

Society of Toxicology NEWSLETTER

MAY/JUNE 1989

Dr. Kevin L. Stark Receives R. L. Dixon Memorial Award

SOT Student Member, **Dr. Kevin L. Stark**, a graduate student in the Department of Pharmacology, University of Washington, Seattle, was awarded the first Robert L. Dixon Memorial Student Award for his abstract entitled "Influence of Electrophilic Character and Glutathione Depletion on Dymorphogenesis in Cultured Rat Embryos."

Dr. Stark will receive a check to help defray travel expenses to participate in the 1989 IUTOX meeting in Brighton, England. He will shortly be moving to a new position at the Dept. of Cell and Developmental Biology, Roche Institute of Molecular Biology.

Honorary Membership Status Conferred on Gerhard Zbinden

"In recognition of outstanding and sustained achievements in toxicology," Dr. **Gerhard Zbinden** with the Institute of Toxicology at the University of Zurich, has been awarded Honorary Membership in the Society of Toxicology. Dr. Zbinden, only the fifth individual so honored, was sponsored by **Alan M. Goldberg**, Ph.D., and **Robert A. Scala**, Sc.D.

Graduate Fellowship Awards in Toxicology

The Society of Toxicology, through the Education Committee, announces the availability of Graduate Fellowship Awards in Toxicology. The Fellowship Awards are for one year and are to be administered by the department of the awardees.

Any graduate student with at least two years of graduate study toward the PhD degree in the area of toxicology and whose major professor is a member of the Society of Toxicology may apply. Further details may be found on the application. Evaluation by the Education Committee is based primarily on scholastic achievement, letters of recommendation and the dissertation research.

Applications are due by **Oct. 6, 1989**. Finalists will be invited to attend the Society of Toxicology Annual Meeting in Miami Beach, Florida, February 12-16, 1990, for an interview. The winners of these awards will be announced at the annual banquet.

For an application, contact: EDUCATION COMMITTEE, Society of Toxicology, 1133 Fifteenth Street, N.W., Suite 1000, Washington, D.C. 20005.

Nominations for Society of Toxicology Awards

The progress of toxicology has resulted in many worthy potential candidates for the various Society of Toxicology Awards. A complete description of each award is given in the Annual Directory of Members, as well as being reproduced on the Awards Nomination Form included with this newsletter. The form is a convenience for the membership to nominate candidates, but direct letters of nomination with supporting material, as well as other appropriate nomination formats, may also be used.

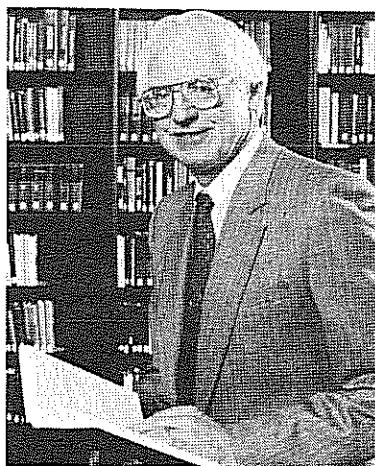
Each nomination must be submitted by a sponsor and seconders who are members of the Society of Toxicology. The quality of supporting documentation is critical in the review of the nomination of each candidate. Please send all nominations and supporting documentation to the chairperson of the Awards Committee, **Dr. James E. Gibson**, SOT, 1133 15th St., NW, Suite 1000, Washington, DC 20005. The deadline for receipt of nominations for the 1990 Awards is **Oct. 1, 1989**.

Nominations Sought For SOT Honorary Memberships

SOT members are encouraged to nominate individuals for Honorary membership in the Society. In accordance with the SOT by-laws,

Candidates for Honorary membership are nominated by two Voting or Associate members of the Society including members of Council. Nominations shall be accompanied by seconding letters and information regarding career achievements in toxicology. Election of Honorary members shall be by a two-thirds majority vote of Council. Not more than two Honorary members shall be elected during any one term of Council. Honorary members shall not be eligible to vote and shall not be assessed dues.

Please send nominations and accompanying documents to the Executive Secretary, SOT, 1133 Fifteenth Street, NW, Suite 1000, Washington, DC 20005.



