In this, my first message as President of the Society of Toxicology, I’d like to express what an honor it is to be trusted to lead this great Society! Through the volunteer efforts of many of our members combined with expert management by AIM, we’ve grown to be one of the largest and most prestigious professional scientific societies world-wide.

Though it is essential to preserve the success and reputation that we’ve earned over the last four and one-half decades, I see many exciting opportunities in the coming year to further enhance the scope, effectiveness, and stature of SOT. By exploring these possibilities and implementing those that prove to be promising, I hope we will enrich the value of the Society to its members and thereby earn the confidence that has been entrusted to me.

Many exciting ideas and initiatives have evolved from discussions of Council, committees and task forces this past year, some of which constitute large shifts in the mindset and process by which we manage our society. The first of these is securing the future of SOT, in particular the pipeline of students who choose to pursue a career in our discipline. Responding to this concern raised by the Membership Committee, a task force chaired by Dan Acosta was charged to propose strategies to improve the recruitment and retention of members to the Society. One conclusion of this task force is that undergraduate students represent a rich, yet under-appreciated, pool of prospective members of our society and discipline. A strong recommendation was that SOT redouble its efforts to recruit undergraduate members and that we encourage and equip our members with the tools needed to develop undergraduate curricula in toxicology – some perhaps leading to degree granting majors. I look forward to Council pursuing these opportunities with the Membership and Education Committees in the coming year.

Fostering an interest in toxicology is essential, but not sufficient to populate the pipeline of toxicologists in training. A second critical factor is financial support, which has come under concern recently with the reorganization of the NIH study sections. Although we realize that this is not the sole source, NIH accounts for a major portion of graduate student support for our members. Thus, a task force chaired by Dave Eaton was charged to assess the impact of the reorganization of NIH and recommend actions that might be taken by SOT to ensure the continued success of our members who rely on NH funding to sustain their research and training programs. Although this may appear at first glance as a parochial concern by our academic members to preserve and protect their personal research programs, one must realize that the majority of our students in toxicology are funded through investigator-initiated NIH grants. Ensuring the future funding is essential to the health and vitality of our student recruitment efforts, and the success of this task force will have a profound impact on the future of the discipline of toxicology.

On another topic, the Society has been struggling somewhat with an identity problem – either no identity or, worse yet, a negative public image. One concern discussed by previous Councils is the message that we have chosen for the public – the study of poisons. Marketing experts would advise that a more positive message, such as safe-guarding human, animal and environmental health, garners more interest and enduring support from an impassionate public. A recently completed Task Force on Public Communication chaired by Steve Cohen concluded that we can do far better in impressing the general public, funding agencies, employers and policy makers of the essentiality of our discipline if
we were to put a more positive spin to our message. On the recommendation of the task force, Council will consider creating a Communications Committee with the charge of researching and implementing the most effective means by which we can increase the perceived importance of our Society by the public and other external stakeholders.

The final initiative that I would like to discuss in this newsletter is my concern for more frequent and substantive meetings of our membership. The success of our Annual Meeting is obvious from the paragraphs that appear later in this issue. My concern is that for many of our members, this is the only time we gather to exchange ideas and advancements. Providing opportunities to meet in smaller venues throughout the year to address focused topics of toxicological concern, in my opinion, would greatly enhance the collegial networking amongst our members, broaden opportunities for participation by both members and non-members, expand the visibility of the organization, and engage the participants in intense discussions to advance current understandings of toxicity-related issues. We have a process for accomplishing this within the current structure of SOT in the form of Regional Chapters and Current Concepts in Toxicology (CCT). The few CCT forums that have been organized were highly successful, however, there is opportunity to be far more ambitious. One initiative would be to enlist the assistance of SOT meeting planning experts to offer several CCTs throughout the various regions such that on average, all members would find the opportunity to attend at least one CCT outside the Annual Meeting each year. I’m sure you will agree after reading the synopsis of this past Annual Meeting that we have plenty of content and enthusiasm to support several smaller CCT meetings each year. What’s missing is an organizational structure to assist with the logistics.

Hopefully, you can sense the excitement that we have for the many opportunities that lay ahead and I invite you to share your thoughts and ideas regarding ways in which we can further improve on the success of our Society and the value it brings to our members.

Kendall B. Wallace, Ph.D., D.A.B.T.
2005–2006 SOT President

SOT Launches New Web Site

**The Society of Toxicology** launched its new Web site May 20th, in an effort to improve the Web experience of its members, potential members, legislators, regulators, and the public.

The new site was built under the direction of the World Wide Web Advisory Committee with the main purpose for the site redesign being to promote the new direction of the Society. The overall goals for the site redesign are to: (1) build the most useful resource on the Internet for toxicity-related matters; (2) increase public awareness for the purpose and value of toxicology; (3) market Society goals; and (4) increase member participation and usage, and to encourage membership recruitment. An aim is for Web site users, members or otherwise, to feel that SOT is the largest toxicology association in the world with the most current, highest quality of scientific discourse. The hope is that the Society’s new site is perceived as innovative and user-friendly. The site redesign makes it possible for a larger audience base to navigate and find highly valued information.

The new site offers information geared towards specific audience groups through the Member, Student, and Public audience tabs. The Member and Student tabs offer quick access to sections of the Web site most frequently used by each. The Public section features new and enhanced information tailored to the specific needs of the general public, press, regulators, legislators, and non-member scientists. The main navigation on the left side of the browser window provides an intuitively named listing of all the content available on the site, broken into the “Access Information” or “Inside SOT.” A robust site search has been made available from every page of the site that will be monitored and used to retool the navigation options as needed. As an extra measure of security, a log-out feature has been added to protect your membership information. Finally, the latest technology was utilized to support a broader range of browsers, computer platforms and provide a Web site that is accessible to all people, even those with disabilities such as the visually or hearing impaired (know as WC3 accessibility complaint).

The new SOT Web site is a “work in progress,” and Council, WWWAC and staff continue to work with you to make enhancements to the new site. You can help improve the quality and content of the site by using the “Feedback” feature at the top right of each Web page or by sending comments directly to sothq@toxicology.org. The WWWAC will make use of future user surveys and focus groups to identify what’s working and improve on what’s not. The Society is seen as a leader in the scientific community. Long-term, the SOT site will be a global resource and tool for the scientific, academic, and public communities.

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**SOT Ad Hoc Task Force on NIH Funding Documents Concerns**

Over the past several years, the Center for Scientific Review (CSR), the part of the NIH that coordinates the massive effort needed to peer-review all NIH grant applications, began implementing a broad-scale reorganization of Integrated Review Groups (IRGs) and individual peer review panels (Study Sections). As a consequence of this reorganization, many of the Study Sections familiar to academic toxicologists were eliminated, creating a high level of anxiety among SOT members who are reliant upon the NIH for grant funding. To help SOT Council assess and address this growing concern, an *ad hoc* Task Force on NIH Funding was appointed by Linda Birnbaum, who was President in the summer of 2004. David Eaton chairs the Task Force with SOT Treasurer Norb Kaminski as co-chair. SOT members Ron Hines, Curt Klaassen, Serrine Lau, Jose Manautou (also on Council in 2004–2005) and Alvaro Puga join Eaton and Kaminski.

Last fall the Task Force designed a survey of our members to collect data on recent and past experiences and perspectives on the NIH review process. Data were collected from November through February. In January of this year, the Task Force met with six representatives of the NIH CSR, including Brent Stanfield (Acting Director),...
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Figure 1

Suzanne Fisher (Director of Office of Referrals), Elliot Postow (Director of the Division of Biological Basis of Disease), Michael Martin (Director, Division of Physiology and Pathology), and two other Division Directors, Dr. Eaton noted that prior to the CSR reorganization, study sections composed largely of toxicologists/pharmacologists: ALTX-1, ALTX-3, ALTX-4, CHEMPATH, METPATH, and PHARMACOLOGY. After the reorganization, only two study sections remain that are populated largely by pharmacologists/toxicologists: NAL (Neurotoxicology and Alcohol) and XNDA (Xenobiotic and Nutrient Disposition and Action). It was evident from comments from the membership, as well as the SOT survey (Fig. 1), which was sent to several related societies, as well as SOT members, that many scientists are very concerned about the potential impacts of the reorganization to grant funding in toxicology.

Dr. Stanfield explained a bit of the history of reorganization of the CSR, noting that it initially began with a reorganization of neurosciences. He indicated that there was also a fair amount of dissatisfaction among members of the neuroscience community in the initial reorganization, but that it now seemed to be going well. Drs. Kaminski and Puga discussed some of their experiences on ALTX-1 and -4, and XNDA. Specifically emphasized were the multidisciplinary composition of ALTX-1 and ALTX-4 and the concordance of both study sections with the current emphasis at NIH on multidisciplinary research. Moreover, they posited that the present IRG organizational structure, which is focused on individual organs, is not well suited for reviewing research proposals that cut across multiple target organs and require an appreciation of drug metabolism, disposition, etc. A significant amount of the discussion focused on the fact that invitation of one or two toxicologists to serve on existing basic science study sections, often as ad hoc members, did not provide adequate representation for toxicology-oriented grants and was resulting in a lack of continuity in the peer-review process for those applications not receiving a fundable score.

