

Society of Toxicology NEWSLETTER

SEPTEMBER/OCTOBER 1988

Reserve Space for Auxiliary Meetings at SOT Annual Meeting

Enclosed with this issue of the Newsletter is a Request for Meeting Space for Related Groups during the 1989 Annual Meeting of the Society of Toxicology.

Specialty sections, committees, alumni organizations and others who wish to hold a meeting or social function in meeting space at the Atlanta Hilton and Towers during the week of the Society meeting February 27-March 3, 1989, should return the completed form to the Society headquarters as soon as possible, but no later than December 16, 1988. Space will be assigned on a first-come, first-served basis, once all of the SOT scientific and social programs have been accommodated.

For additional copies of the form, contact Melissa Disick Clem at the Society headquarters.

SOT Ballot Process

The Society of Toxicology has developed a process for the election of officers, councilors and members of the Education and Membership Committees that ensures the confidentiality of members' votes and timely tallying of the results.

Members are provided a photograph and complete bio sketch of each candidate, which are mailed with the ballot to all voting members by January 1, as provided by the By-laws. Preparation of this package is no small task, as it occurs during the preparation of the Annual Meeting Program and *Toxicologist*. The cooperation of the candidates in providing this material to headquarters to meet this tight deadline is appreciated.

Two return envelopes are provided with the mailing: an outer envelope, which is addressed to SOT, and an inner envelope, which ensures the privacy of the members' vote. When the completed ballots are received in the SOT office, the member's name and signature is verified against the list of voting members. On the closing day for receipt of ballots, February 10, the unopened envelopes containing the ballots are sent to the independent accounting firm of Price Waterhouse & Company for tabulation. Price Waterhouse then provides the results to the President and the Executive Secretary, who notify all candidates of the results.

Although several members have questioned the need for two envelopes, the system works well and confidentiality is ensured. Please remember in completing your ballot to vote for the correct number of candidates for each category of candidates and to print and sign your name on the outer envelope. Envelopes that are not so marked will not be forwarded to Price Waterhouse for tabulation.

Honorary Member George Hitchings Awarded Nobel Prize



George Hitchings

George Hitchings, SOT Honorary Member, was named to receive the 1988 Nobel Prize in Medicine for discoveries leading to drugs that treat AIDS and herpes among other ailments. He shares the award with Gertrude Elion and Sir James W. Black of King's College Hospital Medical School at the University of London. Hitchings and Elion are affiliated with the Burroughs Wellcome Research Laboratories.

Hitchings, an 83 year old native of Haquiam, WA, and Elion pioneered discoveries involving the difference in nucleic acid metabolism between normal cells and cancer cells, protozoa, bacteria and viruses. Their work allowed researchers to attack disease-causing organisms by interfering with their replication. Among the drugs developed from their research is azidothymidine, or AZT, the only federally approved drug for treating AIDS.

Colgate-Palmolive Post-Doctoral Fellowship

The Colgate-Palmolive Company is sponsoring a post-doctoral fellowship, through the Society of Toxicology, directed specifically toward the development of *in vitro* alternatives to animal safety studies for assesment of dermal and ocular toxicity. The award is \$33,500 annually. Contact the SOT headquarters for more information and award application. Applications must be received by December 1, 1988.

1989 Burroughs Wellcome Award

The Burroughs Wellcome Fund offers a five-year Toxicology Scholar Award of \$300,000, administered by the Society of Toxicology and awarded to an individual in a U.S. school. A commitment to Toxicology as a basic science by the individual and the institution is a major criterion. Selection is made by the guidance of a five-member committee and based on demonstrated ability and potential of the candidate and strength of commitment of the institution to program quality and the relative importance of the Award to the success of the program.

Applications are to be received by December 1, 1988 by the Chairman, Advisory Committee for the Burroughs Wellcome Toxicology Scholar Award, Tom S. Miya, School of Pharmacy, Beard Hall, Campus Box 7360, University of North Carolina, Chapel Hill, North Carolina 27599 (Telephone: 919/966-1121).



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

MARK YOUR CALENDAR!

1989 SOT ANNUAL MEETING

February 27– March 3
The Atlanta Hilton and Towers
Atlanta, Georgia

**Deadline for next
issues: November 15, 1988
January 15, 1988
March 15, 1989
May 15, 1989
July 15, 1989**

President's Message

Dear Fellow Members:

The abstracts are all in and the Program Committee is reviewing and organizing them into a coherent program that will form the basis of what is likely to be one of the best Annual Meetings ever. As you know, it will be held at the Atlanta Hilton & Towers, Atlanta, Georgia, February 27–March 3, 1989. As I noted in my last letter in this space, a top-notch program is planned.

Council had a busy meeting September 8 and 9, 1988 and a number of noteworthy accomplishments can be cited. Perhaps the most important of these is the authorization of two new Specialty Sections, one on Risk Assessment and the other on Molecular Biology. The objectives of the Specialty Section on Risk Assessment are to 1) promote the credible application of toxicological principles into the risk assessment process; 2) serve as a focal point for interaction of members of the Society of Toxicology interested in risk assessment; 3) conduct programs and educational activities that emphasize the latest developments and issues in risk assessment and; 4) relate these developments to the activities of the Society of Toxicology and stimulate new growth in risk assessment as it relates to the science of toxicology. The objectives of the Specialty Section on Molecular Biology are to 1) serve as a focal point for interaction of members to the Society of Toxicology interested in molecular biology; 2) conduct programs and educational activities that emphasize the latest developments in molecular biology and; 3) relate these developments to the activities of the Society of Toxicology and stimulate growth in molecular biology as it relates to the science of toxicology. The addition of these new Specialty Sections is timely and both will add to the Society's presence in these disciplines. SOT members can join the Specialty Sections via the dues renewal form mailed in November.