Society of Toxicology
1133 15th Street, NW
Suite 1000
Washington, DC 20005
(202) 293-5935
FAX (202) 775-9631

**Deadline for next
issues: September 8, 1989
November 8, 1989
January 8, 1990
March 8, 1990**

1990 SOT Annual Meeting
February 12-16, 1990
Fontainebleau Hilton Hotel
Miami Beach, FL

President's Message

Dear Fellow Members:

It is a pleasure to provide you my inaugural message as President of your Society of Toxicology. As my first order of business, I extend my personal thanks to now Past President **Jim Gibson** for the outstanding leadership he has provided the Society as he has progressed from Vice President-Elect to President. He has provided vision, dedication and hard work that have left an imprint on our Society. I look forward to having his advice and counsel as our Past President. I also join Jim Gibson in extending my thanks to the members of the various committees that have so effectively played a special role in the Society's affairs during the past year. It is a special pleasure to acknowledge the fine contributions of the members of the two committees most involved with the Annual Meeting—Continuing Education, under the leadership of **Bill Tierney**, and Program, which I chaired, for making the Atlanta meeting an outstanding success.

In a moment, I will offer some comments that are oriented to the future. However, before doing that I will briefly offer some reflections on the Society of Toxicology. Obviously, everyone in the Society has an interest in toxicology; that is the tie that binds us together. Beyond that common bond, I am struck by the multifaceted character of the Society's membership. That multifaceted character is both a strength and a potential weakness. I am confident it can be harnessed so that we gain from our diversity.

The Society's membership has a diverse educational background. Some individuals come to the Society with formal training in toxicology, others from pharmacology, biochemistry, human medicine, veterinary medicine or other disciplines or professions. Many have doctoral or other advanced degrees, a few have concluded their formal education with a baccalaureate degree. The employment background of our members is equally diverse. They are employed in universities and colleges, government agencies, private research institutes, consulting firms, private industry, and a few are self-employed. Our interests are also diverse, reflecting the inherent diversity of toxicology, a myriad of different toxicants, every organ system of the body, and levels of biological organization from molecules to cells, tissues, organs to the intact mammal to populations and the total environment of which the population are a part. The science of toxicology binds us together whether we are interested in developing new knowledge, communicating or applying our knowledge of toxicology.

Our Society is also diverse in terms of how our members relate to this Society. For many it is our primary scientific organization. For other individuals, it is a secondary or ancillary organization—their primary home is elsewhere. We welcome all of these individuals; they add heterogeneity and strength to our Society. It is my intent as President to see that we serve all of these varied interests and backgrounds. We must be on guard against offering a favored position to any special segment. Rather, we must nurture those multifaceted characteristics by harnessing them together and assuring that our common interest—toxicology—is served.

The road map for the future was charted by the TOX-90's Commission established by **Jerry Hook**, Jim Gibson and me, with major assistance from **Tom Miya**. During the past year, Council started to implement a number of the TOX-90's recommendations. Especially noteworthy have been the efforts of the *ad hoc* TOX-90's Educational Issues Committee. During the next year, we will attempt to build on the activities already started and initiate new activities, especially in the areas of education and communication.

The major vehicle for guiding and shaping the activities of the Society are our committees, specialty sections and regional chapters. These all function because you—the members of the Society, are willing to give freely of your time to advance the Society. It is a pleasure to be associated with an organization in which the number of volunteers always exceeds the number of individuals required to carry out any task. I urge you to continue volunteering your services not just for elected and appointed committees but also for specialty sections and regional chapters. During the next year I will be asking each of the committees to review their activities offering an opinion on the need for any changes in their

role(s) and, especially, how the committees' activities can be managed to make it easier for projects that extend over several years to be completed in an expeditious manner.

During the next year I am anxious to see further progress made in using our specialty sections and regional chapters to effectively advance the interests of the Society. Great strides have already been made. Our specialty sections are playing an increasingly prominent role in developing Continuing Education Courses and symposia. The regional chapters are offering outstanding meeting programs that complement the national meetings. A move is afoot to have specialty sections help with sponsorship of special speakers and symposia at regional meetings. Perhaps the time has arrived when selected Continuing Education Courses can be repeated in conjunction with regional chapter meetings to reach a broader audience. Our regional chapters are a natural vehicle for bringing the concepts of toxicology and risk assessment to the public, to lay people, special interest groups, teachers and students. Perhaps we can use our Washington Office as a clearing house and contact point for the thousands of institutions that would like a speaker from a regional chapter. The potential exists for having Society of Toxicology members speak on more than 4000 campuses to help make young people aware of what toxicology is, and the opportunities that are available. I am confident we can take advantage of such opportunities using the unique resources of the Society.