Drs. Eaton, Puga and Kaminski noted that 48% of SOT members who completed the survey could not readily identify a Study Section to review their grants properly, and 52% felt that their specific area of interest was not adequately represented on current Study Section rosters. The specific areas of immunotoxicology, reproductive and developmental toxicology, and target organ-based toxicology of the kidney and cardiovascular system were noted as particularly problematic areas of toxicology that seemed to be poorly represented in current Study Sections. Dr. Eaton suggested that the CSR consider creating a new study section focused on Cellular and Molecular Mechanisms of Toxicity. Dr. Stanfield stated that any new study sections would have to be consistent with the philosophy of the reorganization effort, as viewed by the CSR Peer Review Advisory Group (PRAG), and that the primary (if not sole) way that new study sections would be created would be over-extension of an existing study section (e.g., assignment of 100-120+ grants might cause the formation of a new study section). Dr. Stanfield and colleagues seemed to appreciate the concerns raised by the ad hoc committee, and the tone of the meeting was, overall, positive and cordial.

The Task Force also organized the Issues Session at the Annual Meeting in New Orleans. A panel discussion included Drs. Michael Martin and Patricia Greenwel from the CSR; Drs. Mary Vore and Alvaro Puga, scientists who serve on XNDA and previously served on ALTX 1 and ALTX 4 respectively; Dr. Anne Sassaman from NIHES; and Dr. Richard Okita from NIGMS. Dr. Eaton served as the panel moderator, and presented some of the survey results to the audience. Among the more disturbing findings from the survey was the very small percentage of toxicology grants that have been funded in the past two years, relative to previous years (Fig. 2). Dr. Eaton noted that the "pay line" for all NIH grants has dropped precipitously in the past two years, and thus it is difficult to know how much of the apparent decline in funding of toxicology grants is related to the reorganization of Study Sections. He also noted that the information obtained via the survey was subject to "ascertainment bias," since the data represent only that which is provided by survey respondents. The session provided an important avenue for discussion of the concerns of the membership with the key representatives of the NIH. A key point that was conveyed to the CSR was that it was now quite difficult for many SOT members to identify an appropriate Study Section to review their grants. It was also generally agreed that Special Emphasis Panels and ad hoc assignments of one or two toxicologists to existing Study Sections would not rectify concerns of the membership. Dr. Martin noted that there was an extensive effort now on-going to cluster toxicology-related grants in a given IRG to a single Study Section, rather than having them dispersed among several different ones. This could help substantially in the quality of reviews IF there is adequate toxicology expertise on the Study Sections.

The Task Force also met with David Schwartz (the incoming new Director of the NIEHS) and Anne Sassaman (Director of Extramural Programs) from NIEHS at the Annual Meeting. Both Drs. Schwartz and Sassaman agreed that the reorganization created substantial new challenges to the NIEHS because of the broad distribution of their "portfolio" grants to many different study sections. They noted that the combination of the NIEHS location in North Carolina (rather than Bethesda, where Study Sections meet) and the vast array of different Study Sections with portfolio grants made it impossible for NIEHS staff to be present for all portfolio grant reviews. There was substantial discussion about the loss of ALTX-1 and ALTX-4, which had a strong focus on molecular mechanisms of toxicity that cut across organ systems and disease processes. The creation of the XNDA study section provides a "home" for some, but not all, of the grants that would have previously gone to ALTX-4, the focus of that new Study Section has been narrowly defined by the CSR Referral Office (but not by the language of the Study Section purview) to focus on grants related to hepatic/intestinal biotransformation, transporters and clinical pharmacokinetics. It is not currently staffed to provide reviews of mechanistic toxicology grants that address areas of toxicology more broadly than defined above. Currently, such mechanistic toxicology grants are referred to Study Sections focused on organ systems and/or disease processes, and are not likely to have a "critical mass" of members with toxicology expertise, or any appreciation for toxicology. As noted above, the CSR is trying to do a more effective job of "clustering" toxicology-related grants in the same Study Section within an IRG, rather than having them dispersed among several different Study Sections in the same IRG. Although not ideal, this would make it easier for NIEHS staff to observe reviews, and it would facilitate the...
inclusion of multiple individuals with toxicology expertise in one Study Section within a given IRG.

Incoming President Ken Wallace has asked that the Task Force continue its efforts for one more year. Future activities of the Task Force include:

a) Continuing to collect data from the survey, updating it once a year. Only new data on grants that were submitted after January 1, 2004 will be collected. 
b) Continuing discussions with NIEHS to identify approaches that will ensure that toxicology-related grants receive competent and fair reviews. 
c) Continuing discussions with CSR officials, including the new Director, to ensure that they understand the needs and concerns of the toxicology community.
d) Expanding discussions and collaborations with other sister organizations who share similar concerns about the CSR reorganization, including especially ASPET and the Teratology Society.

March 2005 Council Highlights

- The South Central Regional Chapter by-laws revisions were approved by Council.
- The Continuing Education Committees recommendation for testing Web casting for one of the 2005 Annual Meeting Continuing Education courses was approved by Council.
- Council discussed the new NIH policy on Enhanced Public Access Ruling. The Board of Publications will continue to monitor the potential effects on the journal. The full notice can be found at http://grants2.nih.gov/grants/guide/notice-files/NOT-OD-05-022.html.
- Council commended the Organizing Committee for the Mixtures CCT Meeting on the success of the meeting which was held February 16–17, 2005 in Atlanta, Georgia (see related story). It is anticipated that the summary from the meeting will be published in ToxSci.
- Council commended the Ethical, Legal and Social Issues Specialty Section (see related story) for the efforts to update the SOT Code of Ethics.
- Council encouraged all Regional Chapters to participate in the Officers Training Session to be held in August 2005. Interested Regional Chapter officers should contact Rita Rose at SOT Headquarters for specifics.

Dr. David Schwartz Takes Over as Director of NIEHS  A Welcome from SOT President Ken Wallace

The Society of Toxicology welcomes Dr. David Schwartz as Director of NIEHS effective May 23, 2005. We are also pleased that Dr. Sam Wilson will be continuing as Deputy Director. As president of SOT, I was fortunate to be invited to the May 26th NIEHS Advisory Council meeting, where Dr. Schwartz outlined his vision for the Institute. This is available on-line (http://epi.niehs.nih.gov/docs/2005/113-5/director.html). To paraphrase, Dr. Schwartz endeavors to maximize the impact of NIEHS activities and programs on human diseases that have a causal association with environmental exposures. This will be accomplished by supporting fundamental research and encouraging training and career enhancement opportunities for scientists involved in environmental science, environmental health, and public health. Strategic objectives include:

- Support the best science that impacts human health.
- Integrate disciplines to focus on environmental disease states.
- Increase recruitment and training opportunities in environmental disease.
- Embrace new technologies and novel approaches.
- Partner with other agencies and institutes to form strategic alliances.
- Be inclusive and compassionate to diverse and sometimes divergent perspectives.
- Effectively communicate the message to public and legislature that "environmental science is critical to human health and disease."

Dr. Schwartz will launch the visioning process with a call for comments in the Federal Register and on the NIEHS Web site this summer. An intramural strategic working group will be formed to direct the process and to weigh input from an external strategic working group composed of representatives from numerous stakeholders of NIEHS. Dr. Schwartz’s enthusiasm and commitment is evident in the time frame proposed for the draft visioning document to be available for public comment by the end of this calendar year.

The Society of Toxicology congratulates Dr. Schwartz on his appointment and looks forward to continuing the
productive partnership that has been established between our two organizations that share a common vision of enhancing human and environmental health by advancing the science of toxicology.

SOT Offers Risk Assessment Symposium


This symposium will be devoted to discussing the state-of-the-science in quantitative analysis and probabilistic risk assessment as currently practiced across an array of diverse disciplines. Practicality and application of PRA in the current regulatory risk assessment arena will be emphasized with special attention to modeling of dose-response and characterizing uncertainty and variability.

Audience breakout groups and panel participation will be used to develop interdisciplinary dialogue as a means to advance understanding and facilitate applications of research.

The symposium will be of interest to experts in the health or ecotoxicological risk assessment fields and associated regulatory arenas, including: risk assessment, exposure assessment, toxicology, ecology, cost-benefit analysis, decision analysis, risk policy, and risk communications.

Additional details and registration form

Sixth Triennial Toxicology Salary Survey

Submitted by Shayne C. Gad, Gad Consulting Services, Cary, North Carolina, USA

The 2004 Triennial Toxicology Salary Survey was conducted as a joint project by the American College of Toxicology and the Society of Toxicology. In addition to the two parent organizations, 20 others (the Teratology Society, the Association of Government Toxicologists, and 17 Regional Chapters of the Society of Toxicology) supported the effort by providing mailing labels for their memberships.

