



Society of Toxicology NEWSLETTER

NOVEMBER/DECEMBER 1987

Placement Service Job Seminar

The Placement Service Committee will sponsor a job seminar, "Career Planning in Toxicology," at the 1988 Annual Meeting, Monday afternoon, Feb. 15, from 4:15-6 p.m. The seminar will cover the following areas:

- Setting Your Career Planning Objectives: Academic-Industry-Government.
- What is the Role of Board Certification?
- Continuing Education in Toxicology.
- The Other Tools of the Trade: Management-Personnel-Finances.

All meeting registrants are welcomed to attend this informative seminar.

Proposed By-Law Amendments

The following are proposed by-law amendments that will be discussed at the SOT Annual Business Meeting, scheduled for Wednesday, February 17, 4:00 pm-5:30 pm during the 1988 SOT Annual Meeting. An official ballot will be circulated to the voting membership following the meeting.

The amendments establish the Awards, Ethics and Animals in Research Committees as Standing Committees of the Society and specify the appointment process and tenure of the members and chairperson.

Article Fourth

Section 10 Awards Committee

There shall be an Awards Committee consisting of five voting members of the Society who hold no elective office. Two members shall be appointed annually by the President for two-year terms. The Immediate Past President will serve as Chair. The Committee shall review all materials received by the Chair and make recommendations to Council prior to the Annual Meeting.

Section 11 Ethics Committee

There shall be an Ethics Committee consisting of five voting members of the Society who hold no elective office. Two members shall be appointed annually for a two-year term by the President. The Immediate Past President will serve as Chair. The Committee shall provide guidelines and recommendations to Council on ethical behavior as embodied in the Code of Ethics.

Section 12 Placement Committee

There shall be a Placement Committee consisting of six voting members of the Society who hold no elective office. The Director and Co-Director will be appointed by the President. Two members shall be appointed annually to serve three year terms. The committee shall serve as a forum for the exchange of information regarding positions available and qualified toxicologists seeking positions.

Sections 10-13 of the current by-laws will become Sections 13-16.

Member News

Joseph F. Borzelleca, PhD, Professor, Department of Pharmacology and Toxicology, received the U.S. Army's Chemical Research, Development, and Engineering Center's Distinguished Service Award in recognition of his five years as Chairman of the Center's Life Sciences Committee. In addition, Dr. Borzelleca has received the following three awards: Virginia Commonwealth University, School of Basic Health Sciences "Outstanding Faculty Member in Teaching, Research and Service," 1987; Distinguished Alumnus Award in recognition of "Outstanding Scientific and Humanitarian Achievement," Thomas Jefferson University, College of Graduate Studies; and "Excellence in Medicine and Community Services Award," National Italian-American Foundation.

Robert L. Dixon, PhD, has been named Vice President, Drug Safety, for the Sterling Research Group (SRG). In addition to his current role as the head of SRG's toxicology function, he will be responsible for worldwide drug metabolism studies.

Wayland J. Hayes Jr., MD, PhD, presented lectures on toxicology in Hangzhou, Nanjing, Changsha, Wuhan, Xi'an, and Beijing, People's Republic of China, and at the Tainjin Municipal Sanitary Epidemiological Center. The lectures were entitled: *The Most Fundamental Problem in Toxicology*, *Some Observations on Toxicology* and *Review of Pesticide Toxicology*.

Roger O. McClellan, DVM, President of the Lovelace Inhalation Toxicology Research Institute and Vice President-Elect of the SOT, has been appointed by Health and Human Services Secretary Otis Bowen to a four-year term on the National Advisory Environmental Health Sciences Council of the National Institutes of Health.

Bernard L. Oser, PhD, formerly President and Director of Food and Drug Research Laboratory, has been named a Fellow by the American Council of Independent Laboratories.

Bradley Wagoner Schwab, PhD, has opened a New Hampshire office for the Connecticut-based consulting firm BCA, which specializes in hazardous waste management and air toxic control strategies.

1988 SOT Annual Meeting

February 15-19, 1988
Loews Anatole Hotel
Dallas, TX

Registration materials have been mailed. If you have not received your packet, please contact the SOT headquarters, 1133 15th St., NW, Washington, DC 20005, (202) 293-5935.

SOT President's Message



Society of Toxicology
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Suite 1000
Washington, DC 20005
(202) 293-5935
FAX (202) 775-9631

MARK YOUR CALENDAR!

