



# Communiqué

Winter Issue 2013–2014

## SOT News

### President's Message



President  
Lois D. Lehman-  
McKeeman

I'm starting this President's message with a quiz!!! It's just one question, but it's important that everyone knows the answer. *The question is: What do prenatal programming and toxicity, perfluorinated alkyl acids, and human relevance of hemangiosarcomas in rodents have in common?* [the answer appears at the end of this message].

While you ponder the answer to that question, I want to reflect on events of this fall and focus on several activities of the Society during recent times of uncertainty. The shutdown of the US government had some effect on nearly all of us. Important meetings, study sections, and day-to-day professional discussion and dialog were all furloughed during this time. However, the most significant impact was on our members who are government employees, and we can only hope that these matters are completely behind us. Unfortunately, there were significant deadlines for SOT matters scheduled during this time, particularly for abstract submissions and award nominations.

I want to specifically acknowledge the work of the **Scientific Program and Awards**

**Committees** for showing remarkable flexibility in modifying deadlines to accommodate member needs. As a quick review, the Awards committee moved deadlines for nominations to the last possible minute—giving them only about 1 week to review all nominations prior to meeting to select award winners. The prestigious Society awards are central to celebrating member accomplishments, and the work of this committee, against their own time limitations, underscores their commitment to this important activity.

The Scientific Program Committee (SPC) also adjusted its review schedule by first delaying the regular abstract submission deadline for its November review meeting and subsequently modifying the “late submission” deadlines and programming for the entire meeting. Importantly, the abstract submission site will reopen on December 2, 2013 and the final abstract submission deadline will be January 6, 2014. With this change, the program schedule will be modified with no “Late Breaking” Abstract session at the 2014 meeting. Rather, regular scientific sessions will be scheduled from Monday through Thursday morning. All abstracts submitted for the January 6 deadline will be added to the regular scientific program and will be presented in relevant topical sessions.

This means that, unlike previous meetings for which only those abstracts submitted for the late-breaking session were presented on Thursday, regular scientific sessions will be scheduled for Thursday morning. In this way, members from all sectors will be presenting papers during this time. We recognize that this is a change from recent years, but it is necessitated by events outside of our control. The size and quality of our meeting makes the work of the SPC challenging under normal circumstances. On behalf of all our members, I want to commend this committee for their willingness to adjust schedules and carefully evaluate all possible options to accommodate the needs of our members.

The matters arising from the US government shutdown did not interfere with one of our major ongoing efforts within

SOT Council. Our current strategic plan places considerable emphasis on promoting the recognition and communicating the value of toxicology, and our Communications Committee is charged with leading this outreach to external audiences. During this year, SOT Council has been working closely with the Communications Committee to critically evaluate our efforts in this important area. During these strategic discussions, we have reconfirmed that our overarching goal is to establish SOT and the science of toxicology as a credible, objective, and valuable resource to effectively engage in scientific communication. This effort remains a work in progress, but our critical review has led to several major conclusions that will modify our work in external communications in the future. Some of the major conclusions are:

- The SOT website needs to be a much better resource for communicating toxicology issues and principles. Efforts will be directed to improving the overall design and accessibility of the site, and content will be upgraded to provide good resources to all visitors to the site (including our members).
- SOT is generally in a weak position to respond rapidly to media inquiries. A new strategy and action plan for how such queries can be handled will be developed.
- SOT needs to determine how to use social media in our communication strategy and outreach.
- Communications with legislative bodies is likely to be more effective if focused on very specific matters (such as the current TSCA reform issue). New approaches are needed for this outreach and a process to develop task forces for legislative issues that work with with clearly-defined goals and intended outcomes is currently being considered.
- We must re-evaluate our process for developing issue statements on behalf of the Society. It is generally recognized that such statements can be an important platform for communication efforts, but we need to streamline the process to ensure that they will be timely and relevant.

The desired outcome from this year of introspection and critical assessment is that it will define a strategically focused plan to enable proactive, consistent, and sustained communication activities that effectively promote the recognition of toxicology. I believe we are well on our way in this regard, and I will continue to share our progress on this important matter with you.

Finally, I return to the opening question. *What do prenatal programming and toxicity, perfluorinated alkyl acids, and human relevance of hemangiosarcomas in rodents have in common?* The answer is that these have been topics of **Contemporary Concepts in Toxicology (CCT)** meetings. These meetings are designed to provide opportunities to learn about important issues in human and environmental health and to enable dialog around emerging science that is critical to advancing the practice of toxicology. Additionally, CCT meetings allow for scientific discussion and debate along with networking opportunities to enhance the professional engagement of members.

The CCT committee is charged with reviewing meeting proposals, and this group is always looking for timely topics that can advance the integration of emerging science in toxicology (and vice versa) as well as the professional development of our members. The next CCT meeting is scheduled for January 16–17, 2014 and will focus on “FutureTox II: *In Vitro* Data and *In Silico* Models for Predictive Toxicology.” Information on this meeting and instructions on how to submit a meeting proposal are found on the [SOT website](#). I encourage you all to give serious thought to topics that can advance this platform of meetings for our global membership.

As 2013 is quickly drawing to a close, I hope that the highlights I share in the messages help to emphasize how SOT can be an integral part of your professional engagement. My next message will come shortly before our 53rd Annual Meeting in Phoenix, and I look forward to seeing you all there.

*Lois D. Lehman-McKeeman, PhD, ATS*  
2013–2014 SOT President

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**SOT Is Matching Dollar-for-Dollar Contributions to All Established Endowment Funds**

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## **New York Times Publishes SOT Letter to the Editor on the Science of Endocrine-Disrupting Chemicals**

Last week, *The New York Times* ran an opinion column by Nicholas D. Kristof titled “[This Is Your Brain on Toxins](#),” which discusses the hazards that endocrine-disrupting chemicals pose to public health, putting the danger on par with that of smoking and lead.

Upon reading the piece, SOT President Lois D. Lehman-McKeeman and Vice President Norbert E. Kaminski felt that a response was needed to remind people of the science that has been done and still needs to be done regarding these chemicals. That response, written by President McKeeman, was published this week as a “Letter to the Editor” in *The New York Times*, in which she urges “people look beyond the rhetoric to see if the science supports the claims being made.” [You can read the full response on the Times’ website.](#)

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## **SOT Leaders’ *ToxSci* Editorial Challenges Our Society to Speak Out on Health and Environmental Issues**

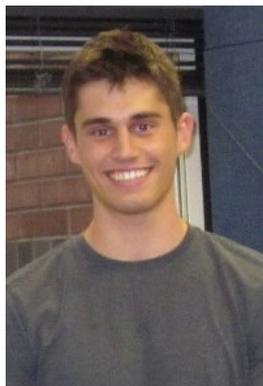
Lois D. Lehman-McKeeman and Norbert E. Kaminski (currently SOT President and Vice President) recently authored an editorial in *Toxicological Sciences (ToxSci)* titled “The Hazards of Playing it Safe: Perspectives on How the Society of Toxicology Should Contribute to Discussions on Timely Issues of Human and Environmental Safety.” The article is intended to be a call to action that encourages our membership to speak out on relevant toxicology issues and to challenge the Society to respond more regularly and vigorously on matters where toxicology needs to have a voice. Drs. Lehman-McKeeman and Kaminski address the need for the Society to contribute to ongoing scientific debate and discussions to ensure that sound science is used in all matters of safety evaluation and regulation. The Society’s mission to create a safer and healthier world dictates that as experts in hazard identification and risk assessment, we need to contribute to advancing the recognition of how our science can and should be used. The Editorial is currently available in the Advanced Access section of [ToxSci](#).

## SOT Funding Available for Undergraduate Toxicology Interns



Consistent with the SOT goal to enhancing recruitment of students into toxicology, the SOT Education Committee has established funding to undergraduate intern hosts to enable additional internships in toxicology during summer 2014. This funding will support up to six summer internship positions with a 50% match from the host institution or other funding sources. Priority will be given to institutions with existing successful internship programs. The institution will select the SOT funded intern using that program's process with the stipulation that SOT seeks to fund students who are seriously considering graduate school in toxicology. Preference will be given to programs with strategies to successfully recruit students from groups typically underrepresented in the sciences. Pictured above from left to right are Gabrielle Thorne, Matt Lynch, and Lauren De Perspiris and below on the left is Kia Perez and on the right Michael Rankin.

| Intern Host Institution                     | SOT funded Intern  | Intern's Institution              | Mentor                       |
|---|--------------------|-----------------------------------|------------------------------|
| Rutgers, the State University of New Jersey | Gabrielle Thorne   | Elizabeth City State University   | Lauren Aleksunes             |
| Rutgers, the State University of New Jersey | Matt Lynch         | Wesleyan University               | Debra Laskin & Howard Kipen  |
| Rutgers, the State University of New Jersey | Lauren De Respiris | Rutgers University                | Ken Reuhl & Jason Richardson |
| Michigan State University                   | Kia Perez          | University of Puerto Rico Arecibo | William Atchison             |
| Oregon State University                     | Michael Rankin     | University of Wisconsin-Madison   | Siva Kolluri                 |



The [description and application](#) provide more detail. The completed application is due December 30, 2014. Award decisions made in mid-January 2014.

In the 2013 pilot program SOT funded five interns at three institutions as noted below. The successful applicants for the matching intern funding were Lauren Aleksunes at Rutgers, William Atchison at Michigan State University, and Craig Marcus at Oregon State University.

If your institution does have an active internship program, please make sure that the program is included in the SOT [Internship listing](#) by sending the program description and link to Betty Eidemiller at [Betty Eidemiller](#) during December. SOT promotes these listings to our undergraduate contacts and SOT Undergraduate Student Affiliates.

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## SOT Provides Research Experience Opportunities Listing—Is Yours There?

Often acknowledged as the best way to increase interest in graduate school, research internships can be life-changing. The Society of Toxicology (SOT) tries to make it easy for students to find research experiences related to toxicology by providing listings at [Student Research Internships in Toxicology](#), including the categories [Student Research Internships in Toxicology](#), [Governmental Internship Opportunities](#), and [Other Internship Opportunities](#).

However, we know that many academic institutions and companies have research opportunities that never reach SOT web pages. The listings we do have need updating for 2014. We encourage you to send information immediately to [Betty Eidemiller](#) for adding to the SOT website. Even if the student research program in your institution is not solely toxicology-related, we would like information about it.

At the beginning of next year, we will be sending a message to our undergraduate contact list, including SOT Undergraduate Affiliates, directing them to the SOT Internship page so they can apply for opportunities in advance of the deadlines for summer 2014.

Thank you for your assistance in providing research opportunities to students.

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## SOT Endowment Fund—Building for the Future



Contributors to the SOT Endowment Fund are helping to build for the future of toxicology through long-term financial support that generates critical resources that enable the Society to fulfill its mission, now and in the years to come.

Since its inception in 2006, Contributors to the Endowment have:

- Underwritten more than 140 Student Travel Awards to the SOT Annual Meeting.
- Recognized colleagues who have made enormous contributions to improving human health and the environment.
- Created funds that acknowledge the contributions of toxicology educators to undergraduate students in toxicology and toxicology-related areas.
- Strengthened global participation by providing financial support to scientists from developing countries to attend the SOT Annual Meeting.

Discover the benefits of giving wisely by viewing the [2013 Endowment Awardees](#).

Please help SOT continue to make a difference by becoming a contributor to the SOT Endowment Fund. For more information and to contribute, please visit the [SOT website](#).

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## The ToxScholar Program Provides a Great Opportunity to Serve as a Toxicology Ambassador

*Each year the Committee on Diversity Initiatives funds Domestic ToxScholar visits to minority undergraduate institutions to advance its goal of introducing toxicology to groups underrepresented in the sciences. The program offers up to \$500 for SOT members to visit institutions, talk about toxicology, and establish mentoring relationships with faculty and students to encourage careers in toxicology. The Society of Toxicology (SOT) helps with resources and material. Elena Braithwaite recently visited her alma mater, Hampton University. In sharing her story and experiences with the students at Hampton, she helped kindle an interest in toxicology in the minds of budding young scientists.*

*By Elena Braithwaite, PhD, DABT*

History definitely repeats itself. Yesterday's Exxon Valdez and Chernobyl tragedies are today's BP Oil Spill and Fukushima Daiichi disasters. World events that increased my curiosity in science at a young age are still serious problems today and the commonalities that exist across each of our generations are truly remarkable. My impression is that many current undergraduate students do not know that toxicologists apply basic research findings to solve complex health and environmental problems. If they did, they might understand the value of our work or become interested in pursuing a career in toxicology themselves. I am grateful to SOT for realizing the importance of expanding awareness and promoting toxicology careers through interactions with undergraduate students and for implementing the ToxScholar program.

During high school, I became very interested in the role scientists play in protecting the environment. Therefore, I decided to attend Hampton University and major in Marine Science and Environmental Studies. At that time, I had very little knowledge about the field of toxicology and had no idea toxicologists were instrumental in protecting the public and the environment. My perspective changed during my junior year when I participated in a summer internship program at the US Environmental Protection Agency. I became fascinated with the field of toxicology and, with a lot of encouragement from my parents, I went on to obtain a PhD from the University of Kentucky and completed two postdoctoral fellowships (including one at the Centre National de la *Recherche Scientifique* in Strasbourg, France). Recently, I have been working on cellular defense mechanisms used to combat the detrimental effects of environmental pollutants such as cigarette smoke, free radicals, and heavy metals.



While this is my story, each scientist has their own path that can serve as inspiration for the next generation. I am grateful to the scientists in my life who told me about their careers in science and the work they were doing to protect living organisms and prevent disease. When I found out about the ToxScholar Program that provides funding for professionals to visit universities and talk about their career, I was excited to go back to my alma mater and try to motivate the next generation of young professionals.

I received a very warm welcome at Hampton University. One of my former professors, Benjamin Cuker, made it possible for me to speak with seven different groups of students by incorporating my talk into course curriculums or including my scientific presentation in their seminar sessions. Many students were surprised to hear about the broad spectrum of important work toxicologists do to decrease the risk associated with exposure to compounds encountered by all living organisms. Talking about my experiences in graduate school and research projects helped students understand the commitment necessary to be successful and why research is important. Even if students thought that toxicologists were "mad scientists" who had the ability to poison people at first, by the end of my talk everyone was convinced that the work toxicologists do in risk assessment, regulatory science, and basic research is paramount for understanding the

impact chemicals have on global health. It was also impressive to hear the novel ways students envisioned interacting with toxicologists in the future, though their major may be psychology, communications, or history.

Due to decreases in funding, many students will not have the opportunity to learn about toxicology through hands-on experiences. As a result, it is even more important to increase awareness of the field and provide a supportive network for undergraduate students. Exchanges like the ones fostered within the ToxScholar framework will help develop a pipeline that supports a strong, intelligent and diverse workforce. I applaud the SOT for realizing that short interactions can have a profound effect on people's lives and thank them for this program and for this opportunity.

*Each of you has a story to share that might inspire young scientists. Visit your alma mater or a school near your home or a school in a town you are visiting. Visits to minority institutions are funded through the Committee on Diversity Initiatives and trips to other undergraduate institutions are funded through the Education Committee. The SOT website has information on how you might participate in the [SOT ToxScholar Program](#).*

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## **Research Funding Committee Survey Launched and Your Input Is Needed —Respond by December 31**

The Research Funding Committee (RFC) invites you to participate in our [Research Funding Survey](#). The objective of this Survey is to gauge the status of the support for the membership in their individual and collective efforts to address the important toxicological issues. It is important to know the collective capabilities of our members to resolve and solve these issues through the extramural support necessary. We are attempting to gauge this financial support through your responses in this survey.

We will provide a Survey Report to the membership and Council at the 2014 Annual Meeting of the Society of Toxicology (SOT) as well as on the SOT website.

It is hoped that this Survey will guide the RFC in providing members guidance in seeking their future support as reflected by our past and current reported support.

If you have any questions or suggestions for future surveys, please share them with [Richard K. Miller](#).

The survey will take approximately five minutes to take.

Thank you for your willingness to provide input into the survey.

Richard K. Miller, Sr, PhD, ATS  
Research Funding Committee Chair

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## **GSLC Presents Webinar on Writing a Scientific Manuscript**

Interested in getting helpful insight and tips on writing a good scientific manuscript? Then follow the link below to the recording of the recent webinar hosted by the Graduate Student Leadership Committee (GSLC). The webinar was organized by the Professional Development Subcommittee of the GSLC and featured Pamela Lein as the speaker.

Dr. Lein is a Professor of Neurotoxicology, Chair of the Pharmacology and Toxicology Graduate Group, and Vice Chair of the Molecular Biosciences Department of the School of Veterinary Medicine at the University of California, Davis. Her academic training is in neuropharmacology and neurotoxicology, and her research focuses on cell and molecular mechanisms of neural plasticity and their role as targets for growth factors, inflammatory mediators, and neurotoxicants. Dr. Lein has extensive experience with writing and reviewing scientific manuscripts and a publication record of more than 100 papers and book chapters. She has published her research in prestigious academic journals in the field of

toxicology, including *Toxicological Sciences*, *Toxicology and Applied Pharmacology*, *Neurotoxicology*, and *Environmental Health Perspectives*. In addition, she currently serves as an associate editor for the journals *Toxicology and Applied Pharmacology*, *Neurotoxicology*, *Neurotoxicology*, and *Teratology*, and is on the editorial board for *Toxicological Sciences*. Dr. Lein has been an SOT member since 1999, and is currently Vice President of the NorCal Regional Chapter and Past President of the Neurotoxicology Specialty Section.

Dr. Lein opened her presentation with an overview of how scientific writing differs from what is traditionally taught in composition classes, followed by an outline of the typical sections of most scientific papers, with useful advice on what type of information should be included in each segment. Her remarks also included useful advice and tips on improving your writing skills and increasing the chances of a favorable review of your manuscript. The webinar concluded with a brief Q&A session, featuring our speaker, Dr. Lein, as well as panelist Ms. Virginia Hawkins, Managing Editor of the journal *Toxicological Sciences*.

You can listen to the [webinar recording](#) at your convenience. If you have any feedback on this webinar, as well as any suggestions for future webinar topics (oriented towards career development), please send them to me at [Marianna Stamou](#), Chair of the GSLC Professional Development Subcommittee.

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## SOT Helps You Find Your Mentor Match



If you are looking for guidance on career path selection, professional development, or work/life balance issues, SOT can help! Mentoring can be beneficial at any career stage, whether you are just starting out or beginning to think about retirement.

[Mentor Match](#) is an online program through which mentees are paired with potential mentors, and it is only available to SOT members. Just as some of our members are relatively new to the field of toxicology, quite a few have significant experience and wisdom that they are happy to share. Mentor Match is free, easy to use, and allows for confidentiality. We encourage all SOT members to sign up as mentees, mentors, or both!

Visit [Mentor Match](#) at any time and log in or sign up with your email address and SOT password. For more information, please contact [Kim von Brook](#).

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## Nominations Open for 2014–2015 Postdoctoral Assembly Executive Board: Deadline December 6

If you are a Postdoctoral member of the Society of Toxicology, please consider running for one of the officer positions open on the SOT Postdoctoral Assembly (PDA) Executive Board for 2014–2015. The mission of the PDA is to facilitate the professional development of the SOT Postdoctoral Membership in the field of toxicology. The Board, which oversees PDA activities, consists of a Chair, Vice-Chair, Secretary, Treasurer, and two Councilors.

PDA officers are heavily involved at the SOT Annual Meeting, organizing career development and scientific sessions, the Postdoctoral luncheon, and Poster Tours for Trainees. The PDA Board also coordinates and selects the Best Postdoctoral Publication Award and organizes webinars throughout the year. Serving on the PDA Executive Board

provides an excellent opportunity to network with other postdoctoral fellows as well as more senior SOT members. It also is a fun way to help other postdoctoral fellows and graduate students develop their own career.

For 2014–2015, the following positions will be open:

- Vice-Chair (one 2-year position in which you transition to Chair)
- Treasurer (one 1-year position)
- Councilor (two 1-year positions)

Responsibilities of these PDA positions can be found on the [SOT website](#). The qualifications to serve on the PDA Executive Board are provided below:

1. SOT postdoctoral member (status as a postdoctoral member must be obtained prior to the term of service)
2. In a postdoctoral position by February 1, 2014
3. Will be a postdoc for more than half of the term of service (May 1, 2014–April 30, 2015)
4. Cannot serve as a postdoc representative to any SOT Committee, Specialty Section, Regional Chapter, or Special Interest Group during your term of office

To nominate yourself or another SOT postdoc, please email the name of the candidate along with a 150-word biosketch containing the following:

- Education (degrees and universities)
- Research field and interests
- SOT involvement
- Prior leadership roles

Send nominations to PDA Staff Liaison, [Susan Simmons](#). Contact PDA Treasurer [Kellie Fay](#) with questions. The nomination deadline is Friday, December 6.

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## Host Applications Sought for 2014 Global Senior Scholar Exchange Program Scholars

The Society of Toxicology is pleased to announce the 2014 Global Senior Scholars, Gonzalo J. Diaz, National University of Colombia, Bogotá, Colombia, and Ebenezer O. Farombi, University of Ibadan, Ibadan, Nigeria. Applications for Hosts for each of these Scholars are due October 15, 2013, and the Education Committee will match each Scholar with a Host with similar interests.

The primary goal of the Global Senior Scholar Exchange Program (GSSEP) is to increase toxicology capacity in developing countries by providing opportunities for senior scientists in those countries to develop professional relationships with SOT members in established toxicology programs. The award provides logistical and financial support for the Scholars to attend the SOT Annual Meeting and subsequently spend up to four weeks with one or more hosts from academic, government, or industry organization(s). The Host will in turn visit the Senior Scholar's institution to engage in teaching, curriculum development, or other activities intended to build training and research capacity in toxicology. The program provides up to \$15,000 for each pair, with up to \$10,000 travel support for the Senior Scholar and up to \$5,000 for the Host. The award cannot be used for equipment, laboratory supplies, or renovations.

### About the Awardees

#### Gonzalo Diaz

Gonzalo Diaz is widely recognized in mycotoxins globally and plant toxins especially in the Andean region. Dr. Diaz is Professor of Veterinary Toxicology, Head of the Toxicology



Laboratory, and Director of the Avian Nutrition and Toxicology Research Group at the National University of Colombia. This is the largest academic institution in Colombia, having close to 30,000 students and eight campuses across the country. The Toxicology Program at the National University of Colombia is hosted by the Department of Toxicology of the Medicine School with participation of professors from different colleges. He supervises students enrolled in both the Human Toxicology graduate program and the Veterinary College toxicology graduate program and teaches an undergraduate course on Veterinary Toxicology and two graduate courses (Advanced Toxicology and Toxicants of Natural Origin).

Specific areas for potential collaboration between Dr. Diaz and a host at an other institution include:

- Toxicants from natural origin with particular emphasis on toxins from plants and from fungi (mycotoxins). These toxins can affect both animals and humans and some of them are strictly regulated in human foods. This latter aspect requires the existence of laboratories that are highly competent in mycotoxin testing and toxicologists with experience in this field of toxicology as principal investigators of these laboratories.
- Toxicants produced during the processing of foods such as acrylamide. This is a topic that has not been investigated in Colombia and might be of great importance due to the large number of deep fried carbohydrate containing products that are normally eaten by the human population in this country. Among these products are yuca (*Manihot sculenta*) chips, plantain chips, potato chips, corn chips, and others.