A total of 5507 survey instruments were mailed in November of 2004, with 214 of these eventually being returned as undeliverable, making the effective mailing 5293. As of May 7, 2005, 1251 responses had been received, or a response rate of 23.6%. This is comparable to the response rates for 1988 (Gad, 1989), 1991 (Gad, 1992), 1995 (Gad, 1996), 1998 (Gad, 1999) and 2001 (Gad, 2002). The survey instrument was essentially the same as that used in the previous (fifth) survey. It should be noted that there continues to be a significant increase in the number of individuals reporting six-figure incomes and in those receiving significant sums as bonuses, as is reflected particularly in Tables 1 and 4. Survey methodology employed conformed to standard procedures (Rossi, Wright, and Anderson 1983), though the response rate for this survey remains high for such endeavors.

Salary estimates for purposes of calculation were taken to be the midpoint of the range, e.g. the salary range of $90,000-$99,000 was estimated at $95,000. In addition, there were a significant number of incomplete responses that required further estimation. The incomplete responses and the methods used to handle them were:

- Thirty (30) respondents did not indicate a gender. These results were not included in the breakdowns.
- Seventy (70) respondents indicated a salary > $150,000 without writing in the actual amount in the area provided. The salary used for calculation was $165,000. This probably led to a bias towards lower average values.
- Ten (10) respondents indicated an additional professional income > $20,000 without writing in the actual amount. This probably led to a bias towards lower average values.
- Eleven (11) respondents indicated stock options as part or all of their bonus without listing the value of such options. These options were not counted towards the total bonus.
- Fifty-five (55) respondents indicated they received bonuses, commission, stock options, or profit sharing without indicating the amount. The amount estimated for this was $23,600, which was the mean value of the reported or estimable responses in this category.

A total of 1000 of the respondents (699 men; 286 women; 15 no response) were full-time employed holders of doctoral degrees in the U.S. and Canada. Table 1 presents the mean salaries (± one standard deviation) for these individuals, sorted by years of experience after receipt of their degrees, sex, and field of employment. Salaries are in thousands of U.S. dollars per year.

The mean salaries (± 1 SD) for the 106 master’s level respondents are presented in Table 2. Likewise, the results from the 46 bachelor’s level respondents are presented in Table 3. The remaining respondents were not employed full-time during the reporting period and are characterized as follows:

- Graduate students (10)
- Working part-time (21)
- Unemployed (6)
- Retired (15)
- Post-doctoral (36)
- Other (10)

It should be noted that the response level for these additional categories is considerably lower than for the 2001 survey. For comparison, the 2001 numbers were:

- Graduate students (not differentiated) working part-time (118)
Several recommendations were made at the meeting regarding chemical mixtures research needs. To focus on mixtures issues,

- Propose a Mixtures Specialty Section to SOT which would work closely with existing specialty sections such as the
- Generate realistic data for chemical mixtures and to help differentiate biological response versus adverse effects.
- Better characterize real exposures, including extension of exposure models to determine relevant target tissue levels through the use of physiologically based pharmacokinetic models (PBPK).
- Use environmentally relevant data currently available, such as the United States Geological Survey database, to generate realistic data for chemical mixtures and to help differentiate biological response versus adverse effects. Gulf War syndrome and fish consumption were cited as examples of real life exposures to chemical mixtures and to mixtures of persistent contaminants.
- Consider risks from natural toxins present in foods, human body burdens of chemicals, as well as chronic multi-
- Establish criteria on which various agencies agree in terms of data needs and its accessibility. A universal understanding is needed of the variables and their categorization so as to reproduce results in terms of exposure from multiple sources or multiple solvents and effects of vehicles on internal dose from administered dose.
- Retired (147)
- Post-doctoral (74)
- Other (not differentiated)

There were no associates degree respondents. Table 4 presents a summary of data on those 544 (54.4% of all employed) doctoral recipients who received bonuses in addition to salary. Table 5 presents a summary of the geographic distribution of the doctoral level survey respondents. Table 6 summarizes the major professional society memberships of the respondents. Many respondents belong to more than one society. Table 7 summarizes, according to the National Research Council (NRC), the numbers of individuals who have received their doctorates in toxicology since 1983 (the first year that the degree was included in the NRC annual summary) (National Research Council 1998). Also included is a summary of the number of doctoral respondents by years post-degree. Table 8 provides a summary analysis of the influence of geographic location of place of employment on salaries for doctoral level employees. Table 9 provides a summary of the influence of certification on doctoral and master's level salaries. Finally, Table 10 presents an overview of the number of individuals who are self-employed, independent consultants. It has been proposed that this survey be conducted by e-mail in the future. In the 2001 survey, respondents were asked if they had e-mail access for such purposes. Of those employed full time that responded to the question, over 92% (1405) of those with doctoral degrees, 87% (130) of those with masters degrees, and 58% (73) of those with bachelor's degrees reported having e-mail access. However, as was widely noted, an e-mail based system would not provide anonymity.

Discussion and Conclusions

The 2004 survey results point to a number of different trends that deserve attention and add some insights into the job market, career path, and the conduct of future studies. First, although the situation has clearly improved for most entry-level and early-career positions, women continue to be compensated at a lower level than their male counterparts. Secondly, salaries as a whole have increased in the field, but the most impressive differences are not by geographic location of place of employment, but rather by type of employer. Finally, certification continues to play a significant positive role in compensation.

SOT Holds Contemporary Concepts Meeting on Mixtures

The Society of Toxicology held a Contemporary Concepts in Toxicology (CCT) meeting entitled Charting the Future: Building the Scientific Foundation for Mixtures Joint Toxicity and Risk Assessment, on February 16–17, 2005 in Atlanta, Georgia. The meeting was proposed and organized by the SOT Mixtures Task Force and was chaired by Moiz Muntaz of the Agency for Toxic Substances and Disease Registry (ATSDR). Under the previous Task Force leadership of Jay Goodman, Michigan State University, and Jim Bus, Dow Chemical Company, ground breaking discussions on pertinent issues provided the impetus and basis for convening this particular meeting. This CCT was hosted by ATSDR and sponsored by several organizations including the Chlorine Chemistry Council, the National Institute of Environmental Health Sciences (NIEHS), the Society of Environmental Toxicology and Chemistry (SETAC), the U.S. EPA, and the American Chemistry Council (ACC) Long-Range Research Initiative. The CCT was attended by over 100 national and international scientists representing academia, industry, and government.

The goal of the CCT was to bring together experimental scientists, modelers, risk assessors, and managers to identify and strengthen the generic principles for conducting low-dose toxicity health risk evaluations of mixtures. Several international experts delivered lectures, identified key issues of mixtures risk assessment, and presented specific data that would impact critical assumptions to lead the SOT membership at-large towards hypothesis-driven research in this emerging area of toxicology. These presentations highlighted three broad areas of chemical mixtures toxicity evaluation: exposure, dose response, and biological response modeling. Emphasis was placed on the recent advances in cell/molecular biology and the interpretation of data from genomics and proteomics for understanding the joint toxicity of chemical mixtures. The use of such data in a systems approach for chemical mixtures was proposed.

Several recommendations were made at the meeting regarding chemical mixtures research needs.

1. Establish criteria on which various agencies agree in terms of data needs and its accessibility. A universal understanding is needed of the variables and their categorization so as to reproduce results in terms of exposure from multiple sources or multiple solvents and effects of vehicles on internal dose from administered dose.
2. Consider risks from natural toxins present in foods, human body burdens of chemicals, as well as chronic multi-
3. Better characterize real exposures, including extension of exposure models to determine relevant target tissue levels through the use of physiologically based pharmacokinetic models (PBPK).
4. Use environmentally relevant data currently available, such as the United States Geological Survey database, to generate realistic data for chemical mixtures and to help differentiate biological response versus adverse effects. Gulf War syndrome and fish consumption were cited as examples of real life exposures to chemical mixtures with stressors and to mixtures of persistent contaminants.
5. Propose a Mixtures Specialty Section to SOT which would work closely with existing specialty sections such as Mechanisms, Biological Modeling, and Risk Assessment to provide a platform for the Society membership to focus on mixtures issues.

Individual speaker PowerPoint presentations (Simply click on the agenda tile to view the presentation.)

In addition, the meeting organizing committee and speakers are developing an overview of the sessions for submission to Toxicological Sciences in the near future.

Ethical, Legal, and Social Issues Specialty Section Drafts SOT Code of Ethics Update
The new Ethical, Legal and Social Issues Specialty Section was charged with drafting a revised Code of Ethics in accordance with the SOT Council Procedures for Developing Position Statements. Council asks that members review the proposed version and provide feedback by July 1 to SOT Headquarters.

Google Offers Scholar Search for Scientists

Google Scholar (http://scholar.google.com) is a free beta service aimed at scientists and academics for searching scholarly literature, peer-reviewed papers, theses, books, preprints, abstracts, and technical reports. It searches academic publishers, professional societies, preprint repositories and universities, as well as scholarly articles available across the Internet.

