New Orleans Meeting Attracts Over 5,000 Attendees

The Society of Toxicology's 38th Annual Meeting in New Orleans set a record-breaking attendance of 5,171 attendees. Thanks to everyone who made this the largest SOT meeting ever!
First, I would like to make a few comments concerning our 1999 Annual Meeting. Indeed, it is a pleasure to be able to write my first President’s message right after our most successful annual meeting to date. Attendance in New Orleans was our highest ever, reaching almost 5,200. By all accounts, the Continuing Education courses and scientific sessions were received with a high level of enthusiasm. Credit for our accomplishment goes first and foremost to you, the membership, for selecting the annual meeting as a forum for presentation of your scholarly work and for your overall participation in the scientific sessions in a fashion that promotes a constructive discourse. A special thanks is due to the Program and Continuing Education Committees, and to all of you who made a presentation at the meeting. Furthermore, I want to acknowledge the excellent work of the SOT’s Headquarters staff which permits us to continue to have very high-caliber meetings. We recognize the importance of opening lines of communication. Pursuant to this, three new features designed to better serve the membership were instituted at this year’s annual meeting: A graduate student/postdoctoral fellow mixer; an opportunity for students to meet with SOT Council; and an initial meeting to explore the formation of a Women in Toxicology Committee (thanks to the efforts of Gina Pastino). Indeed, it is rewarding to see how our membership, the quality of the annual meeting and attendance at the meeting all continue to increase over the years. It remains clear that membership in the Society of Toxicology and participation in our annual meeting are priorities for toxicologists worldwide.

An important contributor to SOT’s overall success has been the development and implementation of our Long-Range Plan. Pursuant to this, Council adopted (Communications, Special Issue, page 9, 1998) the following statement of Principles for Research Priorities in Toxicology:

Support and advancement of basic and applied research in toxicology, and incorporation of sound science into risk assessment, are the first two items addressed in our Long-Range Plan, adopted in June 1997. Accordingly, Council has approved the following statement concerning principles for research priorities in toxicology in order to highlight the Society of Toxicology’s commitment to research in the context of our concern for human health and the environment. Classic toxicity testing, involving the use of animal models, has served us well and will continue to do so in the future. However, we affirm the need to continue to strive for improvement in accord with the following principles.

1. A focus on basic research aimed at discerning the mechanism/mode of action of the agent of interest is of fundamental importance. Toxicology is a basic biomedical science because the study of mechanisms of toxicity leads to enhanced insight regarding our understanding of essential aspects of biology.

2. Knowledge of mechanisms underlying the toxicity of the agent of interest is required in order to facilitate the incorporation of sound science into risk assessment. This is a critical aspect of our Society’s strategic plan. The overall goal is to enhance our ability to make reasonable estimates as to whether or not harm might occur to people, or the environment, under realistic conditions of exposure. This entails hypothesis-driven research and it is consistent with the notion that it is the dose which makes the poison.

Principles for Research Priorities in Toxicology

- Basic research is of fundamental importance.
- Knowledge of mechanism is required to enhance the scientific basis of risk assessment.
- Key aspects of risk assessment:
  - Dose Selection;
  - Dose-Response;
  - Exposure Assessment;
- Research should be judged on the basis of scientific merit.
3. The scientific basis of risk assessment can be enhanced by the development of improved test systems (not simply adding to the number of existing "tests") and improved means for interpretation of results. Key aspects of any risk assessment include an emphasis on: (1) dose selection; (2) dose-response relationships, including extrapolation from high to low doses; (3) species-to-species extrapolation; and (4) exposure assessment.

4. Research should be judged on the basis of scientific merit, without regard for funding source or where the studies are conducted (e.g., academia, government or industry).

Consistent with these research priorities, I believe that we can strengthen SOT (and the discipline of toxicology) by placing an emphasis on four "BASIC THEMES" and, importantly, communicating these to our scientific colleagues in other disciplines and to the public. **First,** we need to better publicize the key notion in toxicology "it is the dose that makes the poison." Indeed, it is naive to talk about the "safe" chemical as compared to the "toxic" chemical. Effects produced by high doses do not necessarily occur at low doses. Toxicologists should be in the vanguard emphasizing this principle. **Second,** toxicology is a part of the **solution.** It is unfortunate that, all too often, toxicology is viewed as simply focused upon the "discovery" of more poisons. We need to remember/understand, and teach, the fact that much of the very good life we enjoy is attributable directly to the proper use of chemicals (including medicines) to benefit people. Toxicology has played a key role here by defining the conditions of use under which we may employ chemicals for good causes. Yes, some mistakes have been made; yes, there are places where we should improve; and, importantly, yes, we are striving to improve. **Third,** **exaggerated estimates of risk can be "toxic."** Exaggerated estimates of risk foster confusion and the public's misunderstanding of science. **Fourth,** **enhancing the scientific basis of risk assessment can provide a win-win situation.** What makes research in toxicology exciting to me is the combination of the theoretical with the practical. That is, research aimed at discerning the mechanism of action of the chemical of interest very often enhances our understanding of basic aspects of biology. At the same time, information is provided that is pertinent to key aspects of risk assessment, e.g., dose-response relationships, and species to species extrapolation issues. Basic research leading to an enhanced understanding of the mechanism/mode of action of the chemical of interest provides the basis upon which more rational approaches to risk assessment may be built. Importantly, enhancing the scientific basis of risk assessment can result in more sound decisions leading to both improved protection of human health and the environment, and a wiser utilization of our limited financial resources, i.e., a win-win situation.

Continued on page 21
Science on the Hill: Insights from the Congressional Fellow

Submitted by Bradley Shurmut, SOT Congressional Fellow

I am privileged and honored to be the first Society of Toxicology (SOT) Congressional Fellow as I serve on the staff of the House Committee on Agriculture. My first three months as a Congressional Fellow has been an insightful and rich experience. In the short time that I have been on Capitol Hill, I have had the unique opportunity to see how the legislative process actually works from the inside out. I have also had the opportunity to provide scientific input on policy issues and to be a resource to decision-makers influencing policy related to human health and the environment. After only three months, this endeavor has already proven to be immensely rewarding and fundamental to my growing appreciation of the complex (and often frustrating) relationship between science, public policy, and the executive and legislative branches of government. Such an experience will not only personally benefit the Congressional Fellow, but, given the complexity and range of issues faced today by members of Congress and their constituents, Capital Hill will certainly benefit from the scientific expertise brought to bear by the Fellow. Individuals with a desire to better understand the interface between scientific objectivity and public policy are certainly encouraged to further explore this relationship as a SOT Congressional Fellow. As a pioneer of sorts, I would certainly welcome any questions that you may have as you contemplate this opportunity for 2000.

The House Committee on Agriculture is chaired by Congressman Larry Combest (R-Texas), and the ranking minority member is Congressman Charles Stenholm (D-Texas). This relatively large committee consists of four subcommittees and a total of 51 members. Although the committee has primary jurisdiction over the United States Department of Agriculture, its jurisdiction also extends to the Environmental Protection Agency (EPA) pursuant to its mandate to regulate pesticides under the Federal Pesticide, Rodenticide and Insecticide Act (FIFRA). With broader jurisdiction for all issues related to American agriculture, the Committee operates in a largely bipartisan manner and exercises its legislative and oversight jurisdiction according to the common mantra—unless there is a sound scientific justification for regulation, policies must be good for production agriculture. To this end, the Congressional Fellow evaluates scientific and regulatory developments, educates congressional members and staff as to the relevance of these developments, and provides invaluable input to the committee’s legislative agenda.

The following summary briefly highlights several issues that I have been involved with thus far during my tenure.

Over the last several months, a majority of my time has been spent on issues relevant to implementation of the Food Quality Protection Act of 1996. The Food Quality Protection Act of 1996 amended previous pesticide food safety laws by removing the problematic Delaney Clause from the Federal Food, Drug and Cosmetic Act while strengthening protections to ensure the health and safety of children. The Committee has provided aggressive oversight on this statute to ensure proper and prudent implementation of this legislation by EPA. In accordance with SOT’s fundamental belief, human health risks posed by pesticides used on agricultural commodities must be characterized using sound science. Since the EPA’s process for evaluating pesticides under this statute may have a dramatic impact on the future availability of a number of important pesticides necessary for agricultural production, the development of

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The Congressional Fellow Application Deadline has been extended to July 30, 1999.

For descriptions and forms contact Deborah Hyman at SOT Headquarters or go to: http://www.toxicology.org/fellow/fellow.html.
WOMEN IN TOXICOLOGY (WIT) *

Submitted by Gina Pastino

I would like to thank everyone who attended the Women in Toxicology (WIT) meeting in New Orleans. It was very successful with more than 100 women in attendance! I would also like to thank SOT Council for providing us the opportunity to meet, as well as Ciba Specialty Chemicals for graciously providing refreshments.

The purpose of the meeting was to determine if there is interest among SOT members in the formation of a WIT Committee. Given the tremendous turnout and the lively discussion that took place, there is clearly an interest among SOT members in a WIT Committee. In addition to the members present at the meeting expressing their interest, I have received a considerable amount of positive feedback from members who could not attend the meeting. I have, therefore, requested that SOT appoint a WIT Committee.

The mission and goals of the WIT Committee would be decided by the members of WIT. However, this Committee would likely serve to attract women to a career in the toxicological sciences, provide leadership for professional development, provide mentoring for women entering the field of toxicology, promote the retention of women in toxicology and recognize the accomplishments of women in toxicology.

The participants of the meeting supported these preliminary goals and strongly advocated networking and mentoring as primary objectives of the Committee. There is an identified need among women members to exchange ideas and information, particularly related to career development, and a need to provide mentors to women entering the field. This committee also expressed a strong interest in recognizing the accomplishments of women in the field with an award.

The participants also decided to develop an e-mail distribution list to communicate with each other throughout the year on issues related to the WIT Committee. This will be important for the development of the mission and goals and is similar in concept to the list developed for the specialty sections.

Until this list is operational, I will provide updates via the Communiqué. Also, if you have any suggestions or comments please feel free to call me, Gina Pastino, at (914) 785-4487 or E-mail to: gina.pastino@cibasc.com.

*WIT: (n) acuteness of perception or judgment; ability to relate seemingly disparate things so as to illuminate or amuse; (v) to learn.

Science on the Hill: Insights from the Congressional Fellow

Continued from page 4

regulations must be grounded in sound science to protect consumers against actual risks initially anticipated by the statutory framers. Congress is intimately involved with oversight of this process and I have been engaged in considerable dialogue with legislators; interested growers, consumer and industry stakeholders; and agency officials regarding a number of these issues. Moreover, in an effort to educate congressional staff members on the technical, scientific and legal intricacies of pesticide and food safety regulations, weekly seminars have been developed for congressional members and their respective staff personnel in anticipation of inquiries from their constituents and in preparation for upcoming committee oversight hearings.

The House Agricultural Committee is also very involved with a myriad of food safety issues. Necessitated by the recent outbreaks in e-coli and listeria in the U.S. food supply, numerous initiatives are underway to better understand the microbial risk assessment and epidemiology of such outbreaks. Microbial risk assessment relating to pathogens in food is not well understood and, as a result, adhering to the precautionary principle when regulating food pathogens is often the case. Efforts to better understand the pathogenic dose-response relationship are underway and will be critical to clarifying the link between the cost of implementing pathogen reduction measures and the resulting public health benefit. As a Congressional Fellow, continued dialogue with involved scientists and vigilant oversight of activities conducted by FDA, USDA and CDC are critical to the committee.

Antibiotic resistance has also gained much attention recently within the Committee. Although antibiotics in food animals are generally regulated by the Food and Drug Administration, ensuring the continued availability of such treatments for livestock producers has certainly elevated the importance of this issue amongst committee members. It has been suggested that the use of such antibiotics in animals may ultimately lead to increased antibiotic resistance in humans, thereby reducing the efficacy of antibiotics to treat human infections. Although the scientific risk has arguably not been quantified as of yet, the animal health industry and the federal government is looking at this issue closely. Faced with the economic hardships imposed on both drug manufacturers and livestock producers as a result of increased pre-approval requirements for animal antibiotics, both of these interest groups vehemently question the scientific justification for increased regulatory scrutiny. These groups contend that no formal risk assessment has been completed which suggests that antimicrobial resistance can result from the use of these products in livestock. In fact, scientific organizations such as the World Health Organization have concluded that no such evidence exists as to such an acquired resistance. Consequently, such determinations which might impact the future use of antibiotics for animal livestock must inure to the tenets of sound science to protect production agriculture as well as ensure the ultimate protection of public health.

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Talking to the Media: Tips for a Successful Interview

"Be brief, emotional, energetic, enthusiastic, exciting and entertaining"—just a few of the many guidelines presented by Karen Kalish to the more than 100 attendees of the "Media Training for Toxicologists Workshop" on March 13, 1999, in New Orleans. Kalish, of Kalish Communications in Washington, D.C., was the center of a lively discussion of do's and don'ts during a media interview. An added feature to this year's training was on-camera training for a handful of attendees. Participants learned that talking to the media can be a challenging, yet exhilarating, experience—if properly prepared. Following is a short list of Do's and Don'ts when speaking with the media:

Do

1. Have three positive points (with examples) you want to make.
2. Watch or listen to show or read articles by reporter to become familiar with style and format.
3. Check self in mirror before going on TV.
4. Be honest, sincere, non-defensive and proud.
5. Be brief: Get message across in 20 seconds or less.
6. Give examples, illustrations, stories, anecdotes or analogies.
7. Maintain eye contact with interviewer.
8. Talk conversationally and simply, like talking to your mother, no jargon or acronyms.
10. Look at every interview as a glorious opportunity: SMILE.

