

ONLINE



# Communiqué

Special Issue 2013

**SOT News**

## President's Message



*President  
William Slikker Jr.*

The New Year has been frosty so far but that will make the warmth of the SOT Annual Meeting all that much more enjoyable. Just a few weeks away, I invite all to the 52nd Society of Toxicology Annual Meeting in San Antonio Texas, March 10–14, 2013. The Scientific Program Committee has assembled an outstanding array of innovative presentations covering the broad area of Toxicology for scientists from around the world to enjoy.

Lively and inviting, San Antonio is a growing city—seventh largest in the US—with a river that winds through years of history, culture, and adventure. Although we know you are joining us for the science, you will be able to visit a host of sites that include the River Walk, the Alamo, the Spanish Governor's Palace, and La Villita Historic Arts Village. Another attraction, HemisFair Park, is the location of the SOT Past President's 5K Run/Walk, Tuesday, March 12, 2013, at 6:30 am.

Following an excellent assortment of well-conceived continuing education courses on Sunday, we will open up the scientific presentations with Nobel Laureate Bruce A. Beutler. He will deliver the 2013 SOT Annual Meeting Opening Plenary Lecture, "Genetic Analysis of Innate Immune Sensing," on Monday, March 11, 2013, from 8:00 am–9:00 am in the Henry B. Gonzalez Convention Center, San Antonio. In 2011, he shared the Nobel Prize in Physiology or Medicine for "discoveries concerning the activation of innate immunity." Dr. Beutler is a Regental Professor and Director of the Center for the Genetics of Host Defense at the University of Texas (UT) Southwestern Medical Center.

A new feature this year designed by our Vice President, Lois D. Lehman-McKeeman, and our Scientific Program Committee, the Frontiers for Toxicology Symposium will feature "Systems and Computational Biology as Foundations for Toxicology Research." In light of the broad utility of systems biology approaches to toxicology and risk assessment, the goal of this session is to feature eminent scientists who have made seminal contributions and advances in systems and computational biology.

The Membership Committee, with leadership from Chair, Abigail C. Jacobs, and Council Contact, John C. Lipscomb, once again has improved the efficiency of accepting and retaining quality scientists and students of toxicology into our Society. The efforts of the committee have resulted in a record number of new Full, Associate, Postdoctoral, and Student members entering the rolls of SOT. This year, after thorough review to determine that they meet the quality standards of membership, 849 new members were accepted. These numbers indicate that SOT is a growing and vibrant Society. New member contact information is now being sent directly to SOT Regional Chapters. In addition, the Membership Committee has expanded the new member application webpage to allow members to identify specialty area interest, and this information is being sent to Specialty Sections to aid their recruitment of new SOT members.

Because of its importance as a world-wide showcase of toxicology and the organizational engine of the Society, SOT

Council selected the SOT Annual Meeting as their “Mega Issue” for 2012–2013. Denise Robinson Gravatt led an extremely active subcommittee including Lois D. Lehman-McKeeman, Norbert E. Kaminski, Jon C. Cook, and SOT Staff Betty Eidemiller and Debbie O’Keefe to address: “What strategic and/or tactical improvements can be made to enhance the value and impact of the Annual Meeting to the Society, its members, and the meeting participants.” Everything was on the table for review and initial actions and activities for the SOT 2013 Annual Meeting and beyond are underway. Attendees are moving away from a reliance on paper and this year’s Mobil App will provide comprehensive and readily searchable information, literally at your finger tips, and the use of QR codes on posters allows attendees to more fully utilize technological innovations to access additional information. Beginning with the 2014 Annual Meeting, themes will be defined based on the actual program content rather than prospectively. Member surveys are under development that will investigate other potential improvements for future annual meetings. More information is provided in this newsletter and a full Mega Issue report on the Annual Meeting will follow later in 2013.

In addition, Council has moved forward in implementing the SOT Strategic Plan. SOT Council encouraged the Committees and Task Forces to provide metrics of success toward achieving the Society’s Strategic Priorities. SOT Leadership engaged in similar activities to evaluate whether resources were balanced across all SOT sectors: academia, government, and private sector efforts, and Lorrene A. Buckley, Donald A. Fox, John B. Morris (Chair), and Michael P. Waalkes led this initiative. There is a clear recognition that the Annual Meeting and journal, *Toxicological Sciences*, benefits all sectors, and the remaining resources and activities are fairly evenly distributed to each of these sectors. Of equal importance, every Committee, Task Force, and Component Group (Regional Chapters, Special Interest Groups, and Specialty Sections) submitted input on their progress on the activities that each group identified as tactics toward the strategic plan. Council wishes to congratulate these groups for their successful efforts. Funds provided for aspirational activities helped realize a number of significant accomplishments including completion of the strategic review of *Toxicological Sciences*, improvements to our Mentor Match program and expansion of the Mentoring Breakfast, and development of a student summer internship program.

The Society continues to expand our global outreach and will host both an enhanced Global Collaboration Coffee and a Global Gallery of Toxicology poster session in San Antonio. This year, the ICTXV Committee, including Judith T. Zelikoff, Dori R. Germolec, Lorrene A. Buckley, Denise Robinson Gravatt, and Ivan Rusyn, with guidance from Clarissa Russell Wilson, has developed a comprehensive bid package to host the 2019 ICT meetings in Hawaii, an exciting opportunity to strengthen our relationship with IUTOX and build additional partnerships with our toxicology colleagues in Asia, India, and around the world.

As we transition through the yearly cycle of SOT leadership, I want to express my gratitude for the privilege of serving the Society. As I move to that revered position of Past President on May 1, I know that the SOT is in good hands with leadership from Dr. Lehman-McKeeman. And finally I thank my fellow Council members and the leadership and members of the many committees, boards, and task forces, as well as the AIM staff, brilliantly led by Shawn Douglas Lamb, for a most productive year. See you all in San Antonio.

William Slikker Jr.  
2012–2013 SOT President

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## 2013–2014 Council and Committee Members Elected

### **Vice President-Elect:**

Peter L. Goering

### **Secretary-Elect:**

Leigh Ann Burns Naas

### **Councilors:**

Myrtle A. Davis

John A. Wisler

**Awards Committee:**

Barbara D. Beck  
Janice E. Chambers  
Suzanne C. Fitzpatrick  
Terry Gordon

**Membership Committee:**

William M. Valentine  
Kathleen Gabrielson

**Nominating Committee:**

(Past President)  
George B. Corcoran

(Regional Chapters)

Bruce A. Fowler

(Special Interest Groups)

Anthony M. Ndifor

(Specialty Sections)

Brian S. Cummings

Thanks to all members who voted.

**2013–2014 Committee and Task Force Members List Available May 1 on the [SOT Website!](#)**

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## **SOT 2013–2014 Election Ballot Sent—Be Sure To Cast Your Vote**

On December 27, 2012, SOT Full members, Retired Full, and Emeritus members received the ballot for the election of 2013–2014 SOT Council officers and elected standing committees via an email message from SOT Secretary Judith T. Zelikoff. All valid ballots received by February 1, 2013, will be counted. The Nominating Committee of Chairperson Michael P. Holsapple, Laura Andrews, Rosonald R. Bell, James V. Bruckner, Marion F. Ehrich, Alison C.P. Elder, Martin A. Philbert, Jane Ellen Simmons, Robert S. Skoglund, and Council Contact Jon C. Cook are pleased to present the 2013 nominees for SOT officers and members of SOT-elected committees. Offices to be filled include the Vice President-Elect, Secretary-Elect, two Councilors, two Membership Committee members, four Awards Committee members, and one Nominating Committee member. The [online ballot](#) is available on the SOT website and can be accessed by logging in using your email and SOT password. After you review the candidates' biographical information, make your selections by marking the appropriate spaces next to the candidates' names, or complete the text fields for write-in candidates. As an alternative, you may print and fax the [ballot](#), with the accompanying cover sheet that also includes your signature, printed full name, and address. Blank spaces are provided for write-in candidates. The ballot should be faxed to the offices of Dixon Hughes Goodman, LLP (Certified Public Accountants), Fax: 240.403.3701, Attn: E. Smith. The results will be communicated in the Special Issue of the *Communiqué* in February. Thank you for participating in this important election process.

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## **Strategic Improvements for SOT's Annual Meeting**

One of SOT Council's major initiatives this past year has been a critical evaluation of the Annual Meeting to identify strategic and tactical opportunities to enhance its value and impact for the Society, its membership, and the annual meeting participants. The Annual Meeting is the Society's foremost event, providing an essential focal point for member engagement. It supports SOT's mission and strategic objectives by bringing together the diversity of our membership

and other stakeholders for scientific exchange, education, career development, and mentorship, showcasing toxicology on a global scale.

Adopting a philosophy of continuous improvement and being responsive to current and past member feedback, Council spent a portion of each of its meetings this past year evaluating multiple aspects of the Annual Meeting. Areas examined included trends and demographics related to meeting attendance, opportunities to increase engagement and networking, the quality and breadth of the scientific program, and potential enhancements to the poster sessions, Continuing Education, and the overall meeting structure.

Council moved quickly to exploit advances in technology platforms and commission a Mobile Event App and Mobile Event website to replace the previous Itinerary Planner and offer multiplatform mobile solutions for the SOT Annual Meeting and ToxExpo. You have seen the launch of these tools in the last couple of weeks, and Council is eager to hear your feedback on how these have influenced your ability to access meeting content, plan your time at the meeting and engage with organizers, exhibitors, and other participants. Training is available for the Mobile App via webinars scheduled for February 28 and March 5. If you cannot attend one of the webinars, recorded versions will be available. On-site support will be readily available in San Antonio at the @SOT Center (an upgrade to the traditional Email Center), which will be located outside of ToxExpo.

Council also considered how to extend the impact of the Annual Meeting beyond the meeting, for both attendees and nonattendees. The *Program* and the *Toxicologist* are now available in searchable format, accessible from both the Mobile App as well as the SOT website. The Mobile App also includes a QR code reader, which in conjunction with the increased use of QR codes on posters should provide greater access to content. A more extensive web-based library of annual meeting materials and resources is being created. A byproduct of this enhanced electronic access will be to encourage reduced reliance on printed materials and less paper usage and waste associated with our meeting. The decision was made to mail the printed *Program* upon request rather than assume that everyone wants a print program, which already has resulted in a reduced production of programs and **nearly 76% fewer programs** mailed than 2012!

To improve and simplify the session solicitation and prioritization process, it was decided to eliminate session endorsements in favor of a strengthened sponsorship process, supported by a web-based review form for sponsoring bodies. Individual session proposals may solicit multiple sponsorships. Beginning with the 2014 Annual Meeting, themes will be defined based on actual program content rather than prospectively.

While there was an emphasis on near-term opportunities that could be implemented in time for the San Antonio meeting, Council also deliberated on strategic improvements that will require more extensive member input and a longer time frame for decision making and implementation. Several recent surveys solicit your feedback on alternative formats for the Annual Meeting as well as ways in which to increase access and engagement in the science presented during the poster sessions.

You can respond to the surveys until March 20.

- [Annual Meeting Format and Duration Survey](#)
- [Poster Presentation Format Survey](#)

Please provide your input so Council can consider your preferences in our continued efforts to enhance the meeting experience and impact!

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## SOT Council Congratulates Members for Advancing the Society's Strategic Priorities

As part of its continuing efforts to ensure fulfillment of the Society's Strategic Plan, the SOT Council performed a detailed review of the progress to date on our strategic objectives. Towards this end, Council solicited input from every Committee and Component Group on their progress on the activities that each group had self-identified as tactics

towards fulfilling the strategic plan. Council is delighted to report that, due to the considerable efforts of our members, substantial progress is being made towards achieving our strategic goals. The Society is indebted to the hundreds of members who are working towards achieving these goals.

Our committees and component groups were very responsive to Council's request for information and provided a summary of over 200 tactical activities, many of which were targeted to more than one strategic priority. Our trainee groups (Postdoctoral Assembly and Graduate Student Leadership Committee) and the Education Committee were particularly active in developing and implementing tactical activities. A subcommittee of Council collectively devoted over 200 hours evaluating this information for presentation at a one and one half day Council meeting focused on evaluating our progress in achieving our strategic goals. This review revealed that substantial effort is being placed on achieving each of our four strategic priorities: Increase Scientific Impact, Promote Recognition of Toxicology, Build for the Future of Toxicology, and Enhance Member Engagement. The greatest number of activities (90) were focused on Promoting the Recognition of Toxicology. A financial review of our activities also was included in Council's deliberations. Significant financial resources were devoted towards the activities targeted to each of our Strategic Priorities, with the greatest support focused on Promoting the Recognition of Toxicology. Not surprisingly, this correlated with the large number of activities devoted to this effort. In rolling out the Strategic Plan in 2012, Council indicated that \$100,000 was available for novel, "aspirational" ideas targeted to the plan. A variety of aspirational activities were proposed and funded. These activities have been quite successful. Noteworthy accomplishments were completion of the strategic review of *Toxicological Sciences*, improvements to our Mentor Match program and expansion of the Mentoring Breakfast, and development of a student summer internship program.

Council was encouraged by the great effort being devoted by our members towards achieving each of our Strategic Priorities. Even at the early stage of our current Strategic Plan, considerable progress is being made for each priority. Council wishes to congratulate each committee and task force for their successful efforts.

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## **SOT's Resources Are Equally Balanced for Government, Academic, and Private Sectors**

As part of its oversight responsibility, the Finance Committee performed an analysis of the budget to determine if our expenditures were relatively evenly balanced among efforts that benefit our three major constituency groups: academia, government and the private-sector. Since expenditures associated with the Annual Meeting and our journal, *Toxicological Sciences*, benefit all constituencies, this analysis focused on the other expenditures/activities of the society. To initiate the analysis the activities of each committee were assessed with respect to the benefit potentially derived by each constituency group and then the overall balance of all our activities was compiled. The review revealed that our activities are fairly evenly balanced among those that benefit each constituency. Somewhat more activity was associated with those focused on the academic sector, but these activities serve to provide trained toxicologists that may work in any sector as they pursue their careers. Since the majority of our annual expenditures are devoted to the Annual Meeting and the journal, activities that benefit all sectors, and since the remaining activities were fairly evenly distributed among those that benefit the academic, government, and private sectors, it was determined that there was an overall balance of the activities of the Society.

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## **New Members in 2012**

In 2012, the Society of Toxicology welcomed 849 new members, including 306 Full, 69 Associate, 138 Postdoctoral, and 336 Student members. New members are part of our network of more than 7,400 members from 61 different countries. Members from academic institutions, industry, government, and other scientific organizations are committed to SOT's vision of "creating a safer and healthier world by advancing the science of toxicology." For a full listing of new members, please visit the [SOT member list](#).