Thanks to a communication from the Environmental Mutagen Society, the Society of Toxicology Council learned of an initiative, established jointly, on the part of the American Heart Association, the American Lung Association and the American Cancer Society to inaugurate a major anti-smoking campaign "The Smoke Free Class of 2000." The campaign refers to the goal of having children entering the first grade in September 1988, and who will be graduating high school in the year 2000, be the first to be smoke free. The Surgeon General has called for a smoke-free society by the year 2000. Council lends the support of the Society of Toxicology in this important endeavor.

As we would expect, all of the Society's committees are at work on their assigned programs. Notable activities include an initiative on the part of the Regulatory Affairs and Legislative Assistance Committee to develop a list of issues that serve as the basis for the development of position papers that the Society may issue. In this endeavor, the Committee will seek to involve the various Specialty Sections. If you have some important issues in mind that should be brought to the attention of this Committee, please do not hesitate to do so.

The Public Communications Committee and the Education Committee continue to work hard on their objectives for this year that will benefit our members, student members and the public. Among the more exciting activities that have been undertaken are those that attempt to find ways to introduce the concepts of toxicology in public school education. A number of other novel and interesting ideas are being explored. Among these are the preparation of articles for lay readers that deal with familiar matters in toxicology such as those related to alcohol use and abuse. I am sure we will be seeing more of this in the near future.

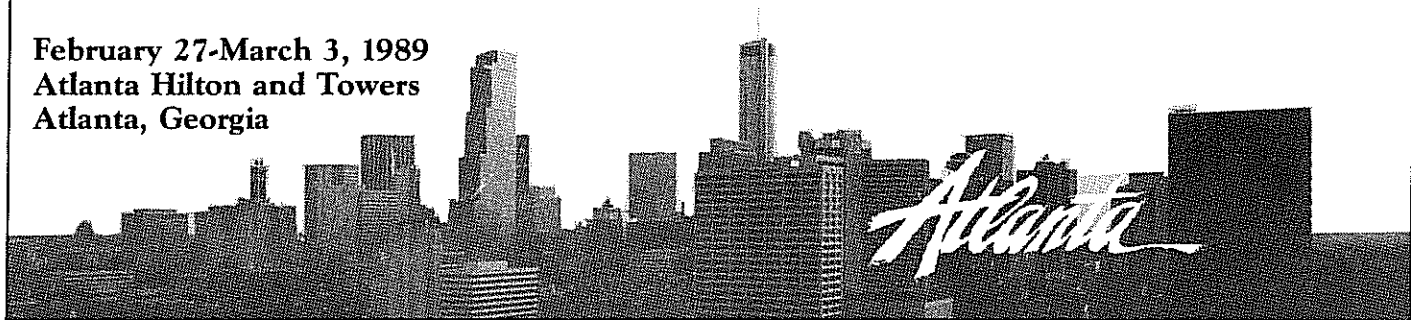
A final reminder concerns the upcoming Fifth International Congress of Toxicology. This important Congress, organized and sponsored by the International Union of Toxicology, will be held in July 16–21, 1989 in Brighton, England. By now you should be making your plans to attend this meeting. Recall that this is an event occurring every three years to promote an exchange of information in toxicology at the international level. Your participation is invited and encouraged. I assure you that there will be an exciting program arranged by the local organizing committee, The British Toxicology Society.

Best wishes,

James P. Miller

1989 SOCIETY OF TOXICOLOGY ANNUAL MEETING OUTLOOK

February 27-March 3, 1989
 Atlanta Hilton and Towers
 Atlanta, Georgia



General Platform Session: "Frontiers in Toxicology"

To acknowledge excellence in toxicology research, the SOT Program Committee has planned a General Session for the 1989 Annual Meeting in Atlanta. The session, "Frontiers in Toxicology," scheduled for Wednesday afternoon, March 1, will highlight platform presentations of forefront, top-quality research, selected by the Program Committee from submitted abstracts.

All meeting registrants should plan to attend this session. The session will be chaired by **Drs. Roger O. McClellan and Curtis D. Klaassen**, and will be composed of up to ten presentations of 15 minutes duration with five minutes discussion for each.

The Program Committee intends that it be a special honor to have been selected for this session and that those selected should pay exceptional attention to the presentation of the substance and the slides used in the presentation.

A space is provided on the abstract form should you not desire your abstract to be considered for presentation in the General Session. Your abstract will be considered for submission unless you specifically indicate that it should not.

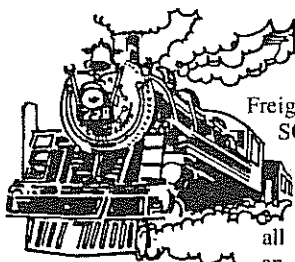
Poster/Discussion Sessions

Poster/Discussion Sessions, which have been popular over the past two years, will be held once again. Abstracts will be selected by the Program Committee for presentation in these sessions and grouped into suitable topic areas.

Annual Meeting Banquet

All meeting registrants may sponsor and prepay for tables of 10 at the Annual Meeting Banquet and Awards Presentation held Thursday evening, March 2. Registrants who purchase individual seats either in advance or at registration may choose their seating arrangements prior to the banquet. Requests will be honored on a first come, first served basis.