### **Ebenezer Farombi**



Ebenezer Farombi is Professor of Biochemistry and Molecular Toxicology, Dean of the Faculty of Basic Medical Sciences (College of Medicine), and Director of Molecular Drug Metabolism and Toxicology Research at the University of Ibadan. This is the flagship of postgraduate education and training in Nigeria. The Department of Biochemistry is recognized for its pioneering research on environmental compounds such as aflatoxins, palmtoxins, N-nitroso compounds, perfluidone and aryl alkyl sulfonamide pesticides, glyphosates (a broad spectrum herbicide), naturally occurring coumarin compounds chalepin, imperatorin and oxypeucedanin isolated from medicinal plants, and polycyclic aromatic hydrocarbons.

Dr. Farombi seeks a host for the SOT Global Senior Scholar Exchange with research experience in chemical carcinogenesis of environmental compounds and oxidative stress mechanisms in chemical carcinogenesis. Goals include updating graduate training in molecular and biochemical toxicology, facilitating technology transfer, and increased exposure to toxicogenomics and molecular techniques relevant in probing the underlying mechanisms of action of toxic chemicals.

Ultimately he would like to increase the capacity of the program to address quality control/quality assurance and regulatory standards for drugs, chemicals, foods, drinks, and diets in the country, where there is a rising incidence in liver and kidney diseases. Many people use complementary and alternative medicines derived from medicinal plants, herbs, and concoctions prepared by native doctors. The dose and toxicological profiles of these medicines are not known as they have not been subjected to toxicity testing.

He believes that the Global Senior Scholar Exchange will impact the existing Toxicology programs in Nigeria and the West African Society of Toxicology, build capacity, and mentor young faculty members. Activities will facilitate continental networking in teaching and research in Toxicology, especially as Pan-African University was recently established and Ibadan University is hosting the Earth and the Life Sciences Program, with the curriculum for the MSc

in Molecular and Biochemical Toxicology considered an exemplar.

Please see the [GSSEP website](#) or contact [Betty Eidemiller](#) for further information.

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## International ToxScholar Outreach Grant Applications Due October 16

With the application deadline extended to October 16, now is the time to apply for an [International ToxScholar Outreach Grant](#) so that you can fulfill your goal of being an international ambassador for toxicology. The Education Committee invites SOT members, Regional Chapters, Special Interest Groups, and Specialty Sections, to send proposals for partial or full support of travel and lodging costs up to \$1,250 for campus visits outside North America by toxicologists. Provision of matching funds from the sponsoring group(s), the academic institutions involved, or the employer of the visitor is encouraged. Applications for visits to countries on the SOT [Developing Countries](#) list are favored.

Over the past few years, the Society of Toxicology has helped support many outstanding members for educational outreach travel outside of North America through the [International ToxScholar Outreach Grant](#) (which was formerly known as the Global ToxScholar Program).

Previous grant recipients are featured in *Communiqué* blogs.

[Makerere University Welcomes SOT International ToxScholar Rumbeiha](#)

[International ToxScholar Program Expands Boundaries of the Scientific Community](#)

[SOT Global Toxicology Scholars Present Toxicology to International Audiences](#)

More details are available on the [grant web page](#).

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## Encourage Undergraduate Students to Attend the 2014 SOT Annual Meeting

Do you know undergraduates recently involved in toxicology research? Please encourage them to [submit an abstract](#) for the 2014 SOT Annual Meeting. This year SOT has travel funding for up to ten undergraduate students presenting abstracts. As the deadline for abstracts has been extended to October 16, the application deadline for the Pfizer Undergraduate Travel Award has also been extended to October 16.

Do you know undergraduates who should learn more about toxicology? SOT also provides travel support for students who are in the early part of their undergraduate experience and may not have had an opportunity to learn about careers in toxicology. Funded students participate in the Undergraduate Education Program from Saturday through Monday. This program provides an introduction to toxicology, information on careers, getting into grad school, and a chance to meet with academic and internship program directors. A student is eligible if he or she 1) is a member of a group underrepresented in the sciences (for example, African American, Hispanic, Native American) or 2) attends a school that receives a low amount of federal science, technology, engineering, and math funding. Sophomores and juniors receive preference for selection.

Complimentary Annual Meeting registration is available for undergraduate students, who are also encouraged to register as an [SOT Undergraduate Student Affiliate](#) to participate in a special ToXchange community and to receive communications about SOT programs. Because the Undergraduate Education Program Awards do not require an abstract submission, the deadline remains October 9.

Information and applications for undergraduate travel awards are found at [Resources for Undergraduate Students](#).

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# SOT Graduate Student Leadership Committee: Fall Updates

*Submitted by Holly Hewitt, GSLC Communications Subcommittee Chair*

## **Graduate Student Leadership Committee: Who We Are**

The Graduate Student Leadership Committee (GSLC) is composed of the student representatives from the component groups (Regional Chapters, Specialty Sections, and Special Interest Groups) and an Executive Board that includes the GSLC Chair, GSLC Secretary, and three Subcommittee Chairpersons.

The three Subcommittees include *Communications*, *Professional Development*, and *Programming*. The Communications Subcommittee is in charge of the winter *Student e-Letter* and the ToXchange publishing and written student communications for the Society; Professional Development is tasked with creating webinars and developing the joint graduate student and postdoc scientific session proposal for the SOT Annual Meeting every year; Programming is responsible for preparing for the Annual Meeting events by organizing the Student/Postdoc Mixer, the Chat with an Expert Program, and any other Annual Meeting events. These three subcommittees are made up of Student Representatives that carry out certain functions and responsibilities through task forces. Each Subcommittee also has a Secretary, who is elected from the GSLC.

## **Benefits of Participating in the GSLC**

Participation in the GSLC provides a great opportunity to practice skills in leadership, management, communication, and professional development. Also, the members of the GSLC receive travel funding to attend the SOT Annual Meeting (Executive Board receives funding from SOT and component group student representatives receive partial travel funding both from their component group and from SOT). Complete information on the GSLC can be found on the [SOT Website](#).

Join a [Regional Chapter](#), [Specialty Section](#), and [Special Interest Group](#) to get the most out of your SOT membership! Each of these component groups offer their own Student Awards.

## **Submit an Abstract and Apply for Awards at the SOT 53rd Annual Meeting**

The GSLC is gearing up for another great year of serving the graduate students of the SOT. We'd like to encourage all students to [submit an abstract](#) for the 2014 Annual Meeting—the deadline is *October 7, 2013*! When you submit an abstract, don't forget to apply for awards offered by the SOT, Regional Chapters, Specialty Sections, and Special Interest Groups. The deadline for applications for Graduate Travel Support for the Annual Meeting, the Syngenta Fellowship Award in Human Health Applications of New Technologies, and the Colgate-Palmolive Awards for Student Research Training in Alternative Methods is *October 9, 2013*. Check the [awards listings](#) for more information.

## **Participate in Student Events at the SOT 53rd Annual Meeting**

There are many great graduate student opportunities at the Annual Meeting, including [Chat with an Expert](#) and the Student/Postdoc Mixer. The GSLC has teamed up with the Postdoctoral Assembly to co-sponsor a scientific Symposium session, where research by postdocs and graduate students will be highlighted. We also are working hard to create new programming to address student needs and desires that will be available at future Annual Meetings as well as webinars throughout the year!

GSLC is once again sponsoring the *Tox ShowDown*. This event is modeled after the successful game show “It's Academic” and has become very popular, particularly with graduate students. Currently contestants are being solicited. So, if you really want to test your toxicology knowledge, visit the recent [Communiqué blog](#) entry for additional information.

The *YouTox Video Challenge* will be occurring again this year! Prepare a short video with other graduate students, faculty, and staff in your program that describes who a toxicologist is and what it is that they do. Cash prizes will be awarded for the most creative videos. Check out last year's YouTox Video Challenge [winner](#), can you beat it? Be on the lookout for more information regarding rules and deadlines for video submissions, coming soon to an inbox near you! In

the meantime, get those cameras rolling to capture those candid toxicologist moments! For more information, please contact [Holly Hewitt](#), [Joy Cavagnaro](#), or [David Rossé](#).

### **New Public Relations Program**

Show off your knowledge of toxicology and participate in a new public relations program with SOT. Submit toxicology-related bits of knowledge to [Karilyn Sant](#). These facts will be collected and sent to SOT to be posted on the homepage, under “Did You Know.” Take a moment to see what we’re promoting by viewing the lower left hand section of the [SOT website homepage](#). Facts should be interesting, written for the lay public, and a maximum of one paragraph in length. You will receive attribution for your contributions!

More information on student resources and events can be found on the [Graduate Students Section](#) of the SOT website.

### **Get Involved as a Volunteer at the 53rd Annual Meeting!**

There are two opportunities for graduate students and postdocs to volunteer for programs during the SOT Annual Meeting. Volunteers help with the Continuing Education (CE) courses on *Sunday, March 23, 2014*, and other volunteers serve as peer mentors for the Undergraduate Program on *Saturday, March 22 through Monday, March 24*.

### **Students Can Volunteer to Help and Attend a CE Course for FREE!**

SOT’s CE courses are a great resource for students and postdocs. All students and postdocs are encouraged to attend, but any student or postdoc registered for the meeting can volunteer to assist with the courses onsite. Student volunteers assist by checking in attendees, distributing the course books, and making sure the course runs smoothly overall. As volunteers, you will not only participate in the behind-the-scenes work and get to meet the outstanding presenters, network over lunch, but also attend the course for free.

Volunteers are taken on a first-come, first-served basis and usually assist with a morning and an afternoon course. Responsibilities include attendance at an orientation meeting and preparation of some materials Saturday evening (March 22) before the Sunday courses (March 23).

To volunteer for a CE course, please contact [Sanket Gadhia](#), [Sachin Bhusari](#), or [SOT Headquarters](#). Please review the list of courses on the [2014 SOT Annual Meeting website](#) and specify your top three choices. Preferences for courses will be taken into consideration as much as possible but are not guaranteed. We also are looking for two “floater” volunteers (one for AM and one for PM) who would not be assigned to one course; rather, this individual would check on all courses to make sure volunteers are in place, assist with the distribution of pens and notepads to each course check-in area as needed, etc. Floater volunteers would attend the AM or PM course of their choice after the courses begin.

### **Recruiting Undergraduate Education Program Peer Mentors**

The Committee on Diversity Initiatives (CDI) is asking graduate students and postdocs to join them in an important effort to recruit the next generation of toxicologists by serving as Peer Mentors for the Undergraduate Education Program. Celebrating its 25th Anniversary at the 2014 SOT Annual Meeting, this program provides the opportunity for promising undergraduates to learn about toxicology and the rewards of careers in biomedical science. About 25–30 undergraduate students will be accepted for the program. Groups consist of about 5 students plus one or two peer mentors and senior toxicologists. These groups interact throughout the program, including meals. Peer Mentors play a key role in helping students learn more about educational and career pathways in toxicology.

Please volunteer to assist by contacting [Senthil Kuppasamy](#), [Brittany Baisch](#), or [Susan Simmons](#). Peer Mentors will need to plan arrivals in Phoenix so that they can be at the training session Saturday afternoon, March 22. This year, the Monday program has been expanded and we will be looking for Peer Mentors who can stay with students through the close of the program late Monday afternoon.

*As always, if you have any questions about student membership or suggestions for new programming, please contact the GSLC Chair [Jeremy Larson](#), GSLC Communications Subcommittee Chair [Holly Hewitt](#), or GSLC Secretary, [Alessandro Venosa](#). We are always looking for ways we can serve the students of SOT!*

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## SRC, Inc. Recognizes Jennifer Rayner and Supports SOT and NCAC K–12 Activities

SRC, Inc., has recently added to their support of SOT activities by contributing to SOT and National Capital Area Regional Chapter (NCAC) K–12 outreach efforts. A not-for-profit research and development company, SRC, Inc., takes an active role in supporting local nonprofit organizations aligned with its mission to protect people and the environment, and especially encourages STEM (Science, Technology, Engineering, and Math)-related activities. Pictured below is Jennifer L. Rayner (left) presenting the SRC, Inc., check to Bruce A Fowler, President of NCAC, (center), and Shawn Douglas Lamb, SOT Executive Director (right).



SRC, Inc., employee and SOT member Jennifer L. Rayner initiated the request for this support. Dr. Rayner first learned about toxicology as a [participant](#) in the 2001 SOT Undergraduate Education Program. She has been an active volunteer for SOT, including chairing the Committee on Diversity Initiatives (CDI), the group that plans the Undergraduate Education Program. In recognition of her efforts, she received one of the 2010 Top 10 Volunteer awards given company-wide by SRC, Inc. She designated the Diversity Initiatives Endowment Fund as the recipient of the significant monetary award; this fund supports the minority outreach efforts of SOT through the Undergraduate Education Program.

The new contribution will support NCAC and SOT participation in the [USA Science and Engineering Festival](#), a major event scheduled for April 26–27, 2014, in Washington, DC, to promote STEM careers. About 8,000 people are expected to attend. Volunteers from NCAC will be in the booth all weekend to excite students and families about careers in toxicology.

In addition, NCAC will use some of the funds to sponsor a DC-area high school student to present a poster during the [High School Poster Exposition](#) March 25, 2013, in Phoenix, Arizona during the [SOT 53rd Annual Meeting, March 23–27, 2014](#). This is an opportunity for a high school student to showcase their research related to toxicology, learn more about the discipline, and have the experience of a major scientific meeting guided by an SOT mentor.

The SOT High School Student and Teacher Workshop that will be held in Phoenix, March 22, 2014, also will benefit from this contribution.

SRC, Inc., has been a [ToxExpo](#) exhibitor.

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## And the Emmy goes to...

*Submitted by Holly Hewitt, GSLC Communications Subcommittee Chair*

Last year, the Graduate Student Leadership Committee (GSLC) launched its inaugural “YouTox Video Challenge,” and we look forward to hosting the contest again this year!

We hope you took tips from your favorite stars while watching the Emmys last week- because the winning videos receive **cash** prizes (which may even get your foot in the door to get that golden statue someday)!

Graduate students and postdocs are encouraged to work together with faculty, staff, and other members of their laboratories to create a video that answers the question “*Why Did I Become a Toxicologist?*”

Video submissions will be judged based on creative impact, success in addressing the theme, and clarity of content. Aunts, uncles, neighbors, baristas, and bartenders should all be able to understand your video—save topic proposals for your dissertation and “Dance Your PhD” at another conference.

Videos should be less than five minutes in length and capture the hearts of all who watch it. Get out your camera reels and start capturing those candid moments in the lab—show the world that notoriously introverted scientists really can have fun!

Check out last year’s winning video ([YouTox Video Challenge winner](#)) and see if you can beat the competition! Maybe the winning video this year will be a late night infomercial? Music video? Public service announcement? Game show? Comedy sketch?

Contact [Jessica Roberts](#), [Holly Hewitt](#), [Joy Cavagnaro](#), or [David Rossé](#) with any questions!

Submit videos to [Jessica Roberts](#) by 12:00 noon on January 15, 2014. Videos will be played at the grad student/postdoc mixer in Phoenix!

Good luck to all the aspiring actors, videographers, key grips, make-up artists, special effects wizards.

-The GSLC Communications Subcommittee

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## **Be Recognized! Treat Your Fellow SOT Members with A Great Photo on ToXchange**

Trick or treat! Instead of tricking others this Halloween, treat your fellow SOT members with a great photo on ToXchange! While you may not want to post your Minion costume photo like I did, posting a current photo will allow you to be recognized.

In addition to your profile picture being viewable on your MyPage, every time you log in to ToXchange, your photo then will show on the bottom of the ToXchange landing page. Plus—every time you post a discussion or reply on a Community page, your photo will appear beside your comment.

Go ahead, get recognized! You also can use the extra hour saved from setting your clock back in the US on Saturday night, November 2, to post or update your profile picture this coming weekend!

### **Go to your MyPage:**

1) From the My Options drop-down in the upper right corner, select MyPage.

OR

2) From your profile page, click on the “MyPage” button at the top of the “About this User” box on the right.

This is what your My Page looks like:

The screenshot shows the ToXchange website interface. At the top, there is a navigation bar with links for Home, Members, Member CVs, Blogs, and Committees. Below this, the user's MyPage is displayed for Ashley Pomper. The page is divided into several sections: a profile picture placeholder, contact information, demographic information, and a section for updating the profile picture. The contact information includes the full name (Ashley Pomper), company (Society of Toxicology), job title (Membership Services), department, address (1621 Michael Faraday Dr, Suite 300, Reston, VA 20190, United States), email (ashley@toxology.org), phone (703-438-3115 (1432)), and fax. The demographic information includes SOT leadership (none), join date (none), member type (N/A), and SOT honors. There are also buttons for 'Add Widget' and 'About this MyPage'.

## Update your picture!

*First, be sure to know where your picture file is located so that you may easily browse and select it to upload.*

- 1) On your MyPage, click the “Actions” button and select “Update Picture.”
- 2) Click the “Update File” button and browse for the picture file on your computer. You may upload a file as large as 2 MB only (most photos are between 1.0–1.5 MB).
- 3) Click the OK button to upload your selected picture.

*It's as easy as 1-2-3! If you need help, just click on “Help” in the top right of your ToXchange page—OR—just write in your question below and we'll write a response to help you out.*

*ToXchange—It's **Your** Network!*

## What Is Your Teaching Philosophy?



*By Kendra Nordgren, Postdoctoral Associate, University of Minnesota Medical School, Duluth, Minnesota*

Many postdoctoral positions include limited and sometimes no training on pedagogy, yet for those researchers who choose an academic career track, teaching will most likely be an important part of their future job. I am beginning my third year as a postdoctoral associate at the University of Minnesota Medical School in Duluth and recently began the process of applying for faculty positions. In addition to a research plan and evidence of productivity, I have found that many universities require a statement of teaching philosophy. This is not something that is commonly discussed in training: what *is* a teaching philosophy, and *how* do you know what yours is? To be honest, a few years ago I had the

same questions. The requirement of a teaching philosophy statement is an increasing trend for many universities. However, as this also is an emerging trend, many of us may be in need of additional mentors with experience writing such a statement. So, from one postdoc to another, here is a brief synopsis of what I have learned about my teaching philosophy through my postdoctoral experience.

To start, *what* is a teaching philosophy? A teaching philosophy is a self-reflective statement of your beliefs about teaching and learning. You might be asking yourself right now, “Do I even *have* a teaching philosophy?” The answer is a resounding YES. Even if you are a less experienced instructor, you have been a student for a long time, and you have been in all types of classes. Undoubtedly, you have opinions about teaching, learning, what works, and what doesn’t work. Those opinions are the basis of your philosophy. If you don’t have much teaching experience, consider the great teachers you’ve encountered, and what made them so effective. What did they do that inspired you to spend all those years in graduate school and then as a postdoc?

Having taught graduate-level toxicology courses for the past two years as a part of my postdoctoral training, I have concluded that the goal of education should be to develop in students an interest and desire for lifelong learning. It is my philosophy that this can be accomplished by encouraging students to actively seek answers and by cultivating their ability to find, evaluate, and utilize new information. In addition to ensuring that students learn the fundamental content of the courses, my objectives as an educator are to do the following: (1) foster critical thinking skills; (2) facilitate the acquisition of lifelong learning skills; and (3) help students develop evidence-based clinical and “real world” problem solving strategies. Furthermore, it is vital to place knowledge in context. Instruction should not lead students to believe their education is an endless list of independent, unrelated facts, or a passive process involving faculty encouragement to memorize unrelated phenomena and details. Jules Henri Poincaré, a French mathematician, said “*Science is built with facts as a house is with stones. But a collection of facts is no more science than a heap of stones is a house.*” Our responsibility as teachers is to reveal how seemingly independent, unrelated facts are integral to the larger structure.

Part of your reflection on what you think teaching should be would address how you put your beliefs into practice. Anyone can discuss teaching in an idyllic setting; you need to give some detailed examples. If you say you work to encourage collaboration in the classroom, then explain how you do that; if you’re a new teacher, how *would* you do that. It is easy to say, “I want to encourage collaboration in the classroom,” or, “I want to get students to think more critically,” and to leave it at that. But who doesn’t want to do that? By providing specific examples, you have an opportunity to show your reader your classroom. This helps them to visualize what you do in the classroom and the exchange between you and your students. Concrete examples of how you implement your teaching philosophy establish who you are as an educator and personalize your statement for the search committee.

In my experience, I have found that when students actively apply knowledge in creative and meaningful ways, they demonstrate a greater understanding of core concepts. Although a teacher may inspire students, I believe the primary purpose of a teacher is to engage students in an active pursuit of knowledge. To do this, I use a variety of strategies and techniques including, but not limited to, cooperative and active learning strategies, lecture, assignments designed to foster analytical/critical thinking skills, and collaborative exercises involving “real world” problem solving. For example, a method I frequently utilized in teaching a graduate level *Investigative Toxicology* course was asking students to present their classmates with a current controversial topic related to an aspect of toxicology we were studying. Students divided into groups and defended one of the positions. Only arguments supported by rational mechanistic or putative explanations, scientific findings reported in peer-reviewed journals, or from in-class demonstrations of crucial concepts were permitted. The purpose of the exercise was for students to be actively involved in the learning process and to give them opportunities to practice their critical thinking, research, and communication skills. After each of the exercises, students passionately discussed the various positions as they left the classroom. Testing clearly demonstrated students retained information and were able to apply concepts related to these debates.

Finally, remember that different institutions have different expectations. Do your homework! Depending on their mission and how they view the role of teaching within the broader responsibilities of being a faculty member, you may need to tailor the examples you give or the methods you describe for implementing your philosophy in the classroom. You need to know about class size and the specific student population you will be teaching. Does the university focus on small class sizes, specific student groups, or programs to increase diversity? Know the mission and current programmatic efforts of each school. It will help you know what to stress in your statement, because above all, the

search committee will be looking to see if you understand what is expected of you at their institution.

When I was asked to write this post about my experiences teaching during my postdoc, I spent a lot of time reflecting on what I had learned through teaching, what the challenges of balancing teaching and research were (by the way, the answer is *time!*), and how teaching had been beneficial to my career development. In the end, however, I realized that all of those experiences and issues were just components of a bigger lesson. Discovering my personal teaching philosophy and experimenting with different methods to implement it were the most valuable career elements that I gained from this experience. I've talked about *how* I teach, but I want to end this post with *why* I teach. I am choosing an academic career not only because I want to develop new knowledge through research, but also to contribute to my field and society by training top-rate students, researchers, and physicians. I view teaching as inextricably linked with research scholarship. Universities have the resources to support research and the power to guide what skills students develop during their education. Graduates entering clinics and academia apply research findings to their practice and initiate new research questions. Therefore, I believe it is imperative to approach teaching with the same seriousness and effort as is devoted to research.

But that's just my philosophy...What's yours?

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## Somewhere Over the Postdoctoral Rainbow: Advice on the NIH K99-R00 “Pathway to Independence Grant”



*By Karin Streifel, Secretary, Postdoctoral Assembly, Postdoctoral Fellow, University of California, Davis*

Since we were young students, our mentors have advised us about the right directions to advance our careers. In high school, parents and teachers instructed us to get good grades to get into a decent college. As undergraduates, we were advised to gain research experience for graduate school, and in graduate school our PIs hinted at the elusive possibility of the “K” awards as a postdoc for those aspiring to academic positions. Personally, as a graduate student I was too consumed by my course work and research to be that forward thinking; however, now that I am in my first postdoctoral position, this transition is on the horizon.

For those of you who have not been formally introduced to the K99/R00, Kangaroo grant, the intention of this award is to assist with the transition from a postdoctoral position to an independent scientist for highly promising and exceptionally talented candidates (non-US citizens included!). The award has two phases; the initial grant (K99) provides one–two years of support to see an early career scientist through completion of the mentored postdoctoral training. The second phase (R00) is granted upon entering the recipient's first independent research position, including up to three years of funding in an extramural research institution such as universities, for-profit, and nonprofit organizations. The National Institutes of Health (NIH) plans to issue 150–200 awards per year among the individual institutes and centers, but this number does fluctuate yearly according to the quality of applications received and, of course, the budget.

