Impacts of Biotechnology on Agriculture: Now and in the Future (29 May). Organized by JOSEPH J. MOLNAR (*Auburn University*) and CLAIRE E. TERRILL (*U.S. Department of Agriculture*).

11-7. Technology, Public Policy, and the Changing Structure of U.S. Agriculture (29 May). Organized by B. R. EDDLEMAN (*Mississippi State University*).

11-8. The Farm Crisis and the Future of American Agriculture (27 May). Organized by DON A. DILLMAN (*Washington State University*) and FREDERICK H. BUTTEL (*Cornell University*).

AAAS Annual Meeting ♦ Philadelphia ♦ 25-30 May 1986

Meeting activities are scheduled in three downtown Philadelphia hotels: Franklin Plaza, Hershey Philadelphia, and Holiday Inn - Center City. Free shuttle busses will be available.

Discounted room rates and registration fees are available to those who use the official AAAS housing and registration forms (see p. 1020).

More information will appear in these issues of *Science*: 14 March, Tours and ticket order forms; 28 March, Preconvention Program and events schedule; 11 April, last-minute information, housing and registration forms.

Housing and registration forms may also be obtained by calling 202/326-6450.

12. Environmental Concerns

12-1. Chesapeake Bay Fisheries and Contaminant Problems (26 May). Organized by LENWOOD W. HALL, JR. (*Johns Hopkins University*).

12-2. Ecology and Restoration of the Delaware River Basin (26 May). Organized by DEAN A. ROSEBERY (*Northeast Missouri State University*).

12-3. Indoor Radon: Geology, Transport, and Remediation (29 May). Organized by B. K. KOTHARI and C. KUNZ (*New York State Department of Health*).

12-4. Evaluating the Neurotoxic Risk Posed by Chemicals in the Workplace and Environment (27 May). Organized by JOHN

S. YOUNG (*Johns Hopkins University*) and WARREN R. MUIR (*Hampshire Research Associates, Inc.*).

12-5. Ethics, Evidence, and the Management of Technological Hazards (27 May). Organized by RACHELLE D. HOLLANDER (*National Science Foundation*) and DEBORAH G. MAYO (*Virginia Polytechnic Institute*).

12-6. The Impact of Three Mile Island: A Seven-Year Retrospective (29 May). Organized by DEAN ABRAHAMSON (*University of Minnesota*) and HAROLD P. GREEN (*George Washington University*).

12-7. Public Health Implications of the Bhopal Disaster (30 May). Organized by CHARLES LEVENSTEIN (*University of Connecticut* and *Harvard School of Public Health*).

13. Population and Resources

13-1. Shifts in Thinking About Population-Resource-Environmental Interrelationships, 1976-1986 (27 May). Organized by CHARLES V. KIDD (*AAAS*).

13-2. The Uses of Social Science Data: Assessing the Survey Research on Southeast Asian Refugees (28 May). Organized by DAVID W. HAINES.

13-3. Issues and Strategies in Drought, Hunger, and Famine (29 May). Organized by PRISCILLA C. REINING (*AAAS*).

13-4. Irrigation in International Development: Benefits and Problems (29 May). Organized by DEAN F. PETERSON (*Utah State University*).

13-5. World Food Production and Distribution as a Factor in Geopolitics (27 May). Organized by DAVID R. WALKER (*Utah State University*) and JAMES W. ROWE (*AAAS*).

13-6. Potential of New Biotechnologies for Health Care in Developing Countries (26 May, 2 sessions). Organized by JAMES W. ROWE (*AAAS*) and RAMIRO MARTINEZ (*Pan American Health Organization*).

13-7. Is There an Energy Crisis in the Future? (29 May). Organized by JAMES W. CURLIN (*Office of Technology Assessment, U.S. Congress*).

13-8. New Directions in Human Ecology (30 May). Organized by C. P. WOLF (*Social Impact Assessment Center*).

14. Anthropology ♦ Sociology

14-1. Anthropology and the World Today: Six Roundtable Discussions (26 May, 2 sessions). Organized by PRISCILLA C. REINING (*AAAS*) and ROBERT DYSON (*University of Pennsylvania Museum*).

14-2. The Evolution of Culture in Animals and Humans: The Emergence of Symbolic Communication (30 May). Organized by JAMES FERNANDEZ (*Princeton University*).

