

# INSIDE AAAS

## Awards at AAAS Annual Meeting

A physical chemist who works on arms control, a psychologist who studied childhood abuse and adult crime, and a biochemist who has written on Yellow Rain are among the recipients of AAAS prizes, presented on 16 and 18 February during the Annual Meeting in New Orleans.

Franklin A. Long received the Philip Hauge Abelson Prize of a medal and \$2500 for a lifetime of contributions to topics such as research on acidic solution phenomena, scientific development in India and Korea, and arms control. A professor at Cornell for over 50 years, he directed the University's programs on Peace Studies and Science, Technology and Society, and served as Vice President for Research and Advanced Studies. Dr. Long is now Adjunct Professor of Chemistry and Social Sciences at the University of California at Irvine.

The AAAS Prize for Behavioral Science Research was won by Cathy Spatz Widom for "The Cycle of Violence" (*Science*, 14 April 1989). Established in 1952 with funds from Arthur F. Bentley, the award consists of a plaque and \$2500. Widom, professor of criminal justice and psychology at Indiana University, examined the connection of childhood abuse to later criminal behavior. The paper describes problems of earlier studies, such as lack of control groups. Her research demonstrated that abused children are more likely to be violent in later years, but cautions that abuse cannot be a sufficient cause, since most abused children do not become criminals.

The AAAS Scientific Freedom and Responsibility Award (a plaque and \$2500) was given to Matthew S. Meselson for a lifetime of distinction, including his study of the military use of herbicides in Vietnam, his work on the decision of the United States to renounce biological weapons, and his questioning of claims that the Soviets had supported use of a "yellow rain" chemical weapon. Meselson and colleagues used field and laboratory study to find that bee excrement had caused the yellow rain. On the faculty of Harvard University since 1960, Meselson is noted for his work on the replication of DNA in dividing cells and on genetic recombination resulting from splicing of DNA molecules.

The Newcomb Cleveland Prize was shared by William H. Landschulz, Peter F. Johnson, and Steven L. McKnight for articles in *Science* (24 June 1988 and 31 March 1989) showing that proteins that bind to DNA had an unusual recurring sequence of leucine residues and that these are important in binding one protein subunit to another. Each author receives a medal and a share of the \$5000 prize. All are or were recently associated with the Carnegie Institution of Washington. Landschulz was a Hayes-Fulbright Graduate Student Fellow at the University of Helsinki and the Max Planck Society, and is pursuing Ph.D. and M.D. degrees at Johns Hopkins University School of Medicine. Johnson received a Ph.D. from the University of California at San Diego and is a staff scientist with the Molecular Mechanisms of Carcinogenesis Laboratory of

the National Cancer Institute. McKnight edits *Molecular and Cellular Biology* and chairs the NIH Study Section on Molecular Cytology in addition to conducting research at CIW.

Robert D. Ballard received the AAAS-Westinghouse Award for Public Understanding of Science and Technology, given annually for outstanding contributions to the popularization of science. Ballard was cited for his JASON project, through which students, teachers and the public participate in underwater scientific expeditions to shipwreck sites and volcanoes via telecommunication to museums. Ballard, an explorer and geophysicist, directs the Center for Marine Exploration, and the Deep Submarine Laboratory at Woods Hole. His prize consists of a plaque, an abstract crystal statue, and \$2500.

AAAS-Westinghouse Science Journalism Awards (a plaque and \$2500 for each category) were presented for distinguished articles and scripts

targeted for the public:

- Tom Siegfried, for "Frontiers of Addiction" in the *Dallas Morning News*, 9 to 13 April 1989. Previously on the journalism faculty of Texas Christian University, Siegfried has been the *News* science editor since 1985.

- Jim Borg, for "The Science of Tsunami Forecasting" in the *Honolulu Advertiser*, 28 May to 1 June 1989. Borg has written for the *Los Angeles Times* and *Washington Post*, among other papers.