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## **Strengthen SOT's Future by Contributing to the SOT Endowment Fund**

The SOT Endowment Fund has a mission of assisting in advancing the science of toxicology by providing financial support for the Society's programs. Contributors to the SOT Endowment Fund are helping to build for the future of toxicology through long-term financial support, which also generates critical resources that enable the Society to fulfill its mission, now and in years to come.

Since its inception in 2006, Contributors to the Endowment have been instrumental in achieving the following:

- Underwritten more than 100 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 educators in toxicology 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.

The vision for the SOT Endowment Fund is to establish and increase in net worth a set of Endowment Funds that will provide significant, stable, long-term financial support that complements the Society's revenue from dues and other sources, to aid in achieving the Society's strategic objectives.

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## **Molecular Biology SS Receives Profits from FutureTox CCT: Opportunity Open to All RC, SIG, and SS**

The SOT Molecular Biology Specialty Section was involved in the development of the Contemporary Concepts in Toxicology (CCT) meeting, FutureTox: Building the Road for 21st Century Toxicology and Risk Assessment Practices, held October 18–19, 2012, Arlington, Virginia. Because of the success of this meeting, this Specialty Section received a share of the funds to support its activities. Regional Chapter (RC), Special Interest Group (SIG), or Specialty Section (SS) proposals can share 50/50 the profits generated from a CCT meeting. It is a win-win. This profit sharing occurs after the initial seed funds provided by the Society are repaid (\$25,000). This cost-sharing policy was developed based on input from the RCs, SSs, and SIGs and a recommendation from the CCT Conferences Committee. SOT Council encourages component groups to increase the number of CCT meetings presented and, thus, to obtain additional resources to help fund their programs and activities.

CCTs provide educational opportunities beyond the SOT Annual Meeting by offering a forum for cutting-edge science to be discussed anywhere in the world.. If multiple RCs, SIGs, or SSs are involved in the meeting coordination, they will divide the available funds evenly among the groups. Sharing in the profits is limited to SOT RC, SIG, and SS and other SOT groups as approved by Council, but is not available to outside organizations that sponsor a CCT. To learn more about CCT meetings and the proposal process, please visit the [SOT CCT meetings website](#). Please feel free to contact any member of the [CCT Committee](#) if you would like direct input on the proposal process or if you want to discuss a potential CCT topic.

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## **SOT Welcomes New Affiliate: Regeneron Pharmaceuticals, Inc.**

We are pleased to announce that Regeneron Pharmaceuticals, Inc. has become the newest SOT Affiliate. Regeneron is a biopharmaceutical company that discovers, develops, and commercializes medicines for the treatment of serious medical conditions. This company has active research and development programs in many disease areas, including ophthalmology, inflammation, cancer, and hypercholesterolemia. Founded in 1988, the company is headquartered in Tarrytown, New York. Demonstrate your organization's support of the Society of Toxicology by becoming an SOT Affiliate. For additional information, visit the Affiliates section of the [SOT website](#) or contact [Marcia Lawson](#) at SOT Headquarters.

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# International ToxScholar Program Expands Boundaries of the Scientific Community

*Submitted by Patrick Allard, MS, PhD*

**Note: Deadline for [International ToxScholar Grants](#) is February 27, 2013**

## **Environmental challenges and research opportunities in Ethiopia, Djibouti, and Kenya**

Being engaged in the process of science means that we are part of, and often rely on, a community of like-minded scientists sharing similar goals and visions. Each individual's research is so focused that it is only as a group that we can generally hope to make significant changes on a broader scale. This reality of the scientific practice is what led me to join the Society of Toxicology in 2008, as a means to find a supportive group of scientists that would help me in my transition from geneticist to aspiring toxicologist. Several years later, the same rationale led me to apply for an International ToxScholar Outreach Grant (ITOG), an initiative from SOT that truly expands the boundaries of our scientific community. Indeed, the ITOG calls for toxicologists to be a bridge between SOT and research communities in developing nations. As part of this program, a scientist visits one or several institutions, learns about the research being performed there, and shares with students and researchers the opportunities offered by the field of Toxicology and its Society. It is an incredible chance to not only reach-out to students and scientists but also to have a better understanding of the research that they perform and of the unique challenges they face. Thus, I am extremely grateful to the Education Committee of SOT for allowing me to be a part of this.

For this mission, I partnered with two organizations that synergize well with the goals of the ITOG, namely the "Horn of Africa Regional Environmental Center" (HOAREC) and the Boston-based organization Seeding Labs. HOAREC promotes environmental research and action in several countries in the east of Africa including Ethiopia, Kenya, and Djibouti, the three countries I visited. *Seeding Labs*, on the other hand, is dedicated to laboratory equipment transfer to public universities in developing nations. Thus, its main goal is to foster research and scientific advancement through the development of research capacity. *Seeding Labs* also has a Harvard Medical School-sponsored outreach initiative, named the Ambassador Program, well aligned with the goals of the ITOG, which co-sponsored my visits. These included three separate legs: the University of Addis Ababa in Ethiopia, the University of Djibouti in Djibouti, and finally, the University of Nairobi in Kenya.

## **The Visits**

All visits had been planned to include one-on-one or small group meetings with the Dean, Chair, and various faculty members in each department visited. These meetings were then followed by a 45-minute presentation that was divided in four parts.

1. An introduction encompassing the overarching questions guiding toxicologists and also included local examples of environmental challenges.
2. A deeper look into the basic principles underlying toxicology (risk, exposure, amount, and response) followed by concrete examples illustrating each principle.
3. Opportunities offered by SOT for students and faculty, including membership discounts, travel fellowships, continuing education courses, internship opportunities, and other international awards.
4. And, lastly, information about *Seeding Labs*, its equipment transfer program and its fellowship program where researchers are sponsored to visit laboratories in the US to receive research and grant writing training.

Following the seminar, the floor was opened to questions and discussions with faculty and also students. Often, the discussions continued more informally with the students after the session had ended.

My first stop was Addis Ababa, Ethiopia. Stepping out of the



*School of Biological Sciences, Addis Ababa University*

environment and has pushed Addis towards the top of the list of the most polluted cities in the world (6th in 2008 according to Forbes). Air pollution, water pollution and terrible waste management have meant a concurrent increase in environmental health related diseases. I understood that quickly: just a few hours in the city and my eyes, nasal passages, mouth, throat, and lungs were painfully irritated from the dust and particles in the air. Opening the tap to wash off this air pollution does not really help as the water has high heavy metal and coliform contamination.

Ethiopian scientists, however, are not helpless spectators of their own environmental demise, but instead are increasingly active in research pertaining to the environment including toxicological research. I had the pleasure to meet with two groups of faculty and students at the University of Addis Ababa, one at the medical school (College of Health Sciences) and the other at the Faculty of Biological Sciences, picture above. Following the presentation, most of the questions centered around a few points: How to make their environment safer, how to develop their toxicological research and, related to that, how to connect and collaborate with researchers in the US to expand on their existing research. Thus, there was a strong interest from the audience to join the Society of Toxicology and, through Toxchange or other means, establish connections with researchers working in air and/or water pollution.

One hurdle in this process became apparent during our discussions—the membership fee, which even at reduced rates was still unaffordable to many, especially students. Furthermore, most people do not have access to credit cards and thus cannot easily pay SOT membership fees. The gap between the interest generated and the ability of the audience to integrate SOT was, unfortunately, a common theme in my visits to Ethiopia, Djibouti, and Kenya.

## **Djibouti**

*Presentation to students, University of Djibouti*



*Presentation to students, University of Djibouti*

resources they have (for example, algae from the red sea) could turn into profit for research and the country. (2) Djibouti has a fragile arid environment that is put under pressure by the high activity of its several ports, the presence of sizeable French and American military bases, and climate change. Understanding the types of environmental pressure, the effect of these on natural resources and human health is therefore of utmost importance.

The presentation was given in front of a large audience of about 80 students and faculty members. Following the

plane and into the small taxi that took me to my lodging, I quickly understood what was at stake in this city in terms of environmental challenges: extremely congested roads, old cars running on diesel spewing unfiltered black smoke, and about three or four buildings being built on every block with scaffolding made of tree branches. The population of Addis is clearly booming and although still considered poor, Ethiopia, and Addis in particular, is doing relatively well economically with European and Chinese firms knocking on the door of Ethiopian businesses and investing in its infrastructures. While this makes for an exciting phase of Ethiopian economic development, it also has put a lot of pressure on a fragile

Djibouti is a small country nestled at the very edge of Eastern Africa between the countries of Ethiopia, Somalia, and Eritrea. It was a French colony until relatively very recent times, 1977. As a consequence, Djibouti has historically relied heavily on France for their research. For example, until a few years ago, students enrolling in a PhD program would expatriate themselves and perform their research in France. Things have changed recently and the University of Djibouti is attempting to develop the capacity to keep their students in the country for the time of their PhD and thus, turn the tide on the brain drain. As part of this endeavor, a major research interest from UoD is environmental research for two reasons: (1) In a country that imports almost all of its goods, safely exploiting the few natural

presentation and discussions, I was given a tour of the research facilities that have been built and are in the process of being equipped. I was very impressed by the dedication and resourcefulness of these researchers who have built research laboratories with limited access to resources.

## Nairobi



*Chemistry Department  
University of Nairobi*

The University of Nairobi is the largest University in Kenya and the home of about 62,000 students. My visit to the University of Nairobi was divided between the Department of Chemistry and the Department of Geography and Environmental Studies. Nairobi, just as Addis Ababa, also is under the pressure of environmental challenges such as air and water pollution and climate change. Water pollution in particular is a research priority as are pesticides, heavy metals, coliforms, and PCBs (from lack of consistent phasing out of PCB-using transformers) that are highly prevalent in Kenya's river systems. Kenya also presents interesting climate change and health interrelated issues such as increased prevalence of malaria at higher altitudes due to rising temperatures and persistent use of DDT for mosquito control in order to limit malaria spread.

Following my presentation in front of a group of about 30 students from the Department of Chemistry, the students expressed a strong interest in connecting their research, which mainly deals with the analysis of environmental samples, with that of researchers in the US for collaboration.

## Highlights and Conclusions from the Visits

- The **research** performed in the various departments I visited provided an essential look at the environmental pressure of developing countries on their environment and health.
- The **dedication** of students and researchers in all three universities in addressing and solving the environmental challenges that their country faces.
- The **interest** from students and faculty in joining SOT and in establishing connections with other SOT members.
- The **potential obstacles** (price, access to payment forms) encountered by students, particularly in Ethiopia, that may prevent them from joining SOT.
- The **obvious synergy** between SOT outreach programs and *Seeding Labs*. For example, *Seeding Labs* offers an Ambassador Program and a Fellowship Program that are highly complementary to the International ToxScholar Outreach Grants and the Global Senior Scholar Exchange Program, respectively, offered by SOT. Furthermore, *Seeding Labs* provides research equipment to institutions in the developing world where environmental and toxicological research is a major focus.

## Web Resources:

[Horn of Africa Regional Centre and Network \(HoA-REC/N\)](#)

[Seeding Labs](#)

## University Websites:

[Addis Ababa University](#)

[College of Health Sciences](#)

[University of Djibouti](#)

[Centre d' Etudes et de Recherche](#)

[University of Nairobi](#)

[Department of Chemistry](#)

[Department of Geography & Environmental Studies](#)

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## **Undergraduate Internship Funding Application Now Available**

The [undergraduate support application](#) is now available for matching funds to increase the number of students doing toxicology research in established internship programs for summer of 2013. This pilot Education Committee program is consistent with SOT's goal of enhancing recruitment of students into toxicology. Funding will support up to four summer internship positions (assuming 50% matching from the host institution or other funding sources). Priority will be given to institutions with existing organizational structure for carrying out successful internship programs. Preference will be given to programs aimed at student groups typically underrepresented in the sciences. Selection of interns will follow the institution's own process.

**Deadline:** January 28, 2013

Award decisions made by February 4, 2013.

For more information, please contact [Betty Eidemiller](#).

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## **Preliminary Announcement of Availability of Undergraduate Internship Funding**

Consistent with SOT's goal of enhancing recruitment of students into the field of toxicology, the SOT Education Committee announces a pilot program to provide funding to undergraduate intern hosts to enable additional internships in toxicology during Summer 2013. It is expected that funding will support up to four summer internship positions (assuming 50% matching from the host institution or other funding sources). For this pilot program, the intent is to expand the capacity of current programs and capitalize on existing infrastructure. Priority will therefore be given to institutions with existing organizational structure for carrying out successful internship programs. Selection of interns will follow the institution's own process. Preference will be given to programs aimed at student groups typically underrepresented in the sciences.

**Timing:** A brief application form will be available on the SOT website on or before January 2, 2013. Completed applications will be due January 28, 2013 with award decisions made by February 4, 2013. Selection of internship candidates will follow in institution's own timeline.

For more information, please contact [Betty Eidemiller](#).

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## **Member Spotlight**

### **AAAS Elects 2012 Fellows Including 19 Members of SOT**

In October 2012, the American Association for the Advancement of Science (AAAS) Council elected 701 members as Fellows of AAAS including 19 members of the Society of Toxicology. These individuals will be acknowledged for their contributions to science and technology at the Fellows Forum to be held on February 16, 2013, during the AAAS Annual Meeting in Boston, Massachusetts. The following are SOT members:

#### **Section on Biological Sciences**

Bruce Blumberg, University of California, Irvine

Monica Driscoll, Rutgers University

Barry Halliwell, National University of Singapore

Valerian E. Kagan, University of Pittsburgh

Mitzi Nagarkatti, University of South Carolina

Jennifer A. Pietenpol, Vanderbilt University School of Medicine

Richard S. Pollenz, University of South Florida

Alvaro Puga, University of Cincinnati College of Medicine

Mark Gregory Robson, Rutgers University

Michael Kirtland Skinner, Washington State University

### **Section on Chemistry**

Richard M. Caprioli, Vanderbilt University School of Medicine

### **Section on Medical Sciences**

Ormond A. MacDougald, University of Michigan

Dan Mark Roden, Vanderbilt University School of Medicine

### **Section on Neuroscience**

Phillip G. Popovich, Ohio State University

### **Section on Pharmaceutical Sciences**

Michael Aschner Vanderbilt University School of Medicine

Paul F. Hollenberg, University of Michigan

David E. Smith, University of Michigan

Charles M. Thompson, University of Montana

Lynn Wecker, University of South Florida

## **SOT Member Ronald N. Hines Named Associate Director for Health of NHEERL at US EPA**

The National Health and Environmental Effects Research Laboratory (NHEERL), the scientific research arm of the US Environmental Protection Agency (US EPA), has named Ronald N. Hines, new Associate Director for Health. Dr. Hines most recently was a Professor of Pediatrics and Pharmacology and Toxicology at the Medical College of Wisconsin.