Don't

1. Let the interview end without you getting in your three points.
2. Volunteer or repeat negative or inaccurate information.
3. Get angry with the reporter.
4. Say "No Comment" or anything you don’t want to hear on the air or read in print.
5. Go "Off the Record."
6. Use jargon, acronyms, initials, technical terms or percentages.
7. Ever lie.
8. Guess or speculate or answer hypothetical questions.
9. Get frazzled if interrupted—just continue as if you hadn’t been interrupted.
10. Do an interview with supermarket tabloids or inappropriate TV shows, or if you've had one drink or are taking medication that makes you drowsy.
"DO YOU SING THE CHEMICAL BLUES"
Public Lecture Targets Local Issues

Living with chemicals in the household and community was the basis for a morning of lively presentations and discussions in New Orleans. SOT's second public lecture: "Do You Sing the Chemical Blues: Living Safely with Poisonous Substances In and Around Our Homes" was an information-packed lecture structured for New Orleans locals. With the annual meeting as a backdrop, the morning lecture was held March 13, at the Tulane Medical Center in New Orleans.

SOT joined forces with the Tulane/Xavier Center for Bioenvironmental Research to offer the program to communities in and around New Orleans.

Jim Lamb, vice president of Scientific and Technical Services at Jellinek, Schwartz & Connolly, Inc., opened the session with a presentation of common items used in the home and information on how they are tested for toxicity before being sold to consumers. Lamb's lively presentation included a briefcase full of items seen recently in the news, including a baby bottle, a rubber duck and an orange. William Robertson, professor of pediatrics at the University of Washington School of Medicine and the medical director for the Washington Poison Center, provided a clinical perspective on poisonings.

The moderator, Norman Robinson, news anchor at New Orleans' WDSU-TV 6, opened the discussion up to the other panelists and later, to the audience.

Other panelists included Joy Cavagnaro, vice president of regulatory affairs at Human Genome Sciences, Inc; Vivien Chen, epidemiologist at the Louisiana State University Medical Center; Ron Dick, director of the Louisiana Drug and Poison Information Center; Ed Flynn, director of Health and Safety Affairs at the Louisiana Chemical Association; Alicia Lyttle, Community Outreach Coordinator at the Environmental Law Clinic at Tulane University;

Continued on page 31

Write Your Congressperson Today!

Each United States Congress member received his or her share of letters from attendees of the Society of Toxicology Annual Meeting: The Regulatory Affairs and Legislative Assistance (RALA) committee sponsored the "Write Your Congressperson Booth" for the fifth year, providing sample letters and computers for annual meeting attendees to write targeted letters to their representatives.

The letters requested support of legislation that protects premature release of research data, increased funding for the Food and Drug Administration, National Institutes of Health, and the National Institute of Environmental Health Sciences, and the appropriate use of animal data in risk assessment.

To continue the letter writing campaign throughout the year, the letters are available on the Internet at http://congress.nw.dc.us/toxicology. Use the form letters or write your own.

Incoming RALA Chair, Harry Olson chats with a member about the importance of communicating with Congress at the Write to Congress booth.
1999

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Society of Toxicology

38th Annual Meeting

Steven Cohen (right) presents the Merit Award to Thomas Clarkson (left).

Jay Goodman (right) presents the Achievement Award to Michel Charbonneau (left).

Michael McClain (right) presents the Public Communications Award to Ann de Peyster (left).

Toxicologists test activities appropriate for classroom visits in the "Toxicology for Kids" workshop.

Poster session attendees find the topics interesting and informative.

The exhibition hall’s courtyard served as the perfect place to exchange meeting notes and get a bite to eat.

On-site registrations greatly added to the meeting attendance.

The Annual Meeting in New Orleans attracted nearly 5,200 attendees. It was another record-breaking year for SOT.
# 1999 Award Recipients

<table>
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<tr>
<td>Education</td>
<td>Jules Brodeur, Universite de Montreal</td>
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<td>Achievement</td>
<td>Michel Charbonneau, INRS-Sante</td>
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<tr>
<td>Merit</td>
<td>Thomas W. Clarkson, University of Rochester</td>
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<tr>
<td>Public Communications Award</td>
<td>Ann de Peyster, San Diego State University</td>
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<tr>
<td>Colgate-Palmolive Postdoctoral Fellowship</td>
<td>Russell Thomas, McAndie Laboratory for Cancer Research</td>
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<td>Norvartis (formerly CIBA-Geigy)</td>
<td>Mark Hickman, Harvard School of Public Health</td>
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<td>Procter &amp; Gamble</td>
<td>J. Kevin Kersee, Texas A&amp;M</td>
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<tr>
<td>Colgate-Palmolive Visiting Professorship</td>
<td>San Diego State University (Robert E. Chapin, Visiting Professor)</td>
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<td>Zenea Traveling Award</td>
<td>Alvaro Puga, University of Cincinnati</td>
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*Spring 1999*
Colgate-Palmolive Visiting Professorship Award winner San Diego State University, represented by Ann de Peyster (far right), and Visiting Professor Robert Chapin (middle left) are congratulated by Robin goldstein (far left) and Mark Blazka, Colgate-Palmolive (middle right).

Jim Popp (left) congratulates the recipients of the Toxicology and Applied Pharmacology Best Paper Award Winners: Deorah Cary-Siechta (middle) and Christine Zuch (right).

Jay Candolfi (far left) and Cary Carlson (far right) congratulate the recipients of the Fundamental and Applied Toxicology Best Paper Award, William Manton (left) and M.J. Inskip (right).

Dan Acosta (far right) congratulates the recipients of the Toxicology and Applied Pharmacology Best Paper Award, (from left) S.K. Renolds, M.G. Soni, T.J. Bucci and H.M. Melendale.

Mark Blaza (left) and Robin Goldstein (middle) congratulate the winner of the Colgate-Palmolive Postdoctoral Fellowship: Russell Thomas (right).

Outgoing Regulatory Affairs & Legislative Assistance Committee Chair, John DeSesso (far left), makes a presentation at the Regional Chapter Presidents’ meeting while David Eaton and Stephen Safe look on.
Past President’s Breakfast: They are (from left to right): John Emmerson, Don Reed, Jim Bus, Jerry Hook, John Doull, Mike McClain, Curt Klausner, Roger McClellan and Jack Dean.

Outgoing President Steven Cohen (left) passes the gavel to incoming President Jay Goodman (right).

President Steven Cohen presents plaques of appreciation to outgoing Councilors Robin Goldstein (left photo) and Stephen Safe (middle photo); and outgoing Treasurer Mary Jo Vodicnik (right photo).

Joy Cavagnero (left) and Mary Jo Vodicnik (right) discuss strategies for the Committee on Public Communications at the Leadership Training Meeting.

The K-12 Subcommittee exhibited toxicology-related resources for education outreach.

Keynote Speaker Rick Chappell told attendees that scientists must learn to work with the media because it translates science to the public.
Society of Toxicology

38th Annual Meeting

SOT staff members pose for a photo at the President’s Reception. They are (back row, from left) Tonia Masson, Patricia Strong, Clarissa Wilson, Shawn Lamb, and Deborah Hyman; (front row, from left) Annette Flannery, Ann Kerstetter, and Elizabeth Brutsch. (Missing from photo is Betty Eidenmiller.)

Myrtle Davis and Kelvin Cain share a smile at the Welcome Reception on March 14, 1999.

Undergraduate students from Puerto Rico explore career opportunities in toxicology during the Undergraduate Reception.

A good time was had by all at the Final Night Reception: surrounded by New Orleans entertainers are (from left) Mary Jo Vodicka, Jay Goodman, Shawn Lamb and Steven Cohen.

Congratulations!

Eli Hestermann
Woods Hole Oceanographic Institute

Winner of the New Orleans Annual Meeting Evaluation Form drawing.

Eli will receive free registration to the 2000 Annual Meeting in Philadelphia!

Continuing Education Course Audio Tapes and Syllabi Available

SOT’s Continuing Education courses are an excellent resource for professional development. Audio tapes and syllabi from the 1998 courses are now available, and the 1998 course tapes and syllabi can be ordered at a 15% discount.

Order forms are enclosed in this issue of the Communiqué.
For the fourth consecutive year, K-12 teachers attended a special day-long “Paracelsus” program at the annual meeting at the New Orleans Convention Center, as guests of the SOT. This year’s program was organized by Gulf Coast Regional Chapter member Benny Blaylock and members of the K-12 Subcommittee. With substitute teacher costs covered by the SOT through a grant from the NIEHS, 65 area teachers were able to “play hookie” from their classrooms to meet with toxicologists, learn about toxicology, sample some of the environmental health and toxicology K-12 curriculum materials currently available, and get a good, strong dose of toxicology by visiting annual meeting exhibits and posters. Evaluations indicate that the “Paracelsus” programs continue to offer something valuable for all tastes, ranging from new teaching ideas to personal enrichment through lectures by toxicologists and opportunities to meet one-on-one with toxicologist “mentors” who might one day be called upon to visit their classrooms.

Activities were tailored for specific age groups. This year’s elementary and middle school teachers participated in hands-on demonstrations of NIEHS-sponsored curriculum materials developed by Rutgers University (“ToxRAP” for grades 3-6) and Baylor College of Medicine (“My Health, My World” for K-3). Meanwhile grades 7-12 teachers heard Paul Ferguson’s “An Introduction to Toxicology: Science for the Millennium” and presentations on “Animals in Research” by Steve Holladay and “Get the Lead Out!” by Mary Dereski. Suzanne Conklin offered her ever-popular “Toxicology Enrichment Series: Instructional Materials for Middle and High School Teachers” and Julie Hill demonstrated environmental health sciences computer curricula and videos developed for high school classes. During lunch, volunteer mentors from the Gulf Coast Regional Chapter were on hand for small group discussions with the teachers. The afternoon was a time to view posters and exhibits, including more classroom materials displayed at the SOT’s K-12 teaching resources exhibit booth organized by Mary Dereski. Some teachers opted to relax and share new ideas with other teachers at the “Teacher Think Tank” offered by Ann de Peyster, Steve Harris, Mary Haasch, and middle school teacher Ann Williams. David Eaton’s presentation on “The Environment and Cancer” and drawings for books, videos, and other teaching materials capped off another successful year of this program, judging from the enthusiastic program evaluations. A similar opportunity will be offered for K-12 teachers in the Philadelphia area in March 2000.

Thanks are extended to the following SOT members who volunteered to serve as mentors: Benny L. Blaylock, Paul Ferguson, Kenneth J. Oliver, Kim Owens, Carey Pope, Shashi K. Ramaih, and Pramila Singh, all of Northeast Louisiana University; Gary P. Bond, Phillips Petroleum Company; Ruth Chen, Tennessee Department of Health; Abraham Dalu, National Center for Toxicological Research; Durisala Desaih, University of Mississippi Medical Center; Jody Klibert, NASA; John C. Matthews, University of Mississippi; Steve Pruet, LSU Medical Center; and Neil R. Pumford and Martin Ronis, University of Arkansas for Medical Sciences.

Toxicologists could pick up ideas for K-12 outreach in the annual meeting workshop “Toxicology for Kids: A How-To Guide for Toxicologists,” organized by Gary Yost and Charlene McQueen. This workshop featured successful K-12 outreach activities and the opportunity for SOT members to try out five video, computer, and print activities related to toxicology which can be used in that effort.

Several regional chapters are currently planning some type of “Paracelsus” program for their local teachers. The K-12 Subcommittee and SOT Council pledge to help to the extent possible so that every chapter will be involved in some way in K-12 science outreach by the year 2000. Contact Betty Eidenmiller at SOT Headquarters if you want to become involved or need further information.
Sold-Out Exhibition Provides Wealth of Opportunities for Annual Meeting Attendees

One of the major components and attractions at the annual meeting is the SOT Exhibition where attendees have the opportunity to view some of the industry's newest research technology. Demonstrations of various technologies on the exhibit floor provide attendees with first-hand knowledge of innovations in the industry.

Over the past 24 years, the number of participating exhibitors has grown to over 220 companies—occupying over 300 booths. This year's sold-out status of the exhibit space represented a 9% increase over the previous year's exhibitions. Part of this growth is due to the Society's recognition that the exhibit hall floor can be more than a place to conduct business; it can also provide an intimate setting for the exchange of scientific information. The Brown Bag Lunches, held at the exhibition, provided attendees with just such an opportunity. Speakers from the morning scientific sessions were available, to attendees, for more in-depth conversations. This successful program will continue at the 2000 Annual Meeting in Philadelphia.

Student and Postdoctoral Fellow Reception — A Success

Close to 600 students and postdoctoral fellows attended an evening reception held in their honor. This Reception was provided so that students and postdoctoral fellows could meet and talk informally with one another about graduate and postdoctoral programs. A pasta buffet and DJ were provided. SOT thanks the annual meeting sponsors for making this event a success.

Graduate Student Volunteers Sought for 2000 Continuing Education Courses

The Society of Toxicology Continuing Education Committee is soliciting graduate student volunteers to assist with Continuing Education courses at the 2000 SOT Annual Meeting in Philadelphia.

Three students are needed for each course. Responsibilities include attendance at an orientation meeting and preparation of some materials the evening before the Sunday courses, and collection of admission tickets, distribution of course material and collection of course evaluation forms on the day of the courses. In return, student volunteers are not charged for attending the course and will receive an additional perk, such as lunch.