A Night at the Old Georgia Freight Depot



On Tuesday, February 28, the Society of Toxicology will sponsor a Southern Bar-B-Que at the Georgia Freight Depot, Atlanta's oldest structure. SOT guests will be taken by bus to the Depot, which is just minutes away from the Atlanta Hilton. You will be greeted by a Dixieland Band playing all the favorites of yesteryear, and served an all-you-can-eat Southern Bar-B-Que

Dinner. Further information will be provided in the preliminary program.

SOT Accepts Visa and MasterCard

Members will be pleased to learn that the Society of Toxicology now accepts Visa and MasterCard payments for Annual Meeting registration, payment of annual dues, and other Society expenses. Using your credit card is convenient and efficient. International members also avoid the problems of converting funds to U.S. dollars.

Please remember to complete the appropriate form (e.g., registration or dues renewal) and return it to headquarters to ensure proper credit.

Guest Hospitality Center and Program

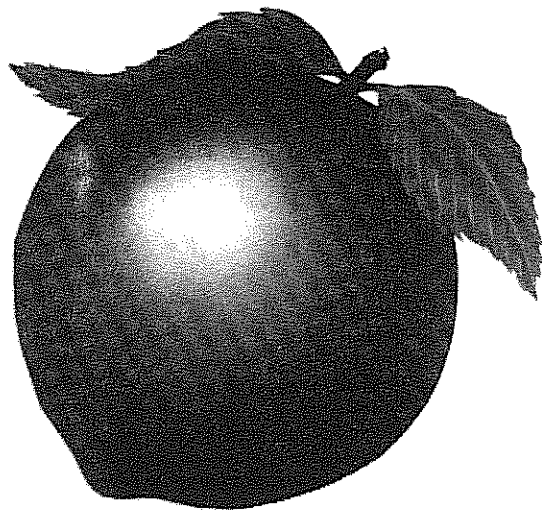
Guests must be registered for the Annual Meeting to have access to the Hospitality Center and to be eligible for the discounted tour rates. Guests can register by using the Annual Meeting registration form.

A special Guest Program has been planned for this meeting. The Hospitality Center will be open daily beginning Sunday, February 26 during the following hours:

| | | |
|----------------------|-------|---------------------|
| Sunday, February 26 | | 4:00 p.m.—8:00 p.m. |
| Monday, February 27 | | 8:00 a.m.—5:00 p.m. |
| Tuesday, February 28 | | 8:00 a.m.—5:00 p.m. |
| Wednesday, March 1 | | 8:00 a.m.—5:00 p.m. |
| Thursday, March 2 | | 8:00 a.m.—5:00 p.m. |

The Center will be staffed Sunday through Wednesday with a representative from Guidelines Atlanta, Inc. who can provide you with information on the city, register you for the tours offered through the Society, or distribute tour tickets purchased in advance of the meeting.

The Guest Program will be mailed with the Preliminary Program in early December.



SOT 1989 Annual Meeting Symposia

Participants at the 1989 Society of Toxicology Annual Meeting will want to reserve adequate time to attend Annual Meeting Symposia. An informative and diverse range of topics will be covered by this year's symposia. 1989 Annual Meeting Symposia begin on Tuesday, February 28 and run through Friday morning, March 3.

Lung Cancer Risk of Exposure to Radon

A.V. Nero; B. Stewart; C.H. Hobbs; J. Samet; and R.F. Henderson, Chairperson

The symposium will cover four major areas: 1) the potential for exposure to radon—in the environment, indoors in homes and offices, and in underground mines; 2) the factors affecting internal dosimetry from exposure to radon, including deposition of radon daughter particles and the alpha radiation dose to critical cells; 3) information known from animal studies in which exposures have been to radon or to radon and cigarette smoke; and 4) epidemiological studies in underground uranium miners. In the latter area, the interaction between cigarette smoking and radon daughter exposure in lung cancer production in the miners will be described. Finally, approaches to assessing the increased risk for lung cancer from inhalation of radon atmospheres will be discussed.

Neurotoxicant-Induced Alterations in Cellular Interactions

K. Reuhl; R.B. Mailman; L.G. Costa; S. Bondy; and D.A. Fox, Chairperson

This symposium will address the toxicological consequences following the disruption of cellular and molecular interactions in the nervous system by known neurotoxicants. The participants will discuss the use of state-of-the-art techniques in molecular biology, biochemistry, and histology in answering these neurotoxicological problems. Discussions will focus on: neuronal and neuro-glia cellular adhesion molecules as they relate to development and maintenance of brain cytoarchitecture following toxicant insult; the susceptibility of different stages of brain development to toxicant insult, particularly migration; primary and secondary effects of drugs and toxicants on receptor-ligand interaction utilizing the dopamine receptor as a model, with emphasis on functional changes occurring in the absence of quantitative changes in the number of receptors. Also addressed will be changes in phosphoinositide metabolism following activation of several different classes of receptors by known neurotoxicants, with specific attention on the role of protein kinase C and inositol in nervous system toxicity; and the role of intracellular free ionic calcium as a mediator of toxic damage in the central nervous system, with several regulatory sites of action where calcium may mediate toxic damage being discussed.