- Hans Christian von Baeyer, for "How Fermi Would Have Fixed It," "A Dream Come True," and "Creatures of the Deep" in *The Sciences*, September/October 1988, January/February 1989, and March/April 1989. Von Baeyer, a physicist at William and Mary College, conducts research in particle physics.

- Lionel Friedberg, Georgann Kane, and Linda K. Reavely for "The Great Dinosaur Hunt" in the *Infinite Voyage*



**Crater Lake: An Ecosystem Study** (Ellen T. Drake, Gary L. Larson, Jack Dymond, and Robert Collier, Eds., 1990, 224 pp.) reports research findings in the controversies over the clarity, temperature, flora and fauna, and development of the lake and its environs. Crater Lake faces some of the problems of other scenic lakes, such as Tahoe. The book is sold by the Pacific Division AAAS, California Academy of Sciences, San Francisco CA 94118 (prepaid orders only; \$26.95 plus \$2.25 for shipping; California residents, add applicable tax).

television series on the Public Broadcasting Service, shown 4 January 1989. The writers are affiliated with WQED-TV.

Honorable mentions were won by Jerry Bishop for coverage of the cold fusion story in the *Wall Street Journal* and by Leslie Reinherz for "Guam Rail" on *Discover: The World of Science* broadcast on PBS.

## The Art of Science and Technology

Prints and drawings by Percy Martin will be shown during March in the AAAS Atrium in Washington. His work details a mythical culture called the Bushmen. Cheryl Safran's mixed-media paintings of cellular forms are exhibited on the 8th floor. In April and May, AAAS will show a student exhibit, "The Art of Science" organized by the New York Academy of Sciences for NSF's Science and Technology Week and sponsored by Dow Chemical Company. For more about the art program, write Virginia Stern, AAAS, 1333 H Street, NW, Washington, DC 20005.

## U.S.-Chilean Research Grants

The Panel for Cooperation between U.S. and Chilean Scientists is sponsored by AAAS and the Chilean Academy of Sciences. With funds from the MacArthur Foundation, the Panel offers "starter" grants for work that provides a basis for longer-term research collaboration. Awards of up to \$10,000 can be used for travel equipment, and research supplies. The Panel will give priority to biomedical science, minerals and materials, marine science,

## Symposium Ideas: 1991 Meeting in Washington, DC

If you have an idea for a symposium or technical session at the AAAS annual meeting in Washington, DC (14 to 19 February 1991), write or call the AAAS Meetings Office (1333 H Street, NW, Washington, DC 20005, 202-326-6450) immediately for the proposal form, due back on 15 March. The best sessions are based on the latest work in science and technology; in Washington, DC, there is also great interest in the implications of science for society. Your suggestion will be peer-reviewed and you will be notified in late May about its acceptance.

seismology, microcomputer uses, biotechnology, and arid land studies, but grants are not restricted to these fields.

Applications should include:

a) Brief CV's of the U.S. and Chilean investigators, including publications of the past 5 years and a brief description of the research groups;

b) Research project with objectives, bibliographic background, work plan and methods (not to exceed five pages);

c) Budget, stating which institution will receive each budget category (money from other sources should be noted);

d) An explanation of the collaboration and prospects for more extensive work, indicating other potential funding.

Applications must be signed by both principal investigators, or include a letter of the intended partner approving of the project. Applications, written in English, must be sent before 30 April 1990 to either Western Hemisphere Cooperation Project, Suite 1056, AAAS, 1333 H Street, NW, Washington, DC 20005, or to the Chilean Academy of Sciences, Clasificador 1349, Santiago de Chile. Awards will be made by 15 October 1990.

## Arctic Division Meeting 11 to 13 October

The 41st Arctic Science Conference will take place in Anchorage, Alaska. The theme

will be "Circumpolar Perspectives," including the international scope of arctic science. Researchers, educators, and graduate students interested in presenting papers and attending the meeting should write Gunter Weller, Geophysical Institute, University of Alaska, Fairbanks, AK 99775.