Sound Animal Records Guideline Available

A seven page report from the American College of Laboratory Animal Medicine (ACLAM) entitled, "American College of Laboratory Animal Medicine Public Statement: Medical Records for Animals Used in Research, Teaching and Testing," is available in pdf format from the ACLAM Web site. This report provides guidance on the establishment and maintenance of a sound animal medical records program. The recommendations are performance-based so that each institution can define a more customized outline that best suits its own particular needs.

Clarification to the 2005 Special Issue Article titled "How Do You Define Toxicology"

The introductory paragraph of the article "How Do You Define Toxicology" in the previous issue of the Communiqué (Special Issue 2005) incorrectly suggested that the intent of the National Library of Medicine's (NLM) request to SOT to develop a definition of toxicology was related to a need to update the definition in NLM materials, and that the SOT definition would be used for that purpose. In fact, NLM approached SOT with the request simply because it felt there was a need for a formal definition of the field and that SOT, as the major professional organization of toxicologists in the world, would be in the best position to craft such a definition. That said, NLM, as well as any other interested party is free to use the definition, and to acknowledge SOT as its source.

Medical Device Toxicology Section Seeking Members

SOT’s medical device toxicologists are working to establish a medical device specialty section. Medical device toxicology approaches safety evaluations in unique ways. Unlike most chemicals and pharmaceuticals that are evaluated for potential toxicity, devices are generally solids, with chemical compositions of sometimes known, but more often unknown, complex mixtures. The solid, and seemingly insoluble, nature of most devices often requires unique methods of test article preparation for toxicity evaluation. These may include steps to render a solution for testing, a problem that is addressed by preparing extracts in physiologically relevant solvents. In contrast to pharmaceutical and other manufacturers of regulated products, most medical device manufacturers must purchase synthesized materials from vendors outside the medical industry, who are generally unwilling to release their formulations because they are proprietary. As a result, medical device manufacturers may initially not have full knowledge of their products’ formulations. These limitations present considerable challenges for safety evaluations, including risk assessment. Furthermore, while many medical device toxicologists participate in domestic and international standards setting groups (e.g., ISO 10993), these groups are not dedicated to toxicology, and are not intended to be scientific forums. Currently there is no dedicated forum in which medical device toxicologists can discuss scientific issues relevant to medical devices. An SOT medical device specialty section could provide such a forum to medical device toxicologists and could provide an opportunity for other SOT members to learn more about medical device toxicology. In order to be considered by SOT’s council, the group working to establish this section must identify a minimum of 50 individuals. If you are interested in joining a medical device toxicology section, please contact: Rita Rose at SOT Headquarters.

Annual Meeting Highlights

SOT 2005 Annual Meeting Program Overview

SOT kicked off its Annual Meeting with a fantastic start that would set the stage for a grand meeting indeed. Attendees participating in the SOT Awards Ceremony were led, in high spirit, through the halls of the Ernest N. Morial Convention Center by an official New Orleans marching jazz band to the Welcome Reception.

A good mixture of CE courses and scientific sessions, special events, and enthusiastic participants, combined with the unique flavor of the Crescent City produced another successful Annual Meeting. Attendance set a record all-time high of 6,125 attendees.

Attendees chose from an expanded scientific menu that included 24 Symposia, 18 Workshops and 2 Roundtable sessions, with more than 2400 abstracts presented in platform presentations, posters, and various special sessions that included programs for undergraduates, K–12 teachers, graduate students, and toxicologists in professional transition. Nine Sunset sessions scheduled from 4:30-6pm on Tuesday, Wednesday and Thursday were new additions this year. The Sunday Continuing Education session continues its own tradition as a big draw for meeting attendees and brought in record registrants with over 2200 studious participants. The 2005 courses offered cutting edge topics ranging from nanotechnology to interpretation of toxicokinetic data. Several courses were sold out.

A large audience was in attendance for the Plenary Lecture, a highlight of the week that officially opens the SOT Annual Meeting. Dr. John D. Graham, Administrator of the Office of Information and Regulatory Affairs (OIRA), which is within the White House Office of Management and Budget, explained how his office has pursued an agenda of
“smarter regulation.” He described the changes OIRA has made in many areas to increase the reliance on sound science. These initiatives include government-wide Information Quality Guideline, guidance on Peer Review, and a revised circular on Regulatory Analysis for benefits and costs of regulations. He also shared ways in which members of the public can constructively engage in the process of bringing sound science to the policy arena.

Lunch time is generally a busy slot for many Annual Meeting attendees, and this meeting was no exception in that it offered several provocative and exciting sessions. Professor Stuart A. Lipton, Burnham/Salks/Scripps Research Institutes and UC San Diego, engaged the audience with his talk entitled, “Novel Uncompetitive Antagonists Protect Neurons from Excitotoxic, Oxidative, and Nitrosative Stress.” His lecture was generously sponsored by the MRC. The following day, hundreds of toxicologists attended the SOT/EUROTOX debate to hear Joseph V. Rodricks from SOT serve as the discussant for the motion and Anthony Seaton from EUROTOX serve as discussant against the motion: “Nanoparticles are a Major Threat to Human Health.” The debate was professionally presented, and both parties presented persuasive arguments both to support and to refute adverse human health concerns of this rapidly emerging technology.

Symposia, Workshops, and Roundtables presented at the 2005 SOT Annual Meeting spanned numerous topics. The extensive breadth of toxicology was presented in three-to-four concurrent platform sessions and up to 14 concurrent poster sessions in each of the seven half-day sessions of the meeting. Over 290 companies/exhibitors participated in ToxExpo™, allowing for active interchange with our attendees and opportunities to learn about new equipment, supplies, approaches, and publications.

We are continually grateful to our members who submit the excellent proposals for sessions that make up the SOT Annual Meeting. Your SOT Program and Continuing Education Committees are now hard at work reviewing the record number of proposals submitted for the 2006 meeting. Work is underway to present excellent scientific sessions that you have come to expect from your Society!

The success of the 2005 Annual meeting was obvious in the attendance, activity, and the spirit evidenced in New Orleans. Plans are already under way to provide more cutting-edge science at next year’s meeting. See you in San Diego March 5–9 in 2006!

2005 Annual Meeting Highlights

View an on-line gallery of 2005 Annual Meeting photos.

2005 Business Meeting Highlights

Highlights from the SOT 2005 Annual Business Meeting are now available to SOT members for download (login required).

ToxExpo™ Plans for 2006 After Successful New Orleans Exhibition

ToxExpo™ continues to be a major attraction of the Annual Meeting. The 2005 SOT Annual Meeting in New Orleans was no exception as more than 6,000 attendees visited with 294 exhibitors, who displayed their products and services in the exhibit hall.

Each year ToxExpo™ outpaces its "best" record and sells out the exhibit hall. In New Orleans, attendees visiting the exhibit had a chance to view the latest cutting-edge technology used in scientific development, gain first-hand knowledge about the products and services of participating vendors, and view the poster presentations on display. In addition, many took advantage of the wireless Internet access offered for the first time in the exhibit hall.

SOT members are able to visit the ToxExpo™ Web site year round to access current information on the latest cutting-edge technology, products and services. If your company is interested in being listed on ToxExpo™ or would like to exhibit at the 2006 Annual Meeting in San Diego, please contact Libby Jones at SOT Headquarters. Please visit the ToxExpo™ Web site for the 2006 floor plan (available July 1).

Special Interest Groups’ Organizational Meetings Held In New Orleans

Submitted by José Manautou, Chair, Special Interest Groups Task Force

Historically, groups of toxicologists of diverse ethnic backgrounds have met yearly during the SOT annual meeting. However, these groups have never been part of “mainstream” SOT. In response to a request from these groups for official status as SOT subgroups, SOT Council approved the implementation of a Task Force for Special Interests Groups. The Task Force is working on setting up the groundwork for the development of partnerships between Special Interest Groups and existing SOT committees and on re-naming this category of subgroups to better reflect their diverse nature. It has also been working on developing policies, by-laws, etc., for implementing these new SOT subgroups to allow them to officially become part of SOT and participate fully.

With the approval from SOT Council, organizational meetings took place in New Orleans for the Association of Scientists of Indian Origin, Hispanic Organization for Toxicologists, American Association of Chinese in Toxicology, and the African Society of Toxicological Scientists. These meetings were well attended and their formats varied from one group to the next, including presentation of student awards for best abstracts, educational programs, mentoring talks and lots of networking. Several members of SOT Council attended these meetings to deliver welcoming remarks.

The function of these subgroups within SOT goes beyond social interactions. SOT can benefit significantly from Special...
Interest Groups. They could assist SOT with the demands of our increasing number of international scientists attending our annual meeting. Educational, mentoring and networking activities will continue to be part of the mission for these newly recognized groups. Special Interest Groups could also be instrumental in developing scientific programs and educational initiatives of a global scope.

SOT Council Approves Pilot Program to Offer CE Courses On-Line

As the Society continues to offer the membership cutting-edge scientific sessions, we are also mindful that we must do more to assist individuals to remain competitive.