Mechanisms of Lung Injury by Systemically Administered Chemicals

G.S. Yost, T.L. McLemore; and A.R. Buckpitt and G.S. Yost, Chairpersons

A growing list of xenobiotics cause organ-selective damage to pulmonary tissues in laboratory animals and man after systemic exposures. A significant number of these compounds are not toxic *per se* but must be metabolized to electrophilic intermediates that cause selective destruction of pulmonary cells. This symposium will address the mechanisms of bioactivation and toxicities of several pneumotoxins to endothelial and epithelial cells from laboratory animals, and to normal and neoplastic lung cells from humans. Methods of evaluation of the chemical and biochemical mechanisms of organ and cell toxicities

include the use of whole animals, explants, isolated cells, cellular fractions and purified cytochrome P-450's. The importance of factors such as pathological progression of injury, detoxication pathways, cellular or organ-selective distribution of reactive intermediates, and P-450 isozyme selectivity for bioactivation will be presented to explain the selectivities of these compounds for lung damage.

Molecular Biology Applications to Toxicology

L. Pohl; F. Gonzalez; D. Liggett; and R. Billings and S. Bigelow, Chairpersons

This symposium will provide an overview of topics that will illustrate how modern techniques of molecular biology can be used to solve toxicological problems. The symposium is intended to complement the Continuing Education course on Concepts in Molecular Biology, which will provide the framework of basic knowledge of the technology.

The symposium will cover a diverse group of topics including identification of protein adducts, cloning and expression of cytochrome P450 genes, and uses of transgenic animals.

Pulmonary Immunotoxicology: Species Comparisons

R.D. Irons; G.R. Bureson; D.E. Bice; P. Bromberg; and M.H. Karol and J.A. Graham, Chairpersons

The goal of the symposium is to summarize the state-of-the-art of lung immunotoxicology as related to risk assessment. The pulmonary immune system is an increasing focus of attention as its susceptibility to inhaled chemicals becomes more recognized. This has resulted in a relatively rapid pace of research advancements.

By focusing on recently discovered interspecies similarities and differences of the major limbs of the pulmonary immune system, this symposium will consolidate current knowledge that will ultimately serve as the foundation for species-to-species extrapolation of lung immunotoxicology, an essential factor in understanding human health risk based on animal studies. Key aspects of this research area will be presented. Both structural and functional elements of the pulmonary immune system, with and without chemical challenges, will be presented with a view towards interspecies comparisons. Functional elements addressed include humoral and cell-mediated immunity; defensive (i.e., anti-microbial and anti-tumor) responses and injurious responses (i.e., allergy, inflammation) are also included. Recent human data will be highlighted. The closing presentation will seek to integrate the state-of-the-art of lung immunotoxicology from the perspective of human health risk assessment.

Alternate Models in Immunotoxicology

P. Haley; J.H. Exon; T.J. Hayes; J.C. Bloom; and C.D. Koller and G.M. Henningsen, Chairpersons

The objectives of this symposium are to present the most current knowledge and data pertaining to immunotoxicity testing which is being performed in species other than the mouse models. Attention to develop and validate animal models for use in testing for toxicity to organs and cells of the immune system has been largely focused on murine models. An extensive summary of much of that work has been published and presented in a Continuing Education Course at the 1988 SOT meeting in Dallas. Initial studies in that species were logical because of the extensive use of the mouse in immunologic research and the baseline data available for genetics and immunologic responses. However, other species such as the rat, dog and primate are more commonly used in conventional descriptive toxicity testing. Therefore, it is desirable to also utilize these species in immunotoxicity testing to facilitate comparisons of all data from the same species. An objective of this symposium is to present the current status of development and validation of assays in rat, dog and primate models

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Continuing Education Courses

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second session will concentrate on methodologies and strategies for gene cloning. This session will emphasize the rationale underlying current cloning approaches and focus on the importance of gene manipulation to the study of protein function. The third session will cover molecular approaches for the study of mutagenesis using the well characterized bacterial gene, hypoxanthine phosphoribosyl transferase (HPRT), as a model. The course will conclude with a session including basic concepts of the molecular biology of oncogenes and anti-oncogenes. The emphasis of this session will be on principles and will focus on the interaction of these important growth regulatory genes as determinants of transformation susceptibility.

Regulatory Toxicology

R.W. Hart; J. Martonik; J.A. Moore; L.A. Dehins; and C.M. Schiller, Chairperson

This course provides an introduction and overview for this particular area of toxicology which is a unique blend of science, toxicology, law and public policy. An overview of each agency organization, process, jurisdiction and responsibility will be presented as well as current programs, recent projects and proposed rules. Specific examples will be utilized to illustrate the application of toxicology principles in regulatory decision making in each agency.

Statistics for Toxicologists

S.C. Gad; A. Roth; C.S. Weil; and A.K. Thakur

This course will focus on the practical aspects of statistics as utilized by toxicologists. The full range of standard techniques and approaches to experimental design, analysis, modeling and presentation of data will be presented in a nonmathematical manner, along with considerations of their limitations and advantages. The daily application of these methods in toxicology studies will be explicitly addressed.

The newer techniques of trend analysis as applied to toxicology will be presented, along with practical application to the full range of *in vivo* toxicology studies. Finally, low dose extrapolation models and techniques for carcinogenesis studies will be overviewed and characterized.

Specialty Section News

Inhalation Specialty Section

The Inhalation Specialty Section (ISS) will present three awards at the Annual Meeting. They are: Paper of the Year, New Investigator, and Achievement Awards. Detailed descriptions are provided below. All nominations should be mailed by November 30, 1988 to: **Judith A. Graham, Ph.D., D.ATS**, Chairperson, ISS Awards Committee, U.S. Environmental Protection Agency, Mail Drop 52, Research Triangle Park, NC 27711.