## West Coast R&D Conference

The Pacific Division AAAS and AAAS Directorate for Science and Policy Programs will sponsor a meeting on R&D in the federal budget, slated for 6 April 1990 at the Dunfey Hotel in San Mateo, California. The conference will present up-to-date information on funding for research and development in the President's budget for 1991. Speakers are scheduled from the White House, Congress, and key federal agencies. Topics include the peace dividend, priority setting and scientific ethics.

Preregistration for the 1-day meeting will be \$105 for AAAS members and \$120 for others. Students and retired persons receive a 50% discount. To find out more, contact the Pacific Division AAAS, California Academy of Sciences, San Francisco, CA 94118 (415-752-1554) or the AAAS Directorate for Science and Policy Programs (1333 H Street NW, Washington, DC 20005, 202-326-6600).

## African Science Symposium and Journals Project

A grant to plan a symposium on African science and technology, to be held during the 1991 AAAS Meeting in Washington, D.C., has been awarded to the Sub-Saharan Africa Program by the Carnegie Corporation of New York.

Working with African scientific and academic partners, the AAAS will convene this session to raise awareness of the significant but often unheralded results of African research. To be featured are accomplishments of African scientists who, despite the difficult conditions under which they are attained, have influenced regional development or have contributed to scientific progress more broadly. Achievements in science with applications for health or agriculture are likely themes for this interdisciplinary forum, along with contributions from the natural and social sciences.

The \$650,000 grant renews support for the Journal Distribution Program, which now supplies over 250 institutions in 38 countries with scientific, engineering, and other scholarly journals. The grant also funds the Electronic Networking and Communications Program in collaboration with African counterparts.

Members of the larger scientific and technological community who collaborate with African scientists and engineers are urged to contact Dr. Amy Wilson, Program Director for Sub-Saharan Africa (AAAS, 1333 H Street, NW, Washington, DC 20005, 202/326-6778), concerning the symposium.

# AAAS Members Elected as Fellows in 1990

## Section A— Mathematics

Reuben Hersch  
Johannes C. C. Nitsche  
David Sharp  
Robert Endre Tarjan  
Michael S. Waterman

## Section B— Physics

Bernard M. Abraham  
Elihu Abrahams  
Guenter Ahlers  
Peter D. Barnes  
Ted Gibbs Berlincourt  
Joseph Callaway  
Hugh E. DeWitt  
Paul Howard Frampton  
Harold P. Furth  
Hermann A. Grunder  
Alan H. Guth  
Paul K. Hansma  
Francesco Iachello  
Raphael G. Kasper  
Jere J. Lord  
June L. Matthews  
Denis B. McWhan  
Richard H. Pratt  
Charles Sheffield  
Keith R. Symon  
Philip L. Taylor  
Watt W. Webb  
Robert Weinstock

## Section C— Chemistry

Nils Per Inge Ahlberg  
Robert D. Allendoerfer  
Kenneth K. Andersen  
Ramon M. Barnes  
Frank A. Bovey  
Robert Neilson Boyd  
Alma Lyman Burlingame  
Justin W. Collat  
Marvin Mack Crutchfield  
Francois Nico Diederich  
Laurence Doemeny  
John T. Edward  
Arthur B. Ellis  
John P. Fackler, Jr.  
Richard D. Gandour  
William A. Goddard III  
David J. Hart  
Edward F. Hayes  
S. Allen Heininger  
Walter E. Hill  
Smith L. Holt  
Lloyd Miles Jackman  
Loretta L. Jones  
George L. Kenyon  
Nathan Kornblum  
Stephen R. Leone  
Richard L. Lintvedt  
William J. MacKnight  
Arnold R. Martin  
Kirk D. McMichael  
Albert I. Meyers  
Joseph G. Morse  
Matthew S. Platz  
Krishnaswamy Rengan  
Marie-Louise Saboungi  
A. Truman Schwartz  
Richard B. Silverman

