AAAS Section R (Dentistry):

Whereas the Gramm-Rudman-Hollings Emergency Deficit Reduction Act of 1985 has set maximum and allowable deficit levels on a declining basis from 1986 to 1991, and

Whereas if deficit targets are not met by other means, then spending reductions are to be achieved through cancellation of budget authority using a process called sequestration, and

Whereas quality and meritorious basic scientific research is dependent upon support from the Federal Government, and

Whereas investment in basic research is vital to the growth, security, and development of the United States and the advancement of the peoples of the world,

Be it therefore resolved that the American Association for the Advancement of Science urges the Congress and the President, in order to avoid endangering funding for basic research, to find suitable means for meeting the Gramm-Rudman-Hollings deficit targets without triggering sequestration.

Science

Editor Daniel E. Koshland, Jr., reported that innovations in 1985 consisted of establishing a board of reviewing editors to screen manuscripts and to speed the return of those papers judged less broadly interesting; initiating "This Week in Science" to encourage cross-disciplinary reading by highlighting papers in nonspecialized terms; planning shorter special issues to allow space to include regular features needed to hold the interest of the broad audience; providing "Perspective" as a vehicle for personal views on a field or on a specific paper by an eminent and particularly qualified commentator; and designing a new format to emphasize interior changes and to rearrange departmental order for the readers' convenience.

Goals for 1986 are to add more pages, despite the \$1000 per page increased cost to AAAS; to publish manuscripts within 4 months of their receipt; to introduce a new feature, "Policy Forum," for debates on both sides of an issue; to expand the book review section; to print essays by researchers on current research news topics; and to feature additional articles on the physical and social sciences.

Science 86

Editor Allen L. Hammond summarized the current status of the magazine. Topping the list of achievements was the recent conferral of the National Magazine Award to Science 85 for articles published in the public interest. Sponsored by the American Society of Magazine Editors, the annual competition is conducted by the Columbia School of Journalism. Dr. Hammond also noted that, with the support of corporate funding, Science 86 will initiate a new program to place 96,000 copies of the magazine (in classroom sets of 30) in public schools located in over 80 cities nationwide.

> MARGE WHITE Executive Office

Summer Fellows at Work

Again this summer the AAAS has placed young scientists at work at the U.S. Environmental Protection Agency and at media sites across the country.

Twenty advanced science students are in the midst of 10week fellowships with newspapers, magazines, and television and radio stations as participants in the 1986 AAAS Mass Media Science and Engineering Fellows Program. The students, most of whom are at the graduate level, are working as science reporters, production assistants, and researchers. Stephen Oliver, a petroleum engineer who is spending his summer at the Albuquerque *Journal*, writes: "The first day heralded the immense scope of science writing. I read releases from AIDS to zinc. Tuesday I was out covering a solar power conference ... and had my first byline in Wednesday's paper. This ... fueled my enthusiasm even more."

This is the 12th year of the Mass Media Program, whose broad purpose is to strengthen the relationship between the science community and the media, and thereby lead to a heightened public understanding of science and technology. The Fellows began their summer with an in-



The 1986 Mass Media Fellows are, left to right, front row: Jane Allison, Susan Winslow, Steven Dickman, Antoinette Reed, Karen Fitzgerald, Mary Rose Paul, Nancy Bazilchuk, and Elizabeth Moberg. In the middle row: Michel Gelobter, Stephen Prescott, Peter Dratch, Stephen Oliver, and Sandra Steingraber. Top row: John Rubin, David Fanning, Ramiro Ortiz, Janet Kahn, Russell Geoffrey, and Robert Whitehair. Not pictured is Celia Ann Hooper.

Chairmen and Secretaries of AAAS Sections MATHEMATICS (A) Peter D. Lax Lynn Arthur Steen

PHYSICS (B) Paul C. Martin Rolf M. Sinclair CHEMISTRY (C) Blaine C. McKusick Jean M. Shreeve ASTRONOMY (D) Michael J. S. Belton John E. Gaustad GEOLOGY AND GEOGRAPHY (E) William W. Hambleton Helen M. McCammon