In his new role as Associate Director for Health, Dr. Hines will shape the Agency's health research strategies, leading a staff of more than 300 scientists, technicians, and administrators within three research divisions and one research core unit.

Dr. Hines’ extensive background in toxicology and pharmacokinetics research has focused on how both drugs and environmental toxicants alter gene expression. After earning a PhD in biochemistry from the University of Texas Southwestern Medical School, he completed a 3-year postdoctoral fellowship at the University of Vermont College of Medicine, focusing on the identification and sequence characterization of genes responsible for the metabolic disposition of environmental toxicants and drugs. He then spent six years at the University of Nebraska Medical Center’s Eppley Institute for Research for Cancer and Allied Diseases in Omaha, Nebraska before accepting an associate professorship at Wayne State University’s School of Medicine in Detroit, Michigan. In 1999, he was recruited to the Medical College of Wisconsin, where his focus on environmental toxicants expanded to encompass pediatrics.

“I had been working in the areas of drug and toxicant metabolism and gene regulation for several years, but it was always focused on the adult. I never thought that response might be different in children,” said Dr. Hines. A faculty colleague and neonatologist, D. Gail McCarver—now his wife—asked him to consult on one of her grants and challenged him to look specifically at the mechanisms of drug metabolism in children. Dr. Hines soon discovered that there was a paucity of data on the subject. “I set out in a very purposeful way to develop an approach for evaluating how different enzyme systems change as a function of age,” He said his group worked to build a comprehensive human liver tissue bank representative of every age group up to 18 years; they then were able to carefully characterize the changes in enzyme systems that happen as humans develop. “Now, we know that a lot of those enzyme systems increase dramatically during the first year of life,” Dr. Hines said, “You can see dramatic changes in how one might respond to a drug, simply because of age. We never knew that before.”

Dr. Hines said that one of the most exciting outcomes of that project was that the data collected from the tissue samples were incorporated into new predictive modeling software, including programs used by US EPA.

Now, because Dr. Hines is tasked with overseeing programs in toxicology, as well as epidemiology and clinical medicine, he has the opportunity to help shape and implement similar approaches to understanding toxicity pathways, or cellular response to chemical exposures, that cause adverse health effects.

Dr. Hines cites US EPA initiatives and collaborations like ToxCast and [Tox21](#), which use high-throughput screening structures to rapidly screen chemicals and chemical mixtures for toxicity, as examples of programs that he hopes to further develop to better enable US EPA to recognize potential toxicants and prevent exposure and disease.

Also among his directives is building research collaborations, both internally and externally.

“Complex factors work together to impact the disease process,” explained Dr. Hines. “The way we’re going to be able to better understand those is to have multiple disciplines approaching them at the same time, working as a team—engineers, mathematicians, economists, physicists. Getting people working together to really look at a problem from multiple angles and come up with the best solution—I think that’s critically important.”

“Ron demonstrates the type of people skills that motivate and inspire people,” says NHEERL Director Hal Zenick. “His leadership, managerial, and scientific competencies are widely known, and I’m extremely proud that he is now part of the US EPA research family.”

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## In Memoriam

### In Memoriam

Salvatore J. De Salva

Leo R. Goldbaum

John Ludwig Orr

John F. Rosen

Sidney J. Stolzenberg

## **John Ludwig Orr**

Sadly, on January 26, 2013, Dr. John Ludwig Orr (Jack to his friends) passed away in New York after a three year valiant struggle with blood cancer.

Dr. Orr received a BA in chemistry from Kalamazoo College, a MS in physiological psychology from Western Michigan University, and a PhD in biological psychology from the University of Michigan. Following his doctorate, he had a postdoctorate position at the University of Rochester (advisors: Drs. Bernard Weiss and Victor Laties) and another postdoctorate at the University of Texas Health Science Center (Dallas). Additionally, he was a Diplomate of the American Board of Toxicology (DABT), and a European Registered Toxicologist (ERT).

Dr. Orr was employed for more than 10 years as an Expert Leader—Toxicology Americas for Akzo Nobel Services. Prior to that he worked for Purdue Pharma and Southwest Research Institute. He was a member and active participant in various scientific organizations including the Society of Toxicology and the Mid-Atlantic Society of Toxicology Regional Chapter.

On a personal note, Jack was a licensed amateur radio operator and a motorcycle enthusiast. Most who knew Jack had a similar opinion of him...intelligent with many interests, a strong contributor to science, hard working, thought provoking, yet very affable with a pleasant sense of humor.

Jack is survived by his wife Pam and son Jacob.

Jack...you will be sorely missed.

## **John F. Rosen**

SOT Member John F. Rosen passed away on December 7. As noted in his obituary in the New York Times, his “discovery of high levels of lead poisoning among the New York City children he treated propelled him to campaign for a national effort to prevent the condition.” He joined SOT in 1984 and was a member of the Mid-Atlantic and Northeast Regional Chapters and the Comparative and Veterinary Specialty Section. Dr. Rosen was the 1996 recipient of the SOT Arnold J. Lehman Award that is presented to recognize an individual who has made a major contribution to risk assessment and/or the regulation of chemical agents, including pharmaceuticals. To read the full obituary of Dr. Rosen referred to above, visit the [New York Times website](#).

## **Annual Meeting & ToxExpo**

### **Awards Ceremony and Welcome Reception**

SOT will recognize our prestigious award recipients at the SOT Awards Ceremony on Sunday, March 10 in Grand Ballroom C1 in the Henry B. Gonzalez Convention Center. The Awards Ceremony Music will be performed by Galo Gutiérrez Jr., Guitarist, from 4:45 pm–5:15 pm. The Awards Ceremony will be held from 5:15 pm–6:30 pm. Please refer to the [Awards and Fellowships section](#) of the SOT website for complete details about the award recipients and criteria for the prestigious SOT and sponsored awards. The Society also will recognize two individuals who have significantly and positively influenced the fields of toxicology with Honorary Membership: Bruce A. Beutler and Jeremy K. Nicholson.

Continue the celebration at the Welcome Reception, a great opportunity to renew old friendships and to make new acquaintances. Please join the Society in this kick-off of the Annual Meeting immediately after the Awards Ceremony from 6:30 pm–7:30 pm, Henry B. Gonzalez Convention Center, Exhibit Hall A.

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## **Announcing CME Approval for the Continuing Education Course AM06 at the Annual Meeting, March 10**

The Continuing Medical Education (CME) Task Force, appointed by SOT President William Slikker Jr., is pleased to announce that the Continuing Education (CE) Course, [The Practice and Implementation of Neural Stem Cell-Based Approaches to Neurotoxicology \(AM06\)](#) has been approved for continuing medical education.

**Target Audience:** Medical Doctors, health professionals and researchers with an interest in stem cell research and neural stem cell based approaches to neurotoxicology, neurology, and regenerative medicine.

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of The University of Arkansas for Medical Sciences (UAMS) College of Medicine and SOT. The UAMS College of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

The UAMS College of Medicine designates this live activity for a maximum of 3.25 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Please see the [SOT Annual Meeting website](#) for a full description of the session which will be held on Sunday, March 10, 2013, 8:15 am–12:00 noon, in the Henry B. Gonzalez Convention Center, San Antonio, Texas.

### **Important Registration Information**

Registration for this session may be made by using the [Mail or Fax Registration Form](#). For all those already registered for the Annual Meeting, the applicable final CE registration rates will apply to attend CME Course AM06 (see Part 2, Continuing Education Courses). For local attendees who are not registered for the Annual Meeting, a “CME Only” registration fee of \$425 will apply (see Registration Fees, CME Only); this fee includes a pass to attend Annual Meeting sessions, including the Plenary Lecture, ALL day on Monday, March 11. If “CME Only” attendees would like to attend the full meeting, they may register at the applicable final Annual Meeting registration rate. “CME Only” attendees will also receive an invitation to attend the Keynote Medical Research Council (MRC) Lecture on Wednesday, March 13.

We hope that this session will be of interest to you to attend, especially as it offers CME credit. In addition, we hope that you will also inform interested colleagues and others who may find this session of interest to attend. We thank you for helping to spread the word and drive interest in this session.

### **CME Task Force**

John G. Benitez, MD, MPH (Chair); Dori R. Germolec, PhD (Council Contact); Martin A. Philbert, PhD; Kenneth S. Ramos, MD, PhD; Richard Y. Wang, MD.



## 52nd Annual Meeting and ToxExpo

The Society of Toxicology 52nd Annual Meeting and ToxExpo will feature more than 3,000 presentations including featured lectures and late-breaking abstracts. Some of the highlights include the following:

- Plenary Opening Lecture: Nobel Laureate Bruce A. Beutler will present “Genetic Analysis of Innate Immune Sensing,” Monday, March 11, 8:00 am–9:00 am. He is a Regental Professor and Director of the Center for the Genetics of Host Defense at the University of Texas Southwestern Medical Center. Dr. Beutler will be inducted as a 2013 SOT Honorary member at the Sunday Award Ceremony.
- Keynote Medical Research Council (MRC) Lecture: Jeremy K. Nicholson will present “Phenotyping the Patient Journey: Making Systems Medicine Work in the Real World,” Wednesday, March 13, 8:00 am–9:00 am. Dr. Nicholson is the head of the Department of Surgery and Cancer at the Imperial College, London, United Kingdom. He will be inducted as a 2013 SOT Honorary member at the Sunday Awards Ceremony.
- Frontiers for Toxicology: The Scientific Program Committee is pleased to sponsor the inaugural Frontiers for Toxicology Session, “Systems and Computational Biology As Foundations for Toxicology Research,” on Tuesday, March 12 from 9:00 am–11:45 am. This new session has been designed to focus on a cutting-edge subject that will impact basic and applied toxicology research. The speakers in this session include: Trey Ideker, University of California San Diego; Avi Ma’ayan, Mount Sinai School of Medicine; Laszlo A. Urban, Novartis Institutes for Biomedical Research; and Robert F. Murphy, Carnegie Mellon University.
- SOT/Eurotox Debate: Each year the SOT Annual Meeting includes a debate that continues a tradition that originated in the early 1990s in which leading toxicologists advocate opposing sides of an issue of great toxicological importance. This year our debaters will address the proposition: “In the Near Foreseeable Future, Much of Toxicity Testing Can Be Replaced by Computational Approaches.” Debaters Rory Connolly, US EPA, Research Triangle Park, North Carolina, and George Loizou, Health and Safety Laboratory, Buxton, United Kingdom, will exchange perspectives on Monday, March 11, 4:45 pm–6:00 pm.
- Two Regional Interest Sessions: “Toxicological Challenges in Food Production in Texas and the Gulf Coast” presented on Monday, March 11, 9:15 am–12:00 noon and “Assessment of Environmental, Dietary, and Biological Risk Factors Impacting Liver Cancer Incidence in Texas” presented on Wednesday, March 13, 1:30 pm–4:15 pm.

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## Nobel Laureate Bruce Beutler Is the 2013 SOT Annual Meeting Opening Plenary Lecturer



Bruce Beutler will deliver the 2013 SOT Annual Meeting Opening Plenary Lecture, “Genetic Analysis of Innate Immune Sensing” on Monday, March 11, 2013, from 8:00 am to 9:00 am in the Henry B. Gonzalez Convention Center, San Antonio, Texas. Dr. Beutler is a Regental Professor and Director of the Center for the Genetics of Host Defense at University of Texas (UT) Southwestern Medical Center. In 2011, he shared the Nobel Prize in Physiology or Medicine for “discoveries concerning the activation of innate immunity.”

The abstract of his lecture states that: “Microbes were known to be the causative agents of infectious diseases since the mid-nineteenth century, and infections were known since antiquity for their inflammatory character. However, the molecular interactions through which microbes were recognized, and through which they triggered an inflammatory response on the part of the host, remained unknown until much more recently. A genetic approach was required to elucidate them. Applying a positional cloning approach to mice that were refractory to lipopolysaccharide (LPS), we identified the LPS receptor, and with it, a family of receptors responsible for sensing diverse molecules of microbial origin. These, the Toll-like receptors, signal by way of a system of adaptors, protein kinases, and transcription factors to induce the biosynthesis of hundreds of cytokines that orchestrate inflammation. Subsequently RIG-I-like helicases, NOD-like receptors, and C-type lectin receptors also were found to respond to infection. A number of common inflammatory diseases appear to depend upon these molecular pathways, which evolved to check the spread of micro-organisms prior to the advent of

adaptive immunity.”

Dr. Beutler received his MD from the University of Chicago in 1981. As a postdoctoral associate at Rockefeller University (1983–1986), he isolated mouse tumor necrosis factor (TNF) and discovered its importance as a mediator of inflammation. Subsequently at UT Southwestern he analyzed mammalian responses to bacterial lipopolysaccharide. This work culminated in the discovery of Toll-like receptors as key sensors of the innate immune system, capable of detecting infection within minutes of the time the host is inoculated with microbes. In further studies, Dr. Beutler has used a forward genetic strategy to elucidate many aspects of mammalian immunity. In addition to the Nobel Prize, he received numerous awards for his work, among them the Balzan Prize (2007), the Albany Medical Center Prize (2009), the Shaw Prize (2011), and election to the US National Academy of Sciences (2008), the Institute of Medicine (2008), and EMBO. Dr. Beutler also will be holding a discussion with postdoctoral and graduate student SOT members following his lecture. This will be a ticketed event, limited to 40 participants.

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## Keynote MRC Lecture: Jeremy K. Nicholson



Jeremy K. Nicholson will deliver the 2013 SOT Annual Meeting MRC Lecture, “Phenotyping the Patient Journey: Making Systems Medicine Work in the Real World,” on Wednesday, March 13, 2013, from 8:00 am to 9:00 am in the Henry B. Gonzalez Convention Center, San Antonio, Texas. Dr. Nicholson is head of the Department of Surgery and Cancer at Imperial College London. He also is a consultant for many pharmaceutical/healthcare companies in the United Kingdom, Europe, and the United States, and is a founder director of Metabometrix, an Imperial College spin-off company specializing in molecular phenotyping, clinical diagnostics, and toxicological screening via metabonomics and metabolomics.