In closing, I would like to touch briefly on two interrelated issues: entry of individuals into toxicology and membership in the Society. Our future will be built on attracting bright, young people to toxicology. In some cases, it will be through formal training programs in toxicology; in other cases through the lateral entry of people from related disciplines. The Society needs both types of entries and this is being fostered by the TOX-90's Educational Issues Committee. Another important challenge is to bring more individuals to the Society and its regional chapters, in some cases as occasional participants in meetings and in other cases as dedicated members of the Society. During the next year we will be reaching out to the members of other Societies to make them aware of our national and regional meetings. When appropriate, we will make them aware of the advantages of membership in the Society.

The future of toxicology is bright. Research needs and opportunities have never been greater. The quality of our science is constantly improving. And the needs of society at large for high quality and credible scientific information to make important societal decisions have never been greater. We have an extraordinarily exciting future ahead of us. I look forward to serving as your President and working with the Council, committees, our headquarters' staff and you, the membership, in furthering the Society and toxicology. I welcome your suggestions as to how the Society can best serve you and society at large.

Roger O. McClellan, DVM
President

Announcing The Toxicology Resource Information Service—TRIS

In 1987 the SOT Committee on Public Communications issued a request to the membership to provide information about public communication materials. This information was compiled into a prototype version of the TRIS which now contains 411 separate entries. The CPC would like to update and expand the TRIS and once more requests your participation.

The purpose of the TRIS is to provide an extensive listing of educational resources for SOT members and interested others who are involved in public education programs. The types of materials included in TRIS are: 1) Audio-Visual programs (videotapes, movies, slide/tape sets), 2) Publications (leaflets and brochures), 3) Databases (databases that are useful for finding toxicological information including bibliographic citations), 4) Computer programs (education and data analysis programs such as D50 and risk assessment programs that are available for use in educational and research), 5) Organizations (public or private organizations that offer assistance in dealing with toxicologic problems), and 6) Teaching materials (syllabi or other materials that are used in teaching programs).

When completed, the TRIS will be made available to Regional Chapters of SOT and SOT members in either computer format or hard copy. The value of the TRIS is directly proportional to the quantity and diversity of the materials listed. If you have materials that you would like to list, or an update on materials you have already sent for inclusion, please use the sheet enclosed with this Newsletter. Thank you for your contribution.

New Grant Program

The Procter & Gamble Company has announced a solicitation for research proposals for alternatives to animal testing for the efficacy and safety of drugs and consumer products. This program, entitled "University Animal Alternatives Research Program," will award three grants in 1990. Funding will be up to \$50,000 annually for up to three years.

Proposals will be accepted from any U.S. academic or non-profit medical research institution. Application deadline is September 1, 1989. Inquiries and requests for applications should be directed to: University Animal Alternatives Research Program, The Procter & Gamble Company, Miami Valley Laboratories, P.O. Box 398707, Cincinnati, Ohio 45239-8707.

Member News

Daniel M. Byrd III, Ph.D., D.A.B.T., has joined the Distilled Spirits Council of the United States, Inc. (DISCUS), as Science Advisor.

The Alumni Association of California State University has named **Jack H. Dean**, Ph.D., Vice President, Drug Safety Assessment, Sterling Research Group, as one of nine Distinguished Alumni. Dr. Dean received the award for his "outstanding example of professional achievement and distinguished service."

David H. Gould, Ph.D., recently retired from the U.S. Environmental Protection Agency, has been awarded the Joseph Seifter Memorial Award in Regulatory Science by the Office of Toxic Substances, for "higher commitment to scientific excellence and understanding of the public impact of regulatory science."

Dr. Barbara W. Kemppainen has accepted an appointment as Assistant Professor of Toxicology at Auburn University College of Veterinary Medicine, Department of Physiology and Pharmacology in Auburn, Alabama, where she will assist in developing a Toxicology program at the University.

Andrew Sivak has joined the Health Effects Institute as President. The Institute is the primary independent organization supporting the conduct of research and testing relating to the health effects of motor vehicle emissions.