As a first year postdoc applying for this grant, it is still more of a leap than a step away, but preparing well in advance is recommended (even in the first year). For those postdocs in the process of applying for this pathway, compiled below are three key pieces of advice given by previous SOT postdocs who have received this highly esteemed award.

### 1. The Great Distinction:

It would not be worthwhile for scientists to take on graduate students and postdocs, teach them everything they know, only to have them be competitors for grants when they graduate. Therefore, it is essential to show a clear distinction from your mentors research. In your application, the [FAQs webpage](#) on the NIH website strongly recommends providing a description of your mentor's research, and how your proposed research relates, including any potential overlap. This information indicates to the review board that you have thoroughly thought through your own research and distinguishing yourself as a competent scientist. The time spent during your K99 phase should be a period for you to gain new skills and knowledge for your personal career development. It is a great time to incorporate didactic course work and techniques training to accomplish the aims proposed for your research in order to further gain independence from your mentor.

## **2. The Research Strategy:**

The proposed research should be novel, shifting the current field of research, and yet modest, within the priorities of the NIH mission statement. Deciphering your independent research can be overwhelming, but generating creative hypothesis-driven research is essential for independence. In order to collect preliminary data for this grant application, a strategic direction must be determined. The 2011–2012 PDA President Michele La Merrill, now in the R00 phase as an assistant professor at UC-Davis, suggests “examining the National Institute of Environmental Health Sciences (NIEHS), among other institutes, [Request for Applications webpage](#) to see what topics the Institute is currently interested in, and if your research will be considered a high priority through this Institute.” Currently NIEHS is seeking grants researching the role of environmental exposures in the development of autoimmune disease and the link of exposure to neurodegenerative diseases. If your research aligns with the current goals of this agency, it would be a wise choice to send your application to NIEHS as it may be considered to be high priority research in the review process. If you have questions regarding your current research ideas and which particular institute or center would be best fitted to your application, contact the appropriate NIH program officer (ask your mentor who is their program officer to start).

## **3. The Team Approach:**

Every application includes a mentoring team with the current postdoc mentor, collaborators and consultants for the research. Patrick Allard, assistant professor at UCLA in the R00 phase, suggests putting together a fantastic group of experts in your key persons section relevant to your specific research aims. It would be advantageous for these advisors to complement your potential experimental weaknesses with the experience that you are looking to gain and address during your proposal. Furthermore, keep in mind to move to independence during the R00 phase, think strategically about which collaborators can assist you in your endeavors while you set up your research facilities. These days collaboration in science is essential, and the cost of start up will likely be beyond the R00 budget; therefore, if you are proposing an expensive technique consider including a collaborator to assist you during your junior faculty phase. These seasoned members of your team should be well equipped to assist you in your grant writing as well to assure a competitive research proposal. For more information from Dr. Allard and other SOT members regarding the processes of this grant, including review, visit the previously published [webinar](#) on the PDA section of the SOT website.

The K99/R00 is a relatively new award that helps support the applicant to build a foundation to continue with independent NIH-sponsored research. In this time of budget restraints, the NIH has incorporated these transition grants because “new investigators bring fresh ideas and innovative perspectives to the research enterprise, which are critical to sustaining our ability to push the frontiers of science.” This award will prove a great advantage when applying for academic positions, because coming into academics with your own funding sets you apart from other faculty candidates.

The next step for those who have received the K99/R00 is preparing an application for R01 grant support, as well as looking into the Junior Faculty Bridge awards, three-year awards to advance career fields in NIEHS-related research. Hopefully, these words from the wise and the resources included can assist SOT postdocs in the right direction for these transition awards to potentially gain the essential funding to survive in academic science.

For additional information, refer to the PDA Seminar [“K99-R00 GRANTS: Tips from the NIEHS Administrator, the Grantee and the Reviewer”](#) from October 2011.

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# Branching Out: From the Bench to Science Outreach



*By Elizabeth A. Godin, Course Director, LEAP, Project Director, RISE, Duke University*

When most people think about pursuing a postdoc, they might think that an academic postdoc is one that is based on a bench science research program. My academic postdoc has taken me down a different career path: one centered on improving science education. I am currently in my fourth year as a postdoctoral fellow at Duke University in the Department of Pharmacology and Cancer Biology. Although in a basic science research department, I am not doing any bench work in pharmacology, but rather am involved in science education and outreach that is pharmacology-focused. Our “lab” is called [RISE—Raising Interest in Science Education](#) and is headed by Rochelle Schwartz-Bloom.

Making the transition to science outreach actually began during graduate school, before I even realized I was interested in education. While studying at the University of North Carolina (UNC) at Chapel Hill in the Toxicology Curriculum, I volunteered to help teach high school students for [DNA Day](#), an outreach event designed to expose high school students to interactive, hands-on lessons about genetics, genomics, and biotechnology. After a few years of volunteering, I realized how much fun it was getting students excited about science! This became a major turning point in my career.

Fast forward a few more years: I was close to defending my dissertation and was starting the daunting job search. I knew I wasn’t interested in pursuing what I thought of as a traditional academic career, and so I was exploring other potential career paths. My current primary investigator, Dr. Schwartz-Bloom, had given a seminar at UNC and her work was very exciting to me. She was developing curricula to teach high school students about the science behind drugs and alcohol. I was able to meet with her after the seminar and expressed my interest in her work. Another crucial lesson for me was that networking is always important! A few months later, Dr. Schwartz-Bloom contacted me with a job opportunity.

Now that I am a part of the education world, I am realizing it is definitely very different from what I had expected. We have collaborated with an educational psychology group, and I have learned a lot about different teaching styles and ways to keep students actively engaged. Teaching isn’t simply standing up in front of a class. It is challenging, time-consuming, and can be exhausting! It is also incredibly rewarding! I am extremely motivated when I remember that I am training the next generation of scientists.

I love that I have the opportunity to teach; it’s definitely my favorite part of this position. Another aspect of my job that I enjoy is that it’s very different every day. Some days are spent designing curricula, while others involve collecting data in the classroom or doing administrative work. My diverse task list makes my job exciting!

One of the major challenges I have faced is that this position is still an academic one, and therefore, still grant-funded. Consequently, I face many of the same frustrations as I would have as a bench scientist, i.e., obtaining funding for one’s work is inescapable! Recently, STEM education has emerged as a larger focus of the scientific community and the public, so hopefully funding opportunities will increase in the near future.

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## Learning Something Completely New as a Postdoc



By Daniel W. Ferreira, Postdoctoral Fellow, Allard Laboratory, Institute for Society and Genetics, University of California, Los Angeles

Ideally, a postdoc position provides the unique opportunity to choose what, where, and with whom you want to do research. Though this sounds relatively straightforward, the actual task can be quite complex. You not only are choosing the job that will best propel you towards your dream career, i.e., the nature of the science, but also you must consider the working and social environments you are entering. I knew I would be happiest as a postdoc learning something completely new. This meant choosing a new area of research and a different location. A postdoc position at UCLA was a perfect opportunity for me to broaden myself scientifically and culturally, as I had never lived outside of New England.

Of course, this transition has not come without its challenges. It is not necessarily easy to find a primary investigator (PI) who is open to hiring someone from a different scientific background. I cannot express how helpful networking and social media can be in this regard. Take advantage of the digital world we live in and establish a network of connections through websites such as LinkedIn. This is exactly how I found my current postdoc position, which enabled my transition from studying a mouse model of acetaminophen hepatotoxicity to research focused on *C. elegans* genetics and developmental toxicity. It is invaluable to meet people through conferences and organizations like SOT, and it is crucial to be able to maintain contact with them via the web. When it comes time to look for positions, even if you do not know anyone who has an available position, your contacts might know of someone who does and can refer you.

A related challenge is convincing a PI that you would be a valuable addition to their research, even without previous experience in their specific area of study. This might be an easier task if the PI is familiar with you, your work, or your current lab; networking helps tremendously in making this possible. A postdoc position represents a sizeable investment by a PI, and it is up to you to demonstrate that you are worth it. If their area of research is very different from your own, your skill set could be the key. Having a versatile set of techniques under your belt not only indicates that you are capable of performing a variety of experiments, but also that you are able and willing to learn new things in the lab. Being “trainable” is one of the most important attributes of a successful early career scientists.

The biggest challenge for me, so far, has been the steep learning curve that accompanies integrating into an entirely new field. I had never worked with or even seen live *C. elegans* prior to joining my current lab. I quickly learned that just as picking up a rodent takes time and practice, so does picking up a worm (though the worms are not quite as fierce). Fortunately, my PI and the other lab members have been extremely helpful in making my assimilation into the lab easier than I thought it would be. At the same time, be prepared that you may have to re-learn things that you may have taken for granted in your old lab (such as rodent versus worm handling).

Changing your research focus as a postdoc has plenty of rewards that for me have outweighed the challenges. This could be something as small as an aspect of your new lab that reminds you of things that you have done previously. For example, I often tell people who have not worked with *C. elegans* that it is similar to doing cell culture, but it involves a living, moving multicellular organism. You also might find that you have a different perspective on a project, a unique way to tackle a problem, or know an alternative method to do an experiment based upon your previous experience. Ultimately, I hope that my postdoc in a different model system and in a different area of study will provide valuable experience for my career development by making me a well-rounded and multi-disciplinary researcher. The fact that I get a couple of years away from a New England winter is an added bonus.

I am glad I took the opportunity to learn something new as a postdoc. Your experience in the lab has driven you in a particular direction. If this direction is different from what you have been doing as a graduate student or a postdoc to this point, do not be scared by the challenges of a new field or place. Based on my experience, my advice would be to

go for it. Learning something completely new may invigorate your research and perspective!

## Celebrate Fall with a Great Summer Profile Picture—Upload or Update Yours Today!

It's that time of year again: shorter days, colder nights, warmer drinks. With fall here, now is the perfect time to take a moment and share your favorite photo of yourself on ToXchange! Whether it is a wonderful photo from the summer to use as a reminder of warmer days or a colorful fall photo to share, we would love to see it!

In addition to your profile picture being viewable on your MyPage, every time you log in to ToXchange, your photo then will show on the bottom of the ToXchange landing page. Plus—every time you post a discussion or reply on a Community page, your photo will appear beside your comment.

Go ahead, get recognized! Post or update your profile picture while there are still leaves on the trees!

### Go to your MyPage:

1) From the My Options drop-down in the upper right corner, select MyPage.

OR

2) From your profile page, click on the “MyPage” button at the top of the “About this User” box on the right.

This is what your My Page looks like:

The screenshot shows the 'MyPage for Ashley Pomper' on the ToXchange website. At the top right, it displays the user's name 'Matthew J Price - 11:02 AM' and options for 'Help' and 'Logout'. Below this is a navigation bar with 'My Options', 'My Links', and 'Admin' dropdown menus, along with a search box and a 'Go' button. The main content area is divided into several sections: a profile picture of Ashley Pomper, a 'Badges' section showing 'None', and two columns of information. The left column is titled 'Contact Information' and includes fields for Full Name, Company (Organization), Job Title, Department, Address, Email, Phone, and Fax. The right column is titled 'Demographic Information' and includes fields for SOT Leadership, Join Date, Member Type, and SOT Honors. To the right of these columns is a box titled 'About this MyPage' which explains that members can choose what information to share and provides a 'Go to Your MyPage' button. At the bottom of the page, there are two 'Add Widget' buttons and a copyright notice for 2013 Society of Toxicology.

### Update your picture!

*First, be sure to know where your picture file is located so that you may easily browse and select it to upload.*

1) On your MyPage, click the “Actions” button and select “Update Picture.”

2) Click the “Update File” button and browse for the picture file on your computer. You may upload a file as large as 2 MB only (most photos are between 1.0–1.5 MB).

3) Click the OK button to upload your selected picture.

*It's as easy as 1-2-3! If you need help, just click on “Help” in the top right of your ToXchange page—OR—just write in your question below and we'll write a response to help you out.*

*ToXchange—It's **Your** Network!*

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## Member Spotlight

### The Argentine Ministry of Science Recognizes Ofelia Olivero

Society of Toxicology (SOT) Member Ofelia A. Olivero was recognized with the RAICES Award at a special ceremony November 18 at the National Congress in Buenos Aires. Presented by Argentina Minister of Science, Technology, and Productive Innovation Lino Bara??ao, 21 Argentine and foreigner scientists were honored for their contribution to the scientific and technological development of the country with the RAICES Award or the Luis Federico Leloir Award. Pictured from left to right are Ing. ??gueda Menvielle, Director, Department of International Relations, Ministry of Science, Juli??n Dom??nguez, President of the Congress, Ofelia A. Olivero, Lino Bara??ao, Minister of Science, and Graciela Giannettasio, House Representative.



During the ceremony Dr. Bara??ao stressed that “This is one of the most expected events for two reasons: the scientific reputation of the award winners and the willingness to cooperate and establish links with science and Argentine scientists. This has an emotional connotation, which is unprecedented in science.” Each awardee presented a short talk on highlighting their experience abroad. The ceremony culminated with a dinner with the Minister.

The RAICES Award recognizes Argentine scientists who live abroad and have made a contribution for strengthening networking and scientific and technological capabilities for this country of their origin. The RAICES (Network of Argentine Researchers and Scientists Living Abroad) program promotes repatriation and networking of Argentine scientists living abroad.

Four of those recognized received the Luis Federico Leloir Award that celebrates the significant contributions of foreign persons to increasing international cooperation in science, technology, and innovation within Argentina. This award honors the achievements of Luis Federico Leloir, Argentine scientist who received the Nobel Prize in Chemistry in 1970.

The Ministry of Science, Technology and Productive Innovation was created in December 2007 by President Cristina Fernandez de Kirchner. It is the first in Latin America that includes production innovation connected to science and technology. Its mission is to guide science, technology, and innovation towards strengthening a new production model that generates greater social inclusion and improves the competitiveness of the Argentine economy, under the paradigm of knowledge as the heart of the development.

Dr. Olivero serves as the 2013–2014 Chair of the Committee on Diversity Initiatives. She also is a member of the National Capital Area Regional Chapter and the Women in Toxicology and Hispanic Organization of Toxicologists Special Interest Groups as well as the Carcinogenesis Specialty Section. She joined SOT in 2004.

## **SOT: A Graduate Student's Perspective**



As a student interested in pursuing a career in toxicology, the Society of Toxicology (SOT) has helped me tremendously to achieve my goals. Joining SOT as a first year graduate student was common place among the toxicology students at Michigan State University. I naively thought it simply meant having the chance to travel, meet “celebrity scientists,” and of course to present my work. But the SOT Annual Meetings are a great opportunity to meet toxicologists, and participation in awards programs has helped me gain valuable experience and lead to future research opportunities. I’m writing to share my SOT experience as a graduate student in hopes of inspiring other students to take advantage of all that SOT has to offer.

As a young grad student, my first SOT meeting was overwhelming. It was hard to navigate such a large meeting with so many talks, posters, and people, and wanting to go see everything. Admittedly, I was feeling lost during most of my inaugural SOT experience. That all changed when I decided to get more involved my second year. I attended several events including the Student/Postdoc Mixer and Lunch with an Expert as well as Regional Chapter, Special Interest Group, and Specialty Section events. Most importantly, these events were great opportunities to network. These smaller venues are full of people with whom you have something in common. Realizing a common interest facilitated introductions to other scientists, helping me gain confidence in my ability to network.

Specifically, participating in my Specialty Section poster contest had the greatest impact for me during my second year. Practicing presentation skills in this smaller venue was great. The feedback and the discussions I had with the three judges at my poster were very helpful. I became friends with students who had posters next to mine and have met with them since annually. In fact, my participation in this poster contest resulted in advice from one of the judges to participate in another meeting that I would not have known about otherwise. I have participated in the poster contest every year since.

In my third year, I was the recipient of the Colgate-Palmolive Award for Student Research Training in Alternative Methods. This award supported me to go to the US Environmental Protection Agency (US EPA) in Research Triangle Park, North Carolina, for two weeks to learn about high-throughput screening programs in toxicology. It was coincidence that the International Life Sciences Institute North America (ILSI NA) posted a fellowship announcement (via SOT!) by their Technical Committee for Food and Chemical Safety to work for a project involving the Tox21 high-throughput screening initiative. My experience from the Colgate-Palmolive Award made me an ideal candidate for the ILSI NA fellowship. Furthermore, the network of scientists whom I had met at previous meetings led to collaborations during the fellowship opportunities.

As my PhD defense came and I was searching for job opportunities, all the experiences from fellowships and networking at SOT opened doors for me. I was able to reach out to those I had met and/or worked with and was able to discover great opportunities for my future.

All these experiences with SOT have reaffirmed to me that the more people you get to know the more possible resources you have. In my experience, most people will make time to help you. Additionally, the more experience you have the better off you are. It is not about winning the poster contest necessarily, because meeting people and receiving feedback are just as valuable. I strongly recommend participating in SOT-sponsored events and applying for SOT awards to all trainees (not just at the Annual Meeting but also through the SOT website)—you never know just how much you will gain from the experience!

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# In Memoriam

## In Memoriam

Dennis W. Arnold

Michel Charbonneau

Allan H. Conney

Kirpal Singh Sidhu

### **Dennis W. Arnold**

Society of Toxicology Member Dennis W. Arnold passed away on October 5, 2013. He was a member of the Carcinogenesis and the Reproductive and Developmental Toxicology Specialty Sections and the Midwest Regional Chapter. He joined SOT in 1980.

### **Michel Charbonneau**

Michel Charbonneau passed away on June 27, 2013. He was the recipient of the 1999 Society of Toxicology Achievement Award. Dr. Charbonneau was a member of the Career Resource and Development Committee (2003–2006) and the Program Committee, now Scientific Program Committee, (1996–1999). In addition, he was a member of the Carcinogenesis, Comparative and Veterinary, and Molecular Biology Specialty Sections. He joined SOT in 1986.

### **Allan H. Conney**

We were very saddened to learn of the death of Allan H. Conney on September 10 at the age of 83. Allan was the William M. and Myrle W. Garbe Professor of Cancer and Leukemia Research and Director of the Susan Lehman Cullman Laboratory for Cancer Research at Rutgers University, and he had stayed active in biomedical research until the time of his death. Allan had a very distinguished career that began with his pioneering work in characterizing the cytochrome P450 family of enzymes. It was perhaps a foreshadowing of the incredible amount of contributions he made to this field that his very first paper was published on page 450 in the 1956 edition of *Cancer Research*.

Although widely recognized for his outstanding contributions in the field of drug metabolism, Allan also made important contributions in understanding the mechanisms of cancer causation by environmental exposures and was one of the pioneers in the field of cancer prevention. His long and productive collaboration with Donald Jerina of the National Institutes of Health identified the metabolic pathways and stereochemical properties of chemical carcinogens. His contributions to the fields of drug metabolism and cancer research led to his receiving several prestigious awards and election to the National Academy of Sciences.

Allan's notable contributions to the field of science speak for themselves in terms of his productivity and the many seminal papers his laboratory has published over the last 6 decades. Those of us who had the privilege of being mentored by Allan also understand that one of his major contributions to science was his mentorship of his young colleagues, and the high standards and work ethic he brought to the field. Allan epitomized the concept of being both a gentleman and a scholar. He was a very low key and humble individual who took great interest in the careers of his young charges. Allan was an incredibly careful and meticulous scientist who always sought to conduct science in the most rigorous and careful manner.

He had a very strong set of ethical standards that he brought to scientific discovery and imparted these to his mentees by

his own strong example. Allan was a very generous and willing collaborator, attributes that are often missing in today's environment but one from which we could all learn. Both of us can recall many times in our own careers when Allan's thoughtful advice was important in aiding us in difficult times in our own careers. Allan always made himself available to younger scientists and provided a role model of how to properly conduct both the mechanics of scientific discovery and the personal behaviors that one would hope for from a professional colleague.

While many will mourn the loss of a truly outstanding scientist from our profession, those of us who had the distinct honor and privilege of working with Allan also will mourn the loss of one of the finest human beings to grace the halls of our profession.

## **Kirpal Singh Sidhu**

The Society of Toxicology (SOT) recently learned of the passing of Kirpal Singh Sidhu on February 10, 2011. For over 30 years, he was a scientist in the Division of Environmental Epidemiology, Michigan Department of Community Health, Lansing, Michigan. He was born in Punjab, India; immigrated to the US in 1963, and received his PhD in Toxicology from Oklahoma State University. He joined SOT in 1983 and was a member of the Comparative and Veterinary Specialty Section.

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## **Regional Chapters, Special Interest Groups, and Specialty Sections**

### **SOT Webinar Featured in Russian SOT Meeting**

#### **About the Russian SOT Meeting**



The Fourth Meeting of the Russian Society of Toxicology was convened November 6–8, 2013, at the Izmailova Gamma Delta Hotel Conference Center in Moscow. There were 320 toxicologists from 70 regions of Russia who participated in the full meeting. Their specialty areas included clinical toxicology, preclinical investigations into pharmaceutical products, and ecotoxicologists. Also in attendance were experts from Russia's

Rospotrebnadzor (The Federal Service for Supervision of Consumer Rights Protection and Human Well-Being), who conduct surveillance on the impact of chemical factors on human health and the environment and the monitoring of chemicals in the environment.

The meeting was opened by Dr. G. G. Onischenko, RF, Premier's aid, who welcomed the audience and highlighted challenges in Russian toxicology and potential solutions. Among the many scientific subjects covered during the meeting were the following:

- Development of toxicology in Russia, its role and challenges in the protection of the health of large populations and the environment, in consideration of Russia's entry into WHO and joining OECD
- Methodology of risk identification at toxic exposures and its importance in the activities of healthcare authorities
- Issues of hazard assessment, classification, and state registration of chemicals and their mixtures
- Main problems related to the toxicology of clinical and drug preparations
- Toxicology of ecosystems and biological monitoring
- Toxicology informatics as a leading direction in chemical safety
- Specificities of toxicology of chemical products based on nano-, bio-, and cellular technologies

- Influence of toxicants on organs and systems (neuro-, immune-, allergeo-, hepato-, genotoxicity effects on the reproductive and endocrine systems)
- Problems in military and extreme environment toxicology; toxicological problems of chemical terrorism. Issues related to destruction of chemical weapons
- Prospective trends in the development of antidotes, means of pathogenetic and symptomatic therapy of acute poisonings
- Intersectoral and intradepartmental coordination of research and practical activities in toxicology
- Problems of the professional education of toxicologists. Teaching of toxicology in higher educational establishments.

There were 100 oral presentations and 15 posters presented during the meeting. The program included talks about: Perspectives of Toxicology Development from the Position of Nanotechnologies, and Synthetic Biology by B. N. Filatov et al; Major Issues of Chemical Safety in Russia by V. N. Smolensky; Use of Mass-Spectrometry in Ecotoxicological, Biological, and Medical Studies by A. T. Lebedev; Genetic Studies in Pharmaceutical Toxicology by Yu. A. Revasova; Problems of Toxicology in Chemical Safety by Kh.Kh. Khamidulina; Experimental Toxicological Investigation into Modern Combined Anti-Tuberculosis Preparations by K. Usov et al; Genetic Toxicology in Hygiene by L. P. Sycheva et al; and Objectives of Modern Genetic Toxicology by A. K. Zhanataev et al.



In recognition of several distinguished young toxicologists, a meeting award was presented for the best papers in toxicological sciences by the Board of the Russian Society of Toxicology with the participation of outstanding Russian toxicologists.

The fourth meeting of the Russian SOT, with international participation, was a milestone in the development of Russian toxicology. It contributed to the evaluation of progress achieved since the third meeting five years earlier and identified urgent needs still to be met as well as future trends in domestic toxicology.