This year the Continuing Education Committee embarked on a mission to “think outside the box” and accepted sessions it felt would be of broad appeal to the membership. We gambled, and we won it seems. After reviewing the record enrollment of the CE courses offered this year, both the Council and CE committee made a decision to tape two courses that would be offered to SOT members and non-members alike who missed the meeting or had an interest to perhaps take a refresher course.

The courses selected from the meeting will be offered as on-line courses later this summer. The presentations selected, “International Harmonization of Technical Requirements for Conducting Non-Clinical Safety Studies of Human Pharmaceuticals: Guidelines, Case Studies, and Challenges,” and “Evaluation of Cardiac Drug Toxicity in Pharmaceutical Discovery and Development” will be available to site visitors as synchronized audio and PowerPoint slides captured from the courses on-site at the SOT Annual Meeting.

Watch for more information.

2005 Continuing Education Courses Reach Record Enrollment

Submitted by Betty Ann Petterson, 2004-2005 CE Committee Chairperson

The Continuing Education (CE) Committee would like to extend its appreciation and thanks to everyone who participated in the 2005 Annual Meeting in New Orleans, LA. Registration exceeded 2,200 for the 11 courses that were offered. In a number of the rooms, extra chairs had to be added to accommodate the overflow of interested attendees. Several courses had over 300 registrants and were closed at room capacity. The courses closed included: the Sunrise Course on the Fundamentals of Nanotechnology, Clinical Pathology: The Grandaddy of Biomarkers, Immunology for Toxicologists, and the Development and Interpretation of Toxicokinetic Data for Risk and Safety Assessment.

The record attendance reflected the interesting and varied course offerings, and the hard work and efforts put in by the speakers, course chairs, and CE Committee course liaisons. The Continuing Education Committee very much appreciated the course chairs and speakers who generously contributed their time in organizing the courses and preparing presentations and course handouts. Special thanks goes to our dedicated graduate students, listed below, whose participation and assistance were important in helping to keep the courses running smoothly, and SOT staff members who quietly took care of the myriad of details involved in planning and executing this program.

The high-quality educational courses that are presented at the annual meetings come directly from our members, and the CE Committee members, who are currently hard at work reviewing the exceptional CE course proposals for the 2006 SOT Annual Meeting, appreciate new and interesting ideas for courses.

A reminder to the Regional Chapters: the CE Committee maintains a list of speakers who make up the SOT Speakers Bureau. The speakers included in the Bureau made particularly outstanding presentations at an SOT annual meeting and have accepted our invitation to present at the Regional Chapter level. SOT will help underwrite the costs of bringing these individuals to your local chapter meetings. If you have questions regarding this program, please contact Nichelle Sankey at SOT Headquarters.

Thanks again to everyone who participated and helped make this year’s program a success.

2005 CE Student Volunteers

Vishaka Bhave
Phillip Binu
Whitehead Carolyn
Jaya Chilakapati
Ankur Dnyanmote
Tisha King-Heiden
Midhum Korrapati
Jeffery Moffitt
Sheung Ng
Prajakta Palkar
The SOT Post-Doctoral Task Force (PDTF) is hard at work for you. Thanks to those who attended the Post-Doctoral breakout session at the Student/Post-Doctoral Mixer in New Orleans! We hope it was informative and plan to expand on this session in San Diego in 2006! Be watching for announcements concerning this and other post-doctoral activities at SOT 2006. In the meantime the SOT-PDTF Post-Doctoral Web site will be revised along with the SOT Web site, and it should be up and running soon.

The SOT-PDTF is already in the second half of its One-year appointment. Although we have achieved several of our goals, we need to look toward the future. The SOT-PDTF leadership met at the Annual Meeting in New Orleans. We are focused on transition of the SOT-PDTF to a more permanent organization within the Society. The next few months of "strategic planning" will be busy, and I am confident that the outcome will be a solid post-doctoral community within the Society. Ultimately, the Society's post-doctoral membership comprises the Society's future leadership. Now is your opportunity to get involved! Contact Jim Luyendyk at Luyendyk@msu.edu if you have questions or if you would like to become more involved as a post-doctoral member.

2005 SOT Undergraduate Program Provides a Dose of Toxicology

The bowler hats were broken out for the opening session of the Undergraduate Education Program for Minority Students in New Orleans (photo in the 2005 Annual Meeting picture gallery). The story of the creation of FDA served as the framework for the 32 students, 7 undergraduate advisors, 10 peer mentors, 12 hosts, and members of the Subcommittee for Minority Initiatives to get to know each other. Ten talented people gained the privilege of posing in a replay of the famous "poison squad" photograph before Craig Marcus, University of New Mexico, presented the introduction to toxicology lecture Saturday night.

The Undergraduate Program continues in the long tradition of success, but many commented that the program and the students were the best yet. Among the lectures introducing various topics in toxicology were talks on nanotechnology by Martin Philbert (University of Michigan), forensic toxicology by William George (Tulane), and endocrine disruption by Lou Guillette (University of Florida). In addition there was an undergraduate research presentation by Candace Mainor (University of Maryland Baltimore County). An interactive investigation was a new feature this year. Paige Lawrence (Washington State University) presented some micrographic images related to dioxin and put the students in the role of scientists to interpret the evidence.

The students in small groups had the opportunity to discuss aspects of graduate school applications, what graduate school is like, and suggestions for interacting with researchers. The undergraduate advisors were in a special session discussed advising, mentoring, and admissions topics with a series of presenters. One of those speakers, Antonio Baines, now a post-doctoral fellow at the University of North Carolina-Chapel Hill, had participated in the program as an undergraduate, and now is a participant in the SPIRE (Seeding Post-Doctoral Innovators in Research and Education) Program, an NIH funded project to diversify training and mentoring opportunities for scientists. Several other program alums served as peer mentors, hosts, and speakers—Adrian Nanez (University of Louisville), Ebany Martinez (University of New Mexico), Jennifer Rayner (University of North Carolina, Chapel Hill), and Vanessa Silva (Procter & Gamble; see related story).

In addition to informal mentoring within groups, students also discussed opportunities in toxicology graduate programs and internships with representatives from nearly thirty institutions. The special poster session held in a portion of the exhibit hall was enhanced this year by the addition of a mystery game. To determine who the mystery scientist was, each student was required to speak with the 20 poster presenters about their research and learn more about why and how they became interested in toxicology.

Many kudos go to the Subcommittee for Minority Initiatives for their extensive and superb efforts in program development and execution. Kim Daniel (Texas A&M), received special recognition for her volunteer assistance with the program for the past five years. Thanks also to SOT for continued support of this important means of recruiting students into toxicology, and for funding from Pfizer Global Research & Development, Johnson & Johnson Corporation, Eli Lilly, Covance, and Amgen.
The Student Advisory Committee Holds Events in New Orleans

*Submitted by Christina Wilson, 2004–2005 SAC Chairperson*

The 2005 Annual Meeting of the Society of Toxicology in New Orleans was a tremendous success for student and post-doctoral members. The Student Advisory Committee (SAC) coordinated several student functions including the Lunch with an Expert Program (LWAE) and the Graduate Student/Post-Doctoral Fellow Mixer. This year, 148 students and 35 experts participated in the LWAE program. Also this year, the SAC awarded student prizes during the Graduate Student/Post-Doctoral Fellow Mixer for students who entered their names into a drawing using the 2005 SOT Student Event Planner. The recipients of these prizes were: Arno Siraki (NIEHS), Kim Lichtveld (University of North Carolina), and Stacy Corthals (Indiana University School of Medicine).

The SAC has established several student initiatives for the 2005–2006 term. In response to input from the student/post-doctoral members and SOT Council, the SAC will be exploring the possibility of creating a room-sharing program for students wanting to attend the Annual SOT Meeting. Additionally, in an effort to promote student membership in SOT, the SAC will be investigating the possibility of creating travel awards for new graduate student members in the Society.

During the 2005 Annual Meeting, the SAC elected new officers. Beginning May 1, these new officers will be: Tracy Pickering (SAC Chairperson), John Norman (Co-Chairperson), and Jessica Berthaume (Secretary). Congratulations Tracy, John, and Jessica!

If you have any questions or comments regarding student initiatives or student membership in SOT, please contact your SAC Representative or SOT Headquarters.

SOT Selects Student Fellowship Recipients in New Orleans

Two students left the Crescent City assured of special support for their academic endeavors. Francis Tukov of Michigan State University received the Colgate-Palmolive Post-Doctoral Fellowship Award in In Vitro Toxicology. He will be developing an in vitro model for studying drug-induced idiosyncratic liver injury at Michigan State University under the auspices of Robert Roth. Andrea Wong was named the recipient of the Novartis Graduate Fellowship. Her Ph.D. research at the University of Toronto is an investigation of the immediate and long-term effects of prenatal exposure to methamphetamine. These awardees were selected by the Education Committee from outstanding pools of candidates for the two awards.