Paper of the Year Award:

An engraved plaque will be awarded for the best paper on inhalation toxicology published by Toxicology and Applied Pharmacology or Fundamental and Applied Toxicology from July 1, 1987 to June 30, 1988. Nominations should refer to the full citation of the paper and discuss the value of the research to the field of inhalation toxicology and other additional qualities that make the paper outstanding.

Achievement Award:

An engraved plaque will be awarded to a senior investigator whose body of work represents an outstanding achievement in inhalation toxicology. Nominations should include the C.V. of the nominee and a discussion of how the nominee's achievements have advanced the

state-of-the-art of inhalation toxicology. Supporting nominations (without a C.V.) are not required, but are welcome.

New Investigator Award:

An engraved plaque and a check for \$500 will be awarded to a new investigator who is senior author of an outstanding paper on inhalation toxicology published by any peer-reviewed journal from July 1, 1987 to June 30, 1988. A new investigator is defined as a person who was a graduate student or a postdoctoral fellow while conducting the research proposed for award. The nomination must include a letter from the institution or research mentor verifying that this criterion was met. Nominations should also refer to the full citation of the paper; discuss the value of the research to the field of inhalation toxicology, other additional qualities that make the paper outstanding; and the contributions of the new investigator to the research; and include one copy of the paper.

Neurotoxicology Specialty Section

The Neurotoxicology Specialty Section (NSS) of the Society of Toxicology is proud to announce the Eighth Annual Graduate Student Awards for Meritorious Research in Neurotoxicology. The awards will be presented at the Neurotoxicology Specialty Section Business Meeting at the 28th Annual Meeting of the Society of Toxicology in Atlanta, GA on February 28 to March 3, 1989.

Guidelines for consideration as a candidate for the awards are:

1. An abstract must be submitted to the 1989 Annual SOT Meeting with the graduate student as the first and presenting author. The abstract must be signed by the graduate student and his/her sponsoring SOT member. The abstract can only be submitted to the NSS for award consideration.
2. A copy of the abstract and a letter from the student's graduate advisor stating that the abstract is to be considered for this award must be sent to **Dr. Donald A. Fox**, University of Houston, College of Optometry, 4901 Calhoun, Houston, TX 77204-6052 by November 1, 1988. Two letters recommending the graduate student and the research project must accompany the abstract: one from the student's advisor or sponsor and the other from the department chairperson. Only three abstracts from a department or graduate program may be submitted.
3. The graduate student may be sponsored for this award by any Regular Member of SOT.

The abstracts and recommendations will be reviewed by a committee. Finalists will be selected by December 1 and asked to submit a 1,000-1,200 word paper to **Dr. Donald A. Fox** by January 9, 1989 describing in detail the research outlined in the abstract. Instructions for preparing and submitting these will be given. Awards will be given to the first (\$500), second (\$300) and third (\$200) places.

Any questions concerning the Graduate Student Awards for Meritorious Research in Neurotoxicology should be forwarded to Dr. Donald A. Fox at (713) 749-4103.

Metals Specialty Section

The Metals Specialty Section will present two awards at the upcoming Society of Toxicology Annual Meeting in February of 1989 for research excellence by graduate students in the area of metals toxicology. The awards will be based on quality of research as evidenced by the work submitted in the form of an abstract to be presented at the annual meeting, and will include a cash stipend of \$500. Participants must be the first author of the abstract which must describe research performed while a student. Qualified applicants should send their name, address, abstract and a letter of support from a full member of

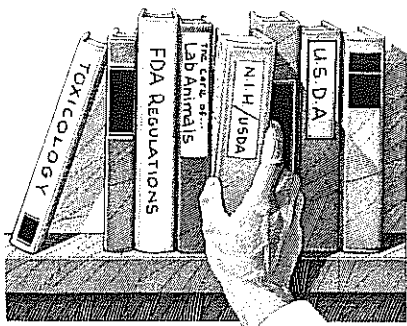
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Metals Specialty Section

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the Society of Toxicology to the address listed below. The letter of support should state that the work was done while a student and that this is the only specialty section award sought with this work. Deadline for submission is January 1, 1989. An awards committee will then select the winners who will be announced at the 1989 specialty section meeting in Atlanta.

Send abstracts to: **Dr. Michael P. Waalkes**, Secretary/Treasurer Metals Specialty Section, National Cancer Institute—FCRF, Building 538, Room 205E, Frederick MD 21701-1013.



Publications of Interest

Better Health and the Reverse Effect, Walter A. Heiby, \$3.95, Mediscience Publishers, PO Box 256, Deerfield, IL 60015. 9/10

Chemical and Physical Behavior of Human Hair, 2nd ed., Springer-Verlag New York, Inc. \$62.50, P.O. Box 2485, Secaucus, NJ 07096-2491.

Chemical Hazard Communication Guidebook. OSHA, EPA, and DOT Requirements, 0-88-57-990-O/B8120. \$75.00, Executive Enterprises Publications Co., 22 West 21st St, New York, NY 10010-6904.

Elements of Toxicology and Chemical Risk Assessment, Revised Edition, \$40.00, Environ Corp., 1000 Potomac Street, NW, Washington, DC 20007, phone orders, (202) 337-4444. 9/10

Emergency Planning and Community Right-to-Know Law, a New Videotape on Section 313, ¾ inch: \$30.75. Beta I or II: \$22.95. VHS: \$22.00. Color Film Corporation, Video Division, 770 Connecticut Avenue, Norwalk, CT 06854, (800) 882-1120.