Interested students should contact:

Dr. Patricia E. Ganey
Michigan State University
Dept. of Pharmacology and Toxicology
214 Food Safety & Toxicology Bldg.
East Lansing, MI 48824
Tel: (517) 432-1761
Fax: (517) 432-2310
E-mail: Ganey@pilot.msu.edu

Reception attendees danced the night away to "Top 40" favorites.
Burroughs Wellcome Lectures—Summations

Environmental/Industrial Toxicants and Testicular Injury

Kim Boekelheide, Brown University, Providence, Rhode Island

In the last quarter century, our understanding of male reproductive biology and toxicology has advanced to the point that potential mechanisms of toxicant action can be proposed and tested. In this relatively short period of time, the field has moved from descriptive to predictive, as the power of molecular analytical techniques has increased. In our laboratory, we have used a variety of molecular approaches to study a rat model of 2,5-hexanediol-induced testicular injury. 2,5-Hexanediol is the toxic metabolite of n-hexane, a commonly used solvent and a major component of gasoline. n-Hexane exposure is known to produce a peripheral polynuropathy in humans and an associated testicular injury in animals. Recent concern about a possible fall in human sperm counts during the past half century has highlighted the potential vulnerability of the male reproductive system and underscored the need for model systems to better understand mechanism of action and targets of toxicant exposure.

Many of our experiments have addressed the question: How and why does exposure to 2,5-hexanediol induce selective testicular injury? After 2,5-hexanediol exposure, Sertoli cells, the supportive cells of the seminiferous epithelium, become vacuolated implicating these cells as the target for injury. A major role for Sertoli cells is to support and nurture germ cells during their maturation and differentiation into sperm.

Thus, our initial experiments focused on a Sertoli cell function-microtubule-dependent transport—which is required for germ cell viability and may be uniquely susceptible to the type of chemical modification produced by 2,5-hexanediol. After 2,5-hexanediol exposure, microtubules isolated from the testis show abnormal assembly behavior. In the rapidly developing sea urchin zygote, a useful model system for microscopic analysis, 2,5-hexanediol-treated microtubules disrupt mitotic spindle formation and proliferation. Movement of microtubule motors along 2,5-hexanediol-treated microtubules is abnormally slow. All of these data support the hypothesis that loss of testicular germ cells following 2,5-hexanediol exposure.

How Copper Ions Signal to the Transcriptional Machinery

Dennis J. Thiele, Department of Biological Chemistry, University of Michigan Medical School, Ann Arbor, Michigan

The metal ion copper plays a dual role in biological systems. On one hand, copper plays an essential function in the active sites of a large number of critical cellular enzymes such as Cu, Zn superoxide dismutase, cytochrome oxidase, dopamine β-hydroxylase and lysyl oxidase. On the other hand, copper ions are potent toxins, through interactions with superoxide anions, resulting in the generation of hydroxyl radical resulting in damage to membranes, proteins and nucleic acids. Furthermore, it has been established that Cu is able to replace metals such as Zn in important signaling molecules such as hormone receptors, thereby inhibiting protein function or altering specificity. Therefore, all cells must orchestrate the accumulation of copper for essential biochemical reactions, yet prevent the accumulation of free copper ions to cytotoxic levels. My colleagues and I are interested in understanding the precise molecular mechanisms whereby cells maintain homeostatic control of copper ion levels through regulated transport, detoxification and through rapid transcriptional responses. Indeed, cells have exquisitely sensitive mechanisms for both sensing and responding to alterations in copper levels by directly signaling to the transcriptional machinery. Using yeast cells as a model eukaryotic organism, we have isolated genes encoding distinct copper sensing transcription factors that rapidly and potently activate the expression of copper detoxification genes in response to elevated copper levels. These rapid responses are achieved through the interdigitation of copper ion sensing and DNA binding domains in the copper metalloregulatory transcription factors, as well as through the use of specialized chromatin structures that poise metal induced genes in an accessible state. Furthermore, we have isolated genes encoding copper ion transporters and have identified transcription factors that activate expression of the copper transporter genes in response to copper starvation, but extinguish.

Continued on page 20

Continued on page 28
Among the new features of the Undergraduate Program at the 1999 Annual Meeting in New Orleans was a series of special lectures by SOT; these provided an introduction to the discipline and specialty areas of toxicology for the students and undergraduate advisors. Travel support was provided for 27 students, 7 advisors, and 7 students who had previously participated in the program. Six local students were also accepted to participate. Thirteen SOT host/mentors interacted with the students throughout the two days of the program, and over 130 toxicologists participated in the special Monday morning poster session. Students also met with directors of toxicology programs and learned about preparation for graduate school.

This program was supported by a NIH MARC grant with additional funding from R.W. Johnson Pharmaceuticals Research, the Johnson & Johnson Company, and the Society of Toxicology. The Education Subcommittee for Minority Initiatives plans and coordinates the activities. The Subcommittee is very thankful for the work accomplished by its members and volunteers, and would especially like to recognize Dr. Marion Ehrich for her long-standing efforts in obtaining support for this program, including the recent grant submission to continue this program into its second decade.

A near record enrollment of 2,532 people participated in the Continuing Education (CE) courses held in New Orleans for the 1999 Annual Meeting. Course participants, speakers, chairs, and CE Committee members all deserve kudos for the successful completion of excellent courses. As indicated by high enrollments in all 14 courses, the topics were popular. The science was excellent and courses were prepared and delivered with skill.

The complexity of tasks that come together to produce the successful CE courses at the annual meeting is underscored by the one thing that didn’t go as planned—the syllabi did not arrive according to timetable. The CE committee members begin working with course chairs 10 months in advance of the meeting. The content of the syllabi is put together in a standard format by the speakers, reviewed by the course chair and CE liaison, and proofed in advance of the final printing.

SOT Headquarters selects a printer after reviewing bids from printers in both the D.C. area and from the Annual Meeting location; the bid includes delivery to the Convention Center on Saturday when SOT gains access to the space. As usual, the printer had prepared the books with sufficient time in advance of the meeting for shipping. The printer contracted with a courier service for delivery, and the courier contracted with a trucking company for final delivery to the Convention Center in New Orleans. However, somewhere between D.C. and New Orleans, the syllabi lost their way. The courses were over by the time the syllabi were located in Atlanta. SOT refused the shipment and will not pay for these copies.

Now for the good news—SOT staff were prepared for contingencies and, thankfully, had a master set of syllabi on hand from which replacements could be made. The amazing task of duplicating replacement syllabi for this large enrollment was accomplished in under 24 hours by a coordinated effort among six Kinko’s offices in New Orleans. These syllabi contained the same content as the original, but lacked the usual colored cardstock covers and plastic gbc bindings. All participants in the Sunday morning courses received syllabi at the beginning of their courses. Moreover, most syllabi were available for the start of the afternoon courses. Participants in only one course left without outlines.

Syllabi were available for pick up at the registration desk for those participants unable to get a copy during the course. The syllabus has been mailed to those registered for Course #10 who were unable to pick up a copy during the meeting. SOT extends gratitude to all those who weathered this unfortunate mishap so gracefully. Any concerns related to the course outlines may be addressed to Betty Eidenmiller at SOT Headquarters (bettye@toxicology.org).

On a final note, we wish to acknowledge the overwhelming success of our first sunrise session. The one hour course given by William Mattes (Pharmacia & Upjohn, Kalamazoo, MI) on Basic Bioinformatics was well-received, with an impressive enrollment of 267 people.
The Society of Toxicology thanks participation as exhibitors at the

ABC Laboratories
Academia Book Exhibits
Academic Press, Inc.
Access Technologies
Advanced Database Systems
Affinity BioReagents, Inc.
Affymetrix, Inc.
AFIP-Veterinary Technology (RTPA), The
Alabama Research & Development
Allentown Caging Equipment Co., Inc.
Alternative Design Manufacturing
Alza Scientific Products & Alzet® Osmonic
American Board of Toxicology, Inc.
American College of Toxicology
American Conference of Government Industrial Hygienists (ACGIH®)
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Amersham Pharmacia Biotech, Inc.
Ani Lytics, Inc.
Anilib, Inc.
Animal Identification and Marking System, Inc. (AIMS)
Animals In Research (SOT)
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Association for Assessment of Accreditation of Laboratory Animal Care International (AAALAC International)
ASPCA National Animal Poison Control Center
Battelle
Begell House, Inc.
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Bio-Life® Associates, Ltd.
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BioMedic Data Systems, Inc.
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Charles River Laboratories, Inc.
Chemical Abstracts Service
Chemical Industry Institute of Toxicology (CIIT)
Chemsyn Laboratories
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Environmental Health Perspectives (EHP)
EPL®, Inc.
ESA, Inc.
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Fraser Williams (Data Systems)
Fraunhofer ITA
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Hill Top Research, Inc.
Hilltop Lab Animals, Inc.
HTI Bio-Services, Inc.
Human Biologies International
Humana Press
Huntingdon Life Sciences
ICF Kaiser
IDEXX Veterinary Services
IERA/RSRE/Booths AFB
IIT Research Institute
Ilex Oncology, Inc.
In Vitro Technologies, Inc. (IVT)
IN/US Systems, Inc.
Ina Research, Inc.
Incyte Pharmaceutical, Inc.
Instech Laboratories, Inc.
INSTEM-ApoloCo
Institute For In Vitro Sciences, Inc.
Institute For Scientific Information (ISI®)
International Congress of Toxicology IX (ICT-IX)
International Life Science Institute (ILSI)
International Union of Toxicology (IUTOX)
Inveresk Research
the following organizations for their 38th Annual Meeting in New Orleans:

ISIS BioComp
ITR Laboratories Canada, Inc.
Jai Research Foundation (JRF)
Jellinek, Schwartz & Connolly, Inc./Gradient Corporation
John Wiley & Sons, Inc.
K-12 (SOT)
Klenmn Analysis Group, Inc.
LAB Pre-Clinical Research International
LAB Products, Inc.
LABCAT
LCG Bioscience
LHASA Limited
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Midwest Research Institute
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Minority Health Professions Foundation
Mitsubishi Chemical Safety Institute, Ltd. (MSI)
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Nature America
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NSF International
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Oak Ridge National Laboratory
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Ocra
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Pathology Associates, International (PAI)
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Pfizer Central Research
Phoenix International Life Sciences, Inc.
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Poietic Technologies, Inc.
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Product Safety Labs
PTRL, Fast, Inc.
Purina Mills, Inc.
Quality Associates, Inc.
Quintiles Preclinical Services
RCC
Rees Scientific Corp.
Research Information Systems
Ricerca, Inc.
Risk Assessment Summer School (RASS)
San Diego Instruments, Inc.
Scantox
Science
SeAG Software Engineering A.G.
SGS U.S. Testing Company, Inc.
Shimadzu
Shin Nippon Biomedical Laboratories, Ltd.
Sierra Biomedical, Inc.
SIMS Deltec
SITTEK Research Laboratories
Society of Environmental Toxicology And Chemistry (SETAC)
Solomon Scientific
Southern Research Institute
Spring Valley Laboratories, Inc.
Springborn Laboratories, Inc.
SRI International
Statistical Unlimited, Inc.
Stillmeadow, Inc.
Stockton Press
Stratagene
Strategic Applications, Inc. (SAL)
Suburban Surgical Co., Inc.
Summit Ridge Farms
T.P.S., Inc.
Taconic Quality Laboratory Animals & Services
Taylor & Francis
Thetagen, Inc.
Therimmune Research Corporation/R.O.W. Labs
TNO Toxicology
Torsc, Inc.
Toxicology Education Foundation (TEF - SOT)
Toxicology Excellence For Risk Assessment
Toxicology Research Laboratory
Toxicology/Regulatory Services, Inc. (TRS)
Toxikos Corporation
ToxMonitor/BSR
U.S. Army Center For Health Promotion & Preventive Medicine
ViroMed Biosafety Laboratories
Vitron, Inc.
WB Saunders
White Eagle Toxicology Laboratories
White Sands Research Center
WIL Research Laboratories, Inc.
Wildlife International, Ltd.
Write to Congress (RALA-SOT)
XenoBiotic Laboratories, Inc. (XBL)
XenoTech, LLC
Xybio Medical Systems

Spring 1999
During the past year, the Animals in Research Committee revised several statements central to the Society's position regarding the importance of animals in toxicology and developed two awards that recognize the efforts of individuals or groups in this area. The SOT Council formally adopted the changes to the position statements and approved both awards for presentation at the next annual meeting.

Animal Use Position Statements: The Committee has revised and updated the "Position Statement Regarding Use of Animals in Toxicology" and the "Guiding Principles in the Use of Animals in Toxicology" to reflect the current practices of its members. These documents were originally adopted in 1986 and 1989, respectively. In addition, four bulleted statements compose the newly created "Animals in Research Public Policy Statement." These three statements are on an insert in this newsletter issue. Animal research forms the foundation of our efforts to improve the health and safety of humans and animals and protect the environment. Efforts to find valid alternative methods are ongoing, but far from complete. The "Position Statement" and "Guiding Principles" were revised to state firmly that the continued use of animals in toxicology research and testing is essential, while acknowledging the importance of continuous improvement in the science of toxicology through the appropriate reduction, refinement, and/or replacement of animals once scientifically validated alternatives become available.

Awards: The first award, Contributions to Public Awareness of the Importance of Animals in Toxicology Research Award, recognizes contributions to public awareness and understanding of the essential role of experimental animals in toxicology. The second award, the Enhancement of Animal Welfare Award, was designed to complement the first award by recognizing a member of SOT who has contributed to the advancement of toxicology by developing methods that reduce, refine, and/or replace the use of experimental animals. More detail about these awards is found on page 23 and on the SOT Web site.