1988 SOT ANNUAL MEETING
February 15-19
Loews Anatole Hotel
Dallas, Texas

Deadline for next issues: January 15, 1988
March 15, 1988
May 15, 1988

By the time you receive this copy of the *SOT Newsletter*, all details of the 1988 Annual Meeting will be finalized. The Program Committee and others involved in the planning of this meeting are most enthusiastic about the quality of this year's program. That enthusiasm is contagious. Without question, the scientific quality of our Annual Meeting has been increasing significantly with each year. The program this year looks to be truly exceptional.

A total of 1076 abstracts were received and programmed for this meeting. This includes 280 abstracts that were submitted for the competition for the Tuesday Plenary Session. From these abstracts, 9 were chosen for presentation by the Program Committee. Because of the high quality of abstracts submitted, this was an extremely difficult task. I am confident you will be impressed by the quality of science that will be presented at this session by our colleagues.

In addition to the Plenary Session, there will be 10 Poster/Discussion Sessions. This was such a well received format last year that the Program Committee has decided to expand this type of presentation significantly. These will be then complemented by 28 Poster Sessions and 14 Platform Sessions. The formal scientific sessions will be augmented by the Burroughs Wellcome Lecture, which will be presented by **Fred Guengerich**.

As in past years, we will have a Business Meeting on Wednesday, an Issues Session on Tuesday and a variety of other meetings during the week. An important issue to be discussed at the Business Meeting will be the method of implementation of our new Code of Ethics and ethical behavior. **Marshall Steinberg**, chairperson of the Ethics Committee, will present a plan for the implementation of these new By-Laws that will allow us to conduct our business in a responsible fashion. Marshall will also attend the Issues Session on Tuesday to answer questions relating to these procedures and other related issues.

We are looking forward to all of you attending the banquet on Thursday evening at which we will all honor the recipients of the SOT Recognition Awards.

The Workshop on Toxicology in the '90s will be held January 10-12 in North Carolina under the leadership of **Tom Miya**. A group of 36 members of SOT will gather to define those issues that will influence the practice of toxicology over the next decade. A complete report of this meeting will be made available to all members of the Society after the meeting.

There is good news from the Gordon Conferences. **John Thomas** received a letter from the Director of the Gordon Conferences indicating that the Mechanisms of Toxicology Gordon Conference has been approved for 1989. John will serve as the Chairman and **Bill Berndt** will be the Co-Chairman. John and Bill will work diligently to ensure that this meeting will be of the highest possible caliber; they will develop a program that will be scientifically solid and exciting and will attract a large number of participants. John and Bill, I am sure, would be interested in your suggestions regarding possible items or speakers for the program.

Looking forward to seeing you all in Dallas.

Cheers,

Chapter News continued from page 3

The Pacific Northwest Regional Chapter of the Society of Toxicology, with a membership of 165, held its Fourth annual meeting, Sept. 18-19, 1987, at Fort Worden State Park, near Port Townsend on the shores of Puget Sound. One hundred and ten members participated in the one and a half day meeting, and 32 platform/poster presentations were given. The meeting was initiated with an educational forum on "Recent Advances in Pesticide Toxicology," followed by a marvelous beach side salmon bake which featured a wide selection of Northwest wines. The following day was devoted to scientific presentations. Awards for outstanding student research were presented by chapter president David L. Eaton to Mr. Dennis Dauble from the Pacific Northwest Laboratory, Richland, WA for his work entitled "Increased elimination of dietary 14-C quinoline via branchial pathways in rainbow trout (*Salmo gairdneri*) at high oral dose," and to Ms. Jeanine Bussiere of the University of Idaho, Moscow, ID for her work on "Comparison of *in vitro* and *in vivo* effects of methionine enkephaline on immune function." Both students received checks for \$100.00 for their outstanding work.

Dr. Richard Bull, President-elect of the chapter, is currently planning for the Fifth annual meeting to be held next fall in Moscow, ID.

Annual Meeting Golf Tournament

There will be a golf tournament at the 1988 Annual Meeting on Sunday, February 14. It will be handicapped so anyone may play and have a chance to win. Anyone interested should call Mike Kangiser, (201) 873-6940.

Report on Chemical Toxicity and Aging Available

The National Academy of Sciences Committee report titled *Aging in Today's Environment* has brought together the scientific disciplines of gerontology and toxicology to address the status of and research needs for the impact of the environment on the health of the elderly.