BIOLOGICAL SCIENCES Ruth D. Turner Judith P. Grassle ANTHROPOLOGY (H) Richard I. Ford Priscilla Reining PSYCHOLOGY (J) Richard F. Thompson William N. Dember SOCIAL, ECONOMIC, AND POLITICAL SCIENCES (K) Renée C. Fox William R. Freudenburg HISTORY AND PHILOSOPHY OF SCIENCE (L) Sally Gregory Kohlstedt Arthur L. Norberg ENGINEERING (M) Peter Elias W. Edward Lear

MEDICAL SCIENCES (N) Alexander Lea Henry Blackburn AGRICULTURE (O) William E. Larson Ralph J. McCracken INDUSTRIAL SCIENCE (P) James L. Dwve Robert L. Stern EDUCATION (Q) Robert E. Yager Joseph D. Novak DENTISTRY (R) Harald Löe Harold M. Fullmer PHARMACEUTICAL SCIENCES (S) Grant R. Wilkinson Betty-ann Hoene

COMPUTING, AND COMMUNICATION (T) Marshall C. Yovits Elliot R. Siegel STATISTICS (U) Margaret E. Martin Edward J. Wegman ATMOSPHERIC AND HYDROSPHERIC SCI-ENCES (W) David Atlas Bernice Ackerman SOCIETAL IMPACTS OF SCIENCE AND ENGINEERING (X)

Dean Abrahamsor

Rodney W. Nichols

INFORMATION,

AAAS Divisions ARCTIC DIVISION Richard Bushey President

Gunter E. Weller Executive Secretary CARIBBEAN DIVISION Juan A. Bonnet, Jr. President

Lucy Gaspar Secretary-Treasurer PACIFIC DIVISION T. John Conomos President

Alan E. Leviton Executive Director

SOUTHWESTERN AND ROCKY MOUNTAIN DIVISION Robert A. Wright President

M. Michelle Balcomb Executive Director

For more information about the activities and publications described in "AAAS News," write to the appropri ate office, AAAS, 1333 H Street, NW, Washington, D.C. 20005, unless otherwise indicated. tensive, 3-day orientation session in Washington, D.C., learning about broadcast and print communication skills. In addition, they learned how to develop story ideas and contacts at universities, government, nonprofit organizations, and industry.

The training helps Fellows such as Steven Dickman, of the University of Heidelberg, function in a journalistic environment, a milieu quite apart from the laboratory. "Business Week is treating me like a full-fledged science writer. I am on a staff of five, gathering information and writing science stories for the magazine.... Scientists have been willing, even eager to talk."

Long after the fellowship experience, program participants continue to use their enhanced communication skills and knowledge about how the media work. Many pursue fulltime science journalism positions; many others free-lance at least part time. Those who assume full-time roles as scientists and engineers serve an important function by disseminating to their peers information about how the media work and the level of public understanding of science. Moreover, media site hosts benefit from the different perspectives of students with scientific and technical expertise.

Rick McCourt, a 1980 Mass Media Fellow, is one who is continuing to pursue both a scientific and journalistic career. McCourt, whose technical research at the University of Arizona deals with the biology of microscopic green algae, does free-lance reports for National Public Radio. This year, McCourt won the AAAS-Westinghouse Science Journalism Award (radio category) for a two-part series, aired on National Public Radio, on aquaculture.

The AAAS Mass Media Science and Engineering Fellowship Program is supported by grants from private corporations and foundations as well as internal Association funds.

This year's Fellows include: Jane L. Allison, a graduate of Lehigh University (Atlanta Journal-Constitution); Nancy Bazilchuk, University of Vermont (Charlotte [North Carolina] Observer); Peter A. Dratch, postdoctoral candidate at the Invermay Agricultural Research Centre, New Zealand (Portland Oregonian); Stephen G. Dickman, University of Heidelberg, Germany (Business Week); David W. Fanning, recent recipient of a Ph.D. from Pennsylvania State University, Hershey Medical Center (KUNC-FM radio, Greeley, Colorado); Karen Fitzgerald, New York University (Newsweek); Michel Gelobter, University of California, Berkeley (Cable News Network); Russell Geoffrey, University of California, San Francisco (WSVN-TV, Miami); Celia Ann Hooper, University of Michigan (United Press International); Janet R. Kahn, Brandeis University (WOSU-AM/ FM, Columbus, Ohio); Elizabeth Ann Moberg, University of Wisconsin, Eau Claire (Richmond [Virginia] News Leader); Stephen Oliver, Louisiana State University (Albuquerque Journal); Ramiro Ortiz, Washington State University (KXCR-FM, El Paso); Mary Rose Paul, University of Vermont (Milwaukee Journal); Stephen L. Prescott, Princeton University (Health & Science Communications, Minneapolis); Antoinette E. Reed, Stanford University (KCBS-TV, Los Angeles); John Rubin, a recent Ph.D. recipient of the Massachusetts Institute of Technology (Chedd-Angier Production Company, Watertown, Massachusetts); Sandra Steingraber, University of Michigan (Detroit Free Press); Susan M. Winslow, University of Kansas (WEVO-FM radio, Concord, New Hampshire); and Robert C. Whitehair, Michigan State University (Smithsonian World).