Burroughs Wellcome Lectures: Environmental/Industrial Toxicants and Testicular Injury

Continued from page 16

Exposure is the result of a Sertoli cell dysfunction in microtubule-dependent transport. Ultimately, we were able to determine that seminiferous tubule fluid formation, which is a Sertoli cell microtubule-dependent process, is abnormal after 2,5-hexanedione exposure. And since seminiferous tubule fluid bathes the germ cells, providing nutrients and hormonal signals to regulate proliferation and differentiation, a deficiency in this Sertoli cell function causes germ cells to die.

However, knowing how 2,5-hexanedione exposure compromises Sertoli cell microtubule function is just the first step in a complicated puzzle. It turns out that the interaction between Sertoli cells and germ cells is quite intricate. Sertoli cells are not just passive "nurse" cells providing nutrients and hormonal signals in support of germ cell viability, Sertoli cells are also actively engaged in determining whether germ cells will live or die. To examine this question requires further expansion of the simple hypothesis that 2,5-hexanedione targets Sertoli cell microtubules to include an examination of the consequences of toxicant exposure upon Sertoli-germ cell interactions. Indeed, recent work from our laboratory has shown that Sertoli cells make death factors to kill germ cells. One death factor system involved, called the Fas system, requires that Sertoli cells signal germ cells to die via a ligand-receptor interaction. This type of germ cell killing by Sertoli cells is called apoptosis. After 2,5-hexanedione exposure, Sertoli cells increase their expression of Fas ligand, signalling to the germ cells to die. The germ cells respond by upregulating expression of the death factor Fas receptor and proceed to die. Sertoli cell-induced apoptosis, or active "programmed" cell death of germ cells makes a lot of sense. If Sertoli cell microtubule function is compromised by toxicant exposure, then germ cells will no longer be supported, and apoptosis is the fastest and most innocuous way to get rid of unsupported germ cells which are destined to die.

What happens long after exposure to a testicular toxicant and the wave of Sertoli cell-induced germ cell apoptosis? If the acute toxicant exposure is of sufficient severity, then a long-lasting "irreversible" germ cell deficiency persists. Originally, we assumed that 2,5-hexanedione-induced irreversible testicular injury was a consequence of killing all the germ cells. However, careful microscopic examination of the testis after toxicant exposure showed occasional residual germ cells. Indeed, recent, more extensive experiments have shown that primitive germ cells are present and happily proliferating after 2,5-hexanedione exposure—they just die instead of mature. Furthermore, "irreversible" injury in this rat model is reversible with appropriate hormonal manipulations involving suppression of testosterone synthesis. The mechanism by which suppressing testosterone synthesis restarts spermatogenesis is currently unknown, although experiments in progress are examining associated alterations in growth and death factors, and the metabolic pathways which control testicular steroidogenesis. In any case, the ability to restart spermatogenesis after "irreversible" injury is a really exciting observation, opening up new avenues for exploring the basic biology of spermatogenesis, and for treating idiopathic azoospermia in humans.
President's Message
Continued from page 3

My OVERALL GOALS for 1999-2000 are to promote widespread emphasis on the four “Basic Themes” outlined on page 3; to increase awareness of the importance of using mechanistic data to enhance risk assessment; and to nurture acceptance of our “Principles for Research Priorities.” This can “win” enhanced success for toxicology. In my view, we need to do more in regard to speaking out in support of the scientific basis of toxicology and the use of sound science to make improved risk assessment decisions. If we do not rise to this challenge, then we run a very real risk—the risk of having the discipline of toxicology become marginalized. In particular, I trust that my academic colleagues will understand this and get more involved. Indeed, I ask all of the membership to join with me in this effort. I look forward to this opportunity to work with you.

Goals: 1999 - 2000

- Widespread emphasis on the “Basic Themes.”
- Increase awareness in the importance of using mechanistic data to enhance risk assessment.
- Nurture acceptance of SOT’s “Principles for Research Priorities.”

Jay I. Goodman, Ph.D.
1999-2000 President

Headquarters Update

If you attended the Annual Meeting, you may have noticed some new faces among the SOT Headquarters staff.

Tonia Masson joined the SOT staff with more than 6 years of association management experience. She has a B.S. in Business Management from Radford University, and is working with the Program Committee and the Contemporary Concepts in Toxicology meetings. Tonia may be reached at extension 317 or by E-mail at tonia@toxicology.org.

Ann Kerstetter joined the staff almost a year ago and is working with the Continuing Education Committee, Regional Chapters, and Specialty Sections. She may be reached at extension 332 or by E-mail at annk@toxicology.org.

You may have met Elizabeth Brutus at the Annual Meeting registration desk. During the course of the year, Elizabeth serves as the receptionist and handles all membership applications and the SOT award programs. She may be reached at extension 304 or by E-mail at elizabeth@toxicology.org.

Even though each of the above SOT staff members has already worked through the SOT Annual Meeting in New Orleans, please join us in extending to them an official welcome!

Science on the Hill: Insights from the Congressional Fellow
Continued from page 5

 Lastly, much of my attention has turned to issues related to the rapid-evolving field of agricultural biotechnology. As is the case with any new technology, agricultural biotechnology seems to be fraught with issues ranging from international trade implications to potential environmental health and safety concerns to intellectual property/patent protection issues to the fundamental regulatory scheme for effectively managing introduction of these products while not stifling innovation. These issues have already been the focus of a number of congressional hearings held by the committee where a number of scientific issues have been dissected by members. Members of the committee are committed to fully understand the technology, its safety and its future promise for agricultural production. Such an issue is ripe for continued dialogue and oversight as biotechnology not only has tremendous promise in maximizing agricultural production and crop yields, but will likely have a role in the emerging life sciences areas of ‘nutraceuticals’ and biobased technologies. The Congressional Fellow plays an integral role in both educating congressional staff and members on this very complex issue as well as providing technical guidance for the respective oversight hearings.

Written by SOT Congressional Fellow: Bradley Shur devout, MS, JD, CHI. He may be contacted at: U.S. Committee on Agriculture, 1301 Longworth, House Office Building Washington, DC; Tel: (202) 225-7456; E-mail: brmd.shurdev@mail.house.gov.

2000-2001 Fulbright Awards

Opportunities for lecturing or advance research in nearly 130 countries are available to college and university faculty and professionals outside of academe. U.S. citizenship and the Ph.D. or comparable professional qualifications are required. For lecturing awards, university or college teaching experience is expected. Foreign language skills are needed in some countries, but most lecturing assignments are in English. Deadlines: August 1, 1999, for lecturing and research grants in academic year 2000-2001; November 1, 1999, for international education and academic administrator seminars; January 1, 2000, for NATO advanced research fellowships and institutional grants. For more information, contact USIA Fulbright Scholar Program, Council for International Exchange of Scholars, 3007 Tilden Street, NW, Suite 5L, Box GNEWS, Washington, DC 20008-3009; Tel: (202) 686-7877; www.cies.org; E-mail: apprequest@cies.iiie.org (requests for applications only).
Congratulations to the
1999 Graduate Student Travel Award Recipients

Mehdi Adinehzadeh, Wright State University, Dayton, OH
Deidra S. Atkins, Meharry Medical College, Nashville, TX
Carolina Baier-Anderson, University of Maryland, Chesapeake, Solomons, MD
Susan M. Bailey, University of New Mexico School of Medicine, Los Alamos, NM
Nancy B. Beck, University of Washington, Seattle, WA
Michael W. Bolt, Queen’s University, Kingston, ON, Canada
Jennifer L. Burkey, University of Arizona, Tucson, AZ
Qiuyin Cai, University of Alabama-Birmingham, Birmingham, AL
Jeffrey W. Card, Queen’s University, Kingston, ON, Canada
Saping Chen, Cornell University, Ithaca, NY
Yun-Houng Chen, Texas A&M University, College Station, TX
Karen A. Clossey, East Tennessee State University, Johnson City, TN
Suzanne Connell, University of Wisconsin, Madison, WI
Marie S. Connors, SUNY at Buffalo, Buffalo, NY
Ding Dai, North Carolina State University, Raleigh, NC
Rosalind R. Dalefield, Kansas State University, Manhattan, KS
Erica A. Dearstine, Oregon State University, Corvallis, OR
Yan Ding, University of Rochester School of Medicine, Rochester, NY
Michelle E. Embree, Brown University, Providence, RI
Jennie L. Everhart, Medical University of South Carolina, Charleston, SC
Werner J. Fischer, University Konstanz, Konstanz, BW, Germany
Jonathan H. Fox, Virginia Tech, Blacksburg, VA
Sam Haddad, University of Montreal, Montreal, PQ, Canada
Diane Hardje, St. John’s University, Jamaica, NY
Scott E. Heid, University of Kentucky Medical College, Lexington, KY
Thomas L. Horn, University of Minnesota-St. Paul, St. Paul, MN
Carl G. Hover, University of South Florida-COPH, Tampa, FL
Thea E. Jackson, University of North Carolina Chapel Hill, Durham, NC
Kristen E. Jordan, Johns Hopkins University, Baltimore, MD
Ronald C. Kaltreider, Dartmouth Medical School, Hanover, NH
Abdelhamid Kerakdl, Université de Montréal, Montreal, PQ, Canada
James H. Kim, Johns Hopkins University, Baltimore, MD
Shannon D. Langford, University of Texas Medical Branch, Galveston, TX
Rebecca R. Laposa, University of Toronto, Toronto, ON, Canada
Janean M. Lenius, University of Kansas Medical Center, Kansas City, KS
Shunan Li, University of Minnesota-Minneapolis, Minneapolis, MN
Angela M. Lucas, University of Connecticut, Storrs, CT
Hongbao Ma, University of Texas Medical Branch, Galveston, TX
Lynn Marie Maldonado Baez, University of Puerto Rico-Medical Sciences Campus, San Juan, PR
Sandra S. Matsunoto, University of Utah, Salt Lake City, UT
Michele A. Mitchell, Florida A&M, Tallahassee, FL
Chanderk J. Mundgal, University of Cincinnati, Cincinnati, OH
Catherine L. Neary, Thomas Jefferson University, Philadelphia, PA
Bertha A. Pelayo, Washington State University, Pullman, WA
Everett J. Perkins, Jr., University of Mississippi, Oxford, MS
Timothy P. Reilly, Wayne State University, Detroit, MI
Darwin R. Reyes, University of Puerto Rico-Rio Piedras Campus, Rio Piedras, PR
John D. Robertson, University of Texas (Austin), Austin, TX
Chad J. Roy, University of Iowa, Iowa City, IA
Kimberly A. Rozett, Rutgers University, Piscataway, NJ
Kevin T. Rummel, Texas Tech University, Lubbock, TX
Adolfo S. Sierra, Cirvesat - ITN (Mexico) DF, Mexico
Pramila Singh, Northeast Louisiana University, Monroe, LA
Allison L. Stork, University of Texas (SPH), Houston, TX
Ting Su, SUNY at Albany, Albany, NY
Maria J. Tort, Cornell University, Ithaca, NY
Rebecca L. Uzarski, Michigan State University, East Lansing, MI
Terry R. Van Vleet, Utah State University, Logan, UT
Maricella Vargas, University of California-Irvine, Irvine, CA
Beth A. Vorderstrasse, Oregon State University, Corvallis, OR
Jacqueline A. Walisser, University of British Columbia, Vancouver, BC, Canada
Tao Wang, Northeastern University, Boston, MA
Richard A. Westhouse, Purdue University, West Lafayette, IN
Nicole A. Whisnant-Hurst, University of North Carolina Chapel Hill, Chapel Hill, NC
Andrea J. Wiedhoff, Carnegie Mellon University, Pittsburgh, PA
Susanne N. Williams, University of Colorado HSC, Denver, CO
Angela M. Wilson, University of Kansas Medical Center, Kansas City, KS
Jiaqin Yao, University of Cincinnati, Cincinnati, OH
Haizhou Zhang, Indiana University School of Medicine, Indianapolis, IN

Special thanks to the Burroughs Wellcome Fund for providing Travel Awards to these students:

Sunita Babu, University of South Florida, Tampa Bay, FL
Shawn B. Bratton, University of Texas (Austin), Austin, TX
Ya-Juin Chou, University Konstanz, Konstanz, BW, Germany
James W. DuMond, University of Alabama-Birmingham, Birmingham, AL
Denae W. King, University of Texas (SPH), Houston, TX
Weidong G. Lai, University of Toronto, Toronto, ON, Canada
Karen B. McClendon, Meharry Medical College, Nashville, TN
Jesus T. Olivero-Velbe, Michigan State University, East Lansing, MI
Sang-ki Park, University of Rochester, Rochester, NY
Katherine M. Sojka, Medical University of South Carolina, Charleston, SC
John J. Stanek, University of Connecticut, Storrs, CT
Jeffrey A. Steeves, University of Mississippi, Oxford, MS
NOMINATIONS SOUGHT

Officers

Nominations for SOT Elected Officers

There are many Society of Toxicology (SOT) members with the ability and enthusiasm to willingly serve the Society and the Nominating Committee is counting on you to identify these members. The Committee will be preparing a slate of your nominees for the 2000 SOT elected officers and elected standing committees. The offices to be filled in 2000 include the Vice President-elect, Treasurer-elect and two Councilors. Additionally, two members will be elected to the Membership Committee and Education Committee and four members to the Nominating Committee. The terms and duties of each position are described in the SOT By-Laws. Please send your recommendations to any member of the Nominating Committee: Steven D. Cohen, Chairperson, Michael P. Holsapple, Meryl H. Karol, Kathleen E. Rodgers, Cheryl Lyn Walker and David Eaton, Liaison.