Gary M. Williams, M.D., has had a series of four papers on techniques for liver cell culture recognized as Citation Classics. This is his second Citation Classic, a highly cited publication as identified by the Science Citation Index.

Coming Events

Fifth International Congress of Toxicology, July 16-21, 1989, Brighton, United Kingdom. Contact IUTOX '89, Congress House, 65 West Drive, Sutton, Surrey SM2 7NB, UK.

Environmental Regulation Course, July-17-19, 1989, Omni Shoreham Hotel, Washington, DC. For information, contact: Executive Enterprises, Inc., 22 West 21st Street, New York, NY 10010-6904; (800) 831-8333.

Control of Biohazards in the Research Laboratory, July 17-21, 1989, Baltimore, MD. For further details contact: Byron S. Tepper, Ph.D., Director, Safety and Environmental Health, The Johns Hopkins Institutions, 2021 East Monument Street, Baltimore, MD 21205; (301) 955-5918 and/or, Dr. Jacqueline Corn, Director, Continuing Education Program, Department of Environmental Health Sciences, The Johns Hopkins School of Hygiene and Public Health, 615 North Wolfe Street, Room 1003, Baltimore, MD 21205; (301) 955-2609, fax (301) 955-0617.

Second International Conference on Practical *In Vitro* Toxicology, July 23-27, 1989, Nottingham, United Kingdom. Information is available from the PIVT Secretariat, Congress House, 65, West Drive, Sutton, Surrey, SM2 7NB, UK.

Third International Symposium on Poisonous Plants, July 23-29, 1989, The Conference and Institute Division of Utah State University, Logan, UT 84321, (801) 752-2941.

Gordon Research Conference: Mechanisms of Toxicity, July 24-28, 1989, Kimball Union Academy, Meriden, NH. For further information contact: John A. Thomas, Ph.D., The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78284-7722, (512) 567-2045.

Environmental Regulation Course, August 9-11, 1989, The Peabody Orlando, Orlando, FL. For information, contact: Executive Enterprises, Inc. 22 West 21st Street, New York, NY 10010-6904, (800) 831-8333.

Twelfth European Workshop on Drug Metabolism, September 16-21, 1990, Basel, Switzerland. For information, contact: Scientific Secretariat and/or Administrative Secretariat, 12 European Workshop on Drug Metabolism, P.O. Box 141, Ch-4007, Basel/Switzerland; phone 061/697 27 80, 061/696 63 06.

Seventh International Neurotoxicology Conference: Neurotoxicology and Risk Assessment, September 18-21, 1989, Little Rock, AR. For additional information, please contact: Dr. Joan M. Cranmer, Dept. of Pediatrics #512, University of Arkansas for Medical Sciences, Little Rock, AR 72205, (501) 370-2986 or 370-2982.

103rd Association of Official Analytical Chemists Annual Meeting, September 25-28, 1989, at the Clarion Hotel in St. Louis, MO. For information, write to: Suite 400, 2200 Wilson Boulevard, Arlington, VA 22201-3301.

International Society of Regulatory Toxicology and Pharmacology Annual Meeting, October 2-3, 1989, Washington DC Marriott Hotel, Washington, DC. Inquiries to: C. Jelleff Carr, Ph.D., Secretary, 6546 Belleview Drive, Columbia, MD 21046, (301) 992-9083.

Methods in Behavioral Toxicology and Teratology, October 4-6, 1989, Excelsior Hotel, Little Rock, AR. For more information, contact either Drs. Merle G. Paule, R. Robert Holson, or Frank Scalzo, NCTR HFT-134, Jefferson, AR 72079, (501) 541-4304/4203.

Preclinical Safety Evaluation of Biomaterials, October 17-20, 1989, Holiday Inn, Burlington, NC. For additional information, contact: Barbara E. Sagartz, 2990 Anthony Road, Burlington, NC 27215; (919) 229-0557.

Third International Congress and Fair for Environmental Technology, November 21-23, 1989, Linz, Austria. For information, contact either the Austrian Trade Commission, or the organizer directly: Trend Commerz BmbH, A-4021 Linz/Austria, P.O.B. 765, (tel) (732) 27 45 75.

Fourth International Meeting on Biological Reactive Intermediates, hosted by the University of Arizona Center for Toxicology, January 14-17, 1990 at the Double Hotel, Tucson, AZ. For further information, contact: Dr. I. Glenn Sipes, College of Pharmacy, University of Arizona, Tucson, AZ 85721, (602) 626-7123.