### **About the SOT Webinar**

The Society of Toxicology (SOT) is proud to have collaborated with Russian counterparts in presenting a Webinar featuring SOT member toxicologists, and broadcast from the US on Wednesday, November 6, 5:00 pm–7:00 pm Moscow time.

The germ for this session was planted in discussions between Khalidya Khamidulina, Director of the Russian Register of Potentially Hazardous Chemical and Biological Substances of Rospotrebnadzor and the only Russian member of the US SOT, and Philip Wexler of the Toxicology and Environmental Health Information Program of the US National Library of Medicine (NLM). Mr. Wexler had already been invited to the meeting to make a presentation on NLM's online toxicology information resources. Dr. Khamidulina had subsequently expressed an interest in learning about recent advances in several toxicological topics that had struck her interest during SOT's 2013 San Antonio Annual Meeting. They both felt it would be worth exploring a remote session, and the US and Russian societies approved the idea.

The format decided upon had a moderator (Mr. Wexler) who made the introductions and fielded questions in Moscow, while three toxicologists in the US highlighted leading-edge issues in modern toxicology. Webcam images of the speakers accompanied their Power Point presentations. The speakers and the titles of their talks were as follows:

- Kenneth E. McMartin (Louisiana State University)—Mechanism-Based Translational Studies on Toxicity of Alcohols and Glycols
- Donna L. Mendrick (US Food and Drug Administration)—System Biology Approaches to Improve Drug Safety
- Allison C. Elder (University of Rochester Medical Center)—Recent Advances and Challenges in Nanotoxicology Research

US SOT headquarters, along with Oleg Ponfilenok in Russia, successfully handled the technical and logistical issues involved in conducting this transatlantic webinar. Two successful test sessions provided us with the confidence to proceed.

The webinar was of great interest to the Russian audience. It allowed them to compare research trends in American and Russian studies in specific areas of interest. The Russian toxicologists were grateful to their American colleagues, and especially to those who delivered the presentations. It was an excellent example of how toxicologists in two countries can overcome distance and language barriers to collaborate.

The US and Russian societies are currently trying to work out a reciprocal Webinar in which Russian toxicologists would present talks for their US counterparts, perhaps as part of an Annual Meeting or Regional Chapter meeting, or another SOT-sponsored event.

The session has been recorded and archived for your listening and viewing pleasure in the Global Initiatives section of the [SOT website](#).

## **SOT Component Groups May Win Annual Meeting Travel Stipend—Update Your ToXchange Profile Picture**

Each month we have been encouraging every member to “be recognized” by uploading or updating his/her profile picture on ToXchange. Now, just in time for the holidays, we have a special incentive for you to do so in the month of December. SOT is announcing the first ever ToXchange profile picture contest! This profile picture contest will be for all of the component groups: Regional Chapters, Specialty Sections, and Special Interest Groups. The goal will be to get the highest percentage of your component group members to upload or update a profile picture by the New Year. Component groups with the highest percentage of member profile pictures posted by January 1, 2014, will receive an award stipend of \$500 as travel support funds to the SOT Annual Meeting—to be dispersed at the discretion of the component group.

As component groups vary in the number of members, there will be three levels to the competition as follows:

- Component Groups with up to 100 members.
- Component Groups with 101–250 members.
- Component Groups with more than 251 members.

In addition to the award stipend for travel support to the SOT 53rd Annual Meeting in Phoenix, Arizona, the winning component groups will be recognized in the *Communiqué* newsletter blog, on ToXchange, and onsite in the SOT Pavilion at the Annual Meeting.

Of course, every component group participating will realize the benefits of increased recognition based on the uploading and updating of your member profile pictures. Members of multiple component groups will count towards every component group of which you are a member.

So go ahead, “be recognized” and upload or update your profile picture on ToXchange today! You just may find it ia a very awarding experience for your Regional Chapter, Specialty Section, or Special Interest Group. This also is the perfect time to post photos because the closer we get to the Annual Meeting, which will be held March 23–27, 2014, in Phoenix, the more searches there are on ToXchange.

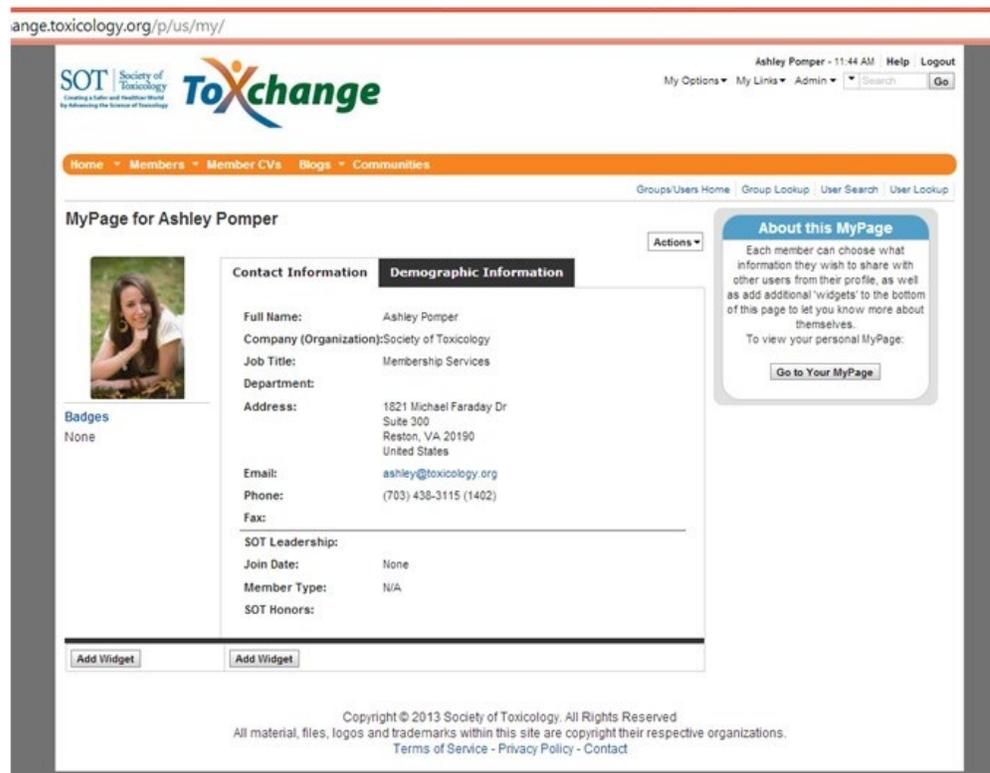
Did you know that from January through March, users view My Pages more than any other time of year, averaging

more than 5,000 views per month? It is an excellent way to connect with peers before, during, and after the Annual Meeting!

Go ahead, get yourself, as well as your component group recognized!

Upload or update your profile picture today if you can—but be sure to do so by January 1, 2014, to count for your component group. Here's how:

## Go to Your MyPage:



The screenshot shows the ToXchange website interface. At the top, there is a navigation bar with the SOT Society of Toxicology logo and the ToXchange logo. The user is logged in as Ashley Pomper. The main content area is titled "MyPage for Ashley Pomper" and contains two tabs: "Contact Information" and "Demographic Information". The "Contact Information" tab is active, displaying the following details:

|                         |   |
|-------------------------|---|
| Full Name:              | Ashley Pomper   |
| Company (Organization): | Society of Toxicology   |
| Job Title:              | Membership Services   |
| Department:             |   |
| Address:                | 1821 Michael Faraday Dr<br>Suite 300<br>Reston, VA 20190<br>United States |
| Email:                  | ashley@toxology.org   |
| Phone:                  | (703) 438-3115 (1402)   |
| Fax:                    |   |
| SOT Leadership:         |   |
| Join Date:              | None  |
| Member Type:            | N/A   |
| SOT Honors:             |   |

Below the contact information, there are two "Add Widget" buttons. To the right of the contact information, there is an "About this MyPage" box with a "Go to Your MyPage" button. At the bottom of the page, there is a copyright notice: "Copyright © 2013 Society of Toxicology. All Rights Reserved. All material, files, logos and trademarks within this site are copyright their respective organizations. Terms of Service - Privacy Policy - Contact".

1) From the My Options drop-down in the upper right corner, select MyPage.

OR

2) From your profile page, click on the “My Picture” button at the bottom of the “About this User” box on the right.

This is what your My Page looks like:

## Update Your Picture!

*First, be sure to know where your picture file is located so that you may easily browse and select it to upload.*

1. On your MyPage, click the “Actions” button and select “Update Picture.”
2. Click the “Update File” button and browse for the picture file on your computer. You may upload a file as large as 2 MB only (most photos are between 1.0–1.5 MB).
3. Click the OK button to upload your selected picture.

*It's as easy as 1-2-3! If you need help, just click on “Help” in the top right of your ToXchange page—OR—just write in your question below and we'll write a response to help you out. ToXchange—It's **Your** Network.*

**South Central Regional Chapter Annual Meeting Focuses on Inspiring the Next General of**

## Toxicologist



The 2013 Annual Meeting of the South Central Regional Chapter of the Society of Toxicology (SCC-SOT) was held On October 10–11, 2013 in Baton Rouge, Louisiana. The focus of this year’s SCC-SOT meeting was “Toxicological Research—Inspiring the Next Generation of Toxicologists.” There were four featured activities associated with this year’s meeting: (1) The Keynote address, given by distinguished toxicologist Stephen Safe of Texas A&M Health Science Center, (2) A “K–12 Toxicologist Luncheon,” (3) An undergraduate/graduate poster session, and (4) A networking reception. Pictured at the left from left to right are SCC-SOT President Wesley G. N. Gray and Stephen Safe.

The Department of Environmental Toxicology at Southern University was the host of this year’s Annual Fall Meeting. There were a total of 121 participants comprised of 41 undergraduate, students, 18 graduate students, 10 postdoctoral fellows, 30 member-senior scientists, 15 K–12 students and 5 K–12 teachers. The meeting began with an opening network reception at the Hilton Garden Inn, sponsored in part by Charles River Labs, and hosted by the graduate students from the Environmental Toxicology department at Southern.

The highlight of the reception was the toxicology “Trivial Pursuit” conducted by the graduate students. The keynote lecture, entitled “The Aryl Hydrocarbon Receptor: A Drug Target?” was presented by Steven Safe, Distinguished Professor of Veterinary Physiology and Pharmacology, Texas A&M University. During the scientific session that followed, we heard talks from five graduate students and four postdoctoral fellows. The subject matter ranged from epigenetic alterations following short-term exposure to toxicants to metabolomic profiling as a tool in toxicology. The attendees and presenters at the meeting came from seven different institutions within the South Central Region.

The “K–12 Toxicologist Luncheon” was a unique addition to our meeting and is an expansion of our student-mentor activity. Kenneth E. McMartin, of Louisiana State University Health Science Center-Shreveport (LSUHSC), was the speaker for the K–12 Luncheon. K–12 students at the luncheon represented students from Westdale Middle School (five students), Scotlandville Magnet High School (six students), Southern University Laboratory School (five students), and Baton Rouge Magnet High school (two students). During the meeting, select students from each school gave a brief introduction and their interest and involvement in science. These K–12 students had the opportunity to interact with several senior members of the SCC-SOT. At the left is a photo montage of the SCC-SOT First Annual K–12 Toxicologist Luncheon for Middle and High School Students.



The most anticipated event at the meeting, for our students, was the afternoon poster session, which included 27 different posters covering a broad range of topics. The poster session was a true representative of our meeting theme, “Toxicological Research—Inspiring the Next generation of Toxicologists,” in that it represented authors from K–12 to junior faculty. Two of the posters were presented by high school students, seven were presented by students from a junior college, seven of the posters were presented by undergraduates, twelve were presented by graduate students, who had been mentored by toxicologists from the region, and six were presented by postdoctoral fellows or junior faculty.

Another highlight of our annual meeting was the awards ceremony that provided a true reflection of the chapter’s ongoing commitment to the mentoring and inspiring of the next generation of toxicologists. In addition to the chapter’s awards and accolades, three new awards, The “Regulatory Science Award”, the “R. H. Miller Graduate Award for Outstanding Abstract or Oral Presentation in Environmental Toxicology/Environmental Science,” and the “T. M. Tate Undergraduate Award for Outstanding Abstract or Oral Presentation in Environmental Toxicology/Environmental

Science” were established at the meeting.



The most outstanding platform and poster presentations were recognized with monetary awards and a plaque. The first place winner of the SCC-SOT Award for Outstanding Platform Presentation by a Graduate Student was Michelle Carroll-Turpin, Department of Pharmacology, LSUHSC-Shreveport, Louisiana, “DAPM Alters Serotonergic Signaling in a Novel Model for Female-Specific Pulmonary Arterial Hypertension.” The first place winner of the SCC-SOT Award for Outstanding Poster Presentation by an Undergraduate Student went to Annie P. Clark, Department of Chemistry, Southern University, Baton Rouge, Louisiana, “Structural Dynamics of The S4-S5 Linker in the Activation of Voltage-Gated Sodium Channels” and the SCC-SOT Award for Outstanding Poster Presentation by a Graduate Student went to Arif Yurdagul Jr., Cell Biology and Anatomy, Louisiana State University Health Sciences Center, Shreveport, Louisiana “Matrix Composition Modulates Oxidized LDL-Induced Inflammation.” Pictured at the left: Top row from left to right: Wesley Gray, SCC-SOT President, Annie P. Clark, Si Chen, Isabelle Miousse, and Terika Tilliam; Second Row from left to right: Michelle Carroll-Turpin, Arif Yurdagul, Jr., Sachin Khista, and Vivek Dadhania,

The first place winner of the SCC-SOT Award for Outstanding Platform Presentation by a Non-Student/Non-Faculty was Isabelle R. Miousse, University of Arkansas for Medical Sciences, Little Rock, Arkansas “Epigenetic Alterations Following Short-Term Exposure to Non-Genotoxic Rodent Hepatocarcinogen” and the first place winner of the SCC-SOT Award for Outstanding Poster Presentation by a Non-Student/Non-Faculty was Si Chen, National Center for Toxicological Research, US Food and Drug Administration, Jefferson, Arkansas “Sertraline, An Antidepressant, Induces Apoptosis in Hepatic Cells Through the Mitogen-Activated Protein Kinase Pathway.”

## **MASOT Fall 2013 Meeting on “Inhalation Toxicology” Attracts Over 120 Participants**

On October 23, 2013, the Mid-Atlantic Regional Chapter of the Society of Toxicology (MASOT) held a very successful meeting on “Inhalation Toxicology: Current Risk Perspectives” at the Sheraton Hotel-Raritan Center in Edison, New Jersey. The program was so popular and interest so high that meeting registration reached capacity for the venue. Approximately 30% of the attendees were students. To start off the day, MASOT President Ric Stanulis welcomed everyone and provided a brief business update. MASOT Councilor/Education and Outreach Committee Chair Diane Hardej then followed with an update on the recent education and outreach activities of the chapter and urged everyone to attend educational events at the upcoming 2014 SOT Annual Meeting in Phoenix, Arizona, March 23–27, 2014. Finally, MASOT Vice-President/Program Committee Chair Conney Berger introduced the program. Pictured above are MASOT Fall 2013 Meeting speakers (left to right): Bruce Naumann, John B. Morris, Tony Hickey, Molly Shea, Aidan Curran, and Mike DeLorme.



Aidan Curran started us off with some background on lung biology, toxicology, and pathology with the introductory presentation, “Inhalation Toxicology: The Breathe Ins and Outs of Respiratory Safety Assessment.” Following Dr. Curran, Tony Hickey discussed the exposure aspects of inhalation toxicology with “Therapeutic Aerosol Delivery and Disposition: The Importance of Local and Systemic Pharmacokinetics.” During the break for lunch, we thanked and honored this year’s MASOT Ambassador, Ed Sargent, for his years of dedicated service and promotion of the science of toxicology. In turn, he honored us with a wonderful look forward into the future with his talk, “Occupational Toxicology in the 21st Century.”

After lunch, we were enlightened by real-world inhalation toxicology examples from the areas of pharma (Lung Toxicity of Inhaled Oligonucleotides—Molly Shea), environmental (Diacetyl Vapor Toxicity: Elucidation of a Critical Role of Regional Airway Dosimetry—John B. Morris), occupational (Use of Pharmacokinetic Data when Setting Occupational Exposure Limits, OELs—Bruce Naumann), and nanotechnology (Use of Lung Inflammatory Endpoints when Setting Occupational Exposure Limits for Nanomaterials—Mike DeLorme).

During the program, we also had a “Lunch with an Expert” session and two poster sessions for students to present their current research efforts. Student posters were judged by an expert panel headed by George DeGeorge, Vice President-Elect. The winners were Dana Lauterstein from New York University (Most Outstanding), Shalini Roy and Lokesh Sharma (tie) both from St. John’s University (Outstanding), and Chris Massa from Rutgers University, who won the Membership Award as judged by the meeting attendants.

In addition, this is the third year we have presented the Dr. Geoffrey K. Hogan, PhD, DABT Memorial Scholarship/Travel Award. This is an award in memory of the late Geoffrey Hogan, initiated by his former employer Huntingdon Life Sciences, and continued by his wife Mrs. Barbara Hogan. Each year, a PhD student in good standing is selected based on their current research goals in toxicology/pharmacology and its impact on human health. Winners receive a \$1,000 check towards travel to the next annual SOT Annual Meeting to present their work. This year’s Hogan Award winner was Ashley Green from Rutgers University. Congratulations to all with their fine work!

A strong thank you goes out to the MASOT Program Committee (2013–2014) that developed this program. The members include Lauren Aleksunes, Conney W. Berger, Jr. (Chair), Jason Blum, Todd Davidson, George DeGeorge, Janet Gould, Diane Hardej, Jedd Hillegass, John Mitchell, Robert Parker, Gloria Post, Prathibha Rao, Valerie Shultz, Ric Stanulis, Karl Traul, Myra Weiner, Arlene Weiss, and Daniel Willis along with graduate students Ravikumar Sitapara and Puneet Vij.

Gracious financial sponsorship for this meeting was provided by WIL Research, Charles River Laboratories, CiToxLAB North America, Huntingdon Life Sciences, and ITR Laboratories Canada. In addition, SOT Headquarters granted student travel support and assisted with meeting logistics.

Thank you all for your attendance and support to make this such a successful meeting!

## **I Love Science and Kids Do Too!! More Education Outreach Please**

*By Toufan Parman, PhD, DABT, Chair of NorCAL SOT Regional Chapter K–12 Outreach Program*

California, including the San Francisco Bay Area, is the cradle of science, technology, and much of the US innovation in science, yet our elementary schools are not equipped and our teachers are not empowered to teach science as there is lack of both federal and state funding for elementary science education improvement efforts.<sup>1</sup> Just over 50 percent of school districts do not have capacity in their district office to support science education.<sup>1</sup> Recent national reports have emphasized the importance of science education in the elementary grades (K–8) and fostering interest in science early in life.<sup>2,3</sup> Despite these reports, California students produce inadequate achievement results in science. Based on the 2011 California standards test “Star Test” results, 21 percent of California’s 8th graders tested proficient and 47 percent were far below basic in science while nationwide 32 percent of students tested proficient.<sup>4</sup> Similarly, according to the California standards test in science during spring of 2007, more than half of the 5th graders failed to reach proficiency in science.



Pictured above are some of the toxicology volunteers from SRI, local pharmaceutical companies, UC Berkeley, and government who provided tremendous support for the NorCal Girl Scout event.

I became more aware of the challenges of teaching science to elementary students when I was the president of the Parent Teacher Association (PTA) in my daughters' elementary school. I was quite disheartened to hear about the challenges that teachers are facing in science education. Many teachers feel less prepared to teach science than any other subject, and there are very few opportunities available to them to improve their skills.<sup>2</sup> My children are lucky to be attending a school in an affluent area in California where more than 60 percent of the parents have higher education and are willing to fund various science events for the school; however, this is not true for all schools in California. This situation inspired me to volunteer in education outreach programs through the Northern California (NorCal) Regional Chapter of the Society of Toxicology (SOT). In spring of 2011, as the chair of the SOT K–12 outreach program with NorCal SOT and in collaboration with Lawrence Hall of Science Museum and the Toxicology Student Association (ToxSA) at the University of California, Berkeley, I organized an event to teach K–8 students about the basic sciences and toxicology. This was a very successful event that used fun and interactive ways to teach science. The event was open to the public and over 400 kids attended.

This year, I organized a 7–8 grade hands on science day event for a couple of local Girl Scout troops. The event was funded by the NorCal SOT chapter and Women in Toxicology (WIT) Specialty Interest Group of the SOT. The ToxSA UC Berkeley students designed, developed, and taught the hands on experiments in a fun, interactive, energetic, and friendly environment. Toxicologists from government, biotech, and pharmaceutical companies were present during this event and spoke with the girls about their profession, why they were interested in science, and the importance of toxicology.



Approximately 30 Girl Scouts attended this event and all Girl Scout attendees expressed interest in teaching what they learned to the younger troops next year. Given this opportunity, it was very rewarding to see the sparkle in the girls' eyes as they learned about dose-response, pH and its role in environment, and household hazards. It was fun and rewarding to see these young minds try to figure out the effect of energy drinks (caffeine) on the worms. We even managed to involve some of the parents. At the end of the program parents mingled with the toxicologists and asked questions about toxicology and possible career opportunities in the area of toxicological sciences. Girl Scouts pictured at right explore principles of pH and learn about acid

rain.

I have found the NorCal and National SOT outreach programs so rewarding that I would like to pursue the possibility of setting up a bigger science day event with Girl Scouts to attract more troops. I enjoy every opportunity to encourage kids to explore and have fun with science and teach them how to work together to solve scientific problems.

Improving science education in schools will require not only the support from government and educators but also from the community at large. If you are interested in getting involved in education outreach, but don't know where to start, or if you already are involved and have some tips or favorite resources to share, please post your questions or suggestions in the comments section below so we can join forces.

The Society of Toxicology has ways to help support these types of opportunities, a K–12 Subcommittee, K–12 Regional Chapter Outreach contacts, and a website of ideas, experiments, and activities on the [SOT website](#) to get you started. You can read more about the Science Education in Bay Area Elementary schools by looking up the references or by visiting the [Lawrence Hall of Science website](#).

My special gratitude goes to all the volunteer scientists (Kyuri Kim, Kathila Rajapaksa, Leigh Ann Burns Naas, Tao Wang, Hu Shen, Sille Fenna, Rudd Colette, Amy Kim), and particularly ToxSA students from University of Berkeley. Without their support this event would not have been possible.

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## SOT Central State Regional Chapter Holds 2013 Annual Meeting on Biotech to Solve Tox Issues

The Central States Society of Toxicology (CSSOT) held their annual meeting in Ames, Iowa, on October 10–11, 2013. Aileen Keating (Iowa State University), 2013–2014 CSSOT President, arranged a full schedule for the 90 participants from the University of Nebraska Medical School, University of Kansas Medical School, Kansas State University, University of Iowa, Iowa State University, Drake University, and from industry. The theme of the 2013 CSSOT Annual Meeting was: “Biotechnology to Solve Nutritional, Agricultural, and Veterinarian Toxicological Issues.” To see a pictorial overview of the meeting activities, please visit the [SOT website](#).

On Thursday evening October 10, participants interacted during a social hour; were welcomed by Wilson Rumbelha, Iowa State University, who introduced [Toxicologists Without Borders, Inc.](#); and enjoyed an excellently prepared meal. Zeliann Rivera Craig, Assistant Professor, Department of Animal Science, University of Arizona, delivered the evening’s presentation, “Mechanisms of Phthalate-Induced Ovarian Follicle Toxicity.” Afterwards, Dr. Craig met with graduate students and postdocs and spoke informally about her professional journey while balancing home life and young children. Transportation was provided to graduate students and postdocs to participate at a game center in Ames where they could bowl, play arcade games, laser tag, or enjoy a full sports bar and restaurant.