The abstract of this lecture states that “Systems biology tools can be applied at both individual and population levels to understand integrated biochemical function in relation to disease pathogenesis. Metabolic phenotyping offers an important window on systemic activity and both advanced spectroscopic approaches can be used to characterize disease processes and responses to therapy. There is now wide recognition that the extensive cross-talk and signalling between the host and the symbiotic gut microbiome links to both the responses to therapy and disease risk factors and indeed these also modulate drug toxicity. Such symbiotic supraorganismal interactions greatly increase the degrees of freedom of the metabolic system that poses significant challenges to fundamental notions on the nature of the human diseased state, the aetiopathogenesis of common diseases, and current systems modelling requirements for personalized medicine. We have developed scalable and translatable strategies for phenotyping the hospital patient journey using top-down systems biology tools that capitalize on the use of both metabolic modelling and pharmacometabonomics for diagnostic and prognostic biomarker generation to aid clinical decision making at point-of-care. Such diagnostics (including those for near real-time applications, as in surgery and critical care) can be extremely sensitive for the detection of diagnostic and prognostic biomarkers in a variety of conditions and are a powerful adjunct to conventional procedures for disease assessment that are required for future developments in precision medicine including understanding of the symbiotic influences on patient state. Many biomarkers also have deeper mechanistic significance and may also generate new therapeutic leads or metrics of efficacy for clinical trial deployment. Furthermore, the complex and subtle gene-environment interactions that generate disease risks in the general human population also express themselves in the metabolic phenotype, and, as such, the Metabolome Wide Association Study approach gives us a powerful new tool to generate disease risk biomarkers from epidemiological sample collections and for assessing the health of whole populations. Such population risk models and biomarkers can also feedback to individual patient healthcare models thus closing the personal and public healthcare modelling triangle.”

Dr. Nicholson has won many accolades and international prizes for his work, which spans three decades, and is the author of over 500 peer-reviewed scientific papers and many other articles/patents on the development and application of novel spectroscopic and systems biology approaches to the investigation of disturbed metabolic processes in complex organisms. He was elected as a Fellow of the Academy of Medical Sciences in 2010 and currently holds honorary professorships at eight overseas universities and the Chinese Academy of Sciences, and is on the editorial board of eight international scientific journals. Dr. Nicholson will be holding a discussion with postdoctoral and graduate student SOT

members following his lecture. This will be a ticketed event, limited to 40 participants.

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## Get the SOT 2013 Annual Meeting Mobile Event App and Have SOT 2013 At Your Fingertips

This year we are happy to announce we have leveraged the services of QuickMobile to provide you, our guests, with a mobile event app and event website. These tools replace the historical Itinerary Planner and offer multiplatform mobile solutions for the SOT Annual Meeting and ToxExpo. These mobile tools enable you to engage with organizers, exhibitors, and each other, and to manage your time and maximize your experience while at the Annual Meeting.

*The mobile event app and website will allow you to:*

- Connect with fellow attendees
- Build your own schedule and synchronize from the mobile event website to your iPad, tablet, and smartphone simply by logging in
- View presentation details and abstracts
- Add individual presentations or entire sessions to your schedule
- Contact and interact with speakers
- Search for items based on session title, abstract title, thematic track, or speaker name
- View award recipients and featured speakers
- Access the San Antonio city guide including hotels, restaurants, attractions, nightlife, and shopping
- View the Henry B. Gonzalez Convention Center map and San Antonio city maps
- Request meetings with attendees and exhibitors
- Navigate the real-time ToxExpo floor plan and search for products, specials, and exhibitors
- Contact Exhibitors
- Integrate with ToXchange, Twitter, and Facebook
- Scan QR codes quickly and easily within the app



Access [all versions of the app and mobile website](#) or search for the app “SOT 2013” in your app store (iPad, iPhone, Android). The 90 second App Overview video will display the first time you download the app to provide you with some helpful tips on how to use the app.

Access information from any mobile device, including popular smartphones, tablets, and iPads—synchronize your personal schedule and messaging by logging in.

The mobile website and mobile app will prompt for a username and password before allowing users to access certain features of the app, which include: “My Schedule,” “My Briefcase,” “Attendees,” “Messaging,” and “Surveys.” **Only Annual Meeting registrants will have access to these restricted features.** SOT Member registrants use their SOT membership login credentials for full access. SOT non-member registrants use their email and password, which was used to register for the meeting to gain full access. At any time, use the [password reminder](#) on the SOT website login to have your password sent to your email address (the email address used to register for the meeting). The app will display your name at the top of the app when you are logged in. Contact [SOT Headquarters](#) if you need assistance with your password.

Learn How to Use the App’s Robust Features

You're Invited to the App Overview webinar. Each webinar is limited to the first 500 registrants. Can't make these dates? A recording of each webinar will be accessible from this page after the event.

[Register for the Thursday, February 28](#), from 11:00 am to 12:30 pm (EST) webinar.

[Register for the Tuesday, March 5](#), from 11:00 am to 12:30 pm (EST) webinar.

### **Visit the @SOT Center—Internet Access and Technology Training during the Annual Meeting.**

SOT provides computers to access the mobile website version of the app or the Internet during the meeting. These computers are available to attendees in the @SOT Center (formerly know as the Email Center), located outside of ToxExpo. One-on-one technology training and support is available during the meeting—stop in early to get the most out of the 2013 app and/or your login information. SOT staff technology experts are available to assist you with any of the SOT web-based resources.

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## **Internet Access at the Henry B. Gonzalez Convention Center**

SOT knows the importance of staying connected to your daily activities while attending the Annual Meeting and provides several ways for you to access the Internet while at the Henry B. Gonzalez Convention Center in San Antonio.

### **@SOT Center—Internet Access and Technology Training**

SOT will provide computers you can use to access the Internet. These computers are available to attendees in the @SOT Center (formerly known as the Email Center), located outside of ToxExpo. One-on-one technology training and support is available during the meeting—stop in early to get the most out of the new SOT Mobile Event App and Event Website. SOT staff technology experts are available to assist you with any of the SOT web-based resources.

### **Free Wireless Internet Access**

Free wireless Internet access is available in designated “Wi-Fi Zones” located in ToxExpo Exhibit Hall C–D. The wireless network name is *SOT2013*. Free wireless Internet is also available in the common areas, including the Entrance Lobby, East and West Registrations, and the foyer outside of Meeting Rooms 208 through 218. The network name is *free Internet*.

### **Purchase Internet Access**

Internet is available for purchase by the attendee at \$12.95 per day, per device, everywhere in the building, except in the exhibit halls. To connect, go to view available wireless networks on your laptop, connect to Instant Internet network, and open your browser and the splash page for Instant Internet to load. Follow the directions and you will be connected. A receipt for the purchase will be emailed to you.

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## **Coming Your Way—The ToxExpo Highlights eNewsletter**

The SOT 2013 Annual Meeting is just a few weeks away. Soon you will be receiving must-read information about ToxExpo, the largest exhibition of toxicology products and services in the world, via the ToxExpo Highlights eNewsletter. Each issue will showcase different must-do activities, from the 54 Exhibitor Hosted Sessions to opportunities to win a \$500 American Express Gift card daily. You’ll also discover how to maximize your time at ToxExpo, and receive exclusive discounts and opportunities.

Oh, and did we mention the free popcorn?!

For more information about ToxExpo, visit the [ToxExpo website](#).

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## **Register for Your Ticket to Attend the Student/Postdoctoral Scholar Mixer**

The Graduate Student Leadership Committee hosts this mixer opportunity for students and postdoctoral scholars to gather, meet new colleagues, and reestablish relationships in an informal atmosphere at the beginning of the SOT Annual Meeting. The mixer will be held on Sunday, March 10, 7:30 pm–9:00 pm, in the Henry B. Gonzalez Convention Center in Ballroom B. Tickets are obtained at no cost either by registering for this event on the Annual Meeting Registration Form or by requesting a ticket on-site at the Registration Desk. A ticket and meeting badge are required to attend. Complimentary refreshments and a cash bar are available. For additional information, please contact [David Rossé](#).

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## New Session for SOT 2013: Frontiers for Toxicology Symposium

The Scientific Program Committee (SPC) is pleased to sponsor the inaugural Frontiers for Toxicology Session at the 2013 SOT Annual Meeting in San Antonio. This new session has been designed to focus on a cutting-edge subject that will impact basic and applied toxicology research.

For the 2013 Annual Meeting, the session will be “Systems and Computational Biology As Foundations for Toxicology Research.” Systems and computational approaches are holistic methods to elucidate and understand the complex interactions among components of a biologic response network and are central to the comprehensive understanding of all biological processes. The field requires the integration of concepts from biology and physiology, computer science and applied mathematics, as well as physics and engineering. Toxicology also is a multidisciplinary science and application of systems and computational approaches can aid in unraveling the dynamic and complex nature of toxic responses. In light of the broad utility of systems biology approaches to toxicology and risk assessment, the goal of this session is to feature eminent scientists who have made seminal contributions and advances in systems and computational biology. The speakers in this session include: Trey Ideker, University of California San Diego; Avi Ma’ayan, Mount Sinai School of Medicine; Laszlo A. Urban, Novartis Institutes for Biomedical Research; and Robert F. Murphy, Carnegie Mellon University.

The Frontiers session will take place on Tuesday, March 13 from 9:00 am to 11:45 am in Grand Ballroom C1 in the Henry B. Gonzalez Convention Center. We hope to see you at this exciting new session!

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## Committee on Diversity Initiatives Reunion



SOT has piqued interest in toxicology for many undergraduates through the years, and all the people who have contributed to the strong Undergraduate Education Program held each year at the SOT Annual Meeting have formed stronger bonds. Everyone with connections to the program is invited to the Committee on Diversity Initiatives Reunion. Come check in with all your colleagues and friends on Saturday, March 9, 8:00 pm, in Grand Ballroom K of the Marriott Rivercenter. Kenneth S. Ramos, 2008–2009 SOT President, will address attendees and the Perry J. Gehring Diversity Student Travel Award will be presented. Moreover, there will be plenty of time to chat and catch up with each other.

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## Hisham Hamadeh to Present In Vitro Toxicology Lecture for Students

Hisham Hamadeh, Amgen, Inc., will deliver the 2013 *In Vitro* Lecture, “[From Hazard Identification to Risk Assessment: Linking It Together with In Vitro Models](#)” on Monday, March 11, 12:00 noon to 1:20 pm. This annual luncheon features important research using *in vitro* and alternative techniques to study basic mechanisms and to illustrate how these test methods benefit animal welfare by refining, reducing, and replacing animal use whenever it is feasible. Gaining insight to a molecule’s potential to



cause harm to humans is a major challenge for scientists working in a variety of industries and disciplines including drug and chemical development as well as environmental protection. *In vitro* assays that can predict the potential clinical hazard in the absence of animal models are valuable not only for selecting more quality candidate drugs to advance, but also to reduce the number of animals consumed. Dr. Hamadeh will introduce this topic and participants will address specific questions at each table before resuming discussion among all the participants.

Thomas A. Lewandowski, Education Committee Chair, Gradient, and Emily G. Notch, Dartmouth Medical School, are the chairpersons of this event that is hosted by the SOT Education Committee and sponsored by the Colgate-Palmolive Company.

Postdoctoral scholars, graduate students, undergraduates, and recipients of Colgate-Palmolive awards are among the guests at the *In Vitro* Toxicology Lecture and Luncheon. Students and postdoctoral scholars register for the limited tickets via the Annual Meeting registration, and the \$10 deposit will be returned upon entry to the event. Senior toxicologists are invited directly to attend the event and serve as hosts at each of the tables.

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## SOT Mentors Undergraduates through Annual Meeting Activities



The SOT commitment to mentoring young scientists is evident in the ways that the Society supports undergraduate activities, including participation in the SOT Annual Meeting. SOT provides travel support through several programs, complimentary meeting registration, and special activities for undergraduate students. These include the event for all undergraduate students hosted by the Education Committee Undergraduate Education Subcommittee at 4:00 pm–5:00 pm on Wednesday, March 13, in the Henry B. Gonzalez Convention Center, Room 215.

The Education Committee reviews applications for the Pfizer Undergraduate Travel Award and selects recipients from the many outstanding applicants based on their meeting abstracts, academic record, and statements from the applicant and mentor. The 2013 awardees include Anna Lang, Northern Kentucky University; Douglas J. Saforo, University of Louisville; Amy Ashworth, Northern Kentucky University; Naing Bajaj, New Mexico State University; and Adrienne R. Klinger, University of North Dakota. Pfizer toxicologists host these awardees at special events during the meeting and they are recognized at the Awards Ceremony.

The SOT Endowment Fund is providing travel support for three undergraduate students who are presenting posters, including Derek Chamberlin, Appalachian State University; Alexandra Roperti, University of Pittsburgh; and Carrie Shinyi Yang, Hendrix College.

The Perry J. Gehring Diversity Student Travel Award provides special recognition and travel support for an undergraduate or a graduate student who participated in the SOT Undergraduate Minority Program within the last four years and is presenting an abstract at the meeting. Alexandra Colon-Rodriguez, from Michigan State University, East Lansing, Michigan, is the 2013 awardee and an alumna of the 2009 Undergraduate Education Program. Also from the 2009 program is the Honorable Mention Awardee, Carmen M. Ortiz-Sanchez, from the Ponce School of Medicine and Health Sciences, Ponce, Puerto Rico. The Committee on Diversity Initiatives (CDI) selects the recipient of this Endowment Award and then recognizes him/her during the CDI Reunion Saturday, March 9, at 8:00 pm. These award recipients will display identifying ribbons on their posters. Meeting attendees are encouraged to look for these posters and engage these scientists in discussion of their work.



CDI has awarded travel support to 42 undergraduate students and six faculty advisors from institutions all over the United States. This minority program, now in the 24th year, is directed to students from ethnic groups underrepresented in the sciences and their advisors. Other funding supports students from schools receiving low levels of federal funding in science, math, and engineering. The funded students will be engaged in the SOT Undergraduate Education Program from Saturday, March 9, through midday Monday, March 11.

Undergraduate students who were not selected for travel support and participation in the full undergraduate program may register for the Sunday portion of the Undergraduate Education Program when they [register](#) for the meeting. On Sunday, speakers make topical introductory toxicology presentations and students also learn about toxicology careers, what graduate school is like, and have the opportunity to meet with academic program directors.

CDI is indebted to all the volunteers who make the [Undergraduate Education Program](#) possible—committee members, presenters, toxicologist host mentors, student/postdoctoral peer mentors, faculty and research mentors, and all who give their time so generously to support the program and encourage promising young scientists in toxicology.

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## High School Student Poster Exposition Opportunity in San Antonio

SOT encourages students to pursue careers in toxicology, and one of the ways is by inviting high school students to participate in a special research poster display during the 2013 Annual Meeting near the SOT Pavilion in ToxExpo. The SOT K–12 Subcommittee asks you to help us recruit participants. This year we have travel funding to support a number of high school students; amount of funding will depend upon distance traveled.

Perhaps you have a child, neighbor, or acquaintance involved in research who might be a candidate to participate. Students get the opportunity to practice their presentation skills and to explore a scientific meeting with an SOT mentor. We are recruiting students who might have had a science fair project or were engaged in summer research in toxicology-related fields. The student will submit basic information (see the [recruitment flyer](#)) by February 12 and their presentations will be scheduled for two hours on either Tuesday, March 12, or Wednesday, March 13.