Act now!

Nominations must be received by


Honorary Memberships

Do you know a non-member toxicologist who has achieved outstanding and sustained achievements in the field of toxicology? Perhaps you would like to nominate that individual for an Honorary membership in SOT. In accordance with 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 vote of Council. Not more than two Honorary members shall be elected during any one term of Council.” Honorary members include John E. Casida, Jud Coon, Ronald W. Estabrook, Charles S. Lieber, Michel Mercier, Sten G. Orrenius, Dennis Parke, Herbert Remmer, William O. Robertson, Roger W. Russell, Takashi Sugimura, Wendall W. Weber, and Hyman J. Zimmerman.

Nominations must be received by

October 1, 1999.

Society of Toxicology Awards

In recognition of distinguished toxicologists, SOT presents several awards each year. Award recipients are listed in the annual Membership Directory and are honored at a special Awards Ceremony at the SOT Annual Meeting.

The Achievement Award is presented to a member of the Society of Toxicology who has less than 15 years experience since obtaining his/her highest earned degree (in the year of the Annual Meeting of the Society of Toxicology) and who has made significant contributions to toxicology. This award consists of a plaque and a cash stipend.

The Arnold J. Lehman Award is presented by the Society of Toxicology to recognize an individual who has made a major contribution to the control of chemical agents, including pharmaceuticals. The contribution may have resulted from the application of sound scientific principles to regulation and/or from research activities that have had a significant influence upon the regulatory process. The nominee may be employed in academia, government, or industry and must be a member of the Society. The award consists of a plaque and a cash stipend. Nominations, along with a CV, supporting documentation, and other relevant data for the Awards are to be submitted, in writing to Steven Cohen, Chairperson, Awards Committee, c/o SOT Headquarters. The deadline for this award is October 1, 1999.

The Board of Publications Awards for the Best Paper in Toxicology and Applied Pharmacology, the Best Paper in Fundamental and Applied Toxicology and the Best Paper in Toxicological Sciences, are presented to the author(s) of the best paper published in each of the official SOT publications during a 12-month period, terminating with the June issue of the calendar year preceding the Annual Meeting at which the award is presented. The author(s) need not be a member of the Society of Toxicology. These awards consist of a plaque and cash stipend. Submissions should include a one-page summary of the paper’s contribution to the science of toxicology and a copy of the article for which the nomination is being made. Any member of the Society may submit one title for consideration per journal award. In addition, the titles of no more than six papers to be considered for each award are submitted by the editors of each official SOT publication. All papers submitted will be evaluated by the Board of Publications.

NEW! The Contributions to Public Awareness of the Importance of Animals in Toxicology Research Award will be presented annually to an individual (or organization) in recognition of the contributions made to the public understanding of the role and importance of experimental animals in toxicological science. This award may be for either a single seminal piece of work or a longer-term contribution to public understanding of the necessity of the use of animals in toxicological research both to ensure and enhance the quality of

Continued on page 28
LAKE ONTARIO CHAPTER

Toxicologists as Communicators proved to be an interesting topic for the Inaugural Fall Meeting of the Lake Ontario Chapter of the SOT. Approximately 60 scientists, faculty members, and students throughout the Great Lakes Region attended this meeting hosted by Bristol-Myers Squibb Co. in Syracuse, NY on December 10, 1998. Representatives from industry, consulting firms, contract testing laboratories, academia and regulatory focused on how to communicate toxicology-related issues to the general public.

Dr. Steven Cohen, President of SOT, proved to be a dynamic speaker with an important message. He discussed the role of regional chapters in the SOT Horizons 2000 Long-Range Plan. He said that a major goal of the Long-Range Plan is to promote better public understanding of toxicology. A more informed public will appreciate the importance of toxicology research and will respond rationally when confronted by science hysteria. The public will then talk to their legislators, who will be more likely to demand sound science when establishing statutes and regulations.

Some key messages in Dr. Cohen's talk included: the importance of public education, primarily K-12 science education; the need to get "Paracelsus to the People"; how to be proactive and not reactive when it comes to dealing with animal activists; and the key role of SOT as the leading organization worldwide for stimulating state-of-the-art toxicology.

The other invited speakers explored the topic from various occupational perspectives, and took part in a lively roundtable discussion. Students, post-docs, and technical personnel contributed platform presentations and posters, and at lunch took part in an informational "What Do Toxicologists Do?" session. Discussion tables were set up so that they could learn something of the daily routine of industrial, government, toxicologists, etc. The Lake Ontario Chapter received positive feedback from both the students and the working toxicologists who participated.

SYNOPSIS OF OTHER INVITED SPEAKERS' PRESENTATIONS:

Dr. Rodney Dietert of Cornell University discussed the role of academia in public toxicology education. He told of how toxicology naturally integrates biology and chemistry, bringing these disciplines to the level of real-life problems. He also discussed how academic training can train toxicologists to communicate equally well with their peers and their neighbors. For example, in Dr. Dietert's toxicology program, every student seminar is given twice: once in the usual academic setting and again to a group of nonscientists.

Jacqueline Fox, a senior toxicologist with Eastman Kodak Company, presented the industry perspective. An industrial toxicologist may have to provide toxicity information to customers, employees, plant neighbors, the judiciary, regulators, and other toxicologists. She emphasized that publication in a peer-reviewed scientific journal or presentation at a national meeting requires very different techniques from those used in communicating with a neighborhood association concerned about air emissions from a factory or preparing a hazard warning label for a product aimed at a consumer with a high school education.

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NORTH CAROLINA CHAPTER

The Fall 1998 meeting held at the UNC Friday Center was a highly successful mini-conference entitled “Childrens Health and the Environment” and was organized by incoming Vice-President Tim Fennell of CIII. The presentations by Dr. Steven Galson, USEPA (“The EPA Childrens Health Initiative”); Dr. Robert Chapin, NIEHS (“The Effects of Perinatal/Juvenile Pesticide Exposure and Nervous, Immune and Reproductive System Functions”); and Dr. James Lamb, IV, Jelinek, Schwartz, and Connolly (“Do We Need an Additional 10-Fold Margin of Safety to Protect Children from Environmental Risks?”) were thought-provoking and timely. The discussions were continued at the wine and cheese reception that followed.

The Winter meeting seminar held February 20, 1999 at NIEHS by Dr. Paul Meltzer M.D., Ph.D. from the National Human Genome Research Institute of the National Institutes of Health, fulfilled expectations that it would be cutting-edge. His talk “Gene Expression Profiling with cDNA Microarrays” demonstrated the value of this new technology for toxicological research and drug development. His talk filled the Rodbell Auditorium, the largest crowd for an NCSOT meeting yet. In addition to the keynote address, there were 64 poster presentations. Dr. Michael Cunningham of NIEHS handed over the Presidency to Dr. Robert Kaylock of EPA for the coming year. Student awards were also presented to Ivan Rusyn, UNC-CH (“Rapid Activation of NK-ki in Kupffer Cells by Oxidants Is Involved in the Mechanism of Promotion by Corn Oil in Liver,” mentors Dr. Ronald Thurman and James Swenberg); Kathleen Kraft, UNC-CH (“Ozone Effects in Wistar Rats, an Age Comparison Study,” mentor Dr. Michael Madden); Chris Hust, UNC-CH (“Acute and Subchronic Administration of TCDD in Long Evans Rats: Comparison of Tissue Levels and Adverse Developmental Effects,” mentor Dr. Linda Birnbaum); Elise Jackson, UNC-CH (“A Parallelogram Approach to Assess the Role of CYP2E1 in 1,3-Butaadiene Pharmacokinetics and Toxicity,” mentor Dr. Les Reice); and Hu Wang, NCSU (“Protein Kinase C Influences Phorbol Ester-Induced Cutaneous Inflammation But Not Tumor Promotion,” mentor Robert Smart). Each awardee received a travel award of $500.

In the elections for new officers, Dr. Robert Chapin of NIEHS became the Vice President-elect, Mac Law of NCSU the new Councillor, and Dana Tarka of UNC-CH the new Student Representative.
PACIFIC NORTHWEST CHAPTER

We held our PANWAT elections earlier this year and Steven Gilbert was elected as Vice President-Elect and Paige Lawrence was elected as a Councilor.

Our list of officers for 1999-2000 will be: President - Nancy Kerkvliet, of Oregon State University; Secretary/Treasurer - Jeff Jenkins, Oregon State University; Vice President - Brian Thrall, Battelle Pacific Northwest National Labs; Vice-President-elect - Steven Gilbert, Biosupport, Inc; Councilor - Paige Lawrence, Washington State University; and Councilor - Richard Okita, Washington State University.

Nancy Kerkvliet is organizing the 1999 PANWAT conference which will be held at The Resort at the Mountain, Mount Hood, OR on October 1-2. This hotel/conference center is nestled in the spectacular Salmon River Valley in the highlands of Oregon. Two symposiums will be held on the first day of this conference: The morning session will be a presentation on the opportunities and approaches for educating the public on toxicology and the afternoon session will be a symposium entitled "Cytokines in Target Organ Toxicity." Friday's session will be devoted to platform and poster presentations by students, post-doctoral fellows and researchers.

If anyone is planning a trip to the Pacific Northwest, please consider attending our annual meeting on Mount Hood, October 1-2. Those interested in finding additional information about registration or the conference program should contact Nancy Kerkvliet at Nancy.Kerkvliet@orst.edu.

SOUTH CENTRAL CHAPTER

The South Central Chapter held its annual meeting on Wednesday, March 17, 1999, at the Hilton Riverside in New Orleans as part of SOT’s Annual Meeting. One item on the agenda was announcement of the election of incoming officers for 1999-2000. Dr. Benny Blaylock, Associate Professor at Northeast Louisiana University in Monroe was elected Vice President-elect; Dr. Dan Schlenk, Associate Professor at the University of Mississippi in Oxford was elected Secretary; and Dr. Debbie Hansen, Toxicologist at the National Center for Toxicological Research in Jefferson, Arkansas was elected Councilor.

Several student members of the Chapter were recognized at the Annual Meeting for receiving awards. Shashi Ramaiah from Northeast Louisiana University (mentor Harihara Mehandale) won the Taylor and Francis Award presented by the Food Safety Specialty Section and was also recognized by the Board of Publications for having the Best Paper in Toxicology and Applied Pharmacology. Joe Griffin at the University of Arkansas for Medical Sciences (mentor Neil Pumford) received the Best Paper Award from the Immunotoxonomy Specialty Section. Our Chapter also provided a $500 travel grant to Mr. Udayan Apte, graduate student in the Division of Toxicology at Northeast Louisiana University to visit the National Center for Toxicological Research and learn new methods under the direction of Dr. Tom Bucci.

As an effort to support the Long-Range Planning initiatives of the Society, the Chapter announced plans to conduct a teacher workshop at the upcoming fall meeting to be held on the campus of Northeast Louisiana University in Monroe, LA, October 1, 1999. Speakers from Northeast Louisiana University (Benny Blaylock, Paul Ferguson, Harihara Mehandale and Carey Pope), Louisiana State University at Shreveport (Steve Pruet) and the National Center for Toxicological Research (Merle Paule) will be presenting both lecture and practical lab-based information on a wide array of topics to those attending. Many thanks to Dr. Anna Shvedova (Allegheny-Erie Chapter) for contributing ideas and materials for our initial preparations for this workshop.

SOUTHERN CALIFORNIA CHAPTER

SCCSOT Councilor Wins 1999 SOT Award: Congratulations to Dr. Ann de Peyster for winning the SOT 1999 Public Communications award. Dr. de Peyster has proven herself to be a leader in the area of toxicological communication, not only in Southern California, but also at the national level. Congratulations Ann!

In addition to Dr. de Peyster’s award, San Diego State University was awarded with a Colgate Palmolive Visiting Professorship. The award provides for the visit of Dr. Robert Chapin (NIEHS, Reproductive Toxicology Program). His visit will expose students and faculty at San Diego State with Dr. Chapin’s knowledge in reproductive toxicology. Congratulations to Dr. Chapin and San Diego State University.

SCCSOT Fall Meeting November 4, 1998: "In Vitro Approaches and Methods for Biological Testing."

The fall SCCSOT meeting was held at ISIS Pharmaceuticals, Carlsbad, CA and was a true success with over 70 attendees. The topic focused on in vitro methods for biological testing of xenobiotics. Seminars were presented by Dr. Jeff Theiss (Agouron Pharmaceuticals, Inc), who opened the meeting with a presentation entitled "In Vitro Testing Strategies in Toxicology." This was followed by a presentation by Dr. David Monteith (HTI) on the use of primary cultures of hepatocytes for testing pharmaceuticals. Dr. Greg Stevens (Agouron Pharmaceuticals, Inc) lectured on the use of precision cut tissue slices in preclinical drug development. The day ended with Dr. Leigh Ann Burns (Dow Corning Corp.)