14-3. Archaeology: The Role of the University Museum (27 May). Organized by ROBERT DYSON (*University of Pennsylvania Museum*).

14-4. Controversies over the Nature of the Family in Human Prehistory (29 May, 2 sessions). Organized by SHERE HITE, and by ROBERT CARNEIRO (*American Museum of Natural History*).

14-5. Geophagy: Current Views on a Worldwide Practice (30 May). Organized by DONALD E. VERMEER (*Louisiana State University*) and SOLOMON H. KATZ (*University of Pennsylvania*).

14-6. Issues in the Scientific Study of Religions: Devotions of Self-Maintenance in Contemporary America (27 May). Organized by WARD H. GOODENOUGH (*University of Pennsylvania*).

14-7. Studying Corporate Cultures (28 May, 2 sessions). Organized by WILLIS E. SIBLEY (*Cleveland State University*).

15. Sociology of Science

15-1. Gender Bias in Scientific Studies: Perspectives from Four Fields (29 May). Organized by MARSHA LAKES MATYAS and LESLIE HORNIG (*AAAS*).

15-2. Gender Bias in Scientific Studies: Aggression and Cooperation as Competing Paradigms (29 May). Organized by ALICE KEHOE (*Marquette University*) and SOLOMON H. KATZ (*University of Pennsylvania*).

15-3. Science and Scientists: Managing the Unmanageable, Leading the Unleadable (28 May). Organized by HAROLD WATERS (*National Institutes of Health*).

15-4. Beyond the Hothouse: How Should the Real World Enter the Research Environment? (28 May). Organized by PATRICIA A. ROSE (*Student Pugwash*).

15-5. Enhancing Creativity in Federal Laboratories (27 May, 2 sessions). Organized by DAVID ATLAS (*University of Maryland*) and NOEL HINNERS (*NASA-Goddard*).

15-6. Qualitative and Quantitative Data Sources in the Social Study of Science (30 May). Organized by CHARLES U. LOWE (*National Institutes of Health*).

15-7. Information as Ammunition: Can Science Inform Politics? (26 May). Organized by WILLIAM R. FREUDENBURG (*Washington State University*).

Symposium Proposals for AAAS Chicago Meeting

The 1987 Annual Meeting will be held 14-19 February in Chicago, less than 9 months after the Philadelphia Meeting. It is not too early to send in your symposium suggestions (deadline: 15 April 1986). See "Call for 1987 Symposium Proposals" in the 17 January and 21 February issues of *Science*, or contact the AAAS Meetings Office (1333 H Street NW, Washington, DC 20005; telephone, 202/326-6448) for proposal forms.

Workshops

A special feature of the 1986 AAAS Annual Meeting is a number of workshops held on Saturday and Sunday (24 and 25 May) before the Meeting begins. For detailed information about any of these workshops, please contact the responsible AAAS office.

AAAS-ITT Workshop on Professional Responsibility and the Professional Societies. [No. 22-1; two days, 24 and 25 May; requires a separate registration fee.] Organized by ROSEMARY CHALK (AAAS). Contact: Committee on Scientific Freedom and Responsibility, 202/326-6793.

Workshop on Conservation and Survival. [No. 22-2; two days, 24 and 25 May.] Organized by BRIAN SPOONER (*University of Pennsylvania Museum*). Contact: Secretary of Section H (Anthropology), 202/326-6653.

Conference in Conjunction with the Trilateral Research Project Proposal. [No. 22-3; one-half day, 25 May.]

Organized by CYRUS MCKELL (*NPI, Inc.*). Contact: Secretary of Section H (Anthropology), 202/326-6653.

The Role of Community-Based Organizations in Science Education. [No. 22-4; one-half day, 25 May.] Organized by YOLANDA S. GEORGE and SHIRLEY M. MALCOM (AAAS). Contact: Office of Opportunities in Science, 202/326-6677.

Communicating Science to the Public: Strategies for the Television Media. [No. 22-5; one-half day, 25 May.] Organized by JONATHAN WARD (*NBC News*). Contact: Office of Communications and Membership, 202/326-6440.

Communicating Science to the Public: Strategies for the Print Media. [No. 22-6; one-half day, 25 May.] Organized by SHARON DUNWOODY (*University of Wisconsin-Madison*) and CAROL L. ROGERS (AAAS). Contact: Office of Communications and Membership, 202/326-6440.