Environmental Biotechnology: Reducing Risks from Environmental Chemicals through Biotechnology, Gilbert S. Omenn, ed., \$88.50, Plenum Publishing Corp., 233 Spring Street, New York, NY 10013-1578. 9/10

Field Research Guidelines: Impact on Animal Care and Use Committees, F. Barbara Orlans, Ph.D., ed., \$5.00, Scientists Center for Animal Welfare, 4805 St. Elmo, Bethesda, MD 20814, (301) 654-6390. 9/10

Good Laboratory Practices: An Agrochemical Perspective, U.S. & Canada \$39.95, Export \$47.95. American Chemical Society, Dept. 390, 1155 Sixteenth St., NW, Washington, DC 20036, (202) 872-4600.

Guide to State Environmental Programs, BNA Books, \$40.00. BNA Books Distribution Center, 300 Raritan Center Parkway, C.N. 94, Edison, NY 09919, (please include your state's sales tax and shipping charges of \$3.00 for the first book and \$1.00 for additional copies), telephone orders call (201) 225-1900.

Handbook of Drugs for Tropical Parasitic Infections, 085066-404-7. Taylor and Francis, 242 Cherry St., Philadelphia, PA 19106-1906, 1-800-821-8312.

Handbook of Hazardous Waste Management For Small Generators, \$39.95, Russell H. Phifer and William R. McTigue, Jr., Lewis Pub-

lishers Inc., 121 South Main St., P.O. Drawer 519, Chelsea, MI 48118, phone orders: 1-800-525-7894.

Health United States 1987, \$13.00 (checks payable to Superintendent of Documents), U.S. Government Printing Office, Dept. SSMC Washington, DC 20402.

ICLAS Guidelines On the Selection and Formulation of Diets for Animals in Biomedical Research, Maries E. Coates, ed., The Institute of Biology, 20 Queensberry Place, London, UK. 9/10

Monographs on the Evaluation of Carcinogenic Risks to Humans, International Agency for Research on Cancer, Supplement #7, \$41.00, WHO Publications Center, 49 Sheridan Ave., Albany, NY 12210, (518) 436-9686.

New Developments in Biotechnology: Field Testing Engineering Organisms, \$7.50 (checks payable to the Superintendent of Documents), U.S. Government Printing Office, Dept. SSMC, Washington, DC 20402.

Occupational Safety and Health Law, \$85.00, BNA Books Distribution Center, 300 Raritan Center Parkway, C.N. 94, Edison, NJ 08818, phone orders (201) 225-1900.

Pesticide Metabolism: Extrapolation from Animals to Man, J. Miyamoto, \$22.50, Blackwell Scientific Publications, Inc., 667 Lytton Ave., Palo Alto, CA 94301.

Quality Assurance of Chemical Measurement. 0-87371-09705, John Keenan Taylor, Lewis Publishers, Inc., 121 South Main St., P.O. Drawer 519, Chelsea, MI 48118.

A Question of Safety, On the Need for Laboratory Animals in Product Safety Testing, Federal I.I. #04-2746997, VHS or Beta: \$35.00. ¾ U-matic: \$40.00. The Foundation for Biomedical Research, 818 Connecticut Avenue, NW, Suite 303, Washington, DC 20006.

The Reverse Effect: How Vitamins and Minerals Promote Health and CAUSE Disease, Walter A. Heiby, \$59.50, Mediscience Publishers, PO Box 256, Deerfield, IL 60015. 9/10

Selectivity and Molecular Mechanisms of Toxicity, F. DeMatteis-E. Lock, \$65.00. MacMillan Publishing, Co., 866 3rd Ave. New York, NY 10022.

Synthetic Organic Chemicals—United States Production and Sales, 1986, \$16.00, U.S. Government Printing Office, Dept. SSMC, Washington, DC 20402. 9/10

Toxicology and Industrial Medicine Listing, for complete listing of titles contact, PSG Publishing Co., Inc., 545 Great Road, PO Box 6, Littleton, MA 01460. 9/10

The World of Waste, \$9.50, Tri-State League of Women Voters, Rochambeau School, 228 Fisher Avenue, White Plains, NY 10606. 9/10

Order any of the following six publications from Alan R. Liss, Inc., 41 East 11th Street, New York, NY 10003. Phone orders at (212) 475-7700. 9/10

Aneuploidy, Part A: Incidence and Etiology, Aneuploidy, Part B: Induction and Test Systems, Baldev K. Vig and Avery A. Sandberg, eds., Pt. A \$140.00, Pt. B \$160.00.

The Malformed Fetus and Stillbirth: A Diagnostic Approach: R.M. winter, S.A.S. Knowles, F.R. Beiber, and M. Baraitser, \$115.50.

The Journal of Trace Elements in Experimental Medicine, Ananda S. Prasad, ed., four issues \$120.00.

Teratology, The International Journal of Abnormal Development, 12 issues \$432.00.

Toxic Shock Syndrome and the Other Staphyococcal Toxicoses, Hans-Christian Mittag, \$49.50.

Chirality: The Pharmacological, Biological, and Chemical Consequences of Molecular Asymmetry, 4 issues \$120.00.

Coming Events

Sixth Medic Asia, November 9–12, 1988, Singapore, Contact Interfam Trade Fairs Pte Ltd., 510 Thompson Road #10-03, SLF Complex Singapore 1129, (065) 2599688.