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CONTEMPORARY CONCEPTS IN TOXICOLOGY
(Focus Meetings Sponsored by the Society of Toxicology)

In Vitro
Human Tissue Models in Risk Assessment

September 20-22, 1999
Turf Valley Resort and Conference Center
Ellicott City, MD

Human cell and tissue models are becoming important tools for regulatory decision making. This workshop will allow attendees to hear and interact with a core group of internationally recognized invited experts to consider the state-of-the-art science in the use of human cell and tissue models for the prediction of human metabolism, toxicity, and pharmacokinetic behavior. Consensus recommendations regarding the use of such models in regulatory decision making and risk assessment will be developed in discussion groups led by the invited experts. Recommendations developed at the workshop will be submitted to Toxicological Sciences for publication.

The Workshop will be held at the Turf Valley Resort and Conference Center located in Ellicott City, MD, approximately 20 miles from Baltimore/Washington International Airport.

Turf Valley Conference Center
2700 Turf Valley Road
Ellicott City, MD 21042
Tel: (410) 465-1500
Fax: (410) 465-7365

For more information on the workshop or to register, contact Tonia Masson at SOT
Headquarters: Tel: (703) 438-3115;
Fax: (703) 438-3113; E-mail: tonia@toxicology.org.

Workshop on the
Harmonization of Cancer and Non-Cancer Risk Assessment

November 1-4, 1999
Baltimore/Washington D.C. Area

This workshop will explore the most critical issues involved in developing a unified approach to risk assessment for all toxic endpoints. The workshop will be used to build consensus where it can be achieved and to identify the range of opinions for those areas where there is no consensus.

The following are key issues that will be discussed in separate breakout groups, and examples of focus questions that will be discussed:

• Mode of action as the basis for harmonization
• Common levels of adverse effect for risk assessment
• Scaling and uncertainty factors

Interested scientists are welcome to attend all sessions and breakout groups of the workshop. Time will be made for comments and questions by the attendees.

The workshop, scheduled for November 1-4, will be held in the Washington area, as this will be the most convenient site for many of the participants and most of the prospective attendees.

For more information on the Workshop or to register, contact Tonia Masson at SOT
Headquarters: Tel: (703) 438-3115;
Fax: (703) 438-3113; E-mail: tonia@toxicology.org.
SPECIALTY SECTION NEWS

HISTORY OF THE MECHANISMS SPECIALTY SECTION
Submitted by R. Snyder

The history of the Mechanisms Section, while, on the surface of interest only to its members, is also a history of the dramatic changes that have occurred in toxicology over the last 20-30 years. Specialty Sections developed out of discussions that began in the late 1970's, primarily among SOT members who served on the Toxicology Study Section. Whereas toxicology had been a discipline mainly associated with describing the adverse effects of chemicals, the Toxicology Study Section was then reviewing grant applications aimed at studying the mechanisms by which chemicals produced their toxic effects. They felt that more emphasis should be placed on mechanistic research and wished to form a division within the Society to accomplish that goal. Although there was initial objection to establishing subgroups that might disrupt unity within the discipline, the SOT Council, in its wisdom, took a broader view by recognizing that the Society was growing rapidly and there was room for toxicologists with many different interests under our umbrella. As a result, a task force was established and a group of us met in association with a Council meeting at which time we drew up a change in the SOT By-Laws to permit the development of both Specialty Sections and Regional Chapters. The Mechanisms Section was the first to be established and started business in 1982-83.

Several strategies were selected to enhance the ability of the Section to carry out its goal of fostering the study of mechanisms of action. One of the first was to make available a series of awards for excellence in mechanistic research by graduate students. These awards, now named after Carl Smith who was the driving force behind their organization, remain a cornerstone of Mechanism's activities. Since its founding, the Mechanisms Section has also made major contributions to the excellence of the annual meeting by presenting to the membership symposia concerned with the latest findings in mechanistic toxicology.

A complete version of this history including lists detailing all mechanisms officers, symposia and graduate student awardees may be found at: http://www.toxicology.org/sections/mechanisms/history.html.

1999 Specialty Section Award Winners

Metals Specialty Section
1999 Student Research Award Winners:
Predoctoral
1st Hisham Hamadeh - $400
   Mentor - Dan Menzel, University of California Irvine.
   Title - Model for arsenite related skin carcinogenesis involving the
   tumor suppressor protein p53.
2nd Ron Kaltreider - $150
   Mentor - Joshua Hamilton, Dartmouth Medical School.
   Title - Chromium (VI) induces a hormone-independent activation of
   the glucocorticoid receptor.
3rd Paul Schmidt - $150
   Mentor - Val Culotta, Johns Hopkins University School of
   Public Health.
   Title - Elucidation of superoxide dismutase copper loading with
   LYS7, a copper chaperone protein, from Saccharomyces cerevisiae.

Postdoctoral
1st Dr. Margarita Apostolova - $400
   Mentor - George Cherian, University of Western Ontario.
   Title - Transient nuclear translocation of metallothionein during
   myoblast proliferation and differentiation.
2nd Dr. Masafumi Takiguchi - $150
   Mentor - Mike Waalkes, NCI at NIEHS.
   Title - Cyproterone acetate, the antihormone, induces a novel form of
   cellular tolerance to cadmium involving reduced cellular accumulation.

Mechanisms Specialty Section
Winners of the 1999 Carl C. Smith Graduate Student Awards:
1st Shawn B. Bratton (Sponsors: S.S. Lau and T.J. Monks),
   University of Texas at Austin. "2,3,5 Tris-(gluthathione-s-pi)
   hydroquinone depletes cellular glutathione, stimulates sphingomyelin
   turnover, and induces apoptosis in HL-60 cells: Role of reactive
   oxygen species and nuclear factor-κB."
2nd Jacqueline A. Walisser (Sponsor: R.L. Thies), University of
   British Columbia, Vancouver, BC. "Poly (ADP-ribose)
   polymerase inhibition prevents oxizant-induced oncrosis and permits
   apoptosis in endothelium cells."
3rd Xiaoliang Zhou (Sponsors: J. Gu, Q.-Y. Zhang, D.C. Spink,
   L.S. Kaminsky, and X. Ding), State University of New York at
   Albany. "Bio-transformations of coumarin by rodent and human
   cytochromes P450: Metabolic basis of tissue-selective toxicity in the
   olfactory mucosa of rats and mice."

Food Safety Specialty Section
Outstanding Graduate Student:
1st Shashi Ramaiya
   Mentor - Harithara Mehandale, Northeast Louisiana University.
   Title - Molecular players in increased tritoxyacetate-hepatic injury
   and decreased mortality following diet restriction.
2nd Andrew McDougall
   Mentor - Stephen Safe, Texas A&M University.
   Title - Hofloidindolphenolates: Natural product derivatives with
   antistrogenic and antitumorigenic activities.

Immunotoxicology Specialty Section
Michael J. Whitekus
Joseph M. Griffin
David M. Shepherd

Each winner received a plaque, a check for $250, and a gift certificate for $130 from Taylor and Francis for books or journals.

Neurotoxicology Specialty Section
Predoctoral
1st Jeffrey Moehlenkamp, University of Kansas,
   Mentor - Dr. Jeffrey Johnson
2nd Jennifer Trauth, Duke University
   Mentor - Dr. Theodore Slotkin
3rd Janean Hanson, University of Kansas
   Mentor - Dr. Jeffrey Johnson

Postdoctoral
1st Dr. Michelle Nihei, Johns Hopkins University
   Mentor - Dr. Tomas Guiralte
2nd Dr. Xiaolin Zhao, Northwestern University
   Mentor - Dr. Toshio Narahashi
3rd Dr. Kaisa Heiskanen, Case Western Reserve University
   Mentor - Dr. A.-L. Nentinen

Spring 1999
Hitchings-Elion Fellowships

The Burroughs Wellcome Fund’s Hitchings-Elion Fellowships support U.S. and Canadian researchers in the biomedical sciences and medically oriented behavioral sciences who want to pursue postdoctoral training in the United Kingdom or the Republic of Ireland. The fellowships provide $332,500 over five years. It is anticipated that up to five fellowships will be awarded. The awards are intended to help researchers early in their careers make the critical transition to become independent investigators, and to promote collaboration among scientists in the countries involved. Application deadline is August 2, 1999.

Candidates must hold or expect to receive an M.D. or Ph.D. degree (or equivalent), and they generally must not have more than 24 months of postdoctoral experience by the application deadline. For more information, contact Rolly Simpson, program associate, at (919) 991-5110. Information is also available by sending an e-mail message to: mailback@bwfund.org (type the word “menu” on the subject line for a list of programs) and by visiting BWF’s Web site at http://www.bwfund.org.

Nominations Sought

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Society of Toxicology Awards (continued)

human and animal health and the environment. Guidelines and examples are provided in the full description posted on the SOT Web site. The award consists of an engraved plaque and a cash stipend.

NEW! The Enhancement of Animal Welfare Award will be presented annually to a member of the Society in recognition of the contribution made to the advancement of toxicological science through the development and application of methods that replace, refine, or reduce the need for experimental animals. This award recognizes outstanding/ significant contributions made by members of the Society of Toxicology to the scientifically sound and responsible use of animals in research. The achievement recognized may be either a seminal piece of work or a long-term contribution to toxicological science and animal welfare. Guidelines and examples are provided in the full description posted on the SOT Web site. The award consists of an engraved plaque and a cash stipend.

The Merit Award is presented to a member of the Society of Toxicology in recognition of a distinguished career in toxicology. This award consists of a plaque and a cash stipend.

The Public Communications Awards is presented by the Society of Toxicology to recognize an individual who has made a major contribution to broadening the awareness of the general public on toxicological issues through any aspect of public communications. The award should reflect accomplishments made over a significant period of time. Examples of qualifying media in which the nominated communication may appear are: books, brochures, continuing education courses, data bases, extension bulletins, magazines, newspapers (local or national), public presentations, public forums, radio and television scripts, and workshops. The award consists of a plaque and a cash stipend.

The Colgate-Palmolive Company sponsors this Visiting Professorship Award through the Society of Toxicology for the study of in vitro toxicology. Awards will be granted to institutions that select an individual scholar to disseminate knowledge regarding research, development and/or use of science that contributes to the replacement, reduction or refinement of currently used animal models in research and testing.

Up to four awards will be granted in a single calendar year. Award recipients will be chosen by the Awards Committee, together with a representative from the Colgate-Palmolive Company.

Applications, consisting of a letter of request from the host institution, a detailed proposed agenda, budget (not to exceed $10,000 with at least $2,000 to be used for an honorarium), and a selected bibliography of the visiting scholar, should be sent to the Awards Committee at the SOT Headquarters office by October 1, 1999. A more detailed award description is available on the SOT Web site (www.toxicology.org) or upon request from SOT Headquarters. Awardees will be announced at the SOT Annual Meeting and in the SOT Communiciqué.

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Burroughs Wellcome Lectures: How Copper Ions Signal to the Transcriptional Machinery

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expression in the presence of high copper levels. The notion that yeast cells are outstanding model systems to study important events and mechanisms in toxicology is underscored by the observation that many proteins that maintain Cu balance in yeast are conserved in mammals. The delicate balance that is required for maintaining sufficient levels of copper, while preventing copper toxicity, is dictated by the dynamic interplay between distinct copper ion sensing transcription factors, that either activate or extinguish gene expression, and through the use of multiple layers of cellular regulation. These investigations lay the groundwork for understanding the molecular mechanisms by which mammals establish and maintain copper ion homeostasis.
WILLIAM F. BUSBY JR., 1940-1999

William F. Busby Jr., a research scientist, died Saturday, March 13, 1999, at his home in Sterling, MA. He was 59 years old.

Dr. Busby graduated from the University of Rhode Island at Kingston and earned a doctorate in marine biology from the University of California at San Diego, Scripps Institute of Oceanography in 1966. He did post-doctoral research at the Worcester Foundation for Experimental Biology in Shrewsbury. Dr. Busby was a research scientist at Massachusetts Institute of Technology in Cambridge for 25 years, retiring in 1996. He was later a staff scientist at the Health Effects Institute in Cambridge.

Dr. Busby was a senior scientist at Gentest Corporation in Woburn, MA at the time of his death.

GERTRUDE B. ELION, 1918-1999


Dr. Elion was 81 years old. She shared the 1988 Nobel Prize in Medicine with George Hitchings, her colleague of 40 years. Her work led to several life-saving medicines, including drugs to treat leukemia, herpes and immunity disorders. Her name appears on 45 patents.

Robert Ingram, Glaxo Wellcome’s CEO, said, “Gertrude Elion’s love of science was surpassed only by her compassion for people. While blazing new trails as a woman scientist in what was then a man’s world, Dr. Elion persevered in work that led to advances in treatments for a variety of diseases. Along the way, she touched patients all over the world.”

In addition, Dr. Elion was an SOT Honorary Member. Dr. Elion served on the Board of Directors for Americans for Medical Progress and was a member of their National Advisory Council at the time of her death.

CARROL S. WEIL, MA, 1917-1999

Carroll S. Weil, the second Secretary (1963-67) and a Past President (1968-69) of the Society of Toxicology, passed away suddenly due to acute leukemia on March 25 in Pittsburgh, PA at the age of 81. Carroll was a recipient of the SOT Merit Award (1985), the Herbert E. Stokinger Award (AIHA), the George H. Scott Award (Toxicology Forum) and numerous other awards.

After receiving his M.A. from the University of Missouri, Carroll joined the Rubber Reserve and Chemical Hygiene Fellowships at Mellon Institute in 1942. From 1943 to 1945, he was a unit head on the Manhattan Project, studying the toxicity of uranium products and synthetic fuels. He returned to Mellon Institute as a Fellow in 1945 and returned there on the faculty of the University of Pittsburgh and, after 1968, on that of Carnegie-Mellon University. The industrial fellowship he was on until his first retirement at the end of 1982, became the Bushy Run Research Center of Union Carbide. Carroll was active as a consultant on toxicology experimental design, conduct data analysis and research until December of 1998. He served on numerous National Academy of Sciences committees, editorial boards of technical journals, SOT committees, and was a member of the Expert Committee of the Flavor and Extract Manufacturers Association. He was a charter member of both SOT and the Biometrics Society.