On Friday morning, students and postdocs set up posters. Dr. Keating called the meeting to order and participants were welcomed by Wendy Wintersteen, Dean, College of Agriculture and Life Science, at Iowa State University. The first speaker was Norbert E. Kaminski, Director, Center for Integrative Toxicology at Michigan State University and also 2013–2014 Vice President of SOT. His presentation was entitled, “Integration of Human Primary Leukocyte-Based Models in Immunotoxicity Evaluations: Benefits and Challenges.” The second speaker was Joel Coats, Charles F. Curtiss Distinguished Professor, Pesticide Toxicology Laboratory, Iowa State University, who presented Green Chemistry Approaches to Pesticides.”



Following a short networking break, Michael Kimber, Assistant Professor, Department of Biomedical Sciences, Iowa State University, Tropical and Molecular Parasitology Lab, presented “Exploiting Small RNA Pathways in Parasitic Nematodes for Drug Development and Disease Control.”

The afternoon included poster presentations. Posters selected as “Best Posters” were presented by Saurabh



Kansas University Medical Center). Pictured (left) left to right Anumantha Kanthasamy, CEO of PK Biosciences, Aileen Keating, Saurabh Verma, Muhammet Ay, Dilshan Harischandra, Stephanie Shishido, Sharon Manley, Shanthi Ganesan, and Chad Walesky.

Oral presentations followed with the selection of Xin Hu, University of Iowa, receiving “Best Oral Presentation, Postdoc;” and Hemantkumar Chavan, Kansas University Medical Center, receiving “Best Oral Presentation, Graduate Student.” Wusheng Xiao, University of Iowa, received “Honorary Mention, Oral Presentation, Graduate Student.” Picture (right) from left to right Aileen Keating, Robert Casillas, MRIGlobal, Xin Hu, Hemantkumar Chavan, Clare Crouch, MRIGlobal, and Wusheng Xiao.

Judges for poster and oral contests were Vellareddy Anantharam, Iowa State University; Arthi Kanthasamy, Iowa State University; Suzanne Hendrich, Iowa State University; Alan Robertson, Iowa State University; Udayan Apte, Kansas University Medical Center; Hans-Joachim Lehmler, University of Iowa; Diane Birt, Iowa State University; Thu Annelise Nguyen, Kansas State University; Zelicann Craig, University of Arizona; Norbert Kaminski, Michigan State; and James Sacco, Drake University (Iowa).



Monetary Awards for “Best” were provided by MRIGlobal, Charles River Laboratories, PK Biosciences, and the Interdepartmental Toxicology graduate program at Iowa State University. A special thanks to Vic Albright (graduate student, Iowa State University) for running the poster room set-up and to Samuel Buxton (postdoc, Iowa State University) for filling in where needed to keep the general program running smoothly. Jill Madden (graduate student, Iowa State University) moderated the postdoctoral presentations.

CSSOT 2013 was supported by Cell Signaling Technology Inc., MRIGlobal, Charles River Laboratories, PK Biosciences, and registration fees of participants. CSSOT also was supported by the following Iowa State University organizations: Office of Biotechnology, Interdepartmental Toxicology Graduate Program, College of Veterinary Medicine, College of Agriculture and Life Sciences, and the Iowa Center for Neurotoxicology (ICAN). CSSOT 2014 will be in Kansas.

## **North Carolina Regional Chapter Annual Meeting Focuses on Environmental Sustainability**



On Thursday, October 24, 2013, the North Carolina Regional Chapter of the Society of Toxicology (NCSOT) hosted their annual fall meeting at the National Institute for Environmental Health Sciences (NIEHS) campus in Research Triangle Park. The meeting was well attended with over 65 participants from government, industry, and academia. The meeting this year focused on some of North Carolina’s most prominent environmental science research related to toxicology, namely forest sustainability, costal preservation, and insect colony collapse disorder.

The title of this event was “From the Mountains to the Coast: Environmental Toxicology Research in NC” and featured Professors Brian D. Kloeppel from Western Carolina University, Siddhartha Mitra from East Carolina University, and David Tarry from North Carolina State University. In addition to these oral presentations, the NCSOT hosted its annual Career Panel luncheon (pictured on the left) where students and postdocs gathered in a Q&A session with five prominent area experts in the field of toxicology.

Additionally, as each year the NCSOT recognizes the achievements of its most productive postdoctoral fellows through the President’s Award for Research Competition (PARC), the 2013 PARC winners were announced: Yuanyuan Xu from NIEHS (1st place) and Samantha Snow and Yong Ho Kim, both from US Environmental Protection Agency, (tied 2nd place). Pictured below from left to right: Yong Ho Kim, Samantha Snow, and 2013–2014 NCSOT President Jamie Dewitt.



The meeting was made possible by the Regional Chapter funding that is awarded competitively by the Society of Toxicology for speaker travel and strategic activities and by IIT Research Institute. For more information, please contact [Jamie Dewitt](#), NCSOT President.

## AACT Members Attend 6th National Congress of Chinese Society of Toxicology

*Recently, representatives from the Society of Toxicology (SOT) American Association of Chinese in Toxicology Special Interest Group attended the 6th National Congress of the Chinese Society of Toxicology in Guangzhou, Guangdong Province China. SOT Headquarters was fortunate to receive two perspectives on this meeting provided below that were prepared by Xuefeng Ren, The State University of New York, Buffalo, and Luoping Zhang, School of Public Health, University of California, Berkeley.*

### *Meeting Perspective by Xuefeng Ren*



The 6th National Congress of Toxicology of the Chinese Society of Toxicology (CSOT) was held on November 12–15, 2013 at the Guangzhou DongFang Hotel in Guangzhou, Guangdong Province, China. Guangzhou ([Chinese: ??????](#)) is the capital and largest city of [Guangdong](#) province, and located on the [Pearl River](#), and just north-northwest of [Hong Kong](#) and north-northeast of [Macau](#). Guangzhou is the third largest city in China and has a population over 15 million. The national congress of CSOT is the premier event that the CSOT hosts once every four years to meet the needs of its nearly 9,000 members in China and to highlight the significant scientific achievements in toxicology. The theme of the congress was stated as “The relationship between toxicological science and the development of society, economy and health.” More than 1,500 people from across China attended the meeting, including approximately 40 scientists and toxicologists from

the US, Britain, France, Japan, and other countries.

Before the official opening of the General Assembly, the congress hosted three continuing education courses on November 12: “The future of toxicological sciences—Safety Science in the 21st Century;” “Real-time label-free cell analysis (RTCA);” and “Strategies in the selection of drug candidates.” On the first day of the congress, Junshi Chen, Wei Meng, and Guibin Jiang, three members from the National Academy of Sciences in China, and Melvin Anderson from The Hamner Institutes for Health Sciences in the US, gave wonderful keynote reports on food safety, environmental and ecological hazard assessment, and the future of toxicological sciences.

Through the excellent organizational efforts of Edward Chow, the President of the American Association of Chinese in Toxicology (AACT) Special Interest Group, and generous support from the Society of Toxicology (SOT) and AACT, nine AACT delegates went to Guangzhou and attended the congress. Pictured above from left to right are Edward Chow from Allergan, Yi Jin from Novartis, Jianxiang Li from Soochow University (currently residing in Japan), Li Li from Novartis, Zhengyu Yin from Dupont, Luoping Zhang from University of California at Berkeley, Yongbin Zhang from NCTR of US FDA, Yun Zhang from Merck and myself, Xuefeng Ren from University at Buffalo. I personally very much appreciate the generous support from SOT's Global Initiative Fund, which made my trip possible. Eight delegates were invited to give oral reports, including Dr. Jin who gave an excellent Plenary Lecture on the last day, November 15, of the Congress. The AACT delegation had a significant presence at this congress, and attracted much enthusiasm and interest for AACT and SOT from academic and research institutions there. Many members of CSOT expressed their interest in attending the 2014 Annual Meeting of SOT in Phoenix.

I presented an oral report on November 14, entitled "Arsenic metabolism and arsenic-induced epigenetic modifications: the role and implication for arsenic-induced carcinogenesis." After my talk at the meeting, several attendees came to me and showed their interests for future collaborations. They also invited me to give the talk at their universities. I have visited and presented at the Inner Mongolia Medical University and Fudan University. I think this meeting provided me with an excellent opportunity to interact with many colleagues/researchers in China, which definitely help initiate international collaborations in the toxicology community.

Other than the participation at the national congress, the AACT delegates had opportunities to participate in other academic and scientific activities. For example, most delegates attended the "International Drug Toxicology" symposium organized by AACT at Sun-Yet Sen University (also known as ZhongShan University) in Guangzhou on November 11. Drs. Li, Yin, and Zhang made presentations at the symposium and the AACT delegates had great dialogs with the 100 or so Chinese colleagues and other participants at the symposium.

Overall, it was a very enjoyable trip and there were very productive dialogs specifically with members and leaders of CSOT. We believe that it represents a significant milestone in building a strong connection between CSOT and SOT and will help to fulfill the general mission of SOT in creating a safer and healthier world by advancing the science of toxicology.

### ***Meeting Perspective by Luoping Zhang***

Normally, the beautiful city of Guangzhou, China, is warm, sunny, and quite pleasant in mid-November. No less beautiful in the drizzly rain with which we were welcomed due to typhoon Haiyan in Southeast Asia, Guangzhou was home to the 6th National Congress of the Chinese Society of Toxicology (CSOT-VI), which brought together the most acclaimed toxicological scientists and leading experts in China from November 12–15, 2013.

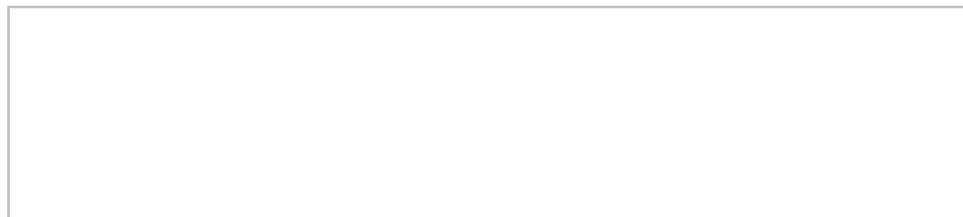
With substantial support from SOT in the form of Global Initiative Funding, the American Association of Chinese in Toxicology (AACT) sent an official team of 9 toxicologists, including Edward Chow, Yi Jin, Jianxiang Li, Li Li, Xuefeng Ren, Zhengyu Yin, Luoping Zhang (myself), Yongbin Zhang, and Yun Zhang, to participate in CSOT and to share the expertise and enthusiasm of AACT. The AACT President Edward Chow, Allergan, and Vice President Dr. Yi Jin, Novartis, had organized three telephone-conferences before the trip and planned additional related events beyond CSOT-VI. Most of the AACT delegates gave oral presentations either at the plenary session or during symposia or other formats. The congress fostered a culture of communication and collaboration, with each member interacting with and engaging potential new AACT/SOT members and contributors in Guangzhou.

I am grateful to have had this unique opportunity to meet many of my past and current collaborators in China and also to present results of our long-term collaborative efforts in a talk titled "Previous, Current and Future Studies of Environmental and Occupational Exposures to Toxic Chemicals: Biomarkers, Systems Biology and Exposome Approaches." During an engaging discussion with another speaker in my symposium, we recognized the potential to build a mutually interesting new project. The speaker and her group immediately and insistently invited me to visit their center—Shenzhen CDC. Two hours later, we were aboard a high-speed train to Shenzhen. This additional and unplanned trip was fruitful, enabling us to build the foundation of a future collaboration, although I regrettably missed a chance to say goodbye to many of my friends, including my AACT teammates at CSOT-VI.

Overall, despite the rainy start, the 6th annual CSOT conference in Guangzhou, China, left all participants feeling enthusiastic, encouraged, and inspired. We are confident that the interactions we had with Chinese toxicologists had a positive impact on both the CSOT attendees and the organizers. We hope to further these relationships and expand our collaborations in the years to come. We thoroughly enjoyed having the opportunity to present our scientific work and projects as well as the chance to meet Chinese toxicologists and potential future collaborators in China. Serving on the AACT delegate team was an extremely rewarding experience that we can only hope to repeat soon at the next CSOT meeting.

## Annual Meeting & ToxExpo

### Second Abstract Submission Opportunity for SOT 2014



More than 2,300 presentations are already scheduled for the Society's 53rd Annual Meeting and ToxExpo in Phoenix, Arizona. We now invite you to submit abstracts during a second submission opportunity. This second submission phase will close on Monday, January 6, 2014. All abstracts must be submitted [online](#) by 11:59 pm EST on the posted deadline.

In light of events this fall, particularly those resulting from the shutdown of the United States government, SOT has made changes to the 2014 Annual Meeting program in an effort to enable full participation from our broad membership and contribute to a successful scientific and professional experience for all attendees. Scientists who had to wait until after the original October deadline to submit due to funding issues are encouraged to submit an abstract for consideration.

For the 2014 Annual Meeting only, abstracts accepted from this second submission period will be integrated into the regular scientific program so as to be presented with relevant thematic content. These abstracts will be searchable by the Annual Meeting mobile app, and will appear in the printed *Program* and in *The Toxicologist*.

It is important to emphasize that all abstracts will be reviewed by the Scientific Program Committee and held to the same standards used to evaluate abstracts submitted for the original deadline. Additional criteria that determine whether an abstract qualifies for acceptance during this final submission phase include:

- Your abstract should not be a revision of a previously-submitted one that was not accepted unless you received specific communication from the Scientific Program Committee suggesting that resubmission during the second abstract period may be appropriate.
- Not more than one abstract will be accepted by the same presenting author.
- Scientists who have research with late-breaking results are highly encouraged to submit an abstract.

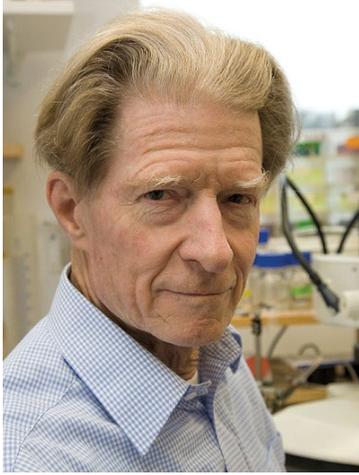
We look forward to welcoming you to Phoenix, Arizona, and hope that you will consider submitting your abstracts.

Sincerely,

Norbert E. Kaminski, PhD  
Chairperson, SOT Scientific Program Committee  
SOT Vice President

Peter L. Goering, PhD, DABT, ATS

## 2014 SOT Annual Meeting Plenary Lecturer Is Sir John B. Gurdon



Sir John B. Gurdon will deliver the 2014 SOT Annual Meeting Plenary Lecture, *The Origins and Future of Pluripotency and Cellular Reprogramming*, on Monday, March 24, 8:00 am–9:00 am in the Phoenix Convention Center. The different cell types that compose our bodies are remarkably stable. Hardly ever do we find skin cells in the brain or liver cells in the heart. In those very special cases where some regeneration can take place in vertebrates, there is little if any evidence for a switch in cell type. Nevertheless, nuclear transfer, cell fusion, and induced pluripotency can result in pluripotent embryo cells being derived from specialized adult cells.

The mechanisms by which nuclear reprogramming can occur in these cases is beginning to be understood. It may become possible for new, regenerated cell types to be derived from adult cells and given back to a patient so that they receive new cells of their own genetic constitution, thereby avoiding the need for immunosuppression. The history of work in this area, and the prospects for cell replacement in the future, will be discussed.

John B. Gurdon was a zoology undergraduate at Oxford University and returned, after a postdoc year at CalTech, as Lecturer in Embryology. In 1971, he joined the MRC molecular biology lab in Cambridge to continue his work on amphibian developmental biology. In 1983, as John Humphrey Plummer Professor of Cell Biology at the University of Cambridge, he co-founded a research institute of developmental and cancer biology (now named the Gurdon Institute) with Professor Laskey, acting as Chairman until 2002.

His career has concentrated on nuclear transplantation in the frog and experiments to discover the value of mRNA microinjection, mechanisms of response to morphogen gradients, and recently, mechanisms of nuclear reprogramming by *Xenopus* oocytes and eggs. Master of Magdalene College Cambridge from 1995–2002, he has received various recognitions, including the 2009 Lasker Award for Basic Medical Science and the Nobel Prize for Physiology or Medicine in 2012.

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## John D. Scott Is 2014 SOT Annual Meeting MRC Lecturer

The 2014 SOT Annual Meeting MRC Lecture, *Guiding Signals through Anchored Enzyme Complexes: Implications for Disease*, will be presented by John D. Scott on Wednesday, March 26 from 8:00 am–9:00 am in the Phoenix Convention Center. Intracellular signal transduction events are precisely regulated in space and time. Dr. Scott notes: “This is achieved in part by A-Kinase Anchoring Proteins (AKAPs) that tether signaling enzymes such as protein kinases and phosphatases in proximity to selected substrates. AKAP targeting provides an efficient means to reversibly control the phosphorylation status of key substrates and contributes to the dynamic regulation of sophisticated cellular events.

Using a variety of genetic, electrophysiological, and live-cell imaging techniques, we show that AKAPs, which enhance the precision of signaling events, are up-regulated under certain pathophysiological states. This leads to aberrant regulation of certain physiological processes and disorders such as diabetes and heart disease.” In this



lecture, Dr. Scott will present some recent data on the role of anchored signaling complexes that modulate various extra-pancreatic complications of diabetes, including hypertension and cataract formation.

Dr. Scott is the Edwin G. Krebs-Hilma Speights Professor in the Department of Pharmacology at the University of Washington (UW) School of Medicine, Seattle. He received his BSc (Hons) degree in biochemistry from Herriot-Watt University, Edinburgh, and his PhD degree from the University of Aberdeen. He did postdoctoral research on protein kinase inhibitors in the laboratory of Edwin Krebs at UW and then joined the faculty of the University of California, Irvine. He continued his research at the Vollum Institute at the Oregon Health & Sciences University, Portland, Oregon, until 2008, when he moved to the UW. Dr. Scott is a fellow of the Royal Society, London, and the Royal Society of Edinburgh.

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## **2014 SOT/AstraZeneca/SOT Endowment Fund/IUTOX Travel Award Winners Announced**

The 2014 SOT/AstraZeneca/SOT Endowment Fund/IUTOX Travel Award Winners are announced. Awards are provided to senior scientists from a country where toxicology is underrepresented to assist with travel to attend the Society of Toxicology Annual Meeting. The 2014 recipients are listed below.

- Samir Abbès, PhD, Higher Institute of Biotechnology of Béja, Béja, Tunisia
- Wafa Hassen, PhD, High Institute of Biotechnology, University of Monastir, Monastir, Tunisia
- Gopabandhu Jena, PhD, National Institute of Pharmaceutical Education and Research (NIPER), Mohali, India
- Sameeh A. Mansour, PhD, National Research Centre, Giza, Egypt
- Siti N. Mubarakah, MSc, Laboratory of Pharmacology, School of Medicine, University of Islam Malang, Malang, Indonesia
- Olufunke E. Ola-Davies, PhD, University of Ibadan, Ibadan, Nigeria
- Iyekhoetin M. Omoruyi, MSc, Benson Idahosa University, Benin City, Nigeria
- Ishiaq Omotosho, PhD, College of Medicine, University of Ibadan, Ibadan, Nigeria
- Muneeb U. Rehman, PhD, Department of Pharmaceutical Sciences, University of Kashmir, Srinagar, India
- Yang Song, PhD, Zhejiang Academy of Medical Sciences, Hangzhou, China
- Jing Zhang, MSc, Shanxi Medical University, Taiyuan City, China

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## **SOT Announces Colgate-Palmolive Sponsored Award Recipients for 2014**

The Society is pleased to announce the following recipients of the Colgate-Palmolive Sponsored Awards, Grants, and Postdoctoral Fellowship:

**Colgate-Palmolive Award for Student Research Training in Alternative Methods:** Presented to a graduate student to support research training using *in vitro* methods or alternative techniques to reduce, replace or refine use of animals in toxicological research.

**2014 Recipients:**

- Laura E. Armstrong BS, University of Rhode Island, Kingston, Rhode Island
- Christin M. Grabinski MS, US Air Force Research Laboratory, Dayton, Ohio

**Colgate-Palmolive Grant for Alternative Research:** Presented to a scientist at any stage of career progression to 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.

**2014 Recipients:**

- Patricia E. Ganey PhD, Michigan State University, East Lansing, Michigan
- Matthew Troese PhD, MB Research Laboratories, Spinnerstown, Pennsylvania

**Colgate-Palmolive Postdoctoral Fellowship Award in *In Vitro* Toxicology:** Presented to a postdoctoral trainee to advance the development of alternatives to animal testing in toxicological research.

**2014 Recipient:**

- Jonathan Henry Shannahan PhD, University of Colorado Hospital, Aurora, Colorado

The Colgate-Palmolive Awards, Grants, and Postdoctoral Fellowship will be presented at the SOT Awards Ceremony in Phoenix, Arizona, on Sunday, March 23, 2014, from 5:15 pm–6:30 pm in the Phoenix Convention Center.

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## **SOT Announces Syngenta Sponsored Award Recipient for 2014**

Please join the Society of Toxicology and Syngenta in congratulating the recipient of the 2014 Syngenta Sponsored Award.

**Syngenta Fellowship Award in Human Health Applications of New Technologies:** Presented to either a third year (or later) graduate student or a postdoctoral trainee. Fellowship funding is to support mode-of-action research aimed at characterizing dose-dependent effects of xenobiotics on mammalian systems in such a way that the causal sequence of key events underlying toxicity is elucidated.

**2014 Recipient:**

- Dilshan S Harischandra BS, Iowa State University, Ames, Iowa

The Syngenta Fellowship Award will be presented at the SOT Awards Ceremony in Phoenix, Arizona, on Sunday, March 23, 2014, from 5:15 pm–6:30 pm in the Phoenix Convention Center.

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## **Society of Toxicology Announces SOT Award Recipients for 2014**

In recognition of distinguished toxicologists and students, the Society of Toxicology (SOT) presents many prestigious awards each year. The Society is pleased to announce the following SOT Award Recipients for 2014.

**Achievement Award**—Presented to a member of SOT who, within 15 years since obtaining his/her highest earned degree (in the year of the SOT Annual Meeting) has made significant contributions to toxicology.

**2014 Recipient:** Matthew J. Campen, PhD, MSPH, University of New Mexico, Albuquerque, New Mexico

**Arnold J. Lehman Award**—Presented to recognize an individual who has made a major contribution to risk assessment and/or the regulation 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 significantly influenced the regulatory process.

**2014 Recipient:** B. Bhaskar Gollapudi, PhD, Exponent, Inc., Midland, Michigan

**2014 Board of Publications Award for the Best Paper in *Toxicological Sciences***—Presented to the author(s) of the best paper published in the official SOT publication during a 12-month period, terminating with the June issue (i.e., the printed version of the *Toxicological Sciences* journal) of the calendar year preceding the Annual Meeting at which the award is presented.

**2014 Recipient:** The Threshold Length for Fiber—Induced Acute Pleural Inflammation: Shedding Light on the Early Events in Asbestos-Induced Mesothelioma, Anja Schinwald, Fiona A. Murphy, Adriele Prina-Mello, Craig A. Poland, Fiona Byrne, Dania Movia, James R. Glass, Janet C. Dickerson, David A. Schultz, Chris E. Jeffree, William MacNee, and Ken Donaldson (*Toxicol. Sci.*, 2012, 128(2): 461–470)

**Distinguished Toxicology Scholar Award**—Presented to a member of SOT who has made substantial and seminal scientific contributions to our understanding of the science of toxicology. The awardee is invited to deliver the Distinguished Toxicology Scholar Award lecture at the 2014 SOT Annual Meeting.