The expanding number of people living to older ages and the persistence of concerns for adverse effects from toxic exposures in the environment causes a need to address the current and future problems unique to the aged population. The diseases and metabolic changes common to the elderly clearly increase their susceptibility to some chemicals in the environment. However, the basic interactions between aging processes and the ability of the body systems to cope with toxic insults are not adequately understood. The challenge to both gerontologists and toxicologists requires an increased joint effort for collaborative research.

A limited number of free copies of the report are available from Dr. Andrew Pope, Board on Environmental Studies and Toxicology, National Research Council, Commission on Life Sciences, 2101 Constitution Ave., Washington, DC 20418. Photocopies will be available for approximately \$15.

FAAT & TAP Fees Increased

The manuscript handling fees for *Fundamental and Applied Toxicology* and *Toxicology and Applied Pharmacology* have been increased to \$50 per manuscript. Proper payment or purchase orders must accompany all manuscripts.

1988 CONTINUING EDUCATION COURSES

Monday, Feb. 15

8:00 a.m.-12:00 noon

1. **RESPIRATORY TRACT TOXICOLOGY BY CLASSES OF AGENTS**

Chairperson: Craig S. Barrow, Ph.D.,
Environmental Sciences Center, PPG
Industries, Inc., Pittsburgh, PA

2. **METHODS IN MALE REPRODUCTIVE TOXICITY: THE EVALUATION OF SPERMATOGENIC IMPAIRMENT**

Chairperson: Harold Zenick, Ph.D., United States
Environmental Protection Agency,
Washington, DC

3. **GENETIC TOXICOLOGY**

Chairperson: David J. Doolittle, Ph.D., R.J.
Reynolds Tobacco Co.,
Winston-Salem, NC

1:30 p.m.-5:30 p.m.

4. **IMMUNOTOXICOLOGY UPDATE**

Chairperson: Peter Thomas, Ph.D., Senior
Immunotoxicologist, IIT Research
Institute, Chicago, IL

5. **GASTROINTESTINAL TOXICOLOGY**

Chairperson: Mark Hite, Sc.D., Wyeth-Ayerst
Research, Paoli, PA

6. **ENDOCRINE TOXICOLOGY**

Chairperson: John A. Thomas, Ph.D.,
Northwestern University,
Chicago, IL

PRE-REGISTRATION ONLY

Call for Papers

World Health Organization Calls for Research Proposals on Aetiology of Toxic Oil Syndrome

The World Health Organization Regional Office for Europe and the Social Security Health Research Fund of Spain are calling for research proposals on the aetiology of toxic oil syndrome, which, to date, has affected approximately 20,000 people and has resulted in approximately 400 deaths.

Research projects will be considered in such areas as:

- search for anomalous compounds in oils possibly related with the pathogenesis of toxic oil syndrome;
- animal toxicity studies of toxic oil syndrome;
- pharmaco/toxico-kinetic studies of proposed aetiological compounds;
- biochemical studies related to toxic oil syndrome;
- clinical and *in vitro* studies of immunological abnormalities related to toxic oil syndrome; and
- clinico-epidemiological studies of the long-term evolution of toxic oil syndrome.

For information, contact: Director, Social Security Health Research Fund, c/Antonio Grilo 10, E-28015 Madrid, Spain; or Director, Environmental Health Service, WHO Regional Office for Europe, Scherfigsvej 8, DK-2100 Copenhagen, Denmark.

American Academy of Dermatology Call for Papers

The American Institute of Dermatology has issued a call for papers for its Sixth Symposium on Cutaneous Toxicity, Sept. 27-28, 1988, at the Mayflower Hotel, Washington, DC.

The focus will be on comedogenicity, photobiology of the skin, percutaneous absorption and cellular receptor sites.

Three copies of proposals/abstracts must be submitted by March 1, 1988.

For information or forms, contact: Thomas G. Pearson, EdD, American Academy of Dermatology, 1567 Maple Ave., P.O. Box 3116, Evanston, IL 60204-3116.

Society of Toxicologic Pathologists Call for Papers

The Seventh International Symposium of the Society of Toxicologic Pathologists will be held June 6-9, 1988, at The Boston Park Plaza Hotel and Towers in Boston, Massachusetts.

The theme for the symposium is Endocrine Toxicologic Pathology. For information contact: Dr. Hugh E. Black, Department of Pathology and Toxicology, Schering Corporation, P.O. Box 32, Lafayette, NJ 07848, telephone: (201) 579-4268 or 429-4069. The deadline for abstracts is March 1, 1988.