Second International Conference on Environmental Analytical Chemistry; Workshop on Identification of Problems, Methods and Monitoring Applications within the Pacific Basin Rim Nations, January 17-19, 1990, Honolulu, HI. For information, contact: Dr. S. Hanamura, The Center for Environmental Research, 468 Hollister Hall, Cornell University, Ithaca, NY 14853; (607) 255-6837.

Publications of Interest

1989 ASTM Directory of Testing Laboratories, \$50.00 (ASTM members—\$40.00), ASTM, 1916 Racine Street, Philadelphia, PA 19103-1187, ATTN: Customer Service Dept., (215) 299-5585.

Biosafety in Microbiological and Biomedical Laboratories, \$3.75, U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325; (202) 783-3238.

Chemical Status Report, National Toxicology Program, Attn: Sharon Soward, Mail Drop AO-02, NIEHS, P.O. Box 12233, Research Triangle Park, NC 27709; (919) 541-3418.

Chirality: The Pharmacological Biological and Chemical Consequences of Molecular Asymmetry, \$120.00 (4 issues), Alan R. Liss, Inc., 41 East 11th Street, New York, NY 10003; (212) 475-7700.

Elementary and Secondary Education for Science and Engineering, \$7.00, U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325; (202) 783-3238.

Enzymology and Molecular Biology of Carbonyl Metabolism 2: Aldehyde Dehydrogenase, Alcohol Dehydrogenase, and Aldo-Keto Reductase, H. Weiner, T. G. Flynn (eds), \$88.00, Alan R. Liss, Inc., 41 East 11th Street, New York, NY 10003; (212) 475-7700.

Issues in Medical Waste Management, \$2.25, U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325; (202) 783-3238.

Mechanisms of Cocaine Abuse and Toxicity, \$11.00, U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325; (202) 783-3238.

Metal Ion Homeostasis Molecular Biology and Chemistry, D. H. Hamer, D. R. Winge (eds), \$96.00, Alan R. Liss, Inc., 41 East 11th Street, New York, NY 10003.

Principles of Hazardous Materials Management, R. D. Griffin, \$45.00, Lewis Publishers, Inc., 1221 South Main Street, P.O. Drawer 519, Chelsea, MI 48118; 1-800-525-7894.

Science and Animals: Addressing Contemporary Issues, H. N. Guttman, J. A. Mench, D. Phil, R. C. Simmons (eds), \$25.00, Scientists Center for Animal Welfare, 4805 St. Elmo, Bethesda, MD 20814; (301) 654-6390.

The Surgeon General's Report on Nutrition and Health, \$22.00, U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325; (202) 783-3238.

Synthetic Peptides: Approaches to Biological Problems, J. P. Tam, E. T. Kaiser (eds), \$72.00, Alan R. Liss, Inc., 41 East 11th Street, New York, NY 10003.

Transplacental Effects on Fetal Health, D. G. Scarpelli, G. Migaki (eds), \$70.00, Alan R. Liss, Inc., 41 East 11th Street, New York, NY 10003.

Women and Alcohol Problems: Tools for Prevention, \$1.75, U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325; (202) 783-3238.

1989 Year Book of Toxicology, \$55.00, \$65.00 (outside U.S.), CRC Press, Inc., 2000 Corporate Blvd., NW, Boca Raton, FL 33431.

The SOT Placement Service Newsletter Advertisements

Advertising in the Placement Section of the SOT Newsletter is open to SOT members and non-members. Advertising deadlines are the same as those for news items, and appear on page two of the newsletter. Advertising must be submitted in writing, accompanied by a check or institutional purchase order. For repeat advertisements, SOT Headquarters must receive written notification and payment prior to the deadline date. Rates are as follows—Position wanted: \$25 for 50 words & \$.50 for each additional word; Positions open: \$200 for 100 words & \$1 for each additional word.

Send advertising copy to: Newsletter—Placement Service Section
Society of Toxicology
1133 15th Street, NW
Suite 1000
Washington, DC 20005

The Society of Toxicology Newsletter only accepts advertising that does not discriminate among applicants on the basis of race, sex, religion, age, or handicap. Equal Opportunity Employers only.