Paracelsus Gets Jazzed

New Orleans would have made Paracelsus very comfortable with its rich tradition of music and easy living. At the 2005 SOT Annual Meeting in the Big Easy, 63 teachers were introduced to the science of toxicology through the Paracelsus Goes to School program. Most of the teachers attending the one-day workshop were from public and private schools from throughout Louisiana, though a small spirited group from North Carolina also attended. The latter teachers, as well as some from northern Louisiana, were sponsored by travel funds from the Eastman Charitable Foundation. The main goal of the Paracelsus program, to enhance science education by stimulating ideas for incorporating multidisciplinary toxicology concepts and teaching materials into the classroom, was accomplished through lectures and interactive workshops tailored to the different grade levels. There were two hands-on workshops introducing teachers to toxicology-based curricula:

- Grades K–8, "Veggie-Mon: What Students Need to Know About Diet, Sun Exposure and Tobacco Use" conducted by Jennifer Gorenstein and Donna Meyer from University of Texas MD Anderson Cancer Center.
- Grades 9–12, "Risk Assessment Case Study. Dinitrochickenwire" conducted by Suzy Fitzpatrick, FDA, and Joe Rodricks, Environ, Inc.

The teacher workshops were preceded by brief platform presentations by "local" toxicologists:

- "The Diversity that is Toxicology" by Hari Mehendale, University of Louisiana-Monroe.
- "Toxicology Research and Applications in Louisiana: Pesticides and the Immune System" by Steve Pruett, Louisiana State University Health Sciences Center-Shreveport.
- "Screening the Soils and Sediments of New Orleans for Aryl Hydrocarbons" by Chuck Miller, Tulane University School of Public Health.
- "Issues Surrounding the Use of Animals in Toxicological Research" by Joanne Zurlo, NAS Institute for Laboratory Animal Research.

Another component of the teacher workshop was to establish teacher-science partner relationships. Groups of about six 9–12 teachers interacted with one or two toxicologists during the risk assessment case study. Questions regarding the exercise led to discussions on how toxicologists approach risk assessment and how toxicology can be incorporated into the classroom. Also, groups of teachers at all levels ate lunch together with a toxicologist and explored ways that toxicology can contribute to the quality of education in the classroom and how teachers might interact with toxicologists in their region subsequent to the SOT meeting.

The lunchtime interactions were augmented with a special teacher poster session that was held in the area of the Paracelsus program. The poster session allowed the teachers to question about 18 scientists/poster presenters on topics that covered different areas of toxicology research or K–12 science education activities.

A highlight of the workshop was the final program, which was a panel discussion moderated by David Cragin that included three teachers who had participated in the Paracelsus Goes to School program that had been held at the 1999 SOT Annual Meeting in New Orleans. The panelists shared their experiences in teaching toxicology and environmental...
health in their classrooms and explained how they were able to adapt the information from the previous workshop into their teaching.

From the enthusiasm displayed by the toxicologist science partners and from the responses of the teachers ("we really enjoyed the opportunity to talk with a toxicologist," "we wished that it would last two days"), the program appeared to be successfully received and enjoyed by all participants. Ken McMartin directed this year's effort, and he was assisted by Chuck Miller.

The K–12 resource booth in the exhibit hall displayed age-appropriate toxicology education materials donated by approximately fifteen organizations involved in educational activities. The booth was continuously staffed by volunteers (thanks Jennifer and Donna) and subcommittee members. Materials included programs that can be taken into the classroom and used by teachers, as well as brochures describing various aspects of toxicology. Activity at the booth was brisk, with materials in short supply by the end of the meeting. A science fair poster of a high school student, Steven A. McCullough from Parkway High in Bossier City, LA (mentored by Steve Pruett at LSU HSC in Shreveport), was displayed as a demonstration of what students can accomplish through high school internship programs in toxicology laboratories.

The Annual Meeting also provides an opportunity for the Regional Chapter contacts for K–12 outreach to meet together and discuss activities that have been conducted at the regional level, such as the career poster designed by the Northland Regional Chapter. Guest speakers Michael Humble and Kimberley Thigpen-Tart from the NIEHS Science Education Subcommittee provided an overview of K–12 resources available at NIEHS, including the new initiative to produce and distribute curriculum guides that correspond to issues of the NIEHS publication Environmental Health Perspectives. The lessons can be downloaded free of charge from the NIEHS Web site.

"Paracelsus Goes to School" was organized by SOT's K–12 Subcommittee with support by grant 2 U13 ES09483-05 from NIEHS and from the Eastman Charitable Foundation (travel for out-of-area teachers). For information on how you can participate in the 2006 Paracelsus program next year in San Diego, see Paracelsus Science Partners/Volunteers Wanted! The SOT K–12 Subcommittee would like to thank all of the volunteers, poster presenters, speakers and toxicologist science partners who worked very hard at making the 2005 program so successful.

**Member News**

Have You Updated Your Member Profile On-Line Recently?

SOT is preparing to print the 2005–2006 Membership Directory. Please take a minute to review the accuracy of your SOT member information as it will be used in the published Membership Directory.

View or Edit Your Membership Information

Edits done before July 1 will be included in the 2005–2006 Membership Directory.

**SOT Awards Deadlines Approach—Call for Award Nominations**

Each year at the Annual Meeting the Society recognizes its distinguished toxicologists and students with several prestigious awards at a special Awards Ceremony. June 15 is the next deadline for one student award, the Colgate-Palmolive Award for Student Research Training in Alternative Methods. The applicants submit a proposal related to their learning an alternative method to traditional animal models, a method that can enhance their current research plan. A new award, the Colgate-Palmolive Grants for Alternative Research, has a deadline of August 1. This award is open to all levels of experience. (See related story.)

**SOT and Sponsored Awards**

The Awards Committee reviews applications and selects the recipients for two categories of awards—SOT awards and Sponsored Awards. A sponsor and a seconder, who are full members of SOT, must submit a nomination for most of these awards using the Award Nomination Form available through the Awards Nomination On-Line system beginning July 1 with a deadline of October 9, 2005. Details about each award and the required application forms are available on the Awards and Fellowship Section of the Web site. The supporting documentation must indicate the candidate's achievements in toxicology and is critical in the review of each application. Nominations remain valid for two additional years.

**Student Awards**

The Education Committee reviews student awards applications. Specific applications are required for these awards, and they are linked from the Awards and Fellowship Section.

The deadline for the majority of 2006 award nominations is October 9, 2005. Students intending to apply for awards this fall should submit their membership applications in advance of the September 1 membership application deadline.

Nominate for SOT Officers by August 1

The Nominating Committee will prepare a slate of nominees for the 2006 elected officers and elected standing committees this fall. The officers of President-elect, Treasurer-elect, and two Councilors will be on the ballot. Positions on the Awards, Membership, Education, and Nominating Committees will also be on the ballot. If you would like to recommend member candidates for consideration by the Nominating Committee, please send recommendations to SOT Headquarters by August 1.
Students: Easy Upgrade to Associate Membership

Many SOT Graduate Student/Post-Doctoral Fellow Members don’t realize that they are qualified to move to Associate or Full Membership to take advantage of even more SOT benefits.

Increased opportunities for Associate members include:

- Access to the electronic version of *Toxicological Sciences* and reduced rates for a print subscription
- Eligibility for participation on many SOT appointed committees
- Ability to sponsor non-member colleague abstracts at the Annual Meeting, and
- Eligibility for many of SOT’s distinguished awards

And benefits added to these for Full Members include:

- Voting privileges at the annual business meeting, special meetings, and for other matters
- Officer eligibility
- Elected committee eligibility
- Unrestricted eligibility to participate on SOT’s appointed committees
- Regional Chapter Officer eligibility

There are also numerous intangible benefits that derive from interacting with colleagues in new ways, such as through participation in committees.

The process to apply for Associate or Full Membership is quick and easy using the on-line membership application. Criteria for membership at the Associate level include demonstrated professional scientific activities in toxicology, evidence of continuing professional involvement in the discipline, and sponsorship by two Full Members of the Society.

Full Members also provide evidence of accomplishment either in peer-reviewed publications or by weight of professional experience.

More information is available at Membership Information or contact Rosibel Alvarenga at SOT Headquarters.

Mentors: Encourage Students to Apply for SOT Membership Early

Graduate and post-doctoral students need to apply now for SOT membership to be eligible for 2006 student travel awards and reduced SOT Annual Meeting fees. The on-line membership application is convenient and the only certification required is from the student’s major advisor or director of graduate studies. Since September 1 is the deadline for applications to be complete, students need to apply prior to the fall semester. Students with questions about membership can e-mail Rosibel Alvarenga at SOT Headquarters.

New Grant Program to Support Alternative Research

SOT and the Colgate-Palmolive Company, a long-time supporter of SOT education programs, announce a new grant opportunity in toxicology. The Colgate-Palmolive Grants for Alternative Research will identify and support efforts that promote, develop, refine, or validate scientifically acceptable animal alternative methods to facilitate the safety assessment of new chemicals and formulations. Scientists at any stage of career progression may submit a proposal.

High priority will be given to projects that:

- Use *in vitro* or non-animal models
- Reproductive and Developmental Toxicology
- Neurotoxicology
- Systemic Toxicology
- Sensitization
- Acute toxicity

Deadline for applications is August 1, 2005.