If you are interested in mentoring these presenters, please provide your [contact](#) information and time preference. Mentors greet the student at their poster time. The same or alternate mentor may provide a brief tour and introduction to the SOT Annual Meeting either before or after the student's scheduled poster time.

For additional information please contact [Dan Arrieta](#), the Exposition coordinator, or [Betty Eidemiller](#) at SOT Headquarters.

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## K–12 Outreach at the SOT Annual Meeting

The SOT K–12 Subcommittee has a long history of supporting outreach activities to engage students, parents, and teachers in basic toxicology and increase interest in toxicology careers through activities such as science museum experiences, workshops, and poster presentations. These programs assist in increasing the recognition of the importance of toxicology and public understanding of how health and safety is increased because of toxicology, major goals of the Society.

The place to be this year in San Antonio is the workshop “K–12 Toxicology Outreach Activities: Regional Chapter Successes and Resources” Wednesday, March 13, from 9:00 am–11:45 am. Each Regional Chapter appoints a contact for K–12 outreach. These representatives in conjunction with the K–12 Subcommittee have been collaborating, and this workshop, chaired by Courtney Sulentic, is a major outcome. Presentations will include hands-on demonstrations as well

as details about the web-based outreach resource collection developed by the K–12 Subcommittee. Be sure to stop by and hear about:

- **TOTALLY TOXIC! A K–12 Outreach Program Based on the 5E Model of Science Education** (Ohio Valley)
- **Inspector Tox Outreach Activity** (MASOT)
- **Silly Science and Other Activities for K–12 Outreach** (Southeastern RC)
- **Exploring Toxicology: Designing Learning Goals and Evaluation Strategies for Outreach Activities** (Midwest RC)
- **Resources for Toxicology K–12 Education Outreach: Updating the SOT K–12 Website** (K–12 Subcommittee)

When you are in ToxExpo on Tuesday, March 12, and Wednesday, March 13, visit the High School Poster Exposition near the SOT Pavilion. The Education Committee K–12 Subcommittee has organized this special poster display to give high school students the opportunity to present their research. Topics are as diverse as cancer risk from mouthwash, effect of electromagnetic radiation on algae, and use of nanoparticles to treat metal contamination. With support from the Eastman Charitable Foundation, students will travel from across the large state of Texas and beyond to be immersed in a large scientific meeting, meet with mentors, and have the opportunity to learn about the diversity of careers opportunities in toxicology.

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## **Meet the Directors Session—2013 SOT Annual Meeting**

This year's Meet the Directors Session at the Annual Meeting will feature presentations from National Institute of Environmental Health Sciences, US Environmental Protection Agency, National Institute of Occupational Safety and Health, and National Institute of General Medical Sciences. The session is scheduled for Monday, March 11, 2013, and will start at 1:00 pm in advance of the regular scientific sessions. In addition to providing some perspective on the scientific directions and strategies for their organizations, the speakers also will provide relevant information on funding opportunities to support basic and applied research. We hope that the session will be highly interactive, with opportunity to discuss timely and topical issues relevant to toxicology funding and research.

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## **Educational-Career Development Sessions**

Education-Career Development sessions provide tools and resources to toxicologists that will enhance near-term and long-term professional and scientific development.

2013 sessions include:

- “From New Submissions to Competitive Renewals: Different Phases of Grant Writing,” Monday, March 11, 12:00 PM–1:30 PM, Room 214 C&D
  - “The Symbiosis of Mentoring: Getting the Most out of the Mentor-Mentee Relationship,” Tuesday, March 12, 4:30 PM–5:50 PM, Room 214 C&D
  - “Regulatory Science and Risk Assessment: Lessons for Early-Career Scientists on What to Expect and How to Pursue This Career Path,” Wednesday, March 13, 12:00 Noon–1:30 PM, Room 214 C&D
  - “Toxicological Writing for Industrial and Regulatory Audiences,” Wednesday, March 13, 4:30 PM–5:50 PM, Room 214 C&D
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## **Learn More About Our Sister Societies at the Global Gallery of Toxicology**

Toxicology societies from all around the world are invited to participate in the Global Gallery of Toxicology. Now in its third year at the SOT Annual Meeting, posters showcasing the formation, key accomplishments, strategic initiatives, and

current and future activities of these sister societies will be prominently displayed in the SOT Registration area, Bridge Hall, in the convention center. In addition, the 2013 Global Gallery poster session has an “author attended” poster time from 11:00 am–12:30 pm on Monday, March 11. The goal of SOT and of all these societies is to advance human health and disease prevention.

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## SOT Awards Lectures

*The recipients of the SOT Merit Award, SOT Leading Edge in Basic Science Award, and SOT Distinguished Toxicology Scholar Award will deliver presentations during the SOT 2013 Annual Meeting at the time and locations provided below.*

### **Merit Award Lecture: Bioactivation, Covalent Binding, and Toxicity: A Personal Odyssey**

Monday, March 11, 2:30 PM–1:20 PM, Grand Ballroom C2



Lecturer: Frederick Peter Guengerich  
Vanderbilt University Medical Center

### **Leading Edge in Basic Science Award Lecture: Human Organs on Chips As Replacements for Animal Testing**

Tuesday, March 12, 8:00 AM–8:50 AM, Grand Ballroom C2



Lecturer: Donald E. Ingber  
Harvard University

### **Distinguished Toxicology Scholar Award Lecture: Mitochondria: Crossroads of Cell Survival, Death, and Transformation**

Wednesday, March 13, 12:30 PM–1:20 PM, Grand Ballroom C2



Lecturer: John J. Lemasters  
Medical University of South Carolina

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## Reminder: Submit a Late-Breaking Abstract for SOT 2013

Dear Colleague:

We look forward to receiving your late-breaking research results for inclusion at the 2013 Annual Meeting of the Society of Toxicology (SOT) in San Antonio, Texas. The deadline to submit a late-breaking abstract is Sunday, January 20, at 11:59 pm (Eastern Standard Time), and the cost is \$50.

Please select the Late-Breaking Submission option in the submission section of the [website](#). (The “Abstract Submission” option applies to the October deadline and is now closed. If you do not see the Late-Breaking option, please click on *Modify Your Account* and go to Step 4 to add the appropriate role to your account.)

Important criteria for abstract submission during this time are that the research must be new and should describe high impact original research that could not be completed prior to the original deadline.

Additional criteria that qualify an abstract to be accepted during this final submission phase include:

- 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.
- 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 late abstract period may be appropriate.
- 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.
- Not more than one abstract will be accepted by the same presenting author.

All abstracts accepted during this final submission phase will be programmed for a poster session on Thursday, March 14, from 8:30 am to 12:00 noon. These abstracts will not be printed in the *Program*, but will be accessible through the SOT mobile event app and online event website. A printed supplement of the accepted abstracts will be available to attendees in the registration area at the Annual Meeting.

We look forward to welcoming you to San Antonio, Texas, and hope that you will consider submitting your abstracts.

Sincerely,

Lois D. Lehman-McKeeman  
Chairperson, SOT Scientific Program Committee  
SOT Vice President

Norbert E. Kaminski  
Co-Chair, SOT Scientific Program Committee  
SOT Vice President-Elect

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## SOT Pavilion—The Place to Connect in the ToxExpo

Located in the ToxExpo Exhibit Hall, the SOT Pavilion is your place to connect and learn about SOT programs, services, membership benefits, and more. Find out about the SOT Endowment Fund, *Toxicological Sciences*, SOT awards, and sponsored awards and fellowships. ToXchange—the SOT member network, educational programs directed across the spectrum from K–12 throughout the toxicology career, and everything taking place at the Annual Meeting.

All SOT Annual Meeting attendees are welcome to stop by at any time during ToxExpo hours as follows:

**Pavilion Hours:**

Monday, March 11 9:00 AM–4:30 PM

Tuesday, March 12 8:30 AM–4:30 PM

Wednesday, March 13 8:30 AM–4:30 PM

**Pavilion Events:**

Be sure to stop by during one of the scheduled events each day:

**9:00 AM–4:00 PM *Toxicological Sciences*—Everything You Want to Know**

**Hispanic Organization of Toxicologists—Meet and Greet**

**10:00 AM–11:00 AM Women in Toxicology Special Interest Group—Meet and Greet**

**ToXchange Tutorial—Getting Started**

**12:00 Noon–1:00 PM ToXchange Tutorial—Discussion Forums (Monday and Tuesday only)**

**1:00 PM–2:00 PM Graduate Student Leadership Committee (GSLC)—Meet and Greet**

**2:00 PM–3:00 PM ToXchange Tutorial—Surveys and Polls**

**3:00 PM–4:00 PM Meet the Leaders—Regional Chapters, Special Interest Groups, Specialty Sections**

***Toxicological Sciences*—Ask An Editor**

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## **Many Student Events to be Held at the 52nd SOT Annual Meeting**

The SOT Annual Meeting in San Antonio will be filled with opportunities to celebrate and network, as well as to pursue the latest in toxicology. For students who are new to the meeting or who have been before, the place to kick-off the week is the Student/Postdoctoral Mixer on Sunday evening, March 10, from 7:30 pm to 9:00 pm. This mixer, hosted by the Graduate Student Leadership Committee (GSLC), is a great event to begin networking right away: Learn more about the different component groups of SOT, meet up with colleagues, and discuss issues of interest or concern with other student and postdoctoral meeting attendees. The Mixer was a great success in San Francisco, with over 370 attendees, door prizes, a networking game, and more. Please plan to join us in San Antonio in 2013. Tickets are FREE. Be sure to sign up when you [register](#) for the SOT 2013 Annual Meeting.

Another popular activity hosted by the GSLC is the [Chat with an Expert](#). Graduate student participants have the great opportunity to network and gain insights from seasoned toxicologists about career paths. The 2012 program was a great success, with nearly 70 Experts volunteering to meet over 130 students during the SOT Annual Meeting. As part of this dynamic program, graduate students are matched with toxicology experts, establishing communication among them, and facilitating face-to-face meetings at the Annual Meeting. Every year this program is highly rated by the participants. This program also includes “Chat with a Postdoc” and “Chat with a Graduate Student.” Two years ago this program was expanded to include informal face-to-face meetings between postdocs and graduate students (with postdocs acting as hosts), and graduate students and undergraduates (with graduate students acting as hosts). Postdocs, graduate students, and undergraduate students should [register](#) in advance so you can join the group communication before the meeting—the deadline is February 11, 2013.

The GSLC and Postdoctoral Assembly (PDA) will co-sponsor a symposium session at the 2013 Annual Meeting. The

session, entitled “Role of Systems Biology in Characterizing Risk of Developmental Origins of Disease,” fits in the SOT scientific theme “Application of Systems Biology to Toxicology.” The symposium session is co-chaired by GSLC Chair Tammy Palenski and David Szabo of the PDA. The goal of this symposium is to consider emerging knowledge and information from systems biology to inform risk assessment and decision making in the arena of developmental origins of disease. This symposium continues our previous success as a co-sponsor of symposia at the past four Annual Meetings. Please plan to attend and support the research of your student and postdoc colleagues!

Students also are encouraged to attend other Annual Meeting events and the Specialty Section receptions, as well as the annual [In Vitro Lecture and Luncheon for Students](#) on Monday, March 11, 2013.

The GSLC would like to invite all graduate students to visit the SOT Pavilion on Monday, Tuesday, and Wednesday from 1:00 pm to 2:00 pm, during the Annual Meeting to meet the officers of GSLC. Executive Board members will be available during these times to answer questions about the GSLC and welcome feedback on graduate student activities at the Annual Meeting.

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## **2nd Annual SOT Mentoring Breakfast to be held in San Antonio**

Following a very successful inaugural Mentoring Breakfast in San Francisco in 2012, the 2nd Annual Mentoring Breakfast will be held this year in San Antonio. Last year’s Mentoring Breakfast was a new event organized by the Women in Toxicology (WIT) Special Interest Group (SIG). During the Breakfast, 50 potential Mentees expressed their ideal mentoring needs to volunteer Facilitators. After the Annual Meeting, the Facilitators matched the Mentees with Mentors using ToXchange and the Career Resource and Development (CRAD)-maintained Mentor Match Database. The event was so successful that WIT proposed to SOT Council to adopt the Mentoring Breakfast as part of a larger SOT Mentoring Initiative. WIT solicited help in this effort from the CRAD Committee, Graduate Student Leadership Council, Postdoctoral Assembly, and the SIG—Collaboration Group, all of whom identified Mentoring as part of their strategic plans. The Mentoring Breakfast Planning Committee has made considerable efforts to involve all members of SOT and looks forward to another successful Breakfast after which 50 more Mentees will have Mentors! Mentoring is essential at all career stages so if you are interested in serving as a Mentor or in finding a Mentor, please visit the [Mentor Match website](#) and sign up.

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## **2013 Graduate Student Award Recipients Named by the SOT Awards Committee**

### **Colgate-Palmolive Awards for Student Training in Alternative Methods**

The SOT Awards Committee has selected graduate student award recipients to be recognized at the SOT 52nd Annual Meeting in San Antonio, Texas. Aaron Lulla, University of California Los Angeles, California; Jamie Moscovitz, Rutgers, The State University of New Jersey, Piscataway, New Jersey; and Alexandra Muoz, New York University School of Medicine, Tuxedo, New York, are named the 2013 recipients of the Colgate-Palmolive Awards for Student Training in Alternative Methods.

The purpose of the Colgate-Palmolive Awards for Student Research Training in Alternative Methods is to enhance graduate student research training using *in vitro* methods or alternative techniques to reduce, replace, or refine use of animals in toxicological research.

The training may include, but is not limited to, use of *in vitro* and *ex vivo* procedures, nonmammalian animal models, computer modeling, and structure-activity relationships, and is intended to help toxicology graduate students enhance their thesis or dissertation research. The award includes a stipend of up to \$3,750 to defray travel, per diem, training expenses, and research costs.

***Aaron Lulla***



Mr. Lulla will work on his project, “The Dithiocarbamate Fungicide Ziram Results in Endogenous Synuclein Aggregation, Dopaminergic Cell Loss, and Reduced Locomotor Behavior in a Zebrafish Model of Parkinson’s Disease,” in the laboratory of Alvaro Sagasti, University of California, Los Angeles, California.

***Jamie Moscovitz***



Ms. Moscovitz will travel to the laboratory of Angela Slitt, University of Rhode Island, Kingston, Rhode Island, to work on her project, “Utilization of Primary Hepatocytes to Investigate Mechanisms of Chemical Disposition and Toxicity during Pregnancy.”