Chapter News

The Michigan Regional Chapter of the Society of Toxicology has scheduled its annual Spring Scientific meeting and open poster session for May 20, 1988, with the focus to be on endocrine toxicology. The chapter recently cosponsored, with the University of Michigan Toxicology Program, a symposium on "Toxicology of Blood and Blood Forming Organs" with approximately 100 participants. Featured speakers included Dr. Ernest Beutler, the Scripps Clinic and Research Foundation; Dr. Leon Bruner, the University of Michigan; Dr. Richard Irons, CIIT; Dr. Janver Krehbiel, Michigan State University; and Dr. Ronald Martin, Parke-Davis Pharmaceutical Research Division, Warner-Lambert Company.

The Southeastern Regional Chapter of the Society of Toxicology honored Past President Thomas C. Marshall and founding President Hanspeter R. Witschi with plaques for their efforts on behalf of the chapter at its annual meeting held at Auburn University recently. The meeting, sponsored by the University's Department of Pharmacal Sciences, focused on "Marine and Aquatic Toxicology." Certificates were presented to graduate students presenting papers, and Theresa C. deRojas of the Medical College of Georgia received a certificate and \$50 for the outstanding paper, "2, 5-Hexanedione Affects the Position Sensitivity of De-Efferented Muscle Spindles." Featured symposium speakers included Dr. Edward Ragelis, "Overview of Seafood Toxins;" Dr. Norman J. Doorenbos, "Ciguatera Toxins": A Mystery;" and Dr. John Couch, "Fish as Models for Carcinogenesis."

The Northern California Chapter of the Society of Toxicology held its first annual meeting on Nov. 12, 1987, in Sacramento, presenting a symposium entitled "The Impact of Science on Public Policy: Toxicology and Legislation on Toxics." Approximately 100 attendees heard speakers: Dr. Bruce Jennings, political scientist with the California Senate Office of Research; Assemblyman Lloyd Connelly, co-author of Proposition 65; and Dr. Alex Kelter, Deputy Director of the California Department of Health Services. Dr. Margaret Race of the University of California moderated the ensuing discussion, which included additional panelists, Dr. Robert Peterson, California Department of Food and Agriculture, and Dr. Robert Moolenaar, Dow Chemical Company. The symposium topic was inspired by Dr. John Doull's comment that "toxicologists spend too little time communicating with the consumers of their science."



Dr. Margaret Race of the University of California moderating a session at the Northern California Chapter Meeting.

Watching Washington

Court of Appeals Rules against *De Minimis* Approach for Additives

The U.S. Court of Appeals for the District of Columbia, in a unanimous three-judge decision, has ruled that the Food and Drug Administration (FDA) may not use a *de minimis* policy to clear carcinogenic color additives.

The use of substances found to be carcinogenic are barred under the Delaney Clause of the Food, Drug and Cosmetics Act, but FDA has cleared such substances under a *de minimis* (minimal or trivial risks) policy.

The decision was given in the case of color additives Orange Number 17 and Red Number 19, but could affect a number of other colors including Red Number 3, a widely used food additive for which the FDA has extended the provisional listing until May 1988.

The court repeatedly suggested congressional action to resolve the problem.

The court ruling noted that the judges "hold that the agency's (FDA) *de minimis* interpretation of the Delaney Clause of the Color Additive Amendment is contrary to law."

The ruling is expected to have broader implications since FDA has delayed a final decision on its sensitivity of method regulation for animal drugs and the Environmental Protection Agency has indicated it is looking at a *de minimis* approach for handling residues of carcinogenic pesticides occurring in processed food and feed products.

House Panel Marking Up Legislation on Product Safety, Liability

At press time, the House Energy and Commerce Committee was marking up legislation designed to improve the Consumer Product Safety Commission's regulation of dangerous products and a bill to establish uniform product liability standards for awarding punitive damages (the latter does not establish caps on damage awards or legal fees).

Committee Chairman John Dingle (D-MI) has predicted full committee markup early in 1988.

California's Proposition 65 Policy Eyed by Other States

California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) is being studied closely by a number of other states while the controversy continues on implementation.

The law prohibits the release or discharge of chemicals known to cause cancer or reproductive toxicity into waters or into land where the chemicals might seep into groundwater. The law also imposes labeling requirements.

Proponents of federal preemption of the law received a setback in October, when a Presidential Order was released that stipulated that federal agencies should defer to states whenever possible instead of preempting state regulations.

States studying similar legislation include Oregon, Louisiana, New York, Massachusetts and Missouri.

FDA Amends Good Laboratory Practice Rules

The FDA has issued a final rule amending the regulations on good laboratory practice (GLP) for nonclinical laboratory studies with significant changes in the provisions regarding quality assurance, protocol preparation, test and control article characterization, and retention of specimens and samples.