Carroll published more than a hundred articles and chapters resulting from his research in industrial toxicology. His specialties included experimental design and statistics, acute, chronic and subchronic toxicology. Several papers addressed the design, analysis and results of chronic mouse skin painting studies. He developed or suggested methods (such as the moving average technique) to make optimum use of animals more than 20 years before the current concern for animal welfare arose. He helped develop the concept of safety factors and the principles of extrapolation of animal data to man.

In addition to all of the above, Carroll was always willing to help, to teach, or to be a friend.

Submitted by Shayne C. Gad, Ph.D., DABT
On-Line in N’awlins

Submitted by Lorrence A. Buckley, Placement Committee

The On-Line Placement Service had a very busy second year at the 1999 Annual Meeting. This year, more computer terminals were available for candidates to enter resume information into the database and for employers to browse or search through the candidate listings based on categories such as years of experience, areas of expertise, etc. In addition, a printer was made available to employers to enhance this service. As the system is still new, it continues to be refined to best meet the needs of the candidates and employers. The patience of those who experienced any inconvenience was much appreciated, as were the many positive responses we received from those who enjoyed the enhanced benefits of the on-line service.

This year, the ratio of candidates/positions achieved an all time low due to a relative increase in the number of employers and positions advertised through the Center:

<table>
<thead>
<tr>
<th>Placement Center Registration History</th>
<th>Annual SOT Meetings</th>
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<tbody>
<tr>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td>Candidates</td>
<td>352</td>
</tr>
<tr>
<td>Positions</td>
<td>130</td>
</tr>
<tr>
<td>Cand:Pos</td>
<td>2.71</td>
</tr>
</tbody>
</table>

The above numbers reflect the activities of the on-line placement service at a single point in time—the Annual Meeting. This year, however, greater than 80% of candidates and employers had registered prior to the meeting. Such participation allowed for more effective interaction at the meeting as many people came prepared with lists of candidates or employers with whom they had already made arrangements to meet. While participation is likely to peak around the time of the annual meetings because on-site interviews can be easily and quickly arranged, the on-line service enables greater access to career opportunities on a year-round basis.

The 165 employers were from the following sectors: academic (27%), industry (36%), government (8%), contract research organizations (13%), and nonprofit (15%). The availability of entry level positions as well as those requiring more experience is demonstrated by the following counts:

<table>
<thead>
<tr>
<th>Years Experience Required</th>
<th>Number of Positions</th>
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<tbody>
<tr>
<td>0-2</td>
<td>55</td>
</tr>
<tr>
<td>2-5</td>
<td>78</td>
</tr>
<tr>
<td>5-10</td>
<td>48</td>
</tr>
<tr>
<td>10-20</td>
<td>16</td>
</tr>
<tr>
<td>20+</td>
<td>0</td>
</tr>
<tr>
<td>No selection</td>
<td>57</td>
</tr>
</tbody>
</table>

Approximately 33% of candidates were SOT members, 16% were non-members, and 51% were students. Of the 286 candidates who completed the “Years Experience” field, post-docs, candidates with 0-2 years, and those with 2-5 years accounted for approximately 60% of the candidate pool (20% in each category). A total of 35% did not complete resumes on line; an additional small percentage (6%) took advantage of the option to use the system confidentially.

As part of the Placement Committee initiatives to provide service to retired and unemployed members of the toxicology community, new fields to identify part-time and temporary opportunities were added. In our ongoing effort to provide the most effective forum to bring candidates and employers together, the Placement Service encourages all users to complete our on-line customer satisfaction survey or speak personally with a Committee member.
1999 Placement Seminar in Review
Submitted by Dorothy A. Cantor, Placement Committee

The Placement Seminar, "Mid-Course Corrections: Changing Careers in Toxicology" was designed specifically for toxicologists already launched in their careers who are considering career changes or who have had such changes thrust upon them. The seminar consisted of four presentations followed by a panel session addressing questions from the audience. The first three presenters related their experiences in changing from one sector of toxicology to another. Dr. Tom Jones, Eli Lilly & Co., discussed the trade-offs of moving from academia to a pharmaceutical company and summarized the attributes valued in the pharmaceutical industry. Dr. Lorraine Buckley, Eli Lilly & Co., related her experiences in multiple sectors as her career and educational background progressed, especially focusing on the similarities and contrasts between the chemical industry and pharmaceutical industry. Dr. Steven Harris, a self-employed consultant, provided insights for toxicologists interested in becoming consultants, addressing the attributes of consultants, their expertise, and the principles that they should follow. Mr. Terry Leyden of Career Marketing Associates then discussed the process for changing from one position to another, giving pointers on each step. He noted that from his experience in the executive search field, it is difficult to transition from one career sector into another, but provided advice on early career activities that will increase flexibility in mid-career decision-making. The information provided at the seminar was useful not only to toxicologists at the midpoint of their careers but also to young scientists in the planning phase for future careers.

The Placement Committee welcomes and encourages SOT members to suggest new subjects of interest for future Placement Seminars. Please contact Lois Lehman-McKeeman or Jose Manautou, Chair and Co-Chair, respectively, of the Placement Committee, with your ideas! Send E-mail to: lehmanmcKeemanLD@pg.com, manautou@uconnvm.uconn.edu.

SOUTHERN CALIFORNIA CHAPTER
Continued from page 25

providing an extensive discussion on in vitro approaches to mechanistic immunotoxicology.

SCCSOT Spring Meeting - June 3, 1999: The Spring meeting will be held June 3rd at Allergan Pharmaceuticals, Irvine, CA. The meeting will focus on developmental and reproductive toxicology. Local and national toxicologists in academia and industry will provide several lectures including talks on conducting juvenile and neonatal toxicology studies, regulatory aspects, reproductive toxicity testing of biotechnology products, as well as mechanisms and methods for assessing male and female reproductive toxicity. Please contact Dr. Greg Stevens (E-mail: stevens@agouron.com; tel: (619) 622-5901) if you are interested in receiving more information about the meeting.

"Chemical Blues"
Continued from page 7

Howard Mielke, professor of environmental toxicology at Xavier University, and Jon Seymour, senior scientist at Procter & Gamble, will present "Chemical Blues" topics. The event is coordinated by the Committee on Public Communications. The event is to coordinate a similar lecture in Philadelphia during SOT's 2000 Annual Meeting.

Topic suggestions are welcome and may be submitted to Ann de Peyster at (619) 594-3690 or by E-mail at adepeyster@mail.sdsu.edu.
Pathology / Professional

Allergan, a technology driven company, is a global leader in specialty pharmaceutical products and surgical devices. We currently have an employment opportunity in our Pathology Department.

Responsibilities include preparing tissue specimens from preclinical safety studies, producing high quality histological specimens, developing/applying advanced histopathological techniques and assisting in maintaining GLP study compliance. Requires a BS and two years related experience or an MS. Must have demonstrated research productivity. Prefer certification by ASCP/HT or HTL.

We reward our employees with a competitive salary, an excellent benefits package and a great working environment. Please send resume (e-mail preferred) to: resume@allergan.com AND Kelly.Barbara@allergan.com. If unable to e-mail, send to: Allergan, Attn: BK/T2-1B, 2525 Dupont Dr., Irvine, CA 92612. No phone calls please. EOE

ALLERGAN
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Toxicology Faculty Position

The Department of Veterinary Physiology and Pharmacology, College of Veterinary Medicine, Texas A&M University invites applications for a tenure track status funded position in Toxicology at the Assistant/Associate Professor level. The successful candidate will have an ongoing research effort with experience in molecular, genetic or environmental toxicology. Primary criteria for appointment will be a terminal degree in a biomedical or physical science, a publication record in peer-reviewed journals, demonstrated accomplishments in securing funding, and evidence of successful teaching.

Texas A&M is a land, sea and space grant university with more than 43,000 undergraduate and graduate students, plus medical and veterinary students. The Department of Veterinary Physiology and Pharmacology consists of 22 full-time faculty with interests in endocrine, cardiovascular and reproductive biology. A broad range of interdisciplinary research is possible with established campus-wide programs in toxicology, cardiovascular sciences, genetics, neuroscience, reproduction and nutrition. The graduate program in toxicology is supported in part by an NIEHS Training Grant in Environmental Toxicology. The new faculty member will also have access to research core facilities supported by the department, the NIH Center for Environmental and Rural Health and the Superfund Basic Sciences Program. College Station, home to Texas A&M University, is a mid-sized city located within an hour and a half of both Houston and Austin, Texas.

Candidates should send a curriculum vitae, letter of application, and names and addresses of three references to Dr. Kenneth S. Ramos, Chair, Toxicology Search Committee; Department of Veterinary Physiology and Pharmacology; College of Veterinary Medicine; Texas A&M University, College Station, Texas 77843-4466. Review of applications will begin on April 30, 1999, and continue until position is filled. Texas A&M University is an Affirmative Action/Equal Opportunity Employer committed to excellence through diversity.

Postdoctoral Fellowships

The University of Kansas Medical Center has postdoctoral fellowships available to work on (1) processes that transport chemicals into or out of the liver, (2) mechanisms of tolerance to metal toxicity, (3) sulfotransferase-isofrom activation of chemicals, or (4) mechanisms of thyroid carcinogenicity.

Techniques employed in these studies vary from gene cloning, heterologous gene expression, northern blotting, branched-DNA assays, in-situ hybridization, antibody production, western blotting, knock-out animal and transgenic-animal engineering, and whole-animal evaluation (pharmacokinetics, toxicology, histopathology, enzyme assays, etc.).

Applicants must be U.S. citizens or permanent resident. Send Curriculum vitae to Dr. Curtis D. Klassen, Dept. of Pharmacology and Toxicology, Univ. of Kansas Med. Ctr., Kansas City, KS 66160-7417; Fax: (913) 588-7501; E-mail: cklasse@kumc.edu.

Research Scientist II / Principal Scientist Toxicology

Roche Bioscience offers an exciting environment of innovation in human pharmaceutical research and has an immediate opening for a Research Scientist II/Principal Scientist in Toxicology.

You will be responsible for toxicology programs for new Roche Bioscience products within our Neurobiology business unit. This includes design and interpretation on the appropriate toxicology studies and the timely conduct and reporting of these studies. Responsibilities include preparation of protocols, reports, and summaries for toxicology studies as well as direction of the conduct of such studies. You will also be responsible for the integrity of the studies from a GLP standpoint.

The successful candidate will have a PhD with two to three years of experience in the field of Toxicology. Pharmaceutical Toxicology experience desired. Must have strong project management and interpersonal skills as the incumbent will participate in multidisciplinary project teams. Experience in one of the following areas desirable: in vitro tox screening, genetic toxicology testing, toxicology predictive computer modeling, or molecular toxicology.

Located in the San Francisco Bay Area, Roche Bioscience is proud to offer competitive salaries and a full benefits package which includes incentive bonuses, relocation assistance, 401(k) and pension plans. For immediate consideration, please send your resume to: Roche Bioscience, Professional Staffing, 3401 Hillview Avenue, A2-HR, Palo Alto, CA 94304. Fax: (650) 424-8159. We are an equal opportunity employer committed to workforce diversity.

See our career opportunities at our Web site www.roche.com/bioscience. Date: 2/26/98. EOE
Risk Assessment / Environmental Toxicologist

STS Consultants seeks Environmental Toxicologist with experience in Risk Assessment to participate in our Risk Assessment Services area. Applicant would participate on STS Risk Assessment Technical Committee, contribute to proposals and work plans, and serve as a project manager on risk assessment projects. Primary specialty would be Tier 2/Tier 3 risk assessments and toxicology. Responsibilities include:

- Toxicological profiles & derivation of toxicity criteria.
- Baseline human health risk assessments.
- Contaminant fate and transport modeling.
- Chemical fate/environmental disposition analysis.
- Derivation of residual contaminant levels/site specific cleanup goals.
- Quantitative probabilistic assessments.
- Ecological risk assessments.
- Assist in regulatory negotiations.
- Surface water, sediment, and aquatic life assessments.

Positions available in Minneapolis, MN. Interested applicants should mail or fax resumes to: Human Resources Department, STS Consultants, 750 Corporate Woods Parkway, Vernon Hills, Illinois 60061, Phone: (847) 279-2459; Fax: (847) 279-2510.

Assistant Professors

The Department of Environmental Health Sciences at The Johns Hopkins School of Hygiene and Public Health has openings for two tenure track Assistant Professors. Applicants should have interests and accomplishments in the area of molecular toxicology or biomarkers research. Successful candidates will be expected to establish independent research programs ranging from molecular mechanisms of cellular injury to the development and application of biomarkers which are related to an important human health problem. The research interests of the faculty include: chemical carcinogenesis, inflammatory processes, oxidative stress, DNA damage and repair, xenobiotic metabolism, mechanisms of signal transduction, chemoprevention, pulmonary smooth muscle regulation, health effects of air pollutants, determinants of host susceptibility, and molecular biomarkers. The successful applicant will have research interests and employ experimental approaches that complement one or more of these areas. The new Assistant Professors will also be expected to participate with the other faculty in Departmental teaching programs and mentoring of pre- and post-doctoral students. Interested candidates should send a curriculum vitae, a succinct statement of their research accomplishments and future plans for developing an independent research program along with the names of three individuals who can be contacted for references to:

Molecular Toxicology and Biomarkers Search Committee
c/o Kay Castleberry, Search Coordinator
Department of Environmental Health Sciences, Room 1102
The Johns Hopkins School of Hygiene and Public Health
615 North Wolfe Street
Baltimore, MD 21205

Equal Opportunity/Affirmative Action Employer
Women and Minorities are encouraged to apply.