**2014 Recipient:** Richard E. Peterson, PhD, University of Wisconsin Madison, Madison, Wisconsin

**Education Award**—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.

**2014 Recipient:** Herman N. Autrup, PhD, ATS, University of Aarhus, Aarhus, Denmark

**Founders Award**—Sponsored by the SOT Endowment Fund, this award is presented to a Full, Emeritus, or Retired Full member of SOT who has demonstrated outstanding leadership in fostering the role of toxicological sciences in safety decision-making through the development and/or application of state-of-the-art approaches that elucidate, with a high degree of confidence, the distinctions for humans between safe and unsafe levels of exposures to chemical and physical agents.

**2014 Recipient:** John A. Thomas, PhD, ATS, Indiana University School of Medicine, Indianapolis, Indiana

**Leading Edge in Basic Science Award**—Presented to a scientist who, based on his/her research, has made a recent seminal scientific contribution/advance to understanding fundamental mechanisms of toxicity within the last five years. The recipient should be a respected basic scientist whose research findings are likely to have a pervasive impact on the field of toxicology. The awardee is invited to deliver the Leading Edge in Basic Science Award lecture at the 2014 SOT Annual Meeting.

**2014 Recipient:** Vishal S. Vaidya, PhD, Harvard Medical School, Boston, Massachusetts

**Merit Award**—Presented to a member of SOT in recognition of distinguished contributions to toxicology throughout an entire career in areas such as research, teaching, regulatory activities, consulting, and service to the Society. The awardee is invited to deliver the Merit Award Lecture at the 2014 SOT Annual Meeting.

**2014 Recipient:** Jay I. Goodman, PhD, Michigan State University, East Lansing, Michigan

**Public Communications Award**—Presented by SOT 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 over an extended period of time.

**2014 Recipient:** David L. Eaton, PhD, ATS, University of Washington, Seattle, Washington

**Translational Impact Award**—Presented to a scientist whose recent (last 10 years) outstanding clinical, environmental health, or translational research has improved human and/or public health in an area of toxicological concern. The

awardee is invited to deliver the Translational Impact Award lecture at the 2014 SOT Annual Meeting.

**2014 Recipient:** Timothy D. Phillips, PhD, ATS, Texas A&M University, College Station, Texas

**Undergraduate Educator Award**—Sponsored by the SOT Endowment Fund, this award is presented to an SOT member who is distinguished by outstanding contributions to the teaching of undergraduate students in toxicology and toxicology-related areas, and whose efforts support SOT's strategic efforts to "Build for the Future of Toxicology."

**2014 Recipient:** William D. Atchison, PhD, Michigan State University, East Lansing, Michigan

The 2014 SOT Awards will be presented at the SOT Awards Ceremony in Phoenix, Arizona on Sunday, March 26, 2014 from 5:15 pm–6:30 pm in the Phoenix Convention Center.

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## Jay I. Goodman Receives 2014 SOT Merit Award



Jay I. Goodman is the recipient of the Society of Toxicology (SOT) 2014 Merit Award. Dr. Goodman is a Professor in the Department of Pharmacology and Toxicology and the Center for Environmental Toxicology, Michigan State University. He is a Fellow of the Academy of Toxicological Sciences (ATS) and a Diplomate of the American Board of Toxicology (ABT). His research interests are focused on discerning epigenetic mechanisms underlying carcinogenesis and other chemical-induced toxicities, and testing the hypothesis that the capacity to maintain the normal epigenetic status is related inversely to susceptibility to carcinogenesis.

Extensively involved in the training of the next generation of toxicologists, scientists, and physicians, Dr. Goodman has served as a mentor and advisor for many PhD students and postdoctoral fellows. He chaired his Department's Graduate Committee from 1979–1997 and served as the Interim Chair of the Department of Pharmacology and Toxicology, Michigan State University from 2001–2002.

Dr. Goodman has received numerous awards for his scientific achievements, including the Distinguished Alumnus Award, Doctoral Program in Pharmacology, University of Michigan; the John Barnes Prize Lecture, British Toxicology Society; and the George H. Scott Memorial Award from the Toxicology Forum, among others. He also is the first American to serve on a EUROTOX committee.

Dr. Goodman has participated actively on numerous SOT Committees and Task Forces including the Awards, Nominating, and Scientific Program Committees, and in SOT leadership as President of the Michigan Regional Chapter, SOT Secretary, and 1999–2000 SOT President. He has published more than 125 peer-reviewed manuscripts, given numerous invited presentations both nationally and internationally, and has participated on review panels and advisory boards for the National Institutes of Health (NIH), National Institute of Environmental Health Sciences (NIEHS), National Science Foundation (NSF), National Toxicology Program (NTP), US Environmental Protection Agency (US EPA), Center For Disease Control and Prevention (CDC). He also has served on the board of directors of ABT, ATS, and the International Life Sciences Institute, Health and Environmental Sciences Institute. Dr. Goodman continues to serve on editorial boards and as an advisor on toxicologic issues.

The Society is pleased to present Dr. Goodman with the 2014 Merit Award.

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## Herman N. Autrup Receives the 2014 SOT Education Award

Herman N. Autrup is the recipient of the 2014 Society of Toxicology (SOT) Education Award. Dr. Autrup received his PhD in Experimental Pathology in 1975 from the University of Nairobi, Kenya. He currently serves as a Professor in Environmental Medicine, Institute of Public Health, at University of Arhus in Denmark.



Dr. Autrup has made impressive contributions to education in the area of environmental health. He established the curriculum in environmental and occupational medicine at Aarhus University in 1990 and currently teaches courses in Human Toxicology, a course in Toxicology and Environmental Health as part of a diploma program offered by Aarhus University, and lectures in environmental and occupational medicine for medical students. These courses are widely recognized in Scandinavia and are well attended each year. Professor Autrup also is editor for the textbook “Miljø- og Arbejdsmedicin” (Environmental and Occupational Medicine) that is used throughout Denmark.

Even more impressive than his teaching efforts within Denmark, Professor Autrup has made a concerted effort to bring education in environmental health to other areas of the world, often where it is most needed. In 1998, he developed a graduate-level course in Environmental and Health Risk Assessment and Management of Toxic Chemicals for the Chulabhorn Research Institute in Bangkok, Thailand. More recently, he also has developed an Advanced Environmental Health Sciences for the doctoral training program at the Chulabhorn Research Institute. Finally, Professor Autrup has extended his global outreach and has been invited to give lectures and present executive-level short courses on risk assessment and toxicology by professional organizations in Uganda, Zimbabwe, Kenya, Bolivia, Thailand, Vietnam, and Bhutan.

Dr. Autrup serves as an Associate Editor of *Toxicological Sciences* and has been a member of SOT since 1998.

The Society is pleased to present Dr. Autrup with the 2014 Education Award.

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## **SOT 2014 Undergraduate Educator Award Recipient Is William D. Atchison**



William D. Atchison, PhD, is awarded the Society of Toxicology (SOT) 2014 Undergraduate Educator Award. Dr. Atchison received his PhD in Pharmacology from the University of Wisconsin, School of Pharmacy. Currently, he serves as Associate Dean for Research and Graduate Studies, College of Veterinary Medicine, Michigan State University. There he received the MSU Distinguished Faculty Award, which is among the highest honors bestowed upon faculty members. Dr. Atchison’s research has resulted in over 95 articles in the peer-reviewed literature and 14 book chapters. During his tenure, he has trained 17 PhD students, 6 graduate students, and more than 100 undergraduate students.

Dr. Atchison’s passion is to provide opportunities for undergraduate education in the biomedical sciences coupled with research experiences aimed at under-represented minority students. In collaboration with the University of Puerto Rico, he developed and established an National Institutes of Health (NIH), National Institute of Neurological Disorders and Stroke (NINDS)-funded R25-Diversity Education grant that provides research experiences for Hispanic undergraduates, since 2005. Dr. Atchison makes annual visits to campuses of the University of Puerto Rico to recruit/interview students for the program. Many of these students have gone on to participate in SOT’s Annual Meeting by presenting their research. To date, 40 undergraduate students have received training through this program. Similarly, Dr. Atchison has received funding from Michigan State University’s College of Veterinary Medicine to initiate a smaller program for preveterinary students.

Dr. Atchison has been very active member of SOT. He has served on the SOT Scientific Program Committee and as

Secretary/Treasurer and then President of the Neurotoxicology Specialty Section. Furthermore, he is a recipient of the 2003 SOT Astra Zeneca Travelling Lectureship Award.

At the SOT Annual Meeting, Dr. Atchison contributes yearly to the Undergraduate Education Program that serves under-represented minority students.

The Society is proud to present Dr. Atchison with the 2014 SOT Undergraduate Educator Award.

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## **David L. Eaton Receives the 2014 SOT Public Communications Award**



David L. Eaton is the recipient of the Society of Toxicology (SOT) 2014 Public Communications Award. Dr. Eaton is Professor of Environmental and Occupational Health Sciences and Dean and Vice Provost of the Graduate School at the University of Washington (UW), in Seattle, Washington. He also has served as the Director of the National Institute of Environmental Health Sciences (NIEHS) P30 Center for Ecogenetics & Environmental Health at the UW since 1995, and currently Chairs the Research Committee of the Health Effects Institute.

Dr. Eaton has and continues to communicate understanding of toxicology to a broad community of non-toxicologists. He has served as an ambassador of Toxicology in many circles and helped to promote the standing of toxicology and environmental health sciences throughout the world. In addition to his many scientific contributions, Dr. Eaton was one of the pioneers in recognizing the importance of disseminating the message of toxicology to the public and launched one of the first community outreach and education programs in environmental health in the nation.

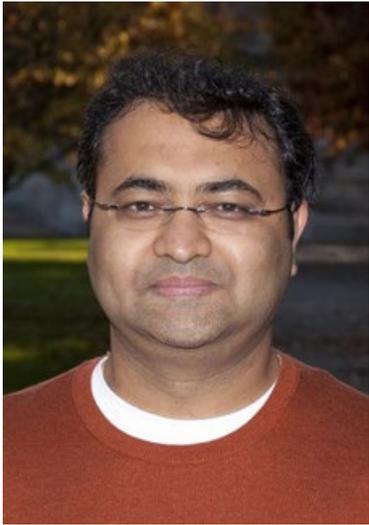
Dr. Eaton has authored 115 peer-reviewed publications and 40 book chapters, including the “Principles of Toxicology” chapters in Casarett and Doull’s Toxicology, Rosenstock and Cullen’s Textbook of Occupational and Environmental Medicine, and Sipes, McQueen et al. Comprehensive Toxicology series. Relevant to this award, he has an additional 17 general education articles that target audiences outside of Toxicology. He reached out to the legal community providing presentations to law students and has publications directly relevant to lawyers. Some attorneys and judges tout Dr. Eaton’s article “Scientific judgment and toxic torts: A primer in toxicology for judges and lawyers” as the definitive source on adjudicating expert testimony and determining whether acceptable scientific practices have been followed in tort cases. He has served on numerous National Academy of Sciences/National Research Council committees, helping to communicate scientific advice to federal agencies and organizations, often related to controversial areas in toxicology.

Dr. Eaton has been very active in the leadership of the SOT. Appropriately, he first began as a member of the Committee on Public Communications. From there he served on various committees including the Membership and Finance as well as the Board of Publications. In addition, he has been a member of many other advisory boards, task forces, and working groups. He received the SOT Achievement Award in 1993. He has the distinction of having served on the Society’s Council as SOT Secretary and 2001–2002 SOT President. Dr. Eaton has been a Fellow of the Academy of Toxicological Sciences since 2000 and a Fellow of the American Association for the Advancement of Science since 2003. He was recently elected to the Washington Academy of Sciences and in 2011 was elected to the Institute of Medicine of the National Academies.

The Society is pleased to present Dr. Eaton with the 2014 Public Communications Award.

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## **SOT 2014 Leading Edge in Basic Science Award Presented to Vishal S. Vaidya**



Vishal S. Vaidya is awarded the Society of Toxicology (SOT) 2014 Leading Edge in Basic Science Award. Dr. Vaidya received his PhD in Toxicology from the University of Louisiana in 2003. As an Assistant Professor at Harvard Medical School, he leads the Systems Toxicology Program within the Harvard Program in Therapeutic Sciences and directs the Laboratory of Kidney Toxicology and Regeneration at Brigham and Women's Hospital.

His work in the past five years will change the way textbooks are written and science is conducted with respect to deploying biomarkers for monitoring kidney damage. Dr. Vaidya challenged the fundamental mechanism of kidney toxicity regarding injury assessment and developed, evaluated, and validated novel tools for biomarker detection applicable from bench to bedside, comparing the remarkably consistent sensitivity and specificity of urinary Kim-1 over several other potential biomarkers in a large number of collaborative studies. These studies are going to have a very significant impact on the way we monitor for kidney toxicity in drug development and in the clinic.

The outcome of his work in collaboration with the Predictive Safety Testing Consortium is such that Kim-1 is now accepted by US, European, and Japanese regulatory agencies as a suitable marker of kidney injury to be used in drug discovery. Currently, he is exploring the role of fibrinogen and related molecules and miRNA's as possible mechanistic markers of kidney injury in humans.

In 2011, Dr. Vaidya was awarded the Outstanding New Environmental Scientist Award by the National Institute of Environmental Health Sciences (NIEHS) and in 2013, he was chosen to be one of six North American scientists to receive the Innovation in Regulatory Science Award from Burroughs Wellcome Fund. Dr. Vaidya has been a member of the Society since 1999. During this time he has served as a member of the Career Resources and Development (CRAD) Committee (2006–2009) and Continuing Education Committee (2011–2014). He also has served as a Councilor to the SOT Northeast Regional Chapter.

The Society is pleased to present Dr. Vaidya with the 2014 Leading Edge in Basic Science Award.

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## **Timothy D. Phillips Receives the 2014 SOT Translational Impact Award**



Timothy D. Phillips is the recipient of the Society of Toxicology (SOT) 2014 Translational Impact Award. Dr. Phillips is a Distinguished Professor and holds the Reed Endowed Chair in Toxicology at Texas A&M University. Since joining the faculty in 1979, he has published more than 185 papers.

Dr. Phillips' pioneering research in the US and Africa has established that dioctahedral smectite clays, used as Ancient Medicine more than 2,000 years ago, can bind and render harmless food-borne contaminants such as aflatoxin B1. These toxins have been strongly associated with disease and death in people, particularly infants and children in developing countries. The findings from his research are directly relevant to high risk populations (animals and humans) who suffer the consequences as a result of frequent dietary aflatoxin exposure. This work is expected to improve food and feed safety, quality, and security for greater than 4.5 billion people and their animals living in climates conducive to the growth of fungi.

His ongoing translational work in the US and Africa has confirmed the safety, palatability, and efficacy of field-practical, clay-based strategies. The delivery of a therapeutic dose of clay has been established using common foods and nutritional supplements. Further developments of his research have resulted in wide-ranging implications for the prevention of chemotherapy-induced diarrhea and the treatment of chronic gastrointestinal illness.

Additionally, Dr. Phillips teaches future toxicologists on the subjects of Food Toxicology, Scientific Ethics and Chemical Hazard Assessment. He is an internationally recognized leader in Food Safety and Toxicology, and has served on panels for numerous International Organizations and Academic Institutions worldwide.

Dr. Phillips has been a member of SOT for over 30 years. During this time, he served on the SOT Nominating Committees (1982–1983) and also was the President of the Lone Star Regional Chapter (formerly known as the Gulf Coast Chapter).

The Society is pleased to present Dr. Phillips with the 2014 SOT Translational Impact Award.

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## **Richard E. Peterson Receives 2014 Distinguished Toxicology Scholar Award**



Richard E. Peterson is the recipient of the 2014 SOT Distinguished Toxicology Scholar Award. Dr. Peterson currently serves as the Charles Melbourne Johnson, Distinguished Chair in Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin-Madison. He received his PhD in Pharmacology in 1972 from Marquette University School of Medicine, Milwaukee, Wisconsin.

Dr. Peterson has made a number of seminal contributions in the areas of reproductive and developmental toxicology, ecotoxicology, cardiovascular toxicology, and risk assessment. He helped to develop and apply TEQ approaches to real-world scenarios resulting in a tremendous positive societal benefit. He determined, for the first time, that lake trout embryos in Lake Ontario were exquisitely sensitive to dioxin and dioxin-like compounds. Moreover, he predicted that if the environmental contaminant levels declined, the population would thrive. The breeding recovery in Lake Ontario lake trout that has taken place is consistent with the decrease in dioxin and dioxin-like compounds.

Furthermore, Dr. Peterson observed that the cardiovascular system was the primary target of these compounds in fish embryos. This led his group to establish zebrafish as a model for developmental toxicity. Recent efforts have demonstrated that dioxin impacts the development of the cardiovascular and craniofacial system by altering the expression of well-conserved genes opening up opportunities for rapid translational studies. His work has led to a paradigm shift to allow the use of aquatic models for human health related research and has laid a path for scientists to follow. His research on dioxin in fish, birds, and mammals demonstrated that embryo and/or fetal exposure is far more susceptible to dioxin toxicity than adult exposure. These findings enhanced recognition of the risk that embryonic exposure to dioxin poses to fish and wildlife populations and to children's health and revealed how little is known about environmental factors, such as dioxin, in the fetal basis of adult disease.

The Society is pleased to present Dr. Peterson with the 2014 SOT Distinguished Toxicology Scholar Award.

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## **B. Bhaskar Gollapudi Announced as Recipient of 2014 SOT Arnold J. Lehman Award**

The Society of Toxicology (SOT) announces that B. Bhaskar Gollapudi is the recipient of the 2014 SOT Arnold J. Lehman Award. He received his PhD degree in Biology from the Dalhousie University, Canada, and is currently a Senior Managing Scientist in Exponent's Health Sciences Center for Toxicology and Mechanistic Biology. Dr. Gollapudi specializes in genetic toxicology and chemical carcinogenesis with emphasis on the identification of mode of action and human relevance. He has made many contributions to the field of Genetic Toxicology



including the development of novel approaches for assessing genotoxicity, integration of contemporary molecular biology techniques to understand the mode of genotoxic action, and more importantly in leading the push for a paradigm shift in the dogma that there are no thresholds for genotoxic chemicals.

Currently, he is leading an effort under the auspices of the International Workshops on Genotoxicity Testing (IWGT) to standardize a new *in vivo* gene mutation assay (Pig-a) that can be easily integrated into any repeat dose toxicity studies. Dr.

Gollapudi has contributed to the area of transgenic animal models for mutagenicity

and carcinogenicity assessment and spearheaded their validation in the chemical/agrochemical industry to inform risk assessment. His focus has been on the application of genetically engineered animal models for the identification of mode of action and human relevance of toxicology findings. In recent years, Dr. Gollapudi contributed to the emerging field of epigenetics by critically evaluating its role in product safety assessment and investigating potential markers predictive of adverse toxicological outcomes. He has applied the latest technologies in the safety assessment of a diverse portfolio of substances.

Dr. Gollapudi has been a member of SOT since 1998. He has been very active within the Society having served as an Associate Editor of *Toxicological Sciences* (2005–present); a member of the SOT Scientific Program Committee (2011–2015); and a member of SOT Career Resources and Development (CRAD) Committee (2007–2010).

The Society is pleased to present Dr. Gollapudi with the 2014 Arnold J. Lehman Award.

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## Matthew J. Campen Announced as Recipient of SOT 2014 Achievement Award



The Society of Toxicology (SOT) announced that Matthew J. Campen is the recipient of the 2014 SOT Achievement Award. Dr. Campen received his PhD degree from the Department of Environmental Science and Engineering at the University of North Carolina at Chapel Hill, School of Public Health, in 2000. He joined the faculty of the University of New Mexico, Albuquerque, in 2009 and is an Associate Professor, Pharmaceutical Sciences Department, College of Pharmacy.

Dr. Campen has established methods to assess mode of action of vascular dysfunction and mediator-based injury. He has developed an innovative approach *in vitro* where he can use rodent blood vessels as a biometric tool to detect and assess mediators that arise in the serum humans exposed to ozone or particulate matter (PM). His laboratory is unique in its ability to explore acute vascular injury and the pathogenesis of atherosclerotic disease due to chronic air pollution exposure.

He has contributed a great deal to our understanding of how airborne toxicants, such as PM and ozone, cause systemic vascular insult. His most recent work has shown that, in both rodents and humans, exposure to inhaled pollutants can induce compositional changes in the blood that leads to inflammatory responses in the systemic vasculature, which is effectively the initiating step in atherosclerosis. Additionally, Dr. Campen has contributed to regulatory efforts by the US Environmental Protection Agency, writing sections on cardiovascular health outcomes related to carbon monoxide and PM for recent Integrated

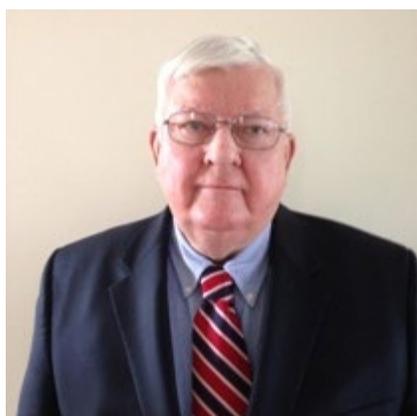
Science Assessments.

Dr. Campen has been a member of SOT since 2002. He received the Mary O. Amdur Award for Environmental Inhalation Toxicology in 1999 and the Young Investigator Award in 2013, both from the Inhalation and Respiratory Specialty Section. He served in the presidential chain for the Mountain West Regional Chapter of SOT (2005–2007) and was a member of the SOT Disease Prevention Task Force (2008–2011). In addition, Dr. Campen was President and a Founding Officer of the Cardiovascular Specialty Section (2010–2012). He currently serves on the Board of Publications (2012–2016, Co-Chair, 2013). Dr. Campen served with distinction as the interim Co-Editor-in-Chief of *Toxicological Sciences* during this past year.

The Society is pleased to present Dr. Campen with the 2014 SOT Achievement Award.

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## **John A. Thomas Receives 2014 SOT Founders Award**



John A. Thomas, PhD, DATS, FACT, is awarded the Society of Toxicology (SOT) 2014 Founders Award. Dr. Thomas received his PhD from the University of Iowa in 1961. Currently, he is a Professor Emeritus in the Department of Pharmacology at the University of Texas Health Science Center-San Antonio, as well as an Adjunct Professor at the Indiana University School of Medicine, Indianapolis.

Throughout his distinguished career, Dr. Thomas's contributions to toxicological sciences have been in many different areas ranging from the safety of nutrients and food ingredients to pharmaceuticals, diagnostics, health promoting agents, and environmental chemicals. These achievements have been highly recognized by his peers and the scientific community. He continues to be an educator and a scientist, and the discipline of toxicology will continue to benefit from his vision and leadership. During his years in academia, he mentored undergraduate and graduate students, postdoctoral fellows, and numerous colleagues.

In addition to his several decades as an educator in the United States and internationally, Dr. Thomas has volunteered his expertise as a member of various governmental science boards and advisory committees, on various editorial boards, and has provided his expertise as a consultant to the US Food and Drug Administration (US FDA), National Academy of Sciences, and the Department of Defense. Dr. Thomas is a Past President of the Academy of Toxicological Sciences and the American College of Toxicology (ACT). He is a Fellow in the American College of Toxicology and the Russian Academy of Medical Sciences

As a member of SOT since 1971, Dr. Thomas has served as an SOT Continuing Education Lecturer (1983, 1985, and 1988); SOT Councilor (1985–1987); President of two Regional Chapter Executive Committees: Midwest Chapter (1988) and Gulf Coast Chapter (now Lone Star Chapter—1998); and as the SOT Education Committee Chair (2000). He is the recipient of multiple prestigious awards including the SOT Merit Award (1998) and both the Commissioner's and Distinguished Service Awards from the US FDA.