***Alexandra Muñoz***



Ms. Muñoz will travel to the laboratory of Carlos Pena, University of Applied Sciences, Western Switzerland, Yverdon-les-Bains, Switzerland, to complete her project, “Multivariate Analysis and Fuzzy Modeling to Detect Nickel and Arsenic-induced Gene Signatures in Microarray Data.”

**Syngenta Fellowship Award in Human Health Applications of New Technologies**

***Julia E. Rager***



The SOT Awards Committee has named Julia E. Rager as the 2013 recipient of the Syngenta Fellowship Award in Human Health Applications of New Technologies. Ms. Rager, who expects to receive her PhD in May 2013, will work

on her project, “Elucidating the Relationship between Exposure-Induced DNA Damage and Dysregulated MicroRNAs” in the laboratory of Rebecca C. Fry, University of North Carolina, Chapel Hill.

The Syngenta Fellowship Award in Human Health Applications of New Technologies is presented to either a third-year (or later) graduate student or a postdoctoral trainee. The funding is intended 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. The work should permit a quantitative basis for extrapolation of the results from animal bioassays or animal models (*in silico*, *in vitro*) to humans at relevant human doses. The award consists of \$15,000 in fellowship funds as well as travel to the SOT Annual Meeting to accept the award and travel to a Syngenta site to present the results.

## **SOT Graduate Student Travel Support Awards**

More than 70 graduate students will receive Graduate Student Travel Support to attend the Society of Toxicology 52nd Annual Meeting in San Antonio, Texas. SOT Graduate Student Travel Support is provided, in part, with generous contributions from Battelle Foundation, Burroughs Wellcome Fund, and the Sheldon D. Murphy Memorial Fund, a named fund of the SOT Endowment Fund. The complete list of graduate students receiving these awards will be available in the Historical Awards Listing on the SOT website following the Annual Meeting.

Access more information on these and other SOT Awards on the [Awards & Fellowships section](#) of the SOT website by selecting the award criteria for the awards in which you are interested (i.e., Endowment Fund Awards, for Graduate Students, for Postdoctoral Fellows, for Scientists, for Undergraduate Students, and their Advisors, etc.). You also may select a specific award from the complete award listing from the drop-down menu on the SOT Awards and Fellowships page. Please note while most SOT Awards have an annual application deadline of October 9, many awards, especially those offered by SOT Regional Chapters, Special Interest Groups, and Specialty Sections, have deadlines throughout the calendar year. SOT offers more than 160 awards annually via all our programs. Every graduate student presenting at the SOT Annual Meeting is encouraged to apply for Graduate Student Travel Support and all are welcome to submit applications for the Colgate-Palmolive Awards for Student Research Training in Alternative Methods.

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## ***Tox ShowDown* Returning to the 52nd Annual Meeting**

Okay you ornery varmints, git your derrieres (pardon the French) down to SOT’s *Tox ShowDown* for a big time good time. This here is Texas, folks. The *Tox ShowDown*, for those of you not in the know, is an *It’s Academic*-style quiz game in which teams of contestants compete at answering questions related to toxicology, both in its scientific context and as it relates to society, culture, and the arts. The Graduate Student Leadership Committee (GSLC), having been duly deputized, is authorized to wrangle you to this event, and keep you in line.

Chaired by reformed outlaws, Phil Wexler and Sue Ford, this event is sure to be informative and entertaining, and a perfect way to celebrate the halfway point of the SOT Annual Meeting. Take a break from science straight up and give your toxicology a shake. In other words, smile, pardner. Put on your ten gallon hats and join the wagon train of toxicologists on Tuesday, March 12, 2013, 7:30 pm–9:00 pm at the Mariott Riverwalk Alamo Ballroom. It’s easy; just Remember the Alamo! Free and open to all; no ticket necessary.

Note: We are still seeking contestants for *Tox ShowDown*’s 3 teams of 3. So if you know your cytochrome from your kodachrome, your endocrine from your paraffin, and your nanotox from your bagels and lox, you might just have what it takes. A passing knowledge of Shakespeare, grand opera, alchemy, and medieval tapestries, all as they relate to toxicology, would not hurt either. If these subjects are alien to you, don’t worry; you can just wing it like the rest of us. Show us what you’re made of; give it a shot. Remember, there are prizes for all, you will gain the everlasting gratitude and applause of your colleagues who were too chicken to sign up, and, as a way to take a breather from the meeting, it sure beats rustlin’ cattle. Send expressions of interest as soon as possible (i.e., the minute you finish reading this sentence) to [Phil Wexler](#).

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# Participate in Chat with an Expert in San Antonio (Registration Reminder)

The Graduate Student Leadership Committee (GSLC) is extending an invitation to all SOT members to participate in the Chat with an Expert (CWAE) program. This program provides the opportunity for graduate students and postdoctoral fellows to meet with expert toxicologists at the 2013 Annual Meeting in San Antonio. Feedback from participants is very positive every year, and we encourage your participation as an Expert or graduate student/postdoc.

A small group of graduate students and postdocs (preferably no more than three) will be matched with an Expert based on research and professional interests. The Expert will determine a date, time, and location for the meeting and notify group members by email in February.

The meeting can be an informal chat over a meal (breakfast, lunch, or dinner) or coffee, or simply a casual meeting in a relatively quiet area of the Convention Center. If the Expert decides to meet during meal times, each person in the group is responsible for his or her meal expense.

**Experts:** The stated deadline for [sign up](#) is January 9, 2013. However, you may register until Wednesday, January 16, 2013.

**Students and Postdocs:** Please [sign up](#) by February 11, 2013

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

Sincerely,

The Graduate Student Leadership Committee

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## Quick Response (QR) Tips for SOT Annual Meeting Poster Preparation

Posters are one of the most visible parts of many scientific meetings and virtually everyone who has attended the Annual Meeting of the Society of Toxicology has either presented one, or has looked at one—trying to make sense of the research. Not only are attendees pressed for time and are multitasking, they also often find that the poster has tiny text, a confusing layout, or that no one is there to answer their questions. Sometimes presenters provide a printed version, which is useful, yet the size of the print usually makes it difficult to read without a magnifying glass. Some people collect business cards and promise to send their poster later. Ultimately, there is an infinite number of ingenious ways in which people share information beyond those few hours that a poster is on display.

You may have noticed the abundance of square pixelated images in the printed materials distributed at the Annual Meeting. These are called quick response (QR) codes and are used to encode information for various purposes. One of the most useful ways the QR codes are used is to encode a URL for a webpage where the information (e.g., your poster, contact information, and any other relevant materials) can be found.

The QR code is easily read by a smartphone or tablet with an appropriate application (app). Upon scanning the code, web links are opened negating the need to type in the address. The interaction with a QR code is saved to history on the phone and can be emailed for later reviewing. In addition, QR codes on posters provide a quick and simple way of merging printed materials with web and video content. Embedded links to references, contact information, animations, and copy of a poster itself may help presenters to reduce the clutter of their poster and focus on the science that is being presented. As the author, you control what information is accessible via the QR code, and it could be either as much or as little as you would want—even just address information for further contact.



The process of generating a QR code for your poster is easy and requires two steps: (1) creating a web-presence for your

materials; (2) generating a QR code image using one of many free web tools. The former step can be managed in a variety of ways. Some have access to dedicated websites (personal, lab, departmental, etc.) where information can be posted. Others may register for one of the cloud-storage services (e.g., Dropbox) that will host your files either for free or for a nominal fee. In either case, a URL pointing to the location of your file/files needs to be copied. Then, one can use a web-based QR code generator (e.g., [QR.Stuff.com](http://QR.Stuff.com) or [GOQR.me](http://GOQR.me)) to create a downloadable image that can be placed on the poster.

While QR codes offer the potential to enhance a poster in many ways, there are issues to consider before you use them. QR codes are not self-explanatory and not everyone has access to the Internet with their device or phone. Likewise, those with a suitable device might not have an application that reads QR codes, albeit those are plentiful and free for iPhone, Android, and Windows Mobile devices. From the point of the presenter, it should be noted that the use of a QR code requires planning. Given that many presenters do things at the last minute, making a QR code falls off the list.

Despite some shortcomings and limitations with “penetrance” of the QR code-enabled devices, this is something you should try. If anything, people may stop by just to ask you what that thing is!

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## **Preregistered Attendees to Receive Badges Soon**

Name badges have been mailed to all attendees who registered by the February 15 deadline. In appreciation of serving on SOT Committees and Task Forces and as officers in the Regional Chapters, Special Interest Groups, Specialty Sections, and other SOT bodies, volunteers will receive (by special mailing), appropriate ribbons to affix to their SOT 52nd Annual Meeting badges. In recognition of their generous support of SOT programs, 2012–2013 SOT Endowment Fund contributors will be mailed a distinctive ribbon. If you do not receive the badge or the appropriate ribbons by mail, please check with the Registration Desk at the meeting. Look for “Badge Only” signage to facilitate pickup.

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## **Selection of Themes for the 2014 Annual Meeting Scientific Program**

For the past several years, the Scientific Program Committee (SPC) has identified scientific themes for each upcoming annual meeting in advance of the program proposal submission deadline. The rationale for having these thematic areas was that it provided a level of cohesiveness to the annual meeting program as well as focus for premeeting promotional materials.

Unfortunately, the identification of themes prior to the program submission deadline also had some unintended consequences, one of which was that it created confusion. Often program submitters believed that if their program proposals were focused on one of the designated thematic areas, it would have a greater likelihood of being selected by the SPC. In fact this was not the case. Similarly, some felt that the pre-selection of themes for the annual meeting, to some degree influenced what science was being presented at the annual meeting.

In order to retain the beneficial aspects of programmatic themes, the SPC has made a modification for the 2014 Annual Meeting that should eliminate the unintended consequences discussed above. Specifically, program themes will be retained; however, the themes will be identified after the scientific program proposals have been selected. In other words, after the SPC selects the strongest program proposals they will then identify the meeting themes by looking for commonality across the overall program. By doing so, the goal is to have the membership and their strongest science drive the meeting themes rather the SPC. After the 2014 Annual Meeting, we will solicit your input to learn whether you found this change helpful.

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## **SOT Annual Meeting On-Site Job Bank Center**

Located in the Henry B. Gonzalez Convention Center, the on-site Job Bank Center provides Annual Meeting attendees

with access to the SOT Job Bank system as well as assistance in facilitating interviews at the SOT Annual Meeting. **All users with current registrations at the time of the Annual Meeting will be permitted to use this service. All SOT members may use the service for free.**

A bank of computers will be available in the SOT Job Bank Center for last-minute updates to your account information or posting, as well as printers for producing paper copies of candidate profiles and position descriptions. **If you are a candidate attending the Annual Meeting, you should bring multiple copies of your personal resume for interviews.** All candidates and positions should be sought via the online Job Bank.

Employers recognize that the Annual Meeting On-Site Job Bank Center provides a cost-effective and efficient way to interview a distinguished pool of candidates. Employers and candidates may take advantage of the multiple spaces available for interviews in Room 008 on the River Level. Some rooms are available to be scheduled in advance, and others are on a first-come, first-served basis. To ensure privacy for candidates, the SOT Job Bank Center is located away from the scientific sessions. Also, the Job Bank interview rooms will be fitted with modular hard walls to increase privacy.

Job seekers and employers are encouraged to preregister before visiting the Job Bank Center. Registration also is available on-site in Room 007 D on the River Level.

**The Center is available during the following hours of operation:**

Sunday, March 10	1:00 PM–5:00 PM
Monday, March 11	9:00 AM–5:00 PM
Tuesday, March 12	8:30 AM–5:00 PM
Wednesday, March 13	8:30 AM–5:00 PM

Online Job Bank access will be available—as always—through your personal computer and at the Annual Meeting @SOT Center. Access to the online Job Bank in the Center is limited to short searches for updates or new information.

For additional information, contact [Kevin Merritt](#) at SOT Headquarters or call 703.438.3115 ext. 1601.

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## **ToxExpo Prize Drawings—Each Day ToxExpo Is Open**

Prize Drawings take place Monday, Tuesday, and Wednesday in the Exhibit Hall. A \$500 American Express Gift card is awarded each day.

Drop your business card in the ToxExpo prize drawing boxes found in all Diamond Level Exhibitor Sponsor booths.

See map in the SOT Annual Meeting Mobile Event App, the *Program*, and *ToxExpo Directory* for location of Diamond Sponsor Booths indicated by a diamond symbol .

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## **2013 ToxExpo Exhibit Hall Hours**

ToxExpo 2013 is the place to see cutting-edge technology and find nearly all toxicology-related services available on the market today. With nearly 400 companies represented and 350+ exhibit booths, toxicologists and industry professionals have the unparalleled opportunity to gain first-hand knowledge on the latest advances during this unique three-day exhibition. The exhibit hours are as follows:

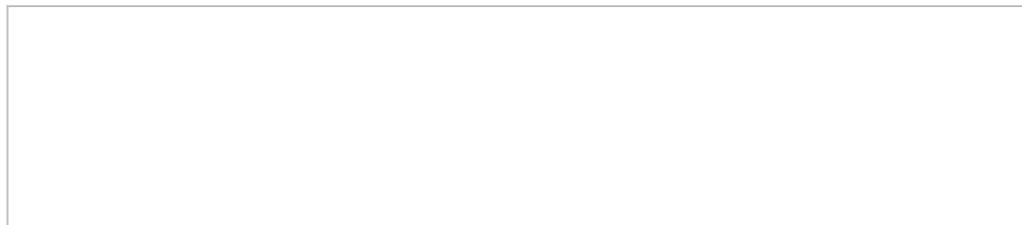
- Monday, March 11, 9:00 AM–4:30 PM

- Tuesday, March 12, 8:30 AM–4:30 PM
- Wednesday, March 13, 8:30 AM–4:30 PM

54 Exhibitor/Sponsor-Hosted Sessions will be held during the Annual Meeting. See the SOT Annual Meeting Mobile Event App, the *Program*, the *ToxExpo Directory*, and the [SOT Annual Meeting website](#) for details.

## Science News

### ToxSci March 2013 Vol. 132, No 1, Now Online



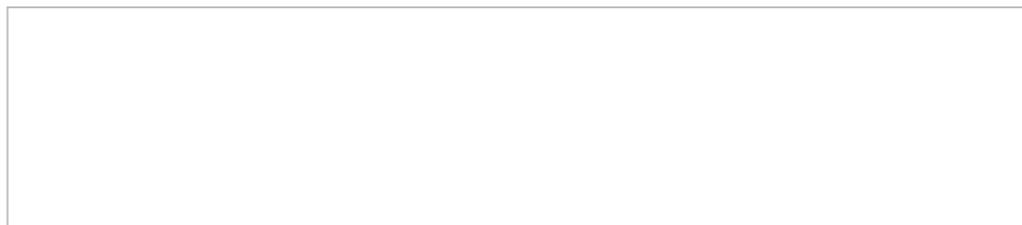
The March 2013, Vol. 132, No. 1 issue of *Toxicological Sciences* is now available [online](#). To have the email Table of Contents (eTOC) alerts delivered to you as well as Advance Access notification of the latest papers and research in *Toxicological Sciences* as soon as they are accepted and posted to the website, register [online](#).