Applications can be for a single year or for multiple years, and candidates can re-apply for additional funding each year. The maximum award in any one year will not be greater than $40,000. Awards are made as a single lump payment. An expert panel from the SOT In Vitro Specialty Section will recommend a prioritized list of applicants for funding, with the final awards designated by the SOT Awards Committee.

Instructions to Applicants

Colgate-Palmolive Grant Application Form

Eye on SCMI Success

Since 1989, the annual SOT Undergraduate Education Program for Minority Students, sponsored by the Education Subcommittee for Minority Initiatives (SCMI) has had a meaningful impact on the careers of many members of our Society. Vanessa M. Silva is a great example of an individual who took advantage of this program and continues to...
SCMI Undergraduate Education Program for Minority Students Honoree: 1995

Current Position: Toxicologist at Procter and Gamble

Education:
1996: B.S., Pharmacy, University of Puerto Rico School of Pharmacy
2002: Ph.D., Pharmacology and Toxicology, University of Connecticut
2002-2004: Post-Doctorate Position, University of Rochester
2004: Procter and Gamble

Married to Dr. Daniel Conde and proud mother of Christian, 6, and Nicholas, 2.

While obtaining her B.S. in Pharmacy at the University of Puerto Rico School of Pharmacy, Dr. Silva knew that she wanted to attend graduate school. In order to strengthen her graduate application, she understood that research experience was necessary. In 1994, she joined Braulio Manautou's toxicology laboratory at the University of Puerto Rico, School of Pharmacy. Dr. Jimenez quickly noticed Dr. Silva's potential as a scientist and encouraged her to apply for research internships and awards. In 1995 Dr. Silva had the honor of being selected to participate in the 1995 SOT-SCMI Undergraduate Education Program for Minority Students Program in Baltimore, Maryland. This program turned out to be a crucial experience in Dr. Silva's professional career as it was there that she met her Ph.D. advisor, Jose Manautou and discovered the many opportunities that toxicology has to offer. After working in Dr. Manautou's laboratory at the University of Connecticut that summer, she was able to write her first abstract for the 1996 SOT in Anaheim, California and subsequently joined the University of Connecticut Graduate Program in 1997. From 1998–2002, she wrote other abstracts focusing on her graduate research: the effects of organic anion in acetaminophen hepatotoxicity. While in graduate school, Dr. Silva took on a different role within the SCMI Program by participating as a peer mentor to other minority undergraduates selected under the same program she once attended. After receiving her Ph.D. in October 2002, she started her post-doctoral appointment in November 2002, and in July 2003, she received a U.S. EPA pilot project grant to conduct studies on the effects of ultrafine particles in the cardiovascular system. Through these years she continued to participate as a peer mentor and subsequently as a host or well-established toxicologist. As a peer mentor and host in this program, she has been able to encourage many other minorities like herself to pursue graduate studies. In addition, Dr. Silva adds a unique perspective as she is able to share her own personal experiences as an undergraduate student honoree of SCMI, a graduate student and peer mentor of SCMI, and as a newly established toxicologist in the consumer product industry. In her position she is in charge of assessing the safety of raw ingredients in feminine hygiene products as well as safety for new products.

Raymond Singer, a SOT member, was recently (November 2004) elected a Fellow of the National Academy of Neuropsychology, in part because of his pioneering work in toxicology as it relates to nervous system dysfunction. Dr. Singer is a Board-Certified Forensic Neuropsychologist (ABPN). He is a fellow of the National Academy of Neuropsychology, American Psychological Association, and American Psychological Society. He is also a member of the Roundtable of Toxicology Consultants and the American Academy of Clinical Toxicology.

Watching Washington

SOT Organizes Two Congressional Science Briefings

Submitted by SOT RALA Committee

Two Congressional Science Briefing (CSB) luncheons were held recently on Capitol Hill in Washington, D.C. On January 31, a briefing sponsored by Senator Richard Durbin (D-IL) was held in the Dirksen Senate Office Building, and on February 1, a briefing sponsored by Representative Henry Waxman (D-CA) and Representative Susan Davis (D-CA) was held in the Rayburn House Office Building. Both briefings titled "Botanical Dietary Supplements: Scientific Perspectives and Public Health Pitfalls" were co-organized by the American Society for Pharmacology and Experimental Therapeutics (ASPET), the American Society for Clinical Pharmacology and Therapeutics (ASCP), and the Society of Toxicology. Attendance at the briefings approached 40 on January 31 and 61 on February 1, with most attendees coming from Congressional offices.

Current issues surrounding dietary supplements served as a context for a discussion of how the disciplines of pharmacology, clinical pharmacology, and toxicology can be utilized to promote the use of sound science for improved decision-making. SOT Vice-President Ken Wallace briefly introduced the three societies, goals of the briefings, and the speakers. The first speaker, George Burdock, Ph.D., DABT, Burdock Group, Washington, DC, and SOT member, presented "Dietary Supplements and a Method for Determining Safety and Efficacy." He discussed the concept of "dose makes the poison" and his recommendation for the use of independent expert panels to augment regulatory decisions regarding safety and efficacy of dietary supplements. The second speaker, Steven Kliewer, Ph.D., University of Texas Southwestern Medical Center, Dallas, Texas, and ASPET member, discussed his basic research findings in "How Do Interactions Between Prescription Drugs and Botanical Dietary Supplements Have Potential to Harm Us?" He described how some popular botanical supplements up-regulate drug metabolism genes lead to altered metabolism of prescription drugs and adverse responses. The final speaker, Jason Morrow, M.D., Vanderbilt University School of Medicine, Nashville, Tennessee, an ASCPT member, presented "Safety of Dietary Supplements from a Clinical Pharmacology Perspective and What It Means to the U.S. Public." He discussed dietary supplement use in the U.S., and how clinical pharmacologists play a role in evaluating safety of dietary supplements. He shared several recommendations to improve safety of these substances.
The primary goal of the Congressional Science Briefings is to provide an educational resource for members of Congress and their staff to enhance and promote the visibility of the SOT and its members as credible and authoritative sources for toxicological science and risk assessment in regulatory and legislative issues, including environmental protection, human health, and nutrition.

The PowerPoint presentations from the Congressional briefings are available on the SOT Web site.

Electronic Publication of USDA Facility Inspection Reports: The Balance Between Transparency and Security

Submitted by the Animals in Research Committee

The United States Department of Agriculture (USDA) is charged with the enforcement of the Animal Welfare Act (AWA). Part of this enforcement includes unannounced site inspections at facilities including those conducting research using experimental animals. These inspections are carried out by the USDA's Animal and Plant Health Inspection Service Animal Care (APHIS AC) agents. Inspection reports detail issues that can range from serious violation of AWA requirements to improper administrative/record keeping procedures.

In part to comply with Electronic Freedom of Information Act Amendment of 1996 (E-FIOA) requirements, the USDA Web site began posting inspection results and facility annual reports in October, 2001. Some reports contained details about the location of animals within facilities, grant/study titles, contact information for research personnel, and alleged violations of the AWA. Annual facility reports contained details regarding numbers and species of animals used, cases where procedures may have led to pain or distress, and whether analgesics had been used or were contraindicated in these cases for scientific reasons.

Many scientific organizations responded to the on-line availability of these reports, including the National Association for Biomedical Research, the Federation of Societies for Experimental Biology, the American Society for Pharmacology and Experimental Therapeutics, and the American College of Laboratory Animal Medicine, citing concerns that animal rights groups could obtain personal information anonymously and use it to harass, intimidate, or even harm researchers and interrupt research activities.

The USDA removed inspection and annual reports from their Web site in October, 2002, largely because of security concerns following the September 11, 2001 terrorist attacks (although these documents were still available through written request). Animal rights groups, including the Humane Society of the United States (HSUS), objected and accused the Agency of bending to pressure from industry groups and denying access to information generated using public funds. On January 27, 2005, The HSUS filed a lawsuit against the USDA for failing to provide them numerous documents, some of which had been requested in 2001. The lawsuit also seeks to compel the Agency to make animal research facility annual reports available online. The United States Department of Justice recently ruled that the Agency could resume posting of inspection reports on its Web site, however, facility annual reports are still not available "...until legal issues are resolved" according to the USDA APHIS Web site. USDA APHIS announced recently that as of March 15, 2005, "...the APHIS FOIA Office will be making frequently requested inspection reports available on the web. Only those inspection reports that have been reviewed, with sensitive data removed, will be available."

To prevent potential problems, research facilities can follow a few basic rules to ensure that information is not released that could compromise the security of any employee or the physical/intellectual assets of the facility. First, following each inspection, the draft report should be reviewed by facility staff before the USDA APHIS agent leaves the facility, to ensure it is accurate and does not contain personal information or identifying details regarding procedures, numbers or locations of animals. Second, each facility should obtain copies of past inspection reports to know what type of information is available to the public. These simple steps may prevent sensitive personal and institutional information from falling into the wrong hands.