Dioxins Toxicology—Current Research, sponsored by the Mid-Atlantic Chapter, Society of Toxicology, November 10, 1988, Princeton, NJ. For further details contact: S.L. Longacre, Ph.D. Toxicology Dept., Rohm & Hass, 727 Norristown Road, Spring House, PA 19477, R.S. Waritz, Ph.D., Medical Dept. Hercules Inc., Hercules Plaza, Wilmington, DE 19894.

Society of Environmental Toxicology and Chemistry, November 13–17, 1988, Crystal City Hyatt Regency. Contact Brooke Reuther, SETAC, 1133 15th Street, NW, Suite 1000, Washington, DC 20005, (202) 785-2778.

"Biology, Toxicology, and Carcinogenesis of Respiratory Epithelium" is the title of a meeting sponsored by the Inhalation Toxicology Research Institute, November 14–16, 1988, in Albuquerque, NM. Contact: Dr. David G. Thomassen, Lovelace Inhalation Toxicology Research Institute, P.O. Box 5890, Albuquerque, NM 87185, (505) 844-2404.

The 21st Annual Symposium of the Society of Toxicology of Canada, November 30 to December 1, 1988, will be held at the Delta Hotel in Montreal. For more information contact: Gordan Krip, Ph.D., Executive Director, Society of Toxicology of Canada, C.P./P.O. Box 517, Beaconsfield, Quebec, H9W 5V1, Canada.

Field and Laboratory Sampling of Food, Drugs, and Agricultural Commodities short course, November 30–December 1, 1988, Arlington, VA. Contact Association of Official Analytical Chemists, Education Department, 1111 North 19th Street, Suite 210, Arlington, VA 22209, (703) 522-3032.

PHS Policy on the Humane Care and Use of Laboratory Animals, a part of The Johns Hopkins Medical Institutions continuing education program, December 1–2, 1988, sponsored by the National Institutes of Health and The Johns Hopkins Medical Institutions. Contact Program Coordinator, Office of Continuing Education, The Johns Hopkins University School of Medicine, 720 Rutland Avenue, Turner 22, Baltimore, MD 21205, (301) 955-2959.

2nd International Mid-Winter Conference, December 14–17, 1988, Seville, Spain, sponsored by the European Society of Toxicology. Contact Secretariat, Northumberland House, 44 Northumberland Road, Dublin 4, Ireland, Tel: nat, 01-68 82 44; int, 353-1-68 82 44; fax, 68 67 69.

4th International Symposium on the Biological Oxidation of Nitrogen in Organic Molecules, March 17–21, 1989, Munich. Contact Prof. P. Hlavica, Walther-Straub-Institute of Pharmacology and Toxicology, Nussbaumstrasse 26, D-8000, FRG, Tel: 089-5 38 41 Ext 219.

Member News

Dr. Harry W. Hays, a founder of the Society, recently had a stroke and is recovering well, although his wife passed away in mid-August. Cards and letters would be appreciated and can be sent to Dr. Hays % Michael Manor, 741 Chambersburg Road, Gettysburg, PA 17325.

Dr. Sidney J. Stohs received the Burlington Teacher-Scholar Achievement Award for Outstanding Teaching and Research at the University of Nebraska Medical Center. Previously Dr. Stohs received the American Pharmaceutical Association Foundation Academy of Pharmaceutical Sciences Research Achievement Award in Pharmacodynamics, and also the University of Nebraska College of Pharmacy Alumni Outstanding Research Award in 1985.

Spring Symposium "Oncones and Onco-Suppressor Genes," March 30–April 1, 1989, Athens, Greece. Contact Prof. D.A. Spancidos, National Hellenic Research Foundation, 48, Vass. Constantinou Ave., GR-11635, Tel: 30-1-7229811.

In Vitro Toxicology—New Directions—a part of The Johns Hopkins Medical Institutions continuing education program, April 4–5, 1989 sponsored by The Johns Hopkins Center for Alternatives to Animal Testing. Contact Program Coordinator, Office of Continuing Education, Turner 22, 720 Rutland Avenue, Baltimore, MD 21205, (301) 955-2959.

8th International Symposium, A Modern Approach to Toxicologic Pathology of the Nervous System, May 21–25, 1989, The Hyatt Regency, Cincinnati, OH. Contact Nancy Streett, Planning Unlimited, PO Box 220, New London, PA 19360, (215) 869-0702. Deadline for abstracts March 15, 1989.

The Second Meeting of the International Neurotoxicology Association (INA), May 22–26, 1989, will be held in Sitges, Barcelona, Spain. For more information on the meeting, please contact: Dr. E. Rodriguez Farre, Secretariat II INA Meeting, Dept. of Pharmacology and Toxicology CSIC, Jorge Girona Salgado, 18–26, BARCELONA, E-08034, Spain.

Association for Behavior Analysis, 15th Annual Convention, May 24–28, 1989, Hyatt-Regency Hotel, Milwaukee, Wisconsin. Submissions are now being accepted for review; deadline for receipt is December 7, 1988. Contact ABA, Western Michigan University, 258 Wood Hall, Kalamazoo, MI 49008-5052, (616) 387-4494.

Fifth International Conference on Environmental Mutagens, July 10–15, 1989, Cleveland, OH, Contact Fifth ICEM 1989, Department of Environmental Health Sciences, School of Medicine, Case Western Reserve University, 2119 Abington Road, Cleveland, OH 44106, (216) 368-6213.

Fifth International Congress of Toxicology, July 16–21, 1989, Brighton, United Kingdom. Contact IUTOX '89, Congress House, 65 West Drive, Sutton, Surrey SM27NB, UK.