Applications for the 1987 Mass Media Science and Engineering Fellows Program can be obtained by writing June Wiaz, Office of Public Sector Programs at the AAAS address. (Deadline for the 1987 program will be 2 February 1987.)

Ten Environmental Science and Engineering Fellows are



Environmental Fellows for 1986 are, left to right, Thomas Schrager, Robert Vanderslice, Raymond Letterman, Cynthia Hirtzel, Dirk Van Zyl, Gregory McRae, Robert Kohm, Robert Hahn, Brett Borup, and John Glowa.

learning how government works from inside the bureaucracy. For 10 weeks, these special research consultants are bringing fresh perspectives along with their scientific and technological knowledge to the U.S. Environmental Protection Agency (EPA). Given the opportunity to meet with public decision-makers in many parts of Washington, they will take back to their respective universities and industrial research programs a heightened sense of environmental public policymaking.

The Fellows come from a variety of backgrounds, with one half of them coming from engineering this year. The 1986 Fellows are: M. Brett Borup, Tennessee Technological University; John R. Glowa, National Institutes of Health; Robert W. Hahn, Carnegie-Mellon University; Cynthia S. Hirtzel, Rensselaer Polytechnic Institute; Robert F. Kohm, Aluminum Company of America; Raymond D. Letterman, Syracuse University; Gregory J. McRae, Carnegie-Mellon University; Thomas F. Schrager, Boston University Medical School; Robert R. Vanderslice, North Carolina State University; and Dirk J. A. Van Zyl, Colorado State University.

The Environmental Fellows program began in 1981. Since then, 45 fellows have assisted the EPA's research and development planning and policy-making. Their role is to help identify and assess future environmental problems and opportunities. Many former Fellows still have extensive contact with EPA and continue to use the research and contacts made during their fellowship program. One of the 1985 Fellows said, regarding her fellowship experience, that she "learned a great deal about federal granting agencies which I am now putting to use in the classroom."

The AAAS provides an orientation and weekly seminar series focusing on environmental and public policy issues for the Fellows. This summer, the Fellows are being briefed by key representatives of the Office of the President, U.S. Department of Energy, congressional committees with environmental jurisdiction, Congressional Research Service, Office of Technology Assessment, National Academy of Sciences, National Science Foundation, and various environmental, public policy, legal, academic, and industrial groups. Following his summer experience, one of the first year's fellowship graduates noted that: "there is really a need for apolitical scientific input into regulatory agencies and the Congress itself."

Biotechnology, indoor air pollution, EPA's Superfund, acid deposition, health and environmental risk assessment, drinking water regulations and monitoring programs, and pollution exposure models are among the 1986 Fellows' research topics.

Further information about the program and copies of the Fellows' research reports are available from Patricia S. Curlin, Environmental Science and Engineering Fellows Program, at the AAAS address.

Paul M. Gross Dies

Paul Magnus Gross, a former president of AAAS, died 4 May in Durham, North Carolina. He was 91.

Gross, an internationally recognized chemist, began his teaching career in 1919 at Trinity College in Durham. Five years later that college became the newly created Duke University. During his long career at the university, he served as vice president from 1949 to 1960 and chaired the university's department of chemistry for 27 years. He retired from the faculty as William Howell Pegram Professor Emeritus in 1965.

He also was chairman of the U.S. Surgeon General's committee that put together the landmark 1961 report on environmental health problems that led to the establishment of federal environmental health programs.

Gross was a founder of Oak Ridge Institute of Nuclear Studies (now Oak Ridge Associated Universities) in 1947 and, in 1950 President Truman appointed him to the National Science Foundation. He was reappointed by presidents Eisenhower and Kennedy, serving until 1962.