Green Chemistry Bill Passes House Committee

On April 13, the House Science Committee passed H.R. 1215, Green Chemistry Research and Development Act of 2005, a bill that would authorize a coordinated research and development program to discover more environmentally benign chemical products and processes.

The program would use existing funds at the Environmental Protection Agency, National Science Foundation, National Institute of Standards and Technology, and Department of Energy for grants, promotion of green chemistry education, and the collection and dissemination of information about green chemistry. In addition, academic-industry partnerships would be established to retrain chemists and chemical engineers in green chemistry.

H.R. 1215 is cosponsored by Representative Jim Marshall (D-GA), Environment, Technology, and Standards Subcommittee Chairman Vernon J. Ehlers (R-MI), and House Committee on Science Chairman Sherwood L. Boehlert (R-NY). The bill, which has strong bipartisan support, will move to the House floor and companion legislation is expected to be introduced in the Senate by Senators Olympia Snowe (R-ME) and Jay Rockefeller (D-WV). Similar legislation was approved by the House on April 21, 2004 by a vote of 402 to 14, but Senator Snowe’s similar bill did not make it through the Senate Commerce, Science and Transportation Committee late last year.

The legislation has been endorsed by, among others, the American Chemical Society (ACS), DuPont, Rohm & Haas, Genecor International, Pfizer, Shaw Industries, Eastman Kodak, Dow Corning, and the Carpet and Rug Institute.

Regional Chapter/Specialty Section News:
Mid-Atlantic Chapter Holds Symposium: Children’s Health, Risk Communication, and Science Education

On April 7, The Mid-Atlantic Chapter of SOT (MASOT) held a one-day symposium on children’s health, risk communication, and science education. A key message of the symposium was that modern science, and particularly the field of toxicology, has done much to reduce risks that are beyond the control of the individual. Thus, now an individual’s health and life span are heavily dependent on the choices the individual makes. Hence, whether or not children want to become scientists, it is important that they learn about health science so that they can make good decisions about their health and lifestyles.

Speakers included Kimberly Thompson, Harvard University, who spoke on “Peril and Promise: Understanding and Managing Children’s Risk in the Age of Risk Management” and discussed data on actual threats to children’s health (see also www.kidsrisk.harvard.edu). Larry Johnson, Texas A&M, presented “Risk Perception and Science Knowledge” and discussed his extensive experience in presenting toxicology concepts to tens of thousands of children. This was followed by a talk by Steven Gilbert, “A Small Dose of Toxicology,” on presenting toxicology concepts to varied public audiences. Bill Rodriguez, of CDER FDA, then discussed what we have learned regarding the biological responses of children versus adults to pharmaceuticals. The last speaker, David Cragin, of Merck and the University of the Sciences Philadelphia, gave a talk entitled “Risk Communication: From the Classroom to the Factory Floor,” in which he described how classrooms offer a superb environment for developing risk communication skills.

This symposium was organized by MASOT’s Risk Communication and Education Committee. It was the second year in a row that this committee held a meeting that was in addition to MASOT’s annual Spring and Fall symposia. In addition to these, the committee also has organized lunchtime breakout sessions during MASOT’s regular Spring and Fall meetings. The committee is chaired by Carrie Markgraf and it receives much support and guidance from MASOT’s President Dave Cragin who has worked to increase MASOT’s activities and involvement in this area. In addition, through funding available to encourage efforts in alignment with SOT’s Long-Range Plan, SOT provided seed money to help support MASOT’s first efforts in this regard.

In Memoriam:

C. Jelleff Carr, Ph.D.
H. Wyman Dorough, Ph.D.
Vernon A. Green, Ph.D.
Gerald Hajian, Ph.D.
Dietrich Lorke, M.D.
Louis E. Van Petten, D.V.M.

In Memory of C. Jelleff Carr, Ph.D.

Dr. C. Jelleff Carr, a founding father of the International Society of Regulatory Toxicology and Pharmacology (ISRTP), secretary of the Society for 20 years and managing editor of the Journal Regulatory Toxicology and Pharmacology, died on February 15, 2005, a few days short of his 95th birthday.

Dr. Carr was a man of few words, a trait that belied the many subjects he could address with profound competence. His career was stellar. The functions and safety of now common sugar substitutes were established through his pioneering efforts. His studies laid the foundations of modern anesthetics that are the mainstay of surgery practice worldwide. Some of the most effective cardiovascular medicines were first conceived through his research.

As the responsible scientist attached to the Army General Staff, he supervised medical and food provisions for the Vietnam Campaign. Later he founded and directed the Life Sciences Research Office, the Federation of American Societies of Experimental Biology, where he was instrumental in steering the major regulatory policies in food safety and medicine, with international recognition and following.

For 20 years he was a professor of pharmacology at the School of Medicine, University of Maryland. He coauthored a textbook of pharmacology with Dr. John C. Krantz that became the standard in the education of generations of physicians in North and South America, India, Australia, South Africa, and the Philippines. His scientific influence touched uncounted millions of people on four continents.

His friends marveled at his optimistic, serene, and self-effacing demeanor, and came to admire this gentle and kind man that gave and was giving so much, asking nothing in return. Dr. Carr will be remembered.

Career Resource and Development Services:

Career Resource and Development Service: Position Advertisements
The Department of Environmental and Occupational Health of the Faculty of Medicine at Université de Montréal invites applications for a full-time tenure track position at the assistant or associate professor level. The successful candidate will join a dynamic team, presently in full expansion.

Responsibilities:
- Research in occupational and/or environmental toxicology, with emphasis on experimental approaches and mechanistic studies.
- Supervision of M.Sc. and Ph.D. level students
- Teaching environmental and occupational health at all levels
- Contribution through committee work and other service at University and international levels

Requirements:
- Ph.D. degree in occupational and/or environmental toxicology or an equivalent degree
- Relevant post-doctoral experience
- Proven capacity as an independent researcher

The language of instruction is French; a non French-speaking individual will have to be able to teach in French within three years after recruitment.

Salary:
According to the terms of the collective agreement. Université de Montréal offers a competitive salary combined with a full range of fringe benefits.

Starting date:
Fall 2005

Application deadline:
July 29, 2005

Applicants should submit a letter of intent outlining their interests and career objectives, current curriculum vitae as well as the names and addresses of three professional references to:

Dr Michel Gérin
Chairman
Département de santé environnementale et santé au travail, Faculté de médecine, Université de Montréal, CP 6128 Succursale Centre-Ville, Montréal, QC, H3C3J7
E-mail: michael.gerin@umontreal.ca

All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. The University is committed to equal employment opportunity for women.

Assistant/Associate Professor Position
Pharmacology and Toxicology
Michigan State University

The Department of Pharmacology and Toxicology at Michigan State University is accepting applications for a tenure-track faculty position at the Assistant Professor or Associate Professor level. We are seeking candidates with an interest and expertise in inflammation as it relates to pathophysiological mechanisms or adverse consequences of drugs or other chemicals in living systems. Preference will be given to candidates who complement existing strengths in the areas of neurodegenerative, respiratory/airway or hepatic disease. Candidates should have a Ph.D. or equivalent in Pharmacology & Toxicology or related discipline, extensive postdoctoral research experience and demonstrated success in obtaining extramural funding. The candidate will have the opportunity to participate in dynamic and nationally-recognized interdisciplinary research and training programs including the Center for Integrative Toxicology, the National Food Safety and Toxicology Center, the Cell and Molecular Biology Program, the Center for Biological Modeling, the Genetics Program and the Neuroscience Program. The successful candidate will be expected to establish an independent and extramurally-funded research program and to contribute to teaching and other departmental activities. Interested individuals should send their curriculum vitae, statement of research interests and future research plans, and 3 letters of recommendation. Electronic submission to hummeld@msu.edu is encouraged; paper applications may be sent to: Chair, Faculty Search Committee, Department of Pharmacology and Toxicology, Michigan State University, B440 Life Sciences Building, East Lansing, MI 48824-1317. Review of applications will begin immediately, and applications will be accepted until the position is filled.

See our web site: http://www.phmtox.msu.edu. Michigan State University is an Equal Opportunity/Affirmative Action employer and encourages applications from women and minorities.
Senior Product Safety Specialist

Candidates must possess an M.S. or Ph.D. in toxicology or related field and should have at least 3-5 years regulatory experience. Ciba is looking for an individual with strong communication skills, and the ability to work independently and manage multiple projects. Candidates should be familiar with regulatory toxicology testing procedures and be able to monitor studies at contract laboratories. Hazard, exposure, and risk assessments are prepared for water treatment products and other chemicals. Assistance with PMN, FDA, and Product Registration submissions is required as well as supervision of 2 regulatory administrative personnel. The position is located in Suffolk, Virginia. Domestic and international travel is required. Competitive salary and excellent benefits. To apply by mail, please send a resume to Ciba Specialty Chemicals, Human Resources, Senior Product Safety Specialist, P.O. Box 2301 Wilroy Road, Suffolk, VA 23434. No phone calls will be accepted, but applications may be sent by e-mail.