The Society is pleased to further recognize Dr. Thomas with the 2014 Founders Award.

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## **SOT Appreciates the Generous Contributions of the 2014 Annual Meeting Supporters**

The Society of Toxicology Annual Meeting is the largest scientific meeting of toxicologists in the world and the 53rd Annual Meeting will draw thousands of attendees. Becoming a supporter of this important gathering demonstrates your organization's commitment to SOT's mission of "creating a safer and healthier world by advancing the science of

toxicology.”

There are many opportunities to [become a supporter](#) for the meeting to be held March 23–27, 2014, in Phoenix, Arizona, at the Phoenix Convention Center.

Being a [supporter](#) provides an opportunity for better name recognition of your organization among SOT members and the Annual Meeting attendees and helps keep registration fees low, enabling the Society to attract over 6,500 scientists and industry professionals from academia, industry, and government—at all stages of their careers—and from around the globe. Many of these attendees are directly involved in the application of toxicology and related sciences to human health and disease prevention. Five levels of supporters are offered, with the higher levels providing greater visibility for your organization.

The categories are indicated below as follows:

- Diamond (\$10,000 and more)
- Platinum (\$5,000–\$9,999)
- Gold (\$2,500–\$4,999)
- Silver (\$2,000–\$2,499)
- Contributor (\$1,000–\$1,999)

Supporters are listed in publications related to the Annual Meeting, including the final *Program*, pre- and post-meeting newsletters, and the *ToxExpo Directory*. In addition, Annual Meeting Supporters are listed on the SOT Annual Meeting website, an essential go-to source of information for all registrants. In appreciation for their support of the Society, they are invited to the SOT President’s Reception.

Your support also will help offset the cost of functions such as the Undergraduate Education, Program, K–12, and other Public Outreach activities, Student/Postdoctoral Scholar Events, Continuing Education Program, refreshments, and the Welcoming Reception. If you are interested in becoming an SOT Supporter, contact [Ray Luca](#) 703.435.3115 ext.1454.

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## **ToxExpo—A Great Opportunity for Exhibitors**

ToxExpo is an exceptional opportunity for suppliers to present cutting-edge technology and crucial toxicology-related services available to the scientific research market. We are expecting more than 6,500 scientists and industry professionals to attend the Society of Toxicology’s 53th Annual Meeting and ToxExpo to be held March 23–27, 2014, Phoenix, Arizona.

ToxExpo provides a great opportunity for face-to-face meetings, building relationships with new prospects, connecting with current clients and customers, and networking with other exhibiting companies.

### **[Online Exhibitor Listings](#)**

Exhibitor Listing Enhancements provide dynamic online profiles including hyperlinks, logos, show specials, products videos, and more!— Save 10% when ordered with your 2014 booth space!

ToxExpo [exhibitors are listed online](#) year-round to increase your visibility and exposure to your target audience. It’s a rich resource for all the services and products toxicologists need throughout the year. For more information on exhibiting at the largest toxicology trade show in the world, please visit [ToxExpo.com](#) or contact [Ray Luca](#) or call him at 703.438.3115 ext.1454.

### **[Exhibitor-Hosted Sessions](#)**

This is a great opportunity for ToxExpo Exhibitors to provide detailed information about products and services to meeting attendees. These one-hour sessions take place on Monday, Tuesday, and Wednesday. All interested companies must submit an application for review and approval. Reserve your slot now... These session slots fill very quickly. For more information, please visit [ToxExpo.com](http://ToxExpo.com) or contact [Laura Helm](#) or call her at 703.438.3115 ext. 1403.

ToxExpo 2014 exhibit hours are as follows:

- Monday, March 24: 9:00 AM–4:30 PM
- Tuesday, March 25: 8:30 AM–4:30 PM
- Wednesday, March 26: 8:30 AM–4:30 PM

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## **SOT 2014 Annual Meeting Exhibitor-Hosted Sessions—A Direct Connect**

Exhibitor-Hosted Sessions provide exhibitors and attendees with an hour of dedicated one-on-one time in which exhibitors feature their latest products, services, and research. These sessions provide exhibitors with an unparalleled opportunity to garner the attention of busy attendees. Booking early ensures optimal exposure! [Schedule your session](#) today in preparation for the SOT 53rd Annual Meeting to be held March 23–27, 2014 in Phoenix, Arizona.

For more information, please contact Exhibits Manager [Laura Helm](#).

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## **SOT 2014 Annual Meeting Abstract Deadline Extended to October 16**

The Society of Toxicology (SOT) Council and the Scientific Program and Continuing Education Committees are excited about the excellent science scheduled for the 2014 SOT Annual Meeting in Phoenix, Arizona on March 23–27, 2014. In addition, we are looking forward to receiving and scheduling comprehensive poster and platform sessions. In light of the shutdown of the US Federal Government beginning on October 1, we have extended the abstract submission deadline from the original date of October 7, 2013 until Wednesday, October 16 at 11:59 pm (EDT).

We encourage you to submit your abstract by October 7 if possible. However, we hope that the extension will enable you to submit your research for presentation at the meeting in light of the current uncertainties. Please note that if you cannot meet even the extended deadline, there will be another abstract submission deadline in January. All abstracts accepted at this January deadline will be scheduled for a poster presentation on Thursday, March 27, 2014 and will be included in an electronic-only supplement to the printed *Toxicologist*.

Information about submitting an abstract is available on our [2014 Annual Meeting website](#). If you have any questions regarding the abstract process, please contact [April Brewer](#) at SOT Headquarters at 703.438.3115.

We encourage you to share this information with your colleagues. As a reminder, as an SOT member there is no limit on the number of abstracts that you can sponsor, but you may be listed as a presenting author on only one abstract.

We look forward to welcoming you to Phoenix, Arizona, for the Annual Meeting that will take place from March 24–27, 2014.

Sincerely,

Lois D. Lehman-McKeeman, PhD, ATS  
SOT President

Norbert E. Kaminski, PhD  
SOT Vice President and Scientific Program Committee Chairperson, 2013–2014

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## Third Annual SOT Mentoring Breakfast Set for March 24 in Phoenix: Event Limited to 60 Mentees

The SOT Mentoring Breakfast Planning Committee is thrilled to announce the 3rd Annual SOT Mentoring Breakfast, to be held at the 53rd Annual Meeting in Phoenix, Arizona! This is an opportunity for those interested in developing relationships with career mentors. Attendees will:

1. Gain insights to the successful development of a constructive mentoring relationship
2. Provide us with information about what they are looking for in a mentor
3. Be personally matched with a mentor who is an SOT member

The SOT Mentoring Breakfast will be held on Monday, March 24, 2014, from 6:15 am–7:45 am. The event is limited to 60 mentees on a first-come, first-served basis. An attendance fee of \$10 includes a continental breakfast.

**Please note:** Only mentees interested in being matched with a mentor should register for this event. Matching of the registered mentees with a mentor will take place shortly following the Annual Meeting. If you are interested in being considered as a mentor, please sign up through the [SOT Mentor Match](#).

Interested mentees can sign up for the SOT Mentoring Breakfast through the [SOT Online Registration](#).

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## Invitation to Participate in SOT Chat with an Expert in Phoenix

The Graduate Student Leadership Committee (GSLC) is extending an invitation to participate in this year's "Chat with an Expert" (CWAE) program. CWAE provides the opportunity for graduate students and postdoctoral fellows to meet with expert toxicologists at the 2014 Annual Meeting in Phoenix. Feedback from participants is very positive every year, and we encourage your participation as an expert to lead a meeting with graduate students and/or postdocs.

During the registration process, experts will choose a date, time, and location for a meeting that is convenient for their schedule. Graduate students and postdocs then will be able to select experts based on research, professional interests, and time availability.



Each expert, who will be assigned no more than 3 students, will receive brief backgrounds on these students before the meeting. The CWAE meeting can include a meal (breakfast, lunch, or dinner), be a chat over coffee or snack, or simply an informal exchange in a relatively quiet area of the Phoenix Convention Center. If an expert decides to meet during meal times, each person in the group is responsible for his or her expense. Pictured above are Students and Postdocs signing up for CWAE at the 2013 Mixer held in conjunction with the SOT 52nd Annual Meeting in San Antonio, Texas.

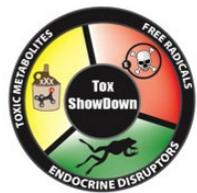
**Experts:** Experts are asked to register by February 28, 2014. Expert toxicologists can [sign up now](#) for this popular program.

**Students and Postdocs:** A separate registration link will be sent to you in early March after Expert registration has closed.

For more information on "Chat with an Expert," please visit the [SOT website](#).

Sincerely,

## There's Gonna be a ShowDown...



The Graduate Student Leadership Committee (GSLC)-sponsored Tox ShowDown, to be held on Tuesday evening, March 25, 2014, is an engaging quiz game patterned off the popular long-running show *It's Academic*. Three teams (The Endocrine Disruptors, The Free Radicals, The Toxic Metabolites) of contestants compete at answering questions concerning toxicology, not only in its scientific context, but also as it relates to society, history, the arts, and culture. The Tox ShowDown creates a truly festive atmosphere allowing the audience to participate with the teams. A cash bar will be available. Pictured on the right, Phil Wexler stumps the teams and the audience with a question at

the 2013 Tox Showdown

Tox ShowDown debuted at the 2012 SOT Annual Meeting thanks to the efforts of volunteers such as those pictured, including from right to left: Jessica Placido, Sue Ford, Phil Wexler, as well as the Winning Team of Toni Hayes, Lou Trombetta, and Peter Goering, and Judge Marion Ehrich.



Although we are holding this competition in the air conditioned comfort of the Sheraton Hotel in Phoenix, Arizona, sweat is sure to trickle down your brow no less profusely than if you were standing under the noonday Tombstone sun, as you struggle to answer challenging, enigmatic, and sometimes simply unanswerable questions.

If you are among the hardy and the foolhardy, the wise and the wiseguys, or the unflappable and the flabbergasted, we want you to volunteer as a contestant. Let's face it, you've done crazier things in your life or, if you haven't, here's your chance. Think of it as a toxicologist coming of age quest.



Those who attended the 2013 Tox ShowDown in San Antonio will agree (despite the presence of the occasional rubber snake scattered in the room)—the ShowDown is a shootin' good time. Door prizes are raffled off, and the winning team receives prizes that range from restaurant gift cards to toxicology books. Pictured on the right, The Free Radicals, winners of the 2013 Tox ShowDown.

*Be a contestant and head for the ShowDown...* If you are interested in becoming a contestant on one of the teams, please email [Alessandro Venosa](#), GSLC Secretary, [Phil Wexler](#), or [David Rossé](#) today!

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Sincerely,

Lois D. Lehman-McKeeman, PhD, ATS  
SOT President

Norbert E. Kaminski, PhD  
SOT Vice President and Scientific Program Committee Chairperson, 2013–2014

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## **SOT PDA 2014 Best Postdoctoral Publication Award—Apply by October 9**



*Submitted by Colleen McLoughlin Vice Chair, SOT Postdoctoral Assembly (PDA)*

The work of postdoctoral trainees advances new discoveries and knowledge to address the important questions in toxicological sciences. Each year the Postdoctoral Assembly (PDA) is proud to recognize the outstanding toxicological research published by SOT postdoctoral members through The Best Postdoctoral Publication Awards (BPPA). In this way, the PDA recognizes the contributions of postdoctoral fellows to the science of toxicology.

The PDA is pleased to announce the 2014 BPPAs, recognizing outstanding postdoctoral researchers who have recently published papers in the discipline of toxicology as a result of the work conducted during the postdoctoral research experience. The PDA encourages all SOT members to identify and nominate postdoctoral scholars who have contributed to the advancement of toxicology and have had their novel findings published in peer-reviewed papers (online, in print, or in press) in the timeframe designated below.

The PDA Board, in collaboration with subject matter experts in the appropriate fields, reviews all applications. The review process follows the National Institutes of Health conflict-of-interest policy, confidentiality, and nondisclosure policies. Three awards each will be presented at the PDA Luncheon during the SOT 2014 Annual Meeting in March. Three awardees receive a check for \$250 and a plaque recognizing their achievement.

Further information, last year's winners, and application materials for these awards can be found on the [Best Postdoctoral Publication Awards section](#) of the SOT website. For any questions, please contact me at [Colleen McLoughlin](#).

Eligibility for 2014 Nominations

- The research reported in the paper was conducted while the applicant was engaged in a postdoctoral research experience.
- Applicant should be a member of SOT or membership application submitted by award application deadline.
- First author on a peer-reviewed paper published online, in print, or in press between October 1, 2012 and September 30, 2013.
- Review articles will not be accepted unless they contain unique data, methods, and/or analysis (meta-analyses, decision analysis, etc.).
- Co-first authored papers will be accepted with clear delineation of applicant's effort.
- Application supported by letter from the research advisor.
- Only one publication may be submitted by each applicant.
- PDA Board member may apply, but will not be permitted to participate in the award selection process.

Applications are due by 12:00 midnight Eastern Time on October 9, 2013.

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## SOT Online Continuing Education: 32 Courses Now Available!

Expand your professional development through *CEd-Tox*, the SOT online Continuing Education program.

Thirty-two courses are currently offered, covering important topics such as Cardiovascular Toxicology, *In Vitro* Methods, Metals, and Risk Assessment.

Graduate Student and Postdoctoral SOT Members, as well as scientists based in developing countries, receive complimentary access to all courses.

We invite you to visit the [SOT website](#) for full information on these courses, presented at the the 2009 through 2013 SOT Annual Meetings.

The refined search engine allows you to search for courses by year, title, topic, and speaker.

Written transcriptions are available with registration to select *CEd-Tox* courses.

### Science News

## Science News Alert—Upcoming Meetings

Below are a number of SOT-sponsored meetings and events that may be of interest to you. For more information, contact the organizers directly.

### FutureTox II CCT, January 16–17, 2014: Registration Is Open

The FutureTox II: *In Vitro* Data and *In Silico* Models for Predictive Toxicology Contemporary Concepts in Toxicology (CCT) conference will be held January 16–17, 2014, at the William and Ida Friday Center for Continuing Education, University of North Carolina, Chapel Hill, North Carolina. The conference aims to address the pathway-based strategy by bringing together basic research into a congress that integrates newer *in vitro* methodologies and computational (*in silico*) modeling approaches with advances in systems biology. An overarching goal is to clarify the usefulness and validity of new and emerging technologies and approaches so that expectations can be managed in both the regulatory and regulated scientific communities. There will be ample opportunities to network with experts in this fast changing growth area.

Some aspects of this topic were covered in the October 2012 FutureTox CCT meeting. This FutureTox II CCT will provide a forum for a detailed scientific discussion of how the biological pathways of interest will be elucidated, characterized, and qualified for pathway-based risk assessment. Breakout groups will address four key areas: Regulatory

Toxicology, Liver Disease and Hepatotoxicity, Developmental/ Reproductive Toxicity, and Cancer. There is global interest in “Adverse Outcome Pathways” (AOPs) as a conceptual framework for mode-of-action approaches in these four areas. Focusing the CCT on scientific issues where new methodologies and advances can move us beyond reliance on animal models will benefit all researchers and regulators as a way of identifying key questions that need research. For additional information and to register, please visit the [FutureTox II CCT website](#).

### **Teratology Society 54th Annual Meeting—Abstract Deadline February 15**

The theme of the 54th Annual Meeting of the Teratology Society is “Pushing the Boundaries of Birth Defects Research” that will highlight the latest scientific information and technology in birth defects and developmental disabilities research. The meeting also will feature special programs for the next generation of birth defects researchers including a workshop on building a career in developmental toxicology and a NEW Student Innovative Design Competition for improving prenatal development and child health. This competition invites bioengineering students and other students to imagine novel solutions to technical problems in the broad field of teratology—encompassing anything from a new measurement technique for exposure to environmental contaminants during pregnancy to a wireless method for assessing fetal health. Symposia topics include early prenatal diagnosis of birth defects, testicular dysgenesis syndrome, epigenetics, and thrombosis during pregnancy. The interdisciplinary nature of the Society provides unique opportunities to look broadly at these complex issues. The 54th Annual Meeting of the Teratology Society will be held June 28–July 2, 2014, in Bellevue, Washington, located on the eastside of Seattle. For more information, visit the [Teratology Society Annual Meeting website](#).

### **Society of Toxicologic Pathology Modular Education Course: Reproductive System Pathology, April 6–9, 2014, Chauncey Conference Center, Princeton, NJ**

The Society of Toxicologic Pathology (STP) is pleased to announce Reproductive System Pathology, the second course in its modular education series. This series is modeled on the highly regarded and successful British Society of Toxicological Pathology (BSTP) Modular Education courses. The objective of this course is to educate individuals in the principles of toxicologic pathology of the reproductive system. The course will bring together attendees and world-renowned subject experts for didactic lectures and practical sessions including whole-slide digital images and data sets. The course will be held over three days in an environment that facilitates an intensive learning experience. Practical evaluation and interpretation of toxicologic pathology data will be emphasized.

The STP modular education courses are designed with the novice toxicologic pathologist in mind; however, pathology residents/graduate students with an interest in toxicologic pathology or experienced pathologists who desire a more in-depth review in reproductive pathology also will benefit from this course. In addition, nonpathologists with an interest in the histology, pathology, or toxicology of the reproductive system also will benefit from this course. For more updated course information and registration, please visit [course website](#).

### **Society of Toxicologic Pathology 33rd Annual Symposium, June 22–26, 2014**

“Translational Pathology: Relevance of Toxicologic Pathology to Human Health” is the theme of the Society of Toxicologic Pathology (STP) 33rd Annual Symposium, which will be held June 22–26, 2014, at the Marriott Wardman Park Hotel in Washington, DC. Topics will include the predictive value of nonclinical models and how animal models and human endpoints inform each other, progress in the development of new nonclinical animal models and other types of models, emerging technologies that have the potential to improve translational capabilities, the role and utility of epigenetic endpoints in toxicologic pathology and their relevance to human health, how pathology outcomes inform human health assessments and regulatory decisions, and the challenges of developing translational models that provide useful information on human populations with comorbidities. By the end of this symposium, the audience will have a better understanding of current trends and data needs in translational pathology and how the field can leverage expertise and tools to meet these needs.

The scientific sessions on Tuesday, June 24, have been designed in response to requests from the Federal regulatory community. US Government employees may register by June 1 to attend Tuesday sessions at no charge.

An interactive pre-meeting National Toxicology Program (NTP) Satellite Symposium will be held on Saturday, June 21, and four Continuing Education (CE) Courses will be offered on Sunday, June 22.

Visit the [2014 STP Annual Meeting website](#) for additional meeting details on exhibits, sessions, CE courses, and special events.

## **Environmental Mutagenesis and Genomics Society 45th Annual Meeting—September 13–17**

The 45th Annual Meeting of the Environmental Mutagenesis and Genomics Society (EMGS) will be held September 13–17, 2014, at the Hilton Orlando Lake Buena Vista, in Orlando, Florida. This year's theme is "Integrating Environmental, Genomic, and Health Research." The meeting will provide a forum for the latest research on DNA damage and repair, mechanisms of mutagenesis, epigenetic regulation, and their contributions to environmentally-induced human disease. In addition, current regulatory issues and risk assessment strategies will be discussed. EMGS is unique in that it provides a platform for the cross-disciplinary integration of basic and applied sciences that provide an understanding of the impact of genetic toxicity on human populations. The goals of this meeting are to (1) build on our past contributions to the field of environmental and molecular mutagenesis and DNA repair and more fully understand the role of epigenetics in these basic mechanisms; (2) integrate applied genetic toxicology with basic research in DNA damage and repair, toxicogenomics, and epigenetics; (3) determine how emerging technologies can lead to a better understanding of environmentally-induced genetic disease; (4) have these data serve as a foundation for human risk assessment for disease and disease prevention; and (5) aid in the support of knowledge-based regulation to protect public health and the environment. This is a meeting not to be missed. For additional information, visit the [EMGS 2014 Annual Meeting website](#).

## **Safety Pharmacology Society Annual Meeting, October 19–22, 2014, Washington, DC**

The Safety Pharmacology Society (SPS) 14th Annual Meeting will be held October 19–22, 2014, in Washington, DC and will provide a dynamic forum for sharing the latest in safety pharmacology. The scientific program will offer in-depth discussions of relevant topics to keep you "in the know." This meeting will feature a diverse range of scientific sessions organized into two tracks, covering issues such as, Cardiovascular, Central Nervous System, Non Cardiac Ion Channels, Respiratory, Regulatory, New Assays, Peripheral Neuropathy, and an all day Plenary on Wednesday covering the Updates and Perspectives on Comprehensive *In Vitro* Proarrhythmia Assay (CIPA).

The meeting also will offer a full day of Continuing Education courses on October 19, both on an introductory level as well as advanced courses for the expert, and the Diplomate SPS (DSPS) Certification exam will be held the day before the meeting on October 18. For preliminary meeting information, please visit the [SPS website](#).

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SOT sponsors two types of meetings outside of the SOT Annual Meeting: [Contemporary Concepts in Toxicology \(CCT\)](#) and [Non-SOT meetings](#). CCT meetings are one- to two-day focused, open registration, scientific meetings in contemporary and rapidly progressing areas of toxicological sciences. Non-SOT meetings are sponsored by other not-for-profit organizations and SOT will either endorse or provide sponsorship money to toxicology-related meetings.

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## **Outstanding New Environmental Scientist (ONES) Award (R01)— Applications Due February 28, 2014**

The National Institute of Environmental Health Sciences (NIEHS) has announced a new Outstanding New Environmental Sciences (ONES) Award (R01). The ONES Award is intended to identify the most talented Early Stage Investigators (ESIs) who plan to make a long-term commitment to research in the environmental health sciences. This award is to assist them in launching an innovative research program focused on understanding of environmental exposure effects on people's health. Applicants are encouraged to apply early to allow adequate time to make any

corrections to errors found in the application during the submission process by the due date. For more information, please visit the [NIEHS website](#).

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## **Preparation for Proposals for the Robert Noyce Teacher Scholarship Program**

The Robert Noyce Teacher Scholarship Program seeks to encourage talented science, technology, engineering, and mathematics majors, and professionals to become K–12 mathematics and science teachers. Universities and two- or four-year colleges accredited in, and having a campus located in the United States, or consortia of such institutions, or US nonprofit entities that have established consortia among such institutions of higher education, may apply. The Principal Investigator (PI), or at least one Co-PI, must be a STEM faculty member in a mathematics, science, engineering, or computer science department. **The letter of intent is due on February 5 and full proposal on March 5.**

**You can view the Noyce Teacher Scholarship Program solicitation on the [National Science Foundation website](#).**

**The American Academy for the Advancement of Science (AAAS) and the National Science Foundation (NSF) will provide information about preparing proposals:**

- A day-long workshop on January 9, 2014, in Washington, DC at AAAS
- 90-minute webinars (3:00 pm–4:30 pm ET) on January 7 and 14, 2014

**To register for the workshop or webinar, please visit the [Robert Noyce Teacher Scholarship Program website](#).**

**Capacity Building Projects** support the development of new programs and activities to increase the capacity for institutions of higher education to provide innovative teacher preparation programs that enable increasing numbers of STEM majors and STEM professionals to become effective K–12 mathematics and science teachers and to develop the capacity to prepare Master science and mathematics teachers.

The **Noyce Scholarship Track** provides funds to support scholarships, stipends, and academic programs for undergraduat STEM majors and post-baccalaureate students holding STEM degrees who earn a teaching credential and commit to teaching in high-need K–12 school districts.