## Section D— Astronomy

Eugene H. Avrett  
Andrea K. Dupree  
John S. Gallagher III  
John E. Gaustad

## Section E— Geology and Geography

Charles R. Bentley  
Maurice Deul  
Gordon P. Eaton  
Reginald G. Gollledge  
Raymond Jeanloz  
Charles D. Keeling  
Donald Langmuir  
Karen C. McNally  
Benjamin M. Page  
Constance Sancetta  
Harley J. Walker

## Section G— Biological Sciences

Joan Abbot  
Randall S. Alberte  
Vera Alexander  
Alice Louise Alldredge  
Nina Stromgren Allen  
Gary W. Barrett  
Maurice Jules Bessman  
Judith Bond  
Charles E. Bracker  
Winston J. Brill  
John Ramsey Bronk  
Thomas D. Bruns  
Joseph Bryan  
Patricia G. Calarco  
Lawrence B. Cohen  
Roy Curtiss III  
Julian Davies  
Theodore Delevoryas  
Gordon R. Dreesman  
David A. Dubnau  
Stephen S. Easter  
Estella K. Engel  
W. Hardy Eshbaugh  
Anne Fausto-Sterling  
Molly Fitzgerald-Hayes  
Timothy Fitzharris  
Norma L. Fowler  
John C. S. Fray  
Bryan M. Gebhardt  
Gcula Gibori  
David V. Goeddel  
Lynda J. Goff  
Ralph E. Good  
Eville Gorham  
Frank C. Greene  
M. Sue Hanlon  
Richard J. Hoffmann  
Eric Holtzman  
Stuart Kauffman  
Hans Kende  
Thomas H. Kunz  
Christopher J. Lamb  
Eric S. Lander  
June Lascelles  
Richard A. Laursen  
Charles Sanford Levinges III  
Steven W. L'Hernault  
Howard D. Lipshitz  
Jane Lubchenco  
John A. McGowan  
Daniel Medina  
Elliot M. Meyerowitz  
Emily R. Morey-Holton

Norman Myers  
Richard K. Orkand  
Joann J. Otto  
Gustav-Adolf Paffenhofer  
Roderic B. Park  
David Pramer  
Ghilleen Tolmie Prance  
Gilbert T. Rowe  
Edwin W. Rubel  
John D. Rummel  
Mary Beth Saffo  
Roger H. Sawyer  
Ulysses S. Seal  
Sansar C. Sharma  
Eugene B. Small  
Kenneth L. Smith, Jr.  
Hilda Weyl Sokol  
Dieter Gerhard Soll  
Jane A. Starling  
Lisa Steiner  
Paul K. Strother  
Sigmund R. Suskind  
Shripad Tuljapurkar  
Mohan Kishen Wali  
Patricia L. Walne  
John J. Walsh  
Richard Joel Wassersug  
David A. Weisblat  
Irving L. Weissman  
Hugh D. Wilson  
John H. Wilson

## Section H— Anthropology

James A. Brown  
Mary McCron Foster  
Bonnie J. McCay  
George Philip Rightmire  
Sydel F. Silverman

## Section J— Psychology

Zoltan Annau  
John T. Cacioppo  
Robert Calfee  
Michael Davis  
Victoria A. Fromkin  
John Gibbon  
Ellen J. Langer  
Dennis McFadden  
John W. Moore  
John R. Nesselroade  
Richard E. Petty  
David E. Rumelhart  
Lewis S. Seiden  
Sara J. Shettleworth  
David L. Sparks  
Joseph F. Sturr

## Section K— Social, Economic, and Political Sciences

Robert Jervis  
William B. Lacy  
Edward O. Laumann  
Albert Rees  
Vernon L. Smith  
Marta Tienda  
Sidney G. Winter