(Advertisement)

Toxicologist

Ashland Chemical Company, a division of Ashland Oil, Inc., a Fortune 100 corporation, is seeking a Toxicologist for the Environmental, Health and Safety Department at its Columbus, OH headquarters.

Responsibilities for this non-laboratory position include monitoring and evaluating toxicological information and application of data to Product Health and Safety programs. Duties will be integrated with other responsibilities for product information and regulatory compliance.

Minimum requirements include an M.S. in Toxicology and two years' experience in the chemical industry or a toxicology lab. Interest in applying toxicity data/information into product/regulatory programs is essential.

For consideration, send resume and salary history to: **S.E. Kroll, Ashland Chemical Company, P.O. Box 2219, Columbus, OH 43216.** An Equal Opportunity Employer.

Watching Washington

Test Ban Rejected in Maryland, Pending in Three States

Amid a rising tide of legislation concerning animal testing bans, the Maryland Senate Judicial Proceedings Committee rejected SB 77 that would have banned the use of "live animals to administer an eye irritancy test or an acute toxicity test for the purpose of testing cosmetic products, unless the testing is required by federal regulations."

Meanwhile, California, Illinois, and Massachusetts have bills pending that would prohibit the use of animals for various ocular and dermal irritancy tests, among them: the LD50 Test and the Draize Eye Irritancy test. These bills remain stalled awaiting committee assignments or actions.

Resurrected House Consumer Products Safe Testing Act Assumes Valid Non-animal Tests Available, Companion Bill Entered in Senate.

Rep. Barbara Boxer (D-CA) has introduced her third testing bill, H.R. 1676, which would "provide for the modernization of testing of consumer products which contain hazardous or toxic substances." The bill already has 57 co-sponsors and has been referred to the House Energy and Commerce Committee.

The latest version of Ms. Boxer's bill departs from earlier ones by clearly calling for the elimination of the Draize test, and emphasizes her assumption that serves as the foundation for the bill, "nonanimal alternatives have been developed for other acute toxicity tests using animals."

The Senate bill, S. 891, introduced by Senator Harry Reid (D-NV), reiterated claims that valid non-animal testing alternatives exist, and called for a halt to any "animal model acute toxicity test."

Both bills have potentially far-reaching effects because they would: force federal agency and department heads to dismiss LD50 test results, review any ruling calling for animal toxicity tests in premarket testing, and "promulgate regulations specifying that nonanimal toxicity tests be used instead of animal toxicity tests, unless that federal department or agency head determines that in certain limited cases the nonanimal toxicity test has less validity than the animal toxicity test." When nonanimal tests are found to be less valid than animal tests, the bill would require the publication in the *Federal Register* of an explanation and justification for continuing the animal toxicity. This information would be subject to public review.

Senator Heflin Introduces Animal Research Facility Protection Act

In calling for legislation to protect animal research facilities from illegal acts, Senator Howell T. Heflin (D-AL), stated that "the victims of illegal acts of animal liberation supporters are not only research institutions and staff but all of us. The immediate cost of crimes against research facilities is severe but the ultimate cost to society as a whole is inestimable."

Sen. Heflin's legislation, S. 727, The Animal Research Facility Protection Act, is an amendment to the Animal Welfare Act making it a federal crime to steal, destroy or make unauthorized use of research animals, equipment or data.

The bill calls for penalties of up to a \$5,000 fine and/or one year in prison for those found guilty of violations. The bill would furthermore require violators to make restitution to the victim or victims and allow "any research facility injured in its business or property by reason of a violation of this Act (to) recover actual and consequential damages; and the cost of the suit (including a reasonable attorney's fee), from the person or persons who have violated any provision of this Act."

1990 AAAS Scientific Freedom and Responsibility Award Call for Nominees

Established in 1980, the \$1000 prize is awarded annually to honor scientists and engineers whose exemplary actions, often taken at significant personal cost, have served to foster scientific freedom and responsibility.

The AAAS Prize recognizes scientists and engineers who have:

- acted to protect the public's health, safety, or welfare; or
- focused public attention on important potential 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 freedom of scientists and engineers.

A candidate for the award is selected by a panel of judges appointed by the AAAS Board of Directors. The deadline for receipt of entries is **31 July 1989**.

Nominations and requests for information should be sent to:

Scientific Freedom and Responsibility Award
American Association for the Advancement of Science
1333 H Street, NW, Room 1101
Washington, DC 20005