15-8. The Effect of Nobel Prizes on Science, Scientists, and the U.S. Public (26 May). Organized by JONATHAN WARD (*NBC News*), SANDRA WALKER (*KCTS, Seattle*), and PATRICIA CURLIN (AAAS).

16. History and Philosophy of Science

16-1. One Hundred Years of Fluorine: From Isolation to Industrial Applications (28 May). Organized by JEFFREY L. STURCHIO (*Center for History of Chemistry*).

16-2. Emerging Consensus in the Philosophy of Science (30 May). Organized by C. WADE SAVAGE (*University of Minnesota*).

16-3. The Role of Chance and Serendipity in Science (26 May, 2 sessions). Organized by PATRICK J. HANNAN (*U.S. Naval Research Laboratory*) and RUSTUM ROY (*Pennsylvania State University*).

16-4. Perspectives on Values (29 May, 2 sessions). Organized by JOHN A. DILLON, JR. (*University of Kentucky*).

16-5. The Knowledge Revolution, Transnationals, and the Third World (30 May). Organized by ARISTIDE H. ESSER (*Association for the Study of Man-Environment Relations*) and WILLIAM H. VANDERBURG (*University of Toronto*).

17. Science: Education and Public Understanding

17-1. Recent Advances in Learning Theory and Implications for Science Education (29 May). Organized by JOSEPH D. NOVAK (*Cornell University*) and KATHLEEN FISHER (*University of California-Davis*).

17-2. Graduate Education for Careers in Science, Engineering, and Public Policy (28 May). Organized by CHRISTOPHER T. HILL (*Congressional Research Service*) and ALBERT H. TEICH (AAAS).

17-3. Gender and Racial/Ethnic Differences in Mathematics and Science Test Performance: What Do They Really Mean? (26 May). Organized by SHIRLEY M. MALCOM and YOLANDA S. GEORGE (AAAS).

17-4. Computers for Disabled People in Education and Employment (28 May). Organized by HERBERT W. HOFFMAN (*National Weather Service*) and VIRGINIA STERN (AAAS).

17-5. The Relationship of Parental Influence to Science Education (26 May). Organized by YOLANDA S. GEORGE and SHIRLEY M. MALCOM (AAAS).

17-7. Scientific and Technological Literacy: Concepts and Measures (28 May). Organized by JOHN D. MILLER (*Northern Illinois University*) and ALBERT H. TEICH (AAAS).

17-8. The Unreported Stories: Mass Media and Science in Developing Countries (29 May). Organized by JAMES CORNELL (*Smithsonian Institution*).

18. Scientific Freedom and Responsibility

18-1. National Security and First Amendment Protection of Scientific and Technical Information (27 May). Organized by VIVIAN WEILL (*Illinois Institute of Technology*).

18-2. A Review and Assessment of Human Rights Statistics and Indicators (27 May). Organized by THOMAS B. JABINE, and by RICHARD P. CLAUDE (*University of Maryland*).

18-3. Scientists in Exile: Issues and Perspectives on the Refugee Experience (28 May). Organized by SUSAN FORBES (*Refugee Policy Group*) and KATHY MCCLESKEY (AAAS).

18-4. Science and Apartheid (26 May). Organized by MARY H. CHEH (*George Washington University*) and ERIC STOVER (AAAS).

18-5. Sharing Research Data: Costs and Benefits (26 May).

Organized by ROSEMARY CHALK (AAAS) and MIRON STRAF (National Research Council).

18-6. Scientific Information Flow from the Third World: Do U.S. Government and Scientific Interests Conflict? (28 May). Organized by DAVID WILEY (Michigan State University), and BARRY GOLD and DENISE WEINER (AAAS).

19. Science, Arms Control, and National Security

19-1. U.S. and Soviet Missile Defense (26 May). Organized by KENNETH N. LUONGO and RICHARD A. SCRIBNER (AAAS).

19-2. Space Weapons: U.S. and Soviet Antisatellite Programs and the Prospects for Control (27 May). Organized by DONALD L. HAFNER (Boston College).

19-3. Strengthening the Prohibition Against Biological Warfare (27 May). Organized by EVERETT MENDELSON (Harvard University) and SUSAN WRIGHT (University of Michigan).