## Section L— History and Philosophy of Science

Peter Achinstein  
Joseph W. Dauben  
Silvan S. Schweber

## Section M— Engineering

Gyan Chand Agarwal  
Henry L. Bachman  
James E. Barger  
Ted Belytschko  
Christian P. Burger  
Ernest L. Daman  
Russell C. Drew  
Gerard M. Faeth  
William H. Heiser  
Mounir M. Kamal  
William E. Kastenbergh  
Frank Kreith  
Robert M. Nerem  
Richard Magruder Phelan  
Carl Rampack  
Harriett B. Rigas (posthumous)  
Morton D. Schwartz  
Thomas Eugene Stelson  
Harold H. Sogin

## Section N— Medical Sciences

Per-Olof Astrand  
John G. Bartlett  
Rubin Bressler  
Michael S. Brown  
C. Thomas Caskey  
David Reynolds Challoner  
Douglas T. Fearon  
Samuel J. Fomon  
Daniel W. Foster  
Emil Frei III  
Harold Samuel Ginsberg  
Joseph L. Goldstein  
Richard J. Havel  
Samuel Hellman  
John Bernard Henry  
Rochelle Hirschhorn  
Darwin R. Labarthe  
Robert B. Livingston  
Jerold M. Lowenstein  
Kenneth M. Ludmerer  
Robert Michels  
Orlando J. Miller  
Paul Neiman  
Albert H. Owens, Jr.  
John D. Potter  
Irwin H. Rosenberg  
Alan C. Sartorelli  
Donald W. Seldin  
Joseph Stokes III (posthumous)  
James T. Stull  
Jonathan W. Uhr  
Elliot S. Vesell  
Kern Wildenthal

## Section O— Agriculture

Donald Earl Aylor  
James B. Beard  
Donald C. Beitz  
Gale Arlon Buchanan  
H. H. Cheng  
Harold D. Hafs  
Angus A. Hanson  
Donald A. Holt  
Marjorie A. Hoy  
Johnie N. Jenkins  
Robert Wing Langhans  
Sung M. Lim  
Carole Patricia Meredith  
Marvin M. Schreiber  
Sue A. Tolin  
Regis D. Voss  
Jerome B. Weber  
Barbara D. Webster

Walter F. Wedin  
Johnny Calvin Wynne

## Section P— Industrial Science

Alden S. Bean  
John Hulm

## Section Q— Education

Bill G. Aldridge  
Robert Vernon Blystone  
Henry W. Heikkinen  
Ronald D. Simpson  
Harriett S. Stubbs

## Section R— Dentistry

Donald I. Hay  
Frank G. Oppenheim

## Section S— Pharmaceutical Sciences

Yusuf J. Abul-Hajj  
John M. Cassady  
Ho-Leung Fung  
Laurence H. Hurley  
Milap C. Nahata  
Joseph Robert Robinson  
Ronald J. Sawchuk

## Section T— Information, Computing, and Communication

Marcia J. Bates  
David Gries  
Barbara J. Grosz  
David J. Kuck  
Raymond E. Miller  
Oliver G. Selfridge  
William A. Wulf

## Section U— Statistics

Agnes Margaret Herzberg  
William J. Hill  
Mary Grace Kovar  
Richard A. Olshen  
Gerald van Belle

## Section W— Atmospheric and Hydropheric Sciences

Larry P. Atkinson  
Robert A. Duce  
Peter S. Eagleson  
William E. Gordon  
Robert Lloyd Smith

## Section X— Societal Impacts of Science

and Engineering  
Daryl E. Chubin  
Janice G. Hamrin  
Caroline L. Herzenberg  
Barbara Mishkin  
Robert H. Socolow  
Irvin L. White

## Section Y— General Interest in Science

and Engineering  
M. Michelle Balcomb  
Joann Ellison Rodgers  
Michael Spock