The final rule was published in the *Federal Register*, Sept. 4, 1987.

Pet Protection Act Has 100 Cosponsors

The Pet Protection Act of 1987 (H.R. 778), which would bar the use of pound animals by a grantee of National Institutes of Health funds, now has 100 cosponsors.

Opponents of the legislation are asked to write their Congressperson and request him/her not to sponsor the bill or withdraw his/her name if already a cosponsor.

Conference Scheduled on U.S. Congress and Animals in Research

The National Association for Biomedical Research has scheduled a Conference on the U.S. Congress and Animals in Research, Education and Product Safety Testing, Feb. 21-23, 1988, at the Marriott Crystal Gateway Hotel, Crystal City, VA (near Washington, DC, National Airport).

Members of Congress who will discuss their views and issues include Sen. John Melcher (D-MT), author of the 1985 Animal Welfare Act Amendment on psychological well-being of primates; Rep. Charlie Ross (D-NC), architect of the bill to permit private citizens to sue the U.S. Department of Agriculture for the enforcement of the Animal Welfare Act; and Rep. Barbara Boxer (D-CA), author of the Consumer Product Safety Testing Act.

In addition, sessions will include "How To Lobby," discussions by congressional staff on attitudes and approaches to animal legislation, and discussions by representatives from academic, industry, practitioner voluntary health and other groups on coalition building.

For more information contact: Amy Finan, NABR, 818 Connecticut Ave., NW, #303, Washington, DC 20006, (202) 857-0540.

Reauthorization of Scientific Advisory Panel

On November 3, 1987, the House of Representatives voted to extend for one-year the term of the Scientific Advisory Panel (SAP) established under FIFRA. The seven-member SAP is responsible for advising the Administrator of the Environmental Protection Agency on scientific issues related to the regulation of pesticides. The measure now goes before the Senate for consideration.

Publications of Interest

Approaches To Elucidate Mechanisms in Teratogenesis, \$79.95, Hemisphere Publishing Corporation, 79 Madison Ave., New York, NY 10016; (212) 725-1999.

Current Topics in Pulmonary Pharmacology and Toxicology, Vol. 3, \$65, Elsevier Science Publishing Company, Inc., 52 Vanderbilt Ave., New York, NY 10017.

Enzyme Induction in Man, \$63, Taylor & Francis, 242 Cherry St., Philadelphia, PA 19106-1906; (215) 238-0939.

Health and Environment Digest, monthly newsletter on health effects of contaminants. Complimentary copy from Health and Environment Digest, 5901 Brooklyn Blvd., Suite 109, Minneapolis, MN 55429; (612) 533-6162.

In Vitro Toxicology: A Journal of Molecular and Cellular Toxicology, Vol. 1 and Vol. 2, \$90 (U.S.) each, \$123 (overseas/air), Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128; (212) 289-2300.

In Vitro Toxicology: Alternative Methods in Toxicology Series, Vol. 5, \$89 (U.S.), \$109 (overseas/air), Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128; (212) 289-2300.

Journal of the American College of Toxicology, Vols. 6 and 7 (6 issues each), \$130 each volume, Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128; (212) 289-2300.

The Liver: Biology and Pathology, Second Edition, \$195, Raven Press, 1185 Avenue of the Americas, New York, NY 10036.

Using and Understanding Medical Statistics, by David E. Matthews and Vernon T. Farewell, \$22.50, S. Karger Publishers, Inc., 79 Fifth Ave., Suite 1702, New York, NY 10003.

Statistical Techniques in Bioassay, by Z. Govindarajulu, University of Kentucky, \$29.50, S. Karger Publishers, Inc., 79 Fifth Ave., Suite 1702, New York, NY 10003.

Drug-Induced Ocular Side Effects and Ocular Toxicology, edited by O. Hockwin, \$149, S. Karger Publishers, Inc., 79 Fifth Ave., Suite 1702, New York, NY 10003.

Carcinogenesis and Adducts in Animals and Humans, edited by M.C. Poirier and F.A. Beland, \$64.50, S. Karger Publishers Inc., 79 Fifth Ave., Suite 1702, New York, NY 10003.

ASTM Standards on Material and Environmental Microbiology, first edition, sponsored by ASTM Subcommittee on Antimicrobial Agents, \$74 (\$66 member price), ASTM, 1916 Race St., Philadelphia, PA 19103; (215) 259-5585.