You are encouraged to stop by the SOT Pavilion in the ToxExpo Exhibit Hall at the SOT Annual Meeting from 3:00 pm–4:00 pm Monday–Wednesday, March 11–13, to talk with one of the Associate Editors about the Society’s official journal, *Toxicological Sciences*. On Wednesday, March 13, from 1:00 pm–2:00 pm, plan to attend the Oxford University Press Exhibitor Hosted session, Best Practices for Authors: Maximizing the Success of Your Submitted Paper, in Room 0007 A of the Henry B. Gonzalez Convention Center.

*Toxicological Sciences* is among the most highly cited original research journals in Toxicology with an impact factor of 4.652.

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### ToxSci February 2013 Vol. 131, No. 2 Now Online



The February 2013, Vol. 131, No. 2 issue 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, register [online](#).

The paper chosen for the Editor's Highlight in this issue is [A Species Difference in the Peroxisome Proliferator-Activated Receptor  \$\alpha\$ -Dependent Response to the Developmental Effects of Perfluorooctanoic Acids](#) by Prajakta P. Albrecht, Nicole E. Torsell, Prasad Krishnan, David J. Ehresman, Steven R. Frame, Shu-Ching Chang, John L. Butenhoff, Gerald L. Kennedy, Frank J. Gonzalez, and Jeffrey M. Peters.

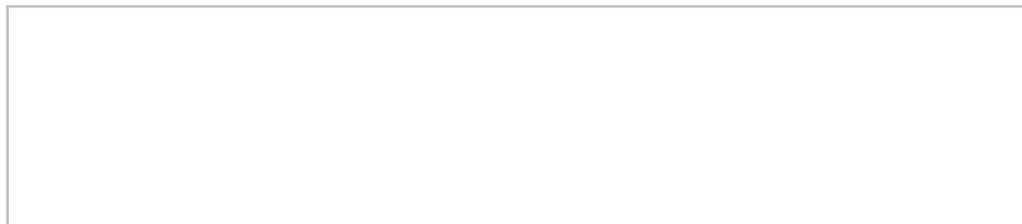
*ToxSci* Editor-in-Chief Michael L. Cunningham notes in his Editor's Highlight that “Species-specific toxicity of chemicals is usually demonstrated in adult animal models. These authors demonstrated the species-specific toxicity of

the peroxisome proliferator perfluorooctanoic acid (PFOA) in a developing mouse model. Using wild-type, PPAR $\alpha$ -null and PPAR $\alpha$ -humanized mice, the authors demonstrated that the developmental/postnatal effects of PFOA are differentially mediated by mouse compared to human PPAR $\alpha$ .”

*Toxicological Sciences*, the official journal of SOT, is among the most highly cited original research journals in Toxicology with an impact factor of 4.652.

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## **ToxSci January 2012, Vol. 131, No. 1 Now Online**



The January 2012, Vol. 131, No. 1 issue 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, register [online](#).

The paper chosen for the Editor’s Highlight in this issue is as follows: [Novel Assays for Detection of Urinary KIM-1 in Mouse Models of Kidney Injury](#) by Venkata S. Sabbiseti, Kazumi Ito, Chang Wang, Li Yang, Stephen C. Mefferd, and Joseph V. Bonventre. *ToxSci* Editor-in-Chief Michael L. Cunningham notes in his Editor's Highlight that “Sensitive and early noninvasive biomarkers of renal toxicity are needed to augment or replace current biomarkers. This report describes the development and validation of two bioassays for mouse urinary KIM-1 that may be of clinical value. Using a microbead-based assay and a quantitative dipstick assay, these assays demonstrated sensitivity and stability for detection of KIM-1 in models of renal toxicity when other biomarkers remained unchanged.”

*Toxicological Sciences*, the official journal of SOT, is among the most highly cited original research journals in Toxicology with an impact factor of 4.652.

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## **Science News Alert—February 2013**

Dear SOT Members,

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

### **International Drug Abuse Research Society, Mexico City—April 15–19, 2013**

The 4th International Drug Abuse Research Society meeting, Research Frontiers and Advances in Drug Addiction, will bring together basic scientists and clinical investigators from the international community to provide in-depth understanding and current knowledge concerning new conceptual insights into the CNS acting drugs, alcohol abuse, drugs of abuse, and treatment of drug addiction. This meeting will be held at the Hyatt Regency Hotel, Mexico City, from April 15–19, 2013. This meeting will address the following: (1) Role of Epigenetic, Proteomics and Metabonomics in Drug Addiction (Cocaine, Alcohol, METH), (2) Drugs of Abuse and Medication Development including Nicotine/cigarette smoking, (3) Novel neurobiological targets for the treatment of Alcoholism, (4) Substituted Amphetamines-induced Neurochemical Changes and Relationship to Neurotoxicity, (5) Drug of Abuse and Imaging Brain Structure and Function, (6) Toluene/GHB/Volatile Solvent/Inhalant/anaesthetics Neurotoxicity, (7) Marijuana/Cannabinoids, and (8) Zebrafish and drug addiction. The format of the meeting will result in a useful

exchange of information not only for neurochemists/neuroscientists but also investigators from other disciplines. For additional information, please visit the [International Drug Abuse Research Society meeting website](#).

### **Lessons Learned, Challenges, and Opportunities: The US Endocrine Disruptor Screening Program Workshop: April 23–24, 2013**

A workshop entitled, Lessons Learned, Challenges, and Opportunities: The US Endocrine Screening Program Workshop, will be held April 23–24, 2013, at the North Carolina Biotechnology Center, Research Triangle Park, North Carolina. The purpose of this workshop is to share experience gained and lessons learned by the practitioners and laboratories that conducted the screening as well as the experience of other experts to inform the future of chemical evaluation of endocrine activity. The workshop will include a wide range of stakeholders—representatives from federal regulatory agencies, NGOs, industry, contract laboratory scientists, and academic researchers—to present, discuss, and share experience for potential improvements in Tier 1 assays, and to further advance the ability of the scientific community to assess endocrine disruption and render weight-of-evidence decisions. All interested parties are encouraged to attend—registration is open and free. More information and registration is available on the [US Endocrine Disruptor Screening Program Workshop website](#).

### **Latin America Risk Assessment Workshop: April 28–May 3, 2013**

As risk assessment is introduced into the registration procedure of Latin America countries, there will be an increasing need for well-trained toxicologists to better understand the process leading to sound scientifically supported risk analysis and risk management decisions. This workshop is based on the previous 20 years of experience of the Risk Assessment Summer School (RASS) sponsored by the International Union of Toxicology (IUTOX), with emphasis on learning rather than teaching. This upcoming workshop will be held at the Grande Hotel São Pedro, Águas de São Pedro, São Paulo, Brazil. The objectives of the workshop are to offer young Latin American toxicologists unique opportunities (1) to broaden their knowledge and experience in the field of chemical risk assessment and (2) to better understand the data evaluation process. The workshop has been designed to include a limited number of formal lectures with plenty of time for discussions and student mentoring based on these lectures, faculty cases, and, most importantly, study cases written by the participants in advance of the workshop. For more information, visit the [Latin America Risk Assessment Workshop website](#).

### **American College of Toxicology Course: April 22–26, 2013**

A four and one half -day Toxicology for Industrial and Regulatory Scientists course will be conducted by the American College of Toxicology from April 22–26, 2013, in Gaithersburg, Maryland. This course, taught by distinguished experts, is designed to provide a basic training in toxicology. Participants will obtain an overall understanding of the principles of nonclinical safety evaluation with emphasis on the practical application of these principles and interpretation of nonclinical safety data. The course will include discussion of regulatory case studies and a workshop on drug development. It is intended to benefit individuals working in pharmaceutical, biotechnology and chemical/agro-chemical companies, contract research organizations (CROs), and regulatory agencies that are interested in or currently practicing toxicology. For registration and additional information, please go to the [American College of Toxicology Course website](#).

### **Environmental Mutagenesis and Genomics Society 44th Annual Meeting—Abstract Deadline June 1, 2013**

The 44th Annual Meeting of the Environmental Mutagenesis and Genomics Society (EMGS) will be held September 21–25, 2013, at the Hyatt Regency Monterey, in Monterey, California. This year's theme is “Embracing the Science of the Future through Cross-Disciplinary Research.” The meeting provides a broad scientific forum for basic and applied researchers as well as students and teachers to review the latest information linking environmental conditions to adverse health outcomes. The emphasis of the meeting is (1) to 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)

to integrate applied genetic toxicology with basic research in DNA damage and repair, toxicogenomics, and epigenetics; (3) to determine how interdisciplinary information can be best used to direct translational human epidemiological studies; (4) to have these data serve as a foundation for human risk assessment for disease and disease prevention; and finally (5) to 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 2013 Annual Meeting website](#).

### **14th International Neurotoxicology Association Meeting: June 9–13, 2013, The Netherlands**

After 25 years, INA's biannual meeting will be back in the Netherlands at Egmond aan Zee, June 9–13, 2013. The theme of the meeting is "Neurodevelopmental Basis of Health and Disease." The latest advances in neurotoxicology will be shared among junior and senior scientists from all over the world. Hotel Zuiderduin, the location of the meeting, is situated in the sand dunes near Egmons aan Zee with the beaches along the North Sea within walking distance. Overall there are 11 programmed symposia. In addition, two symposia are reserved for talented young scientists and another one for "hot topics." Abstract submission is open until April 1, 2013. The Local Organizing Committee of INA 14 includes Didima de Groot, TNO; Jan Lammers, Remco Westerink, IRAS Utrecht University; Erik de Vries, University Medical Center Groningen; Donald A. Fox, University of Houston USA (President INA 2009–2011). The current INA President is Jordi Lorens (2011–2013), University of Barcelona, Spain. This year's conference will celebrate INA's 25th anniversary with an exciting social program and the traditional INA soccer game. For more information see the [14th International Neurotoxicology Association website](#).

### **Society of Toxicologic Pathology 32nd Annual Symposium: June 16–20, 2013**

The Society of Toxicologic Pathology (STP) 32nd Annual Symposium, "Toxicologic Pathology of the Digestive Tract and Pancreas," will take place June 16–20 at the Oregon Convention Center in Portland, Oregon. The 2013 STP Scientific Symposium will cover fundamental biology and recent innovations in the toxicologic pathology of the digestive tract and pancreas. The focus of this international meeting is to correlate advances in the morphologic evaluation and integration of findings in the digestive tract and pancreas with functional, cellular, and molecular knowledge in a series of plenary and poster sessions. The meeting will provide a venue for interactive discussion of the current state of knowledge in both conventional and specialized nonclinical safety studies of the digestive tract and pancreas. Preliminary Program information is now available on the [STP Annual Meeting website](#).

### **Teratology Society 53rd Annual Meeting: June 22–26, 2013**

The 53rd Annual Meeting of the Teratology Society will be held June 22–26, 2013, in Tucson, Arizona. The theme of the 2013 meeting is "Application of Cutting-Edge Technologies to Improve Assessment, Treatment, Prevention, and Communication regarding Birth Defects." Sessions will highlight teratology research and issues that have global impact, with topics including advances in genomic sciences, application of imaging technologies, predictive developmental toxicology, diabetes and pregnancy, and chemotherapeutics. The interdisciplinary nature of the Society provides unique opportunities to look broadly at these complex issues. For more information, visit the [Teratology Society Annual Meeting website](#).

### **Gordon Research Conference on Mycotoxins & Phycotoxins: June 16–21, 2013**

The 16th Gordon Research Conference on Mycotoxins & Phycotoxins will be held June 16–21, 2013, Stonehill College, Easton, Massachusetts. This conference provides an interdisciplinary and international forum of pioneering research for academic, governmental, and industrial scientists and allows for the free exchange of ideas, identification of new research opportunities, and initiation of cross-disciplinary collaborations. Contemporary themes will be explored to facilitate discussion of these natural toxins and related topics of interest. Discussion sessions will include: (1) frontiers in mycotoxin and phycotoxin research, (2) novel and emerging toxins and toxicities, (3) mechanisms of action, genomics, proteomics, and the phylogenetic basis of toxicity, (4) advances in analytical detection: use of analytical recognition elements, (5) advances in analytical detection: direct analysis of mycotoxins and phycotoxins, (6) outbreaks, exposure, and risk assessment, (7) mycotoxins and phycotoxins as therapeutic natural products, (8) strategies and regulation for prevention and control, and (9) future perspectives and directions. For more information, please visit the

## **Cellular & Molecular Mechanisms of Toxicity Gordon Research Conference: August 11–16, 2013**

The Cellular & Molecular Mechanisms of Toxicity Gordon Research Conference will be held August 11–16, 2013, Andover, New Hampshire. This conference is a premier forum for showcasing the latest, most innovative advances in mechanistic toxicological research. For the 2013 conference, the organizers have assembled a group of world-leading experts working on areas of investigation that are highly relevant to environmental, industrial, and pharmaceutical toxicology. The topics selected are varied and of great appeal to a broad audience of scientists with interest in toxicology. Mitochondrial diseases, epigenetics, transcriptional control of drug metabolizing enzymes, carcinogenesis, stem cells in toxicological research and novel functions of oxidative stress-related transcription factors are among the topics that will be highlighted at the conference. Applications for this meeting must be submitted by July 14, 2013. For more information, visit the conference [Cellular & Molecular Mechanisms of Toxicity website](#).

## **Safety Pharmacology Society Annual Meeting, September 16–19, 2013—Rotterdam, Netherlands**

The Safety Pharmacology Society (SPS) 13th Annual Meeting will be held September 16–19, 2013, in Rotterdam, The Netherlands, and will provide a dynamic forum for sharing the latest in safety pharmacology. The scientific program offers in-depth discussion of relevant topics to keep you “in the know.” This meeting will feature a diverse range of scientific sessions organized into two thematic tracks, covering issues specific to Reducing Safety Related Attrition, Expanding the Frontiers of Safety Pharmacology, Improving Support to Clinical Development, and Best Practices. The meeting will kick off with a full day of Continuing Education courses both on an introductory level as well as advanced courses for the expert. For preliminary meeting information, please visit the [SPS 2013 Annual Meeting Website](#).