The **NSF Teaching Fellowship/Master Teaching Fellowship Track** provides funding to support STEM professionals who enroll as NSF Teaching Fellows in master’s degree programs leading to teacher certification by providing academic courses, professional development, and salary supplements while they are fulfilling a four-year teaching commitment in a high-need school district. This track also supports the development of NSF Master Teaching Fellows by providing professional development and salary supplements for exemplary mathematics and science teachers to become Master Teachers while they fulfill a five-year teaching commitment in high-need school districts.

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## **Bill & Melinda Gates Foundation To Open Next Round of Challenge Grants March 2014**

The Bill & Melinda Gates Foundation today announced the latest set of grant awards for the [Grand Challenges Explorations in Global Health](#) program, and the date for the opening of the next round of grant applications. Over 80 new grants of US\$100,000 each will be made to investigators from 14 countries through Grand Challenges Explorations, an initiative that funds innovative ideas to solve some of the greatest challenges in global health and development. In this round, grants were awarded for projects focusing on women smallholder farmers, neglected tropical diseases, condom development, linking data systems for development needs, and exploring the intersection of

human and animal health.

Also announced was additional funding of up to US \$1 million each for 13 existing Grand Challenges Explorations projects to enable grantees to continue to advance their ideas towards global impact.

For more details on these grants, please read the [press release](#) and the [grant summaries](#) and view a [photo gallery](#) highlighting some of these new projects. Grand Challenges Explorations Round 14 will open in March 2014. Please [sign up](#) to receive updates about this and other future grant opportunities.

For more information on the Grand Challenges family of grant programs, please see the latest issue of the [Grand Challenges Newsletter](#).

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## Scientific Liaison Coalition Approaches Fourth Anniversary with FutureTox II as Significant Outcome

As the Scientific Liaison Coalition (SLC) approaches its fourth anniversary, the SLC held a face-to-face meeting on October 2, 2013 in Reston, Virginia, to discuss next steps in the evolution of this group. The multidisciplinary approach of the SLC creates a unique forum for idea exchange, collaboration, and integration. Outcomes of SLC Working Groups have resulted in the development of scientific sessions convened at the Annual Meetings of a number of the participating societies. Moreover, the FutureTox II Contemporary Concepts in Toxicology (CCT) conference, Pathways to Prediction: *In Vitro* Data and *In Silico* Models for Predictive Toxicology is a major accomplishment of the SLC. All members of partnering societies (see below) can attend this FutureTox II meeting at the SOT member rate.

The mission of the SLC remains “*Improving the ability of societies to partner with other domestic and international organizations that have objectives consistent with the goal of increasing the impact of the science of toxicology to improve public health.*”

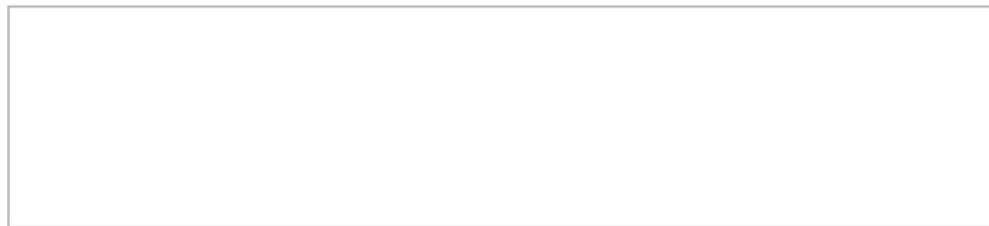
- Strengthening partnerships among scientific and health-based organizations to increase awareness of the impact of toxicology and related subjects on human health.
- Functioning as a means to enhance cooperation among societies as equals with the goal of accomplishing tasks benefiting human health and disease prevention through joint and several shared activities.

The SLC is comprised of sixteen diverse societies and representatives from ten of these groups attended the October 2 meeting, including the American Academy of Clinical Toxicology (AACT), American Chemical Society, Toxicology Division (ACS), American College of Toxicology (ACT), Environmental Mutagen and Genomics Society (EMGS), Safety Pharmacology Society (SPS), Society for the Study of Reproduction (SSR), Society of Toxicologic Pathology (STP), Society of Toxicology (SOT), and Teratology Society (Teratology). Other participating societies include the American Association for Cancer Research (AACR), American College of Medical Toxicology (ACMT), American Society for Pharmacology & Experimental Therapeutics (ASPET), The Endocrine Society (ENDO), International Society for the Study of Xenobiotics (ISSX), Society for Risk Analysis (SRA), and Society of Environmental Toxicology and Chemistry (SETAC).

The SLC identified a number of topics to be explored by Working Groups in 2014–2015 that include Forensic Toxicology, Translational Sciences, and Evolutionary and Environmental Toxicology. If you would like additional information about scientific society participation, please contact [Marcia Lawson](#).

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**December 2013 *Toxicological Sciences*, Vol 136, Issue 2 Now Is Online**



The December 2013, Vol. 136, Issue 2 of *Toxicological Sciences* is now available [online](#). To have the email Table of Contents (eTOC) alerts delivered to you as well as Advance Access notification of the latest papers and research in *Toxicological Sciences* as soon as they are accepted and posted to the website, please register [online](#).

The paper chosen for the Editor's Choice in this issue is [Endocrine Disruptors Differentially Target ATP-Binding Cassette Transporters in the Blood-Testis Barrier and Affect Leydig Cell Testosterone Secretion \*In Vitro\*](#) by Anita C. A. Dankers, Maarke J. E. Roelofs, Aldert H. Piersma, Fred C. G. J. Sweep, Frans G. M. Russel, Martin van den Berg, Majorie B. M. van Duursen, and Rosalinde Masereeuw. In the Editor's High, the Editor-in-Chief of Toxicological Sciences Gary Miller stated that: "Over the past several decades, there has been an increase in male infertility, and there is evidence that this may be due to exposure to environmental contaminants. The blood testis barrier represents a key line of defense for the delicate processes of spermatogenesis and steroid production. The barrier contains several transporters that regulate the movement of chemicals. In this paper, the authors report that the ATP-binding cassette transporters, including those that are responsible for transporting testosterone precursors (P-glycoprotein), may be a target of suspected endocrine disrupting chemicals, such as tetrabromobisphenol A. These findings suggest that evaluation of endocrine disrupting chemicals should consider effects on the blood testis barrier transporters."

*Toxicological Sciences*, the official journal of SOT, is among the most highly cited original research journals in Toxicology.

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## November 2013, No. 136, Issue 1 *Toxicological Sciences* Available Online

The November 2013, Vol. 136, Issue 1 of *Toxicological Sciences* is now available [online](#). To have the email Table of Contents (eTOC) alerts delivered to you as well as Advance Access notification of the latest papers and research in *Toxicological Sciences* as soon as they are accepted and posted to the website, please register [online](#).

The paper chosen for the Editor's Choice in this issue is [Development of an Adverse Outcome Pathway From Drug-Mediated Bile Salt Export Pump Inhibition to Cholestatic Liver Injury](#) by Mathieu Vinken, Brigitte Landesmann, Marina Goumenou, Stefanie Vinken, Imran Shah, Hartmut Jaeschke, Catherine Willett, Maurice Whelan, and Vera Rogiers. Associate Editor John Lipscomb states that:

"Improvements in human health risk assessment are necessary to reduce uncertainty and move toward a more quantitative estimate of risk. Several endeavors are making such improvements. The shift to include more detailed descriptions of the qualitative events underlying an adverse health outcome and the dose response evaluation of those events has necessitated a standardized manner in which the production of an adverse health outcome is characterized. Among the valuable recent advances is the Adverse Outcome Pathway. The AOP is a conceptual construct that portrays existing knowledge concerning the linkage between a direct molecular initiating event and an adverse health outcome at a biological level of organization relevant to risk assessment. Having developed this level of understanding, the human relevance of a mode of action or AOP can be ascertained. Given the differential distribution of bile salt export mechanisms between rodents and humans, the development of an AOP for bile salt export should aid the health risk assessments based on cholestatic liver injury. The developed AOP includes multiple specific mechanisms that may be interlinked within the AOP, thus indicating the value of developing an AOP for the sake of mixtures risk assessment, wherein chemicals are grouped according to similarities or independence in their modes of action. This manuscript presents the AOP for cholestatic liver injury initiated by bile salt export inhibition."

*Toxicological Sciences*, the official journal of SOT, is among the most highly cited original research journals in

## ***ToxSci* October 2013 Issue Online—Editorial by EIC Gary Miller “A Toxicological Transition”**

With the October 2013 issue of [Toxicological Sciences \(Volume 135, Issue 2\)](#), Gary W. Miller is now the Editor-in-Chief (EIC) of the official journal of the Society of Toxicology. He is the Asa Griggs Candler Professor of Environmental Health and Associate Dean for Research in the Rollins School of Public Health at Emory University.

In describing the importance of society journals, he writes that “...it is the academic journal that provides the most lasting impact. The published works that are deposited into the archives of science, in this case *Toxicological Sciences*, not only define the discipline, they are the discipline. The published works are the most tangible artifacts of what we do as scientists.”

In this inaugural editorial, “[A Toxicological Transition](#),” he describes his intentions to build on the strong foundation established by past editors of the journal. “As the intellectual output of this preeminent society, we can and will publish the most influential articles in the field of toxicology. Our goal should be to elevate the standing of the field within the arena of science. Being the top-ranked journal within the field is not an appropriate goal for *Toxicological Sciences*, it is merely an expectation.”

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## **SOT Member Alison Harrill Receives Burroughs Wellcome Fund Award for Pharmacogenetic Testing**



Each year, the Burroughs Wellcome Fund awards up to \$500,000 over five years to academic researchers as part of its Innovation in Regulatory Science Awards. [Alison Harrill](#), an SOT member, is one of this year’s award recipients and will use the funding toward her work determining how genetically diverse human population will react to various drugs and chemicals. Dr. Harrill’s research uses genetically diverse mice to test pharmaceutical compounds. Her research could lead to getting drugs to market more quickly, but with less risk of adverse side effects to patients.

For more information on Dr. Harrill’s award and research, [view the press release](#) on the University of Arkansas for Medical Sciences’ website. Also, please visit the [In the Spotlight](#) section of the Press page on the SOT website for updates on SOT member accomplishments. (Photo Credit: Novartis AG)

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## **The Importance of Submitting Proposals to the SIEE SEP**

After working with officials of the National Institutes of Health (NIH) Center for Scientific Review (CSR) for the past several years, SOT Council and Director of CSR’s Division of Physiology and Pathological Sciences Seymour Garte were successful in having the Center reconstitute the Study Section that focuses on toxicology, the Systemic Injury by Environmental Exposure (SIEE) Special Emphasis Panel (SEP). This panel reviews applications related to the pharmacological and toxicological mechanisms of adverse outcomes that can occur in individuals and populations exposed to xenobiotics.

In reconstituting the SEP, Dr. Garte stipulated that the panel needed to complete one to three successful cycles before moving to request permanent chartered status. These funding cycles not only give the scientific community time to generate and submit a sufficient number of high quality applications for review, but also will give CSR and its Advisory Council sufficient data to ensure the viability of a new Study Section in the current timeframe. Meanwhile, the SIEE

SEP is functioning as a regular study section dedicated to review of environmental health and toxicology applications.

The SOT Council is strongly encouraging potential applicants in the field of toxicology and environmental health sciences to consider submitting applications directed to this study section, so that it can achieve the goal of gaining permanent chartered status.

To view the guidelines for the SIEE SEP, please visit the [NIH website](#).

The future success of this study section will depend largely on the response from the research community in this vital discipline.

Best of luck to all applicants.

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## **SOT Requests Response to Human Tissue for Safety Pharmacology Studies Survey: September 27 Deadline**

Dear SOT Members:

The United Kingdom National Centre for the Replacement, Refinement & Reduction of Animals in Research ([NC3Rs](#)) and the Medicines and Healthcare Products Regulatory Authority ([MHRA](#)) have convened an expert working group to generate an evidence base that will inform the use of human tissue in testing the safety of potential new medicines, with an initial focus on safety pharmacology studies.

This [survey](#) is being distributed widely to the safety assessment community to better understand the extent of human tissue use for assessing safety pharmacology and what the barriers might be to wider adoption of these approaches to generate data to support clinical trial applications.

We ask that you consider completing the [survey](#) to help provide the evidence base to move these aspirations forward. The deadline for responding to this consultation is **September 27, 2013**.

If you would like to discuss this further, please contact [Anthony Holmes](#) who is leading this initiative.

Thank you in advance.

Sincerely,

Lois D. Lehman-McKeeman, PhD, ATS  
2013–2014 President  
Society of Toxicology

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## **NIH Hosts Series of Interactive Sessions to Promote Student Engagement**

The National Institutes of Health (NIH) Common Fund's "[Enhancing the Diversity of the NIH-Funded Workforce](#)" program seeks innovative and transformative approaches to student engagement, training, and mentoring. The overarching goal of the program is to recruit the best and brightest minds from all sectors of the population into biomedical research careers and foster their development into independent scientists. NIH is planning a series of interactive sessions to allow potential applicants for the [BUILD](#), [NRMN](#), and [CEC](#) initiatives, and other interested parties, to network and exchange ideas. NIH staff and session participants will explore innovative and creative strategies to engage a diverse student pool in the early phases of biomedical research training, sustain their interest, and enable success at each career phase.

The NIH is planning the following sessions:

- **Wednesday, October 2, 7:00 pm–9:00 pm:** San Antonio, Texas (in association with the Society for Advancement of Chicanos and Native Americans in Science (SACNAS) Annual Meeting)\*
- **Saturday, November 2, 4:00 pm–6:00 pm:** Arlington, Virginia (in association with the Institute on Teaching and Mentoring Annual Meeting)\*
- **Friday, November 8, 8:00 am–6:00 pm:** Sacramento, California
- **Wednesday, November 13, 2:00 pm–4:00 pm:** Nashville, Tennessee (in association with the Annual Biomedical Research Conference for Minority Students (ABRCMS))\*

\* Note you do NOT need to be registered to attend the associated meetings in order to participate in the NIH sessions.

There is no fee for attendees but pre-registration is requested. For more information and to register, please visit the NIH website.

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## **NICHD and NHGRI Fund Research on Sequencing of Newborns' Genomes for Useful Medical Information**

The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), which has been partnering with the Society of Toxicology for the past few years to promote mutual missions and areas of interest, recently announced grant awards to more than four separate institutions that will be involved in research to determine whether sequencing of newborns' genomes provides useful medical information beyond that of current newborn screening. This research is being funded by NICHD and the National Human Genome Research Institute (NHGRI), both parts of the National Institutes of Health. Awards of \$5 million to four grantees have been made in fiscal year 2013 under the Genomic Sequencing and Newborn Screening Disorders research program. The program will be funded at \$25 million over five years, as funds are made available.

“Genomic sequencing has potential to diagnose a vast array of disorders and conditions at the very start of life,” said Alan E. Guttmacher, director of NICHD. “But the ability to decipher an individual’s genetic code rapidly also brings with it a host of clinical and ethical issues, which is why it is important that this program explores the trio of technical, clinical, and ethical aspects of genomics research in the newborn period.”

The awards will fund studies on the potential for genome and exome sequencing to expand and improve newborn health care. Genomic sequencing examines the complete DNA blueprint of the cells, and exome sequencing is a strategy to selectively sequence exons, the short stretches of DNA within our genomes that code for proteins.

Programs currently screen almost all of the more than 4 million infants born in the United States each year. Until now, the testing of DNA has not been a first-line newborn screening method, but has been used to confirm the screening results of some disorders, such as cystic fibrosis.

Each of the new awards will consist of three parts: Genomic sequencing and analysis; research related to patient care; and the ethical, legal, and social implications of using genomic information in the newborn period. Teams of researchers will work to further the understanding of disorders that appear in newborns and to improve treatments for these diseases using genomic information. Participation is voluntary for those research studies that involve returning results of DNA sequencing to families and physicians, and families are required to provide informed consent. Other research focuses on the analysis of de-identified data, which may be useful in developing and improving screening tests.

The four grantees are as follows: Brigham and Women’s Hospital and Boston Children’s Hospital, Boston; Children’s Mercy Hospital, Kansas City, Missouri; University of California, San Francisco; and the University of North Carolina at Chapel Hill.

The NICHD sponsors research on development, before and after birth; maternal, child, and family health; reproductive

biology and population issues; and medical rehabilitation. For more information, visit the [NICHD website](#).

## Legislative and Regulatory Update

### US OSHA Announces New NEP Addressing Occupational Exposure to Isocyanates

The US Occupational Safety and Health Administration (US OSHA) recently announced a new National Emphasis Program (NEP) related to occupational exposure to isocyanates. This Isocyanates NEP is described as a program that “combines enforcement and outreach efforts to raise awareness among employers, workers, and safety and health professionals of the serious health effects associated with occupational exposures to isocyanates.” US OSHA will focus on exposure through the skin, inhalation, and other routes.

To read the full Isocyanates NEP, please visit the [OSHA website](#).

## Position Advertisement(s)

### The SOT Job Bank is a 24/7 Career Resource



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#### Job Seekers

Are you looking for a position in toxicology? Seeking to further your career, or just stay abreast of the job market? [Log in to the SOT Job Bank](#) today to browse our database of current, toxicology-related positions with a new or existing registration. Job Seeker access is *free* to SOT Members, and available for a small fee to nonmembers.

You may activate your Job Bank account to allow your *curriculum vitae* and contact information to be visible to company recruiters, or you may browse confidentially. Enroll for our bi-weekly digest and automatically be notified of all new job postings. [Access the Job Bank](#) today to get started.

#### Employers

Is your organization looking to fill positions in toxicology or the biological sciences? Where better to start your search than the Society of Toxicology? Simply [register](#) with the Job Bank by creating an Employer Account!\* Employers can browse resumes, contact active Job Seekers, and post detailed job descriptions to recruit qualified candidates! New Job Bank listings are emailed to all current job seekers in our bi-weekly digest.

Log in today to [browse the complete listings](#) or [post your own position!](#)

#### Featured Position

*Postdoctoral Fellow (Marine Sciences Lab), Pacific Northwest National Laboratory*

Pacific NW National Laboratory—Marine Sciences Laboratory has an immediate opening for a postdoctoral fellow to conduct innovative research in computational modeling of fish reproduction. This project is part of a larger study developing high throughput cellular assays to assess toxicant effects on the fish pituitary, ovary, and liver. The goal is to utilize the adverse outcome pathway (AOP) concept to demonstrate the feasibility of integrating *in vitro* assays with computational modeling as a surrogate for fish life-cycle testing. The *in vitro* testing is using a diverse set of reproductive and non-reproductive toxicants. The postdoctoral fellow will use an existing biologically based pharmacodynamic model of the rainbow trout reproductive system to develop *in vitro-in vivo* extrapolation (IVIVE) methods for translating *in vitro* results to predictions of whole animal effects.

\*Or have your Human Resource recruiter contact [SOT Headquarters](#) for more information.

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## Find Career Opportunities or Qualified Employees with the SOT Job Bank

Looking for **Career Opportunities** in toxicology? The [SOT Job Bank](#) is available 24/7! Whether you are looking to advance your career or recruit for an open position, the Job Bank can help.

### Job Seekers—Find Career Opportunities

Are you looking for a position in toxicology? Seeking to advance your career, or just to stay abreast of the current job market? [Log in to the SOT Job Bank](#) today to browse our database of current, toxicology-related positions (*New—no Job Bank registration is required*). This service is **free** to SOT Members, and available for a small fee to nonmembers.

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### Employers—Find Your Next Employee

Is your organization looking to fill positions for qualified toxicologists? Where better to start your search than the Society of Toxicology? Simply [register with the Job Bank](#) by creating an Employer Account!\* Employers can browse resumes, contact active Job Seekers, and post all the information needed to recruit their next toxicologists! New Job Bank listings are emailed to all enrolled Job Seekers in our bi-weekly digest.

Log in today to [browse the complete listings](#) or [post your own position](#)!

\*Or have your Human Resources recruiter contact [SOT Headquarters](#) for more information.

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## The SOT Job Bank Is Here for Your Hiring Needs

SOT is the world's largest organization of toxicology professionals, with members at all career stages in academia, government, and industry. Our members share our vision of "creating a safer and healthier world by advancing the science of toxicology." If your company is looking to fill an available position, the [SOT Job Bank](#) is the perfect place to start.

When you post a position to the Job Bank, it is immediately viewable to all registered Job Seekers. SOT members can register as Job Seekers at no cost; non-members can register for a small fee. Your position also will be included in our new email digest, which features recently added listings and is sent directly to Job Seekers via email every two weeks.

As a current Job Bank Employer, you get the additional benefit of accessing our Job Seeker database. You can review, download, and print *curriculum vitae* or resumes at your convenience. Employer registrations are active for four months and all current registrants may access the system as often as they wish.

SOT Job Bank Registration Fees for Employers/Recruiters are as follows:

| Employer / Recruiter Types | Fees* |
|----------------------------|-------|
| SOT Corporate Affiliate    | \$220 |
| Corporation                | \$440 |
| University or Governmental | \$110 |
| Nonprofit Organization     | \$110 |

\*Fees are for a four-month registration period

[Register](#) with the Job Bank by creating an Employer Account, or have your HR recruiter contact [SOT Headquarters](#) for more information.

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## Career Opportunities Are at Your Fingertips with the SOT Job Bank

Looking for **Career Opportunities** in toxicology? The [SOT Job Bank](#) is available 24/7! Whether you are looking to advance your career or recruit for an open position, the Job Bank can help.

### Job Seekers

Are you looking for a position in toxicology? Seeking to advance your career, or just stay abreast of the current job market? Log in to the [SOT Job Bank](#) today to instantly browse our database of current, toxicology-related positions with a new or existing registration. This service is **free** to SOT Members and available for a small cost to non-members.

You may activate your Job Bank account to allow your CV and contact information to be visible to company recruiters, or you may browse confidentially. Enroll for our bi-weekly digest and automatically be notified of all new job postings. [Access the Job Bank](#) today to get started.

### Employers

Is your organization looking to fill positions for qualified toxicologists? Where better to start your search than the Society of Toxicology? Simply [register](#) with the Job Bank by creating an Employer Account!\* Employers can browse resumes, contact active Job Seekers, and post all the information needed to recruit their next toxicologists! New Job Bank listings are emailed to all enrolled job seekers in our bi-weekly digest.

Log in today to [browse the complete listings](#) or [post your own position](#)!

### Featured Position:

#### **Postdoctoral Fellow, Nanotoxicology Risk Assessment and Lab Research, US Food and Drug Administration (US FDA)**

The Center for Devices and Radiological Health, US Food and Drug Administration, Silver Spring, Maryland, invites applications for a postdoctoral fellow in nanotoxicology risk assessment and safety studies of nanomaterials. Applicants must be within five years of receiving their PhD (or equivalent terminal degree) when starting the fellowship. The fellowship is administered by the Oak Ridge Institute for Science and Education (ORISE), is a year-by-year contract position, and provides a very competitive stipend. The fellow will join a multi-disciplinary team with a focus on developing and improving research approaches/methods in nanomaterial characterization and safety using *in vitro*, *in vivo*, and computational models. A major focus of the position will be to develop a risk assessment approach for nanomaterials associated with medical devices. Experience in engineered nanomaterial characterization, nanoparticle

exposure assessment, and toxicological characterization of nanoparticles is desirable. Previous research experience in the fields of toxicology, risk assessment, or environmental health and safety will be considered a plus. In addition to conducting peer-reviewed risk assessment and laboratory research, the position provides the fellow with an opportunity to learn about the regulation of US FDA-regulated products with nanoscale components.

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\*Or have your HR recruiter contact [SOT Headquarters](#) for more information.