Gross served as president of the AAAS in 1962 and chairman of the board of directors in 1963.

Call for Nominations

Submission of entries in the 1987 selection of the AAAS Award for Scientific Freedom and Responsibility is invited. The AAAS Award recognizes scientists and engineers who have:

■ Acted to protect the public's health, safety, or welfare; or

■ Focused public attention on important impacts of science and technology on society by their responsible participation in public policy debates; or

■ Established important new precedents in carrying out the social responsibilities or in defending the professional freedoms of scientists and engineers.

The award consists of a plaque and \$1000 which are presented to the recipient at the AAAS Annual Meeting. Nominations forms may be obtained from the Office of Scientific Freedom and Responsibility at the AAAS address. The deadline for nominations is 30 September 1986.

Media Round Table Transcripts Available

Transcripts of the two most recent round tables—one on supercomputers and one on human gene therapy—are now available.

The round table on supercomputers and the direction of American science was held at the University of Maryland, College Park, on 30 October 1985. The discussion, designed to cover various aspects of the issue, featured Joan Centrella, associate professor of physics at Drexel University; Joseph Weizenbaum, professor of computer science at Massachusetts Institute of Technology; and Nobel laureate Kenneth Wilson, a professor of physics at Cornell University and director of the Cornell Supercomputing Center. Media panelists were Philip Hilts, science reporter for the Washington Post; Tekla Perry, associate managing editor of IEEE Spectrum; and Jon Franklin, former science writer at the Baltimore Sun and currently associate professor of journalism at the University of Maryland. John Slaughter, chancellor of

the University of Maryland at College Park and former director of the National Science Foundation, moderated the discussion.

The round table on human gene therapy was held at Stanford University on 13 February 1986. The morning session on medical aspects of gene therapy featured Nobel laureate Paul Berg, Wilson Professor of Biochemistry at the Stanford University Medical School; Theodore Friedmann, professor of pediatrics at the University of California, San Diego School of Medicine; W. French Anderson, chief of the Laboratory of Molecular Hematology, National Heart, Lung, and Blood Institute; and David Cox, associate professor of pediatrics at the University of California, San Francisco Medical Center. Laurie Garrett, science correspondent for National Public Radio, served as moderator.

During the afternoon, panelists explored ethical and policy issues. Participating were: Robert Cook-Deegan, former director of the Office of Technology Assessment's project on human gene therapy; Eric Juengst, a lecturer at the Division of Medical Ethics in the School of Medicine at the University of California, San Francisco; and Nancy Wexler, president of the Hereditary Disease Foundation and an associate professor of Clinical Neuropsychology at Columbia University. Media Panelists included Yvonne Baskin, freelance science writer and author of The Gene Doctors: Linda Herskowitz, medical writer for the Philadelphia Inquirer; and David Perlman, associate editor and science editor of the San Chronicle. Francisco James Risser, director of the Knight Fellowship Program at Stanford University, moderated the discussion.

These round tables were part of the Media Outreach Program, a cooperative project of the AAAS, Association of American Universities, and Scientists' Institute for Public Information. The Program, made possible by a grant from the Andrew W. Mellon Foundation, is designed to improve the understanding by the mass media and, through the media, the public, of major issues in university research.

For a free transcript of the Media Outreach Round Table on Supercomputers and the Direction of American Science; Human Gene Therapy; or the first Media Outreach Round Table on National Security and Scientific Inquiry (limited number available), write Carol L. Rogers, Office of Communications and Membership, at the AAAS address. Please specify which round table you are interested in.

Arctic and Pacific Divisions Hold Joint Meeting in Vancouver

With session topics ranging from Arctic fishes to nuclear waste disposal to health care and ethics, attendees at the joint meeting of the Arctic and Pacific AAAS divisions had the opportunity to sample a broad range of scientific research and policy.

The meeting, held on the campus of the University of British Columbia in Vancouver, 8 to 13 June, drew some 500 scientists from the two western divisions.

Meeting participants heard a provocative discussion of what some of the consequences for real nuclear disarmament might be, in the international political arena, in the U.S. and Soviet economies, and in handling threats to national security. In another lively session, speakers addressed the issues of arms "Star control verification, Wars," and the key role played by the U.S. submarine force in questions of international security.

A large and vocal audience heard local and government speakers discuss the pending decision, by the U.S. government, to locate the country's first permanent nuclear waste repository