Third International Symposium on Poisonous Plants, July 23–29, 1989, The Conference and Institute Division of Utah State University, Logan, UT. Contact Dr. Lynn F. James, USDA-ARS Poisonous Plant Research Laboratory, 1150 East 1400 North, Logan, UT 84321, (801) 752-2941.



Watching Washington

Health and Safety Shapes Up as Next Major Battleground for Scientific Communities

Animal rights activists, in their continuing efforts against the use of animals in medical research, have adopted a new tactic that requires the attention of medical researchers. A number of endeavors in the San Francisco Bay area have been blocked using the tactic of attacking organizations on health and safety issues instead of animal issues. New alliances forged between radical environmentalists and the radical animal rights movement in the Bay area have shifted attention onto health and safety issues in attempts to block research.

Thomas E. Hamm, Jr., Director of Stanford University's School of Medicine, Division of Laboratory Animal Medicine, believes it is absolutely essential "for every facility to conduct its animal work so that it could withstand review during an unannounced visit," not only on the grounds of animal treatment, but on grounds of chemical toxicity as well.

Pet Theft Act Passes Senate

A modified version of Senator Wendell Ford's (D-KY) Pet Theft Act passed the full Senate on August 10. The unrevised version of S. 2353 was acted on just before midnight by unrecorded voice vote. As approved, the bill is identical to the original Pet Theft Act except for the addition of private shelters and those operated under contract to the list of allowable sources of random source dogs and cats for USDA Class B dealers. This will have the direct effect of reducing the numbers of non-purpose bred animals available for research and raising the costs of research. The version of the Senate bill has been referred to the House Committee on Agriculture.

New International Student Activist Group Formed

Formed in May 1988 at the first European conference on the use of animals in education, the International Student Group concerned about Animals in Higher Education, calls for: (1) the acceptance of students' rights to conscientiously object to animal use without prejudicing their course assessment, (2) the promotion of alternatives to animal use, (3) the establishment of an inventory of animal use in education to target areas for the development of alternatives and, (4) an extension of the movement to include other European and non-European countries.

Federal Agencies Now Liable for Negligent Approval

By ruling that the FDA could be held liable for the negligent approval of a drug, the Supreme Court has potentially opened the floodgates for more government liability suits. Justice Thurgood Marshall stated the Court's ruling to "reject the government's argument that the law precludes liability for any and all acts arising out of the regulatory programs of federal agencies." Industry officials predict slower product approvals as federal agencies seek protection from future liability suits.

Missing Journals?

Academic Press is mailing back issues to members who did not receive recent issues of FAAT and TAP. If you are still missing issues, please contact:

Eleanor Berner
Academic Press, Inc.
1250 Sixth Avenue
San Diego, CA 92101
(619) 699-6567

SOT/ACS Form Joint Educational Effort

The Public School Curriculum Sub Committee (PSCS) of the Public Communication Committee announces a joint effort with the American Chemical Society (ACS) to enhance education in toxicology in grades K-12. This landmark event marks the first efforts of the SOT to influence educational thinking about toxicology in the formative years of elementary and high school. It has the full support of SOT Council.

PSCS members, **Jon Seymour** and **Tom Miya**, accompanied by SOT Executive Secretary Joan Walsh Cassidy met with Sylvia Ware, head of the ACS Education Division, and several members of her staff. A common interest in providing a better education on the basics in chemical toxicology was quickly established. The ACS invited the SOT to submit articles for publication in a wide variety of magazines published by ACS. These magazines are oriented toward children in grades K-12. The PSCS is developing plans to survey the membership for interest in generating articles or helping review articles for publication in ACS magazines. Watch for a survey that will be coming in the mail soon.

The PSCS is hoping for a great response of volunteers to help with educating the nation's (and the world's) children in this most important subject area. The PSCS feels that this will be an important opportunity for members concerned with public education to have a significant impact. Even if you can give only an hour a year, your services will be valuable. When you receive the survey, please respond promptly and generously.

Women Toxicologists

In September 1987, President **Jerry Hook** appointed a Task Force to consider the need within the Society for activities focused on specific concerns of women in toxicology. The charge to the Task Force was to gather quantitative information regarding this issue to guide the Society. The Task Force, consisting of **Serrine Lau** and **Meryl Karol**, under the direction of **Anne Wolven-Garrett**, examined the role of women in SOT and activities of women in other scientific societies. In addition, all women SOT members were invited to meet with the Task Force at the 1988 annual meeting. Over 150 women attended (representing more than 50% of the female members of SOT), clearly indicating an interest among our female members in this aspect of SOT.

The women toxicologists expressed a desire to become more active in the governance of SOT and concluded that the best means of accomplishing this goal would be through a survey, which would allow compilation of their interests, accomplishments and goals.

Although undertaking a survey is not possible at this time, Council enthusiastically welcomes the support of women members and their desire for an increased role in SOT. Today, women comprise about 10% of the membership of SOT and 20-30% of the committee membership. With the increasing percentage of women electing careers in toxicology, we expect their participation to increase further.

Each year, Council solicits participation by members in each aspect of Society activity. Everyone is encouraged to volunteer and indicate his/her areas of interest and expertise. In this way the Society benefits from the diversity of talents and experience of our membership.

The Council wishes to thank the Task Force for undertaking the study of this important constituency of our membership. It recognizes the many contributions already received from the women toxicologists and enthusiastically anticipates their further participation.