19-4. Soviet Approaches to Arms Control: The Geneva Negotiations (28 May). Organized by JONATHAN DEAN (Union of Concerned Scientists) and RICHARD A. SCRIBNER (AAAS).

19-5. STARTs, Stops, and Talks: A Conversation with the Chief Negotiator in Geneva, Max Kampelman (28 May). Organized by RICHARD A. SCRIBNER (AAAS) and RODNEY W. NICHOLS (Rockefeller University).

19-6. Arms Control Verification: Challenges for the 1990s (29 May). Organized by RICHARD A. SCRIBNER (AAAS) and SIDNEY GRAYBEAL (System Planning Corporation).

19-7. Strategic Antisubmarine Warfare: Emerging Counterforce Capabilities? (29 May). Organized by JOHN PIKE (Federation of American Scientists).

20. International Science and Technology

20-1. Science and Technology in the Caribbean (26 May). Organized by WALLACE C. KOEHLER, JR. (University of Puerto Rico).

20-2. China's Changing Environment for Science (29 May, 2 sessions). Organized by LISBETH LEVEY (AAAS).

20-3. New Technologies, Trade, and the Reorganization of the International Economy (27 May). Organized by RICHARD L. FLORIDA and MARTIN KENNEY (Ohio State University).

20-4. Transnational Industrial R&D: U.S. Giveaway or Strategic Necessity? (28 May). Organized by THEODORE W. SCHLIE (Illinois Institute of Technology).

20-5. International Impacts of Technology (28 May). Organized by ALAN L. PORTER (Georgia Institute of Technology).

20-6. International Scientific Cooperation: Where It's at and Where It's Headed (30 May). Organized by EUGENE B. SKOLNIKOFF (Massachusetts Institute of Technology) and MITCHEL WALLERSTEIN (National Research Council).

20-7. Scientists and Engineers Abroad (26 May). Organized by DOROTHY S. ZINBERG (Harvard University) and ALBERT H. TEICH (AAAS).

Join us at the

AAAS Science & Technology Exhibition

Franklin Plaza Exhibit Hall ♦ 26-29 May

Featured exhibitors include:

Academia Book Exhibits ♦ American Industrial Hygiene Association ♦ American Society of Mechanical Engineers ♦ American University Press Services ♦ Atomic Industrial Forum ♦ BioSciences Information Service ♦ Bureau of the Census ♦ Calorie Control Council ♦ Conference Book Service ♦ DIALOG Information Services, Inc. ♦ Discover Magazine/Time Inc. ♦ Elsevier Science Publishers ♦ Encyclopaedia Britannica USA ♦ IEEE Spectrum Magazine ♦ Imported Publications, Inc. ♦ Institute for Scientific Information ♦ National Diabetes Research Interchange ♦ National Geographic Society ♦ New Scientist Magazine ♦ OMNI Publications International, Ltd. ♦ The Publishers Book Exhibit ♦ Publishers' Showcase ♦ Sigma Xi, The Scientific Research Society ♦ U.S. Geological Survey ♦ Veterans Administration ♦ Walter Reed Army Medical Center

21. Science and Technology Policy

21-1. The Endless Frontier Revisited: Review of the Science Policy Task Force (29 May). Organized by ALBERT H. TEICH and STEPHEN D. NELSON (AAAS).

21-2. The Impact of Advances in Information Technologies on Science: Policy Issues (28 May). Organized by STEPHEN D. NELSON (AAAS) and MANFRED KOCHEN (University of Michigan).

21-3. Governmental Management of Technological Change (30 May). Organized by ARTHUR M. SQUIRES (Virginia Polytechnic Institute).

21-4. Increased Spending for Defense R&D: Its Effects on University-Based Research (30 May). Organized by PATRICIA MCFATE (The American-Scandinavian Foundation).

21-5. The Role of Shared Research Facilities and Instrumentation (29 May). Organized by FRANK B. SPROW and W. B. WOOD (Exxon Research and Engineering Company).

21-6. Challenge to Science: Matching Resources to National and Global Needs (27 May, 2 sessions). Organized by LAWRENCE SENESH and KENNETH E. BOULDING (Academy of Independent Scholars).

21-7. State Science Policies and the National Interest (26 May, 2 sessions). Organized by JACK J. BULLOFF and THERESA A. WALKER (New York State Legislative Commission on Science and Technology).