## **The Environmental Health of Urban Children: 4-Part Webinar Series—Beginning October 2013**

Children are especially vulnerable to toxic exposures. This is of particular relevance in heavily industrialized, urban settings, e.g., Milwaukee, Wisconsin, and Haifa, Israel, which produce a range of toxic chemicals. These two port cities have a significant industrial base and possess populations that are ethnically diverse and of low socioeconomic status. In addition, these populations are exposed to chemical and physical stressors in their respective built environments and demonstrate growing environmental justice awareness. To engage scientists, environmental health professionals, and community leaders, this 4-part webinar series, which will begin in October and continue through December 2013, will focus on air pollution, a major issue for both cities, to (1) develop a platform through which stakeholders from each city will share environmental issues in their region, especially those that affect children, and what steps are being taken to mitigate those problems, (2) identify methods to create and promote healthier environments, and (3) identify next steps to enhance collaborative research and community engagement efforts to improve children’s environmental health. These webinars are co-sponsored by the Clinical and Translational Toxicology and Occupational and Public Health Specialty Sections. More information will follow via the [Communiqué](#) blog.

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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## **US EPA Releases Children’s Study**

US Environmental Protection Agency (US EPA) has released a comprehensive document on children's health and the

environment entitled, "America's Children and the Environment, Third Edition." The report shows trends for contaminants in air, water, food, and soil that may affect children; concentrations of contaminants in the bodies of children and women of child-bearing age; and childhood illnesses and health conditions. The report incorporates revisions to address peer review and public comments on draft materials released in 2011.

Among the contaminants clearly linked to health conditions in children, key findings include:

- The median concentration of lead in the blood of children between the ages of one and five years was 92 percent lower in 2009–2010 compared to 1976–1980 levels. Although the majority of the decline occurred in the 1980s, consistent decreases have continued since 1999.
- The median level of cotinine (a marker of exposure to environmental tobacco smoke) measured in blood of nonsmoking children ages three to 17 years was 88 percent lower in 2009–2010 than it was in 1988–1991. In 2010, 6 percent of children ages zero to six years lived in homes where someone smoked regularly, compared with 27 percent in 1994.
- The percentage of children living in counties where pollutant concentrations were above the levels of one or more national air quality standards declined from 75 percent to 59 percent from 1999 to 2009.

The report also looks at trends in other health conditions, such as Attention-Deficit/Hyperactivity Disorder (ADHD) and preterm births, for which rates have increased. There is no conclusive information on the role of environmental contaminants in ADHD or preterm births, and additional research is ongoing.

The national indicators presented in this comprehensive report are important for informing future research related to children's health. Children may be more vulnerable to environmental exposures than adults because children's bodies are still developing. Children eat more, drink more, and breathe more in proportion to their body size; and their behavior can expose them more to chemicals and organisms.

This report includes 37 indicators of children's environmental health to address 23 important topics. The expanded content reflects the latest research on children's health issues and the availability of data for more topics. Each indicator and its supporting text were peer reviewed by independent external experts and made available for review and comment by the public.

For more information on the report go to the [US EPA website](#).

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## **ICT XIII in Seoul, Korea—Early Registration and Abstract Deadline Extended to April 30, 2013**

The XIII International Congress of Toxicology (ICT XIII) will be held in Coex, Seoul, Korea, June 30–July 4, 2013, at the COEX Convention & Exhibition Center.

As a reminder, the abstract submission and early registration deadlines are **April 30, 2013**. The ICT 2013 Scientific Program Committee cordially invites you to [submit abstracts](#) for the Poster Session. All abstracts will be reviewed by the committee and outstanding abstracts will be invited to the symposium. Participants are advised to [register in advance](#) to receive an early registration discount. For more information on the meeting please visit the [ICT XIII Seoul website](#).

IUTOX is proud to present this meeting where toxicologists from around the world will share their recent findings with their international colleagues and other ICT XIII delegates. By attending ICT XIII, you will learn of the latest advances in the science of toxicology, hear from eminent international speakers and leading researchers, and be able to discuss the complex issues that arise when drugs or chemicals adversely impact humans, animals, and the environment. You will experience all this while making new friends and renewing old acquaintances at a Congress that is expected to attract over 2,500 delegates. SOT is a member of IUTOX.

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# SOT Signs Letter to Airlines Urging Them Not to Stop Shipping Laboratory Animals

In response to Air Canada's recent move to stop transporting macaques and other nonhuman primates to research labs, SOT and some 60 organizations have signed a letter to a dozen airlines carriers urging them not to do the same thing. Air Canada attempted to stop shipping animals a year ago after the British Union Against Vivisection publicized the airlines's transport from China to Canada. The Queen's University and the Public Health Agency of Canada then filed complaints with the Canadian Transportation Agency (CTA) stating that the "proposed policy change was discriminatory and unjust." The CTA did indicate that "the rule change is bound to affect certain shippers, like research universities, adversely compared to others." But the airline has a "rational basis" for the proposed change. Continuing to transport lab-bound primates could hurt Air Canada's reputation and commercial interests.

The letter that SOT and other groups have signed under the auspices of the National Association for Biomedical Research in part states, "Your company's commitment to transporting laboratory animals is crucial to finding treatments and cures for diseases afflicting millions of people worldwide. We ask that you continue your commitment to transporting animals, allowing lifesaving research around the world to continue." The letter also points out that "Access to safe, fast, and reliable modes of transportation for these animals is essential to the mission of advancing global medical and scientific progress. By carrying these animals, your company plays a significant role in the quest to end human suffering and premature death, which threaten so much of the world's population."

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## IUTOX Fellowships to Attend ICT XIII: Deadline February 15, 2013

IUTOX will provide financial support to individuals attending the thirteenth International Congress of Toxicology (ICT XIII) in Seoul, Korea, from June 30–July 4, 2013. Our ICT meetings occur only once every three years and offer the opportunity to learn the latest developments in toxicological science and regulation through general scientific sessions and continuing education classes.

Two types of fellowships will be awarded. Junior toxicologist fellowships are aimed at individuals at an early stage in their careers. Senior toxicologist fellowships are aimed at those involved in organizational activities in their own national society. The fellowships will assist recipients with their travel and accommodation expenses. The ICT XIII organizers will waive the meeting registration fee for up to 40 fellowship recipients. Application and evaluation criteria are indicated below.

### Junior Fellowships (750 USD)

#### *Application criteria:*

1. A copy of the abstract submitted to ICT XIII through conference abstract submission process. ([Abstract submission deadline to ICT is January 31, 2013.](#))
2. A copy of applicant's current *curriculum vitae (CV)* demonstrating toxicological education.
3. A statement of motivation for attending ICT XIII.
4. A statement confirming ability to meet other expenses to attend ICT XIII.

#### *Evaluation criteria:*

1. Abstract quality.
2. Home country, preference for students coming from a developing country or a country in transition. Geographical distribution of fellowships will be sought.
3. Education.
4. Motivation for attending ICT XIII.
5. Ability to meet other expenses to attend ICT XIII.

## Senior Fellowships (1000 USD)

### *Application criteria:*

1. Delegate from an IUTOX Member Society in a developing country, or representative from a Toxicological Society in a developing country considering membership in IUTOX (supporting letter from the national society with a description of the role the applicant has in the national society is required).
2. A copy of the abstract submitted to ICT XIII through conference abstract submission process. ([Abstracts submission deadline to ICT is January 31, 2013.](#))
3. A copy of applicant's current *CV* demonstrating toxicological qualifications.

### *Evaluation criteria:*

1. Support from home society and ability to represent that Society.
2. Abstract quality.
3. Toxicological qualifications.
4. Ability to meet other expenses to attend ICT XIII.

**Fellowship applications must be received at the IUTOX Headquarters by February 15, 2013.** Awardees will be notified by April 30, 2013. Submit applications to [IUTOX Headquarters](#). ICT and CTDC travel fellowship winners and SOT/AstraZeneca award winners from 2008, 2009, 2010, 2011, and 2012 are not eligible to apply.

Members new to the field of toxicology also may want to apply for ICT IUTOX Trainee Awards (deadline February 15, 2013) or the ICT IUTOX Early Toxicologist Award (deadline February 15, 2013). More information on these awards may be found on the [IUTOX website](#).

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## EU Presidents Are Urged Not to Cut Research Funding

EU scientists are visiting three European Union (EU) Presidents to urge them not to cut research funding from potential cuts in funding for the EU budget. Most recently a delegation of Nobel laureates met with the European Parliament President Martin Schulz, European Council President Herman Van Rompuy, and European Commission President José Manuel Barroso to ask that research funding be spared.

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## NIH To Relocate Chimpanzees to Federal Sanctuary System

After working with organizations like the New Iberia Research Center, the Chimp Haven federal sanctuary and other organizations, the National Institutes of Health have devised a plan to transfer all chimpanzees that have been designated as permanently ineligible for biomedical research to the Federal Sanctuary System. Over the next 12–15 months these chimpanzees will be transferred from New Iberia, Louisiana to Chimp Haven in Keithville, Virginia.

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## NIH Announces Implementation Plans for the Biomedical Research Workforce

Francis S. Collins, Director of the National Institutes of Health (NIH), held a press conference recently to announce the Institutes' plans for implementing a series of recommendations about the future of the biomedical research workforce. Dr. Collins initiated a review of the sustainability of the biomedical research workforce based on research that was published in *Science Magazine* in August 2011, which suggested a huge discrepancy in the success rate for research grant applications between white and black applicants. According to the researcher's findings, black Americans are 13 percent less likely than whites to be awarded NIH research funding.

When implemented, the recommendations that were made last summer by three working groups will have implications for faculty members, graduate students, and postdoctoral researchers conducting this type of research. The goals of the recommendations are “to ensure future US competitiveness and innovation in biomedical research by creating pathways through undergraduate, graduate, and postdoctoral training that provide excellent preparation in a timely fashion.” The two primary goals are to:

- Attract and retain the best and most diverse scientists, engineers, and physicians from around the world to conduct biomedical research as well as increase the number of domestic students from diverse backgrounds who excel in science and become part of the Science Technology.
- Prepare biomedical PhD students and postdoctoral researchers to participate in a broad-based and evolving economy.

The plans that NIH is proposing will be managed through grant guidelines and the tracking of research trainees at all levels of the training process. NIH also plans to establish a new grant program to provide additional resources for innovative approaches to research training as well as more funding for grants to encourage research independence sooner. Moreover, NIH plans to increase stipends for postdoctoral students.

For more information about the recommendations and NIH’s plans, visit the [NIH website](#).

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## **NIH to Launch Multiple Initiatives to Strengthen Biomedical Research**

The National Institutes of Health (NIH) are launching several initiatives that are designed to boost biomedical research and sustain the global competitiveness of US research. The Institutes charged the Advisory Committee to the Director to develop recommendations, which were presented to NIH this past summer. The recommendations relate to Diversity in the Biomedical Research Workforce, the Future Biomedical Research Workforce, and Data and Informatics. For more information on these recommendations, visit the [NIH website](#).

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## **India May Impose Ban on Animal Testing of Cosmetics**

The Drug Controller General of India, according to a recent article in the *Times of India*, is looking at the feasibility of banning animal testing of cosmetics. Drug Controller General G.N. Singh met recently with Maneka Gandhi, an animal activist, who claims that the European Union (EU) has stopped the use of animals for testing of finished cosmetic products and that this will affect India, given the large export in the EU of India's herbal cosmetics. Gandhi went on to say that “It is important that India acts. Harmonization of India's regulation with that of Europe's cosmetics regulation will ensure an immediate upgrade of India's safety standards in cosmetics testing using nonanimal methods.”

### **Legislative and Regulatory Update**

## **SOT To Submit Testimony Following House Subcommittee Hearing on Government Travel**

The House Oversight Committee's Subcommittee on Federal Workforce, US Postal Service and Labor Policy held a hearing on February 27, 2013, entitled, "The Road Less Traveled: Reducing Federal Travel and Conference Spending." Witnesses included Rep. Rush Holt (D-NJ), SOT's 2012 Congressional Science Leadership Award recipient; Office of Management and Budget Controller Dan Werfel; and General Services Administration Chief Accounting Officer Cynthia Metzler.

SOT will be submitting testimony within seven days, the time during which the public record is open, to reaffirm the value of professional society meetings, like the SOT Annual Meeting and ToxExpo, and the importance of federal employees attending these events.

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## **NIH Sets Plan in Anticipation of Sequestration**

The National Institutes of Health (NIH) issued a recent notice that outlines the plan the Institutes will implement should sequestration take effect on March 1. Under the plan, NIH will operate under a Continuing Resolution, which currently allows all “noncompeting continuation awards to continue to be funded at a level below that indicated on the most recent Notice of Award (generally up to 90% of the previously committed level).” The notice goes on to say that 2013 funding levels may be reduced by the sequestration. NIH may reduce the FY 2013 funding levels of noncompeting continuation grants and expects to make fewer competing awards to allow the agency to meet lowered budget allocations. The NIH notice stipulated that each NIH Institute and Center will assess allocations within their portfolio to “maximize” the scientific impact. Moreover, the “noncompeting continuation awards that have already been made may be restored above the current level as described in NOT-OD-13-002, but likely will not reach the full FY 2013 commitment level described in the Notice of Award.”

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## **OMB Sends Guidance to Agencies in Wake of Continuing Congressional Budget Delays**

In early January, the Office of Management and Budget Director issued a memorandum to all government agencies relative to the 2013 budget and the uncertainty surrounding passage of that budget. In part, the director said, “unless Congress acts to amend current law, the President is required to issue a sequestration order on March 1, 2013, canceling approximately \$85 billion in budgetary resources across the federal government. Further uncertainty is created by the expiration of the Continuing Appropriations Resolution (CR) on March 27, 2013.” In the memorandum, the director offered the following advice, “review grants and contracts to determine where costs savings may be achieved in a manner that is consistent with the applicable terms and conditions, remaining mindful of the manner in which individual contracts or grants advance the core mission of the agency.”

In separate action, Director of the National Institutes of Health Francis S. Collins reported to Politico, a Capitol Hill newspaper that, “If lawmakers don't find a way to blunt the across-the-board cuts, the government's premier medical research center will lose 6.4 percent of its budget.” He indicated that such a cut would be a “profound and devastating blow for medical research at a time of unprecedented scientific discovery.”

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## **US FDA Provides Safety Update on Metal-on-Metal Hip Implants**

The US Food and Drug Administration (US FDA) is providing updated safety information and recommendations to health care providers. This new information is based on the US FDA's current assessment of metal-on-metal hip implants, including the benefit-risk ratio derived from available data, evaluation of the published literature, and the results of the June 2012 [Orthopaedic and Rehabilitation Devices Advisory Panel meeting](#). For more information go to, [Medical Devices Safety Communications](#) or [Implants and Prosthetics](#) on the US FDA website.