Metallothionein II, Proceedings of the Second International Meeting on Metallothionein and Other Low Molecular Weight Metal-binding Proteins, Zürich, Aug. 21-24, 1985, edited by Jeremias H.R. Kagi and Yutaka Kojima, \$69.50, Birkhäuser Boston, Order Dept., 44 Harts Way, Secaucus, NJ 07094; 1-800-526-7254.

Xenobiosis—Food, Drugs and Poisons in the Human Body, by Adrien Albert. The book is targeted for students in chemistry, biochemistry, nutrition and related disciplines. Chapman and Hall, 29 West 35th St., New York, NY 10001.

Online Databases in the Medical and Life Sciences, \$29.95, Springer-Verlag New York, Inc., 175 Fifth Ave., New York, NY 10010.

Postmortem Change in the Rat, \$25.95, Marketing Department, Iowa State University Press, 2121 South State Ave., Ames, IA 50010; (515) 292-0140.

Prediction and Assessment of Antibiotic Clinical Efficiency, \$45, Academic Press Inc., Journals Division, One Vincent Square, London SW1P2PN, UK.

Reviews of Environmental Contamination and Toxicology, Vol. 100, Springer-Verlag New York Inc., 175 Fifth Ave., New York, NY 10010.

STP 958—Industrial Dust Explosions, \$49, ASTM, 1916 Race St., Philadelphia, PA 19103; (215) 299-5400.

Thin-Layer Chromatographic R_f Values of Toxicological Relevant Substances on Standardized Systems, published by VCH, Germany, \$23, available in the United States from Bryan S. Finkle, PhD, Director, Department of Pharmacological Sciences, Genentech, Inc., 400 Point San Bruno Blvd., South San Francisco, CA 94080; (415) 266-1000.

Brochures available for the following:

- Books in Environmental Toxicology and Related Subjects from The Johns Hopkins University Press, 701 West 40th St., Suite 275, Baltimore, MD 21211.

- The Target Organ Toxicology Series, Raven Press, 1185 Avenue of the Americas, New York, NY 10036.

Coming Events

Good Laboratory Practices, covering compliance with the Food and Drug Administration and the Environmental Protection Agency, Jan. 20-22, 1988, San Francisco Bay Area. Contact The Center for Professional Advancement, P.O. Box H, New Brunswick, NJ 08816-0257; (201) 238-1600.

Public Health Service Policy on the Humane Care and Use of Laboratory Animals Workshop, Jan. 28-29, 1988, Albuquerque, NM. Sponsored by the National Institutes of Health's Office for Protection from Research Risks. Contact Rynda Gibbs, University of New Mexico School of Medicine, Continuing Medical Education, 815 Vassar NE, Albuquerque, NM 87131; (505) 277-3942.

Sex Offenders: Focus on Treatment, continuing medical education course, sponsored by the Department of Psychiatry and Behavioral Sciences, The Johns Hopkins Medical Institutions, Feb. 19, 1988, Baltimore, MD. Contact Pamela E. Macedonia, Program Coordinator, Office of Continuing Education, The Johns Hopkins Medical Institutions, Turner 22, 720 Rutland Ave., Baltimore, MD 21205; (301) 955-6085.

The National Conference on Chemical Mutagens and Carcinogens and Symposium on Nature of Genetic Variation in Man, sponsored by the Environmental Mutagen Society of India, Feb. 25-27, 1988, Hyderabad, India. Contact Professor P.P. Reddy, Institute of Genetics, Hospital for Genetic Diseases, Osmania University, Begumpet, Hyderabad. 500 016, India.

The Society of Legal Medicine and Toxicology and the Latin American Society of Toxicology are sponsoring the International Conference of Legal Medicine and Toxicology, the International Congress of Ecotoxicology, and the Latin American Congress of Toxicology, April 11-15, 1988, Buenos Aires. Contact Julia Higa de Landone, Reconquista 538, 4 C, 1003 Buenos Aires; 393-2399.

Annual International Meeting and Exposition for the Association of Official Analytical Chemists, Aug. 29-Sept. 1, 1988, Palm Beach, FL. Contact Margaret Ridgell, AOAC, 1111 North 19th St., Suite 210, Arlington, VA 22209; (703) 522-3032.

The International Congress on Forensic Sciences, Sept. 4-7, 1988, Beijing, China. Contact Office of International Congress on Forensic Sciences, China Express Congress Limited, 101-2 Energy Plaza, 92 Granville Road, T.S.T.E., Kowloon, Hong Kong; 3-7217689.

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