Advance Registration Form

AAAS Annual Meeting ♦ Philadelphia ♦ 25-30 May 1986

Mail to: AAAS Meetings Office, Dept. R, 1333 H Street, NW, Washington, DC 20005

Please type or print clearly

Name of registrant _____
(Last) (First & initial)

Name of spouse registrant _____
(Last) (First & initial)

Institution/Company _____
(To be printed on badge) (Registrant)

(Spouse registrant)

Mailing address _____
(Street)

(City/State) (Zip code) (Telephone number)

Convention address _____
(Where you can be reached) (Hotel and/or telephone number)

Check days on which you will attend meeting: Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐

☐ Check here if you need special services due to a handicap; we will contact you before the meeting.

Name(s) of new member(s): _____

■ Your registration badge, receipt, and voucher for full Program and Abstracts will be mailed to you in mid-April. ■ Registrations received after 9 May will be held at the Advance Registrants' Desk at the Franklin Plaza Hotel. ■ Refund requests must be made by letter or telegram to the above address before 16 May 1986 and will be honored after the Meeting. No refunds are made on cancellations received after this date. ■ Student registration fees apply to full-time undergraduate or graduate students only.

Advance Registration Fees:

Member (\$50) \$ _____
Nonmember (\$65) \$ _____
Student or retired (\$25) \$ _____
High school teacher (\$25) \$ _____
Spouse (\$25) \$ _____

Join AAAS—register as a member:

(Add dues to member registration fee above)

*Single membership dues (\$65) .. \$ _____
*Double [member & spouse] (\$82) .. \$ _____
*Single student or retired (\$40) .. \$ _____
*Double student or retired (\$57) .. \$ _____

Retired or spouse membership
without *Science* (\$17) \$ _____

TOTAL AMOUNT \$ _____

☐ Check enclosed

Charge my ☐ VISA ☐ MASTERCARD

Card number _____ Expires _____

Signature _____

*Membership includes 51 issues of *Science*. Inquire for Canadian and other foreign rates

Hotel Reservation Form

AAAS Annual Meeting ♦ Philadelphia ♦ 25-30 May 1986

Mail to: Philadelphia Convention Bureau, AAAS Housing Dept., 3 Penn Ctr. Plaza, Suite 2020, Philadelphia, PA 19102

Send confirmation to:

Name _____
(Last) (First & initial)

Mailing Address _____
(Street)

(City/State) (Zip code) (Telephone number)

Other occupant(s) of room: _____
(Name) (Name)

Indicate special housing needs due to a handicap: ☐ wheelchair accessible

room; other _____

Charge my major credit card (card type): _____

Card No. _____ Expires _____

Signature _____

Hotel Rates (Add 9%: 6% sales and 3% occupancy tax). Indicate 1st, 2nd, and 3rd choice of hotel; check appropriate box for type of room desired.

Choice	Hotel	Single	Double or Twin	Parlor + 1 Bedrm.	Parlor + 2 Bedrms
_____	Franklin Plaza	<input type="checkbox"/> \$69	<input type="checkbox"/> \$79	<input type="checkbox"/> \$140 & up	<input type="checkbox"/> \$365 & up
_____	Hershey Philadelphia	<input type="checkbox"/> \$69	<input type="checkbox"/> \$79	<input type="checkbox"/> \$150 & up	<input type="checkbox"/> \$219 & up
_____	Holiday Inn - Center City	<input type="checkbox"/> \$67	<input type="checkbox"/> \$77	<input type="checkbox"/> \$147 & up	—

Arrival date _____

Time _____ ☐ a.m. ☐ p.m.

Departure date _____

Time _____ ☐ a.m. ☐ p.m.

Be sure to list definite arrival and departure dates and times. Reservations will be held only until 6 p.m. unless accompanied by 1 night's deposit or major credit card guarantee.

■ Reservations must be submitted to the Housing Department (address above) on this official form by **2 May 1986**. Reservations received after this cut-off date are conditional on space availability. ■ Confirmations will come directly from the hotels. Cancellations must be sent to the Housing Department until cut-off date. Make name and date changes (and cancellations after 2 May) directly with the hotel.

■ Rollaway beds or extra person in room: Franklin Plaza, \$10; Hershey, \$10; Holiday Inn, \$7.

■ Children accommodated free of charge in same room with parents: Franklin Plaza, to age 14; Hershey and Holiday Inn, to age 18.