Dermal Research Scientist

The Toxicology Research Program at ManTech Environmental Technology, Inc. located on Wright Patterson Air Force Base, OH, is recruiting an established scientist in the area of dermal research. Minimum requirements include: (1) Ph.D. in biological sciences or equivalent plus 5 years’ experience in dermal research; (2) four first author peer-reviewed publications in dermal research; (3) demonstrated good oral and written communication skills; and (4) applicant must be a U.S. citizen or have resident alien status. Preferred candidates will possess: Experience in (1) dermal absorption of chemicals; (2) molecular biology of the skin; (3) mathematical modeling; and (4) working in a multi-disciplinary research team environment. Essential duties: (1) develop and implement laboratory methods related to understanding the distribution and toxicity of chemicals in the skin; (2) participate in in vivo and in vitro dermal absorption experiments designed to assess systemic toxicity; (3) provide guidance to laboratory personnel relating to the design of dermal experiments and collection of appropriate data; (4) interact with other laboratory scientists in a team approach to solving problems related to dermal exposures; and (5) analyze and publish research findings in scientific literature. See complete job description for this position on our web page at www.man-env.com. Send resume and salary history to:

ManTech Environmental Technology, Inc.,
P.O. Box 31009, Dayton, OH 45437-0009, or
Fax: (937) 258-2197, or
E-mail to: angelsm@alcan.ai.wparb.af.mil.
Specify PVA 4242-02 in all correspondence.

Graduate Research Assistantships & Post-Doctoral Research Assistantships

Graduate Research Assistants at the MS and Ph.D. levels in Environmental Toxicology, as well as Post-Doctoral Research Associates, are invited to apply to The Institute of Environmental and Human Health at Texas Tech University/Texas Tech University Health Sciences Center. With new research facilities coming on line early 1999, implementation of MS/Ph.D. degree programs in Environmental Toxicology and new multi-disciplinary grants are allowing rapid expansion for graduate and post-doctoral education. Interested applicants can access the Institute's home page at www.ttu.edu/iehl which should give adequate information related to available programs, including both aquatic and terrestrial ecotoxicology interfaced with ecological modeling, risk assessment, and human health evaluation. Interested applicants should submit a letter of application including research interests, transcripts, and names of at least three (3) references, and possess excellent quantitative skills, particularly as applied to working in multi-disciplinary teams in Environmental and Human Health Toxicology. Applications should be submitted to the Institute and materials will be directed to one of the five (5) divisions as most appropriately correlated with the applicant's interest. Submitted materials should be submitted to the Office of the Director, The Institute of Environmental and Human Health, Texas Tech University/Texas Tech University Health Sciences Center, Box 41153, Lubbock, Texas, 79409-1153; Telephone: (806) 885-4567, Fax: (806) 885-2132; E-mail: rkendall@ttu.edu.
Nominations Sought
Continued from page 28

Society of Toxicology Awards (continued)

The Zeneca Traveling Lectureships are presented through the Society of Toxicology in recognition of excellence in research and service in toxicology. Zeneca, Ltd. provides two awards annually to promote greater collaboration between European and North American toxicologists. These awards are intended to enable North American toxicologists to undertake a three-to-four-week lecture tour of Europe, familiarize themselves with scientific issues in Europe, as well as to bring a North American perspective to European scientists.

Candidates for these awards should be established, mid-career North American scientists who are members of the Society of Toxicology and who demonstrate the ability to develop collaborative relationships with European colleagues.

Applications must include a statement of the applicant’s experience and area of expertise. A proposed itinerary and its underlying rational should be provided, along with an indication of the benefits that the lectureship will confer on the applicant. The itinerary must include a visit and lecture at Zeneca’s Alderley Park Facility in Cheshire, England. Candidates should contact the itinerary hosts prior to submission of the application. The application should not exceed 1,500 words.

The following format is suggested for the application:
1. Name and affiliation.
2. Statement of experience and expertise.
4. Rationale for itinerary.
5. Statement of benefits to the applicant.

The Society of Toxicology Awards committee will select recipients for the Zeneca Traveling Lectureships. The awardees will be named at the SOT 2000 Annual Meeting. Applications must be received at the SOT Headquarters by October 1, 1999.

The Toxicology Education Award is presented to an individual who is distinguished by the teaching and training of toxicologists and who has made significant contributions to education in the broad field of toxicology. This award consists of a plaque and a cash stipend.

Each nomination must be submitted in writing by a sponsor and a seconder who are Full or Associate members of SOT. The supporting documentation must indicate the candidate’s achievements in toxicology and is critical in the review of each candidate. Please send all nominations and supporting documentation to:

Awards Committee Chairperson
Dr. Steven D. Cohen
SOT Headquarters
1767 Business Center Drive, Suite 302
Reston, VA 20190-5332

The awardees will be named at the SOT 2000 Annual Meeting in Philadelphia. Deadline for receipt of nominations is October 1, 1999.

Do We Have Your Correct Address?

Do we have your correct address, phone, fax and e-mail numbers?

To update your information, simply mail or fax the Change of Address Form on the back page of this newsletter.

Send your changes to:
Elizabeth Brutus
Fax: (703) 438-3113, or
E-mail: elizabeth@toxicology.org

LAKE ONTARIO CHAPTER
Continued from page 24

Dr. Earle Nestmann of CanTox (Consultants in Toxicology) in Toronto, presented the ‘consulting perspective.’ As he sees it, the role of the consultant is to act as a disinterested third party, communicating the same science-based advice regardless of who the client is (e.g., industry, governments, trade associations, legal firms, citizens, etc.). Dr. Nestmann provided examples of issues requiring communication with scientists and non-scientists, illustrating the diversity of projects that he has handled, as well as the variety of approaches that can be used to provide solutions to problems.

Dorothea Torus of Litron Laboratories talked about the importance of increasing public understanding about the use of animals in research and testing. We, as scientists, need to inform the general public about why animals are used in medical research and the benefits which have come from such research. We need to take responsibility for communicating to the public, in lay terms, the excitement and value of science. Dorothea also discussed strategies for preparing and protecting ourselves from extreme animal activists. Institutions that use animals in research should have in place Crisis Management Teams to develop disaster planning procedures for dealing with animal activists targeting either individuals or institutions.

Dr. Andrew Doniger of the Monroe County Health Department discussed how, as science and technology develops, we need people with the ability to translate between those who understand science and those who do not. He also emphasized the importance of listening carefully and respectfully to the public’s concerns about environmental hazards, citing the Woburn, Massachusetts experience with an environmentally-linked leukemia cluster.
UPCOMING CONFERENCES


- **Animal Models of Drug Development for Human Neurodegenerative Diseases Symposium**, June 12, 1999, JW Marriott Hotel, Washington, D.C. Contact: Tel: (202) 782-2444; E-mail: human@afips.osl.md


- **AAPS Southeast Regional Meeting**, June 25, 1999, Sheraton Imperial Hotel and Convention Center, Durham, NC. Contact: Tel: (703) 548-3000; Web site: http://www.aaps.org/edumeet/arm/index.html

- **Advances in the Biology and Treatment of the Skin: A Symposium Honoring Albert M. Kligman, MD, PhD**, June 23-25, 1999, Environmental and Occupational Health Institute, Piscataway, NJ. Contact: Mitchel Rosen, Tel: (732) 235-5062; Fax: (732) 445-0122; E-mail: mrosen@soe.rutgers.edu

- **International Conference on the Toxicology of Fumonisins**, June 28-30, 1999, Doubletree Hotel Pentagon City/National Airport, Arlington, VA. Sponsored by the International Life Sciences Institute. Contact: Heather Steele, ILSI Northe. Amer.: 1126 16th St. NW, Washington, D.C. 20038-4810; Tel: (202) 659-0074; Fax: (202) 659-3859; E-mail: hsteele@ilsinn.org

- **International Neurotoxicology Association Meeting**, July 4-9, 1999, Leicester, UK. Contact: June重返 Contact: INA-7 Secretariat, Tel: 44 116 223 5343; E-mail: j.m.j.m@m.m.ac.uk; Web site: http://home.aiet.net/~crefret99/ina

- **Workshop on Physiologically-based Pharmacokinetic/Pharmacodynamic Modeling and Risk Assessment**, August 2-3, 1999, University Park Holiday Inn, Fort Collins, CO. Contact: Tel: (970) 491-7501; Fax: (970) 491-3568

- **8th Annual 1999 Midwest Cytocromes P450 Symposium**, September 10, 1999, Purdue University, West Lafayette, IN. All meeting information and registration forms are available at www.bmbr.purdue.edu/P450

- **British Toxicology Society Autumn Meeting**, September 12-14, 1999, Keeble College, Oxford, UK. Contact: Dr. TJB Gray, Meetings Secretary, Sanofi Research, Willowburn Avenue, Airtricity, Northumberland NE66 3JH, England; Tel: +44 (0)1665 607370; Fax: +44 (0) 1665 607510

- **Mountain West SOT Regional Chapter Meeting**, September 16-17, 1999, Breckenridge, CO. Contact: Dennis Petersen, University of Colorado, Tel: (303) 492-6159; Fax: (303) 492-6281; E-mail: petersen@uwa.colorado.edu

- **Toxicology for the Next Millennium**, September 20-23, 1999, Airline Conference Center, Warren, VA. Secking abstracts Contact: New-York Academy of Sciences, Tel: (212) 838-0230; Fax: (212) 838-5540; E-mail: conference@nysac.org; Web site: www.nyas.org/nyascon.htm

- **Contemporary Concepts Consensus-Building Workshop**, "The Use of Human Tissue Models in Risk Assessment", September 26-29, 1999, Turf Valley Resort and Conference Center, Ellicott City, MD. Contact: Tonia Masson at SOT Headquarters, 1767 Business Center Drive, Suite 302, Reston, VA 20190-5332; Tel: (703) 438-3115; Fax: (703) 438-3113; E-mail: tionia@toxicology.org; Web site: http://www.toxicology.org

- **999 North American Congress of Clinical Toxicology**, September 29-October 4, 1999, Hyatt Regency, La Jolla, CA. Abstract submission deadline: May 3, 1999. Contact: Contemporary Forums Conference Management, 11900 Silvergate Drive, Dublin, CA 94568; Tel: (925) 828-7103, ext: 0; Fax: (800) 289-9999; E-mail: conferences@contemporary.com; Web site: wwwconference.com

- **Preclinical Methods for Detecting the Potential Hypersensitivity of Pharmaceuticals**, October 4-6, 1999, Doubletree Hotel, Little Rock, AR. Contact: Joan Cramer, Department of Pediatrics, University of Arkansas for Medical Sciences, 1120 Marshall, Rm. 302, Little Rock, AR 72202; Tel: (501) 320-2988; Fax: (501) 320-4978; E-mail: JoanCM@exchange.ums.edu. Abstract deadline: September 7, 1999

- **9th North American ISSX Meeting**, October 24-28, 1999, Opryland Hotel, Nashville, TN. Contact: ISSX/ACT-DCT Meeting, P.O. Box 3, Cabin John, MD 20818; Fax: (301) 983-5537; E-mail: nhohland@exec.issx.org; Web site: http://www.louisville.edu/meandev/mbiochem/toxicology/ISSX-ACS

- **Contemporary Concepts Consensus-Building Workshop**, "Workshop on the Humanization of Cancer and Non-Cancer Risk Assessment", November 1-4, 1999, Baltimore/Washington area. Contact: Tonia Masson at SOT Headquarters, 1767 Business Center Drive, Suite 302, Reston, VA 20190-5332; Tel: (703) 438-3115; Fax: (703) 438-3113; E-mail: tionia@toxicology.org; Web site: http://www.toxicology.org

- **American College of Toxicology's 20th Annual Meeting**, November 7-10, 1999, McLean Hilton, McLean, VA. Contact: American College of Toxicology, 9650 Rockville Pike, Bethesda, MD 20814; Tel: (301) 571-1840; Fax: (301) 571-1852; E-mail: elagran@act.toxicology.org

- **Society of Toxicology 99th Annual Meeting**, March 19-23, 2000, Pennsylvania Convention Center, Philadelphia, PA. Abstract deadline: October 1, 1999. Contact: SOT Headquarters, 1767 Business Center Drive, Suite 302, Reston, VA 20190-5332; Tel: (703) 438-3115; Fax: (703) 438-3113; E-mail: arnette@toxicology.org; Web site: http://www.toxicology.org

MEDIA OF INTEREST

- **Condition of the Mid-Atlantic Estuaries**, Contact: Natalie Walker, EPA Region II's Community Based Assessment Team, (410) 727-2749; or check the Web site: www.epa.gov/envmap

- **Handbook of Developmental Neurotoxicology**, Edited by William Slattery Jr. and Louis Chang. ISBN: 0-12-648860-0. Contact: Academic Press, San Diego, CA. (610) 238-5566; E-mail: ap@acad.com; or check the Web site: http://www.academicpress.com
# Society of Toxicology Change of Address Form

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Fax to Elizabeth Brutus at (703) 438-3113 or E-mail: elizabeth@toxicology.org