



Communiqué

Summer/Fall Issue 2014

SOT News

President's Message



President

Norbert E. Kaminski

With summer quickly coming to an end and a new school year almost upon us, it draws my attention to one of the most important services that the Society of Toxicology (SOT) provides to its membership, Continuing Education (CE). The Society provides a variety of mechanisms for members to continue their professional growth and development. I would like to bring to your attention two specific opportunities on the horizon. The first comes from a recent partnership between the US Food and Drug Administration's (FDA) Center for Food Safety and Applied Nutrition and SOT. Specifically, the US FDA and SOT will collaborate on providing four half-day sessions over the next year on current topics of mutual interest. This series of sessions, termed the "SOT FDA Colloquia on Emerging Toxicological Science Challenges in Food and Ingredient Safety," will be open for public attendance as well as available for viewing via webcast. The symposia also will be recorded with links available through the SOT website to view at your convenience.

The first of four sessions will focus on partially hydrogenated oils (PHO), often referred to as "trans fats." This first colloquium, which is tentatively scheduled for October 2014, will cover a variety of topics including, but not limited to, the US FDA recent actions on PHO, the chemistry and biochemistry of PHO and related lipids, the clinical effects of PHO including health hazards and benefits, and will conclude with a moderated roundtable discussion with speakers and invited panelists.

The second professional development and training opportunity that I would like to highlight here is an expansion of CE associated with the SOT Annual Meeting. Due to the continued challenges faced by many of our members due to limited resources available for travel, this past year the Society provided, by webcast, two separate CE courses to those who were unable to attend the 2014 SOT Annual Meeting. Due to the success of the 2014 CE course offerings, the Society will once again provide this opportunity by webcasting three CE courses at the 2015 SOT Annual Meeting. As a reminder, the Society has online CE courses available on a variety of topics posted on the [SOT website](#).

Related to member services and meeting the various needs of our membership, I reported in the May issue of the SOT *Communiqué* that SOT Council was undertaking a review of its strategic plan. As the first step of our review, we have been collecting information through a variety of mechanisms using a three-phase process. In the first phase, one-on-one interviews have been conducted primarily with individuals familiar with or knowledgeable about SOT but who are not members of our Society. The rationale for interviewing individuals external to SOT is to learn the perceptions of SOT based on a lens external to our Society.

The second phase of information gathering has been from small group interviews with leadership from SOT committees, Specialty Sections, and Regional Chapters. Hearing from our component groups will provide critical information on among other things the structural framework and communication within the SOT. The third phase of

data gathering is through a short but focused survey that has been developed, in part, on the information obtained from individual and group interviews. The survey has been distributed to a representative cross section of our membership and will provide input from a far broader segment of our membership than can be feasibly obtained by individual and group interviews.

I would like to thank everyone who has participated in providing Council with the necessary information we require to ensure that the Society is meeting your needs, expectations, and is well positioned to face the opportunities and challenges of the future. Council's discussions and planning, based on the information we have obtained, will begin with a facilitated session in September. I look forward to keeping you engaged and informed of Council's progress as we move forward with the review of the [SOT Strategic Plan](#).

In closing, I would like to wish you an enjoyable remainder of the summer.

Norbert E. Kaminski, PhD

2014–2015 SOT President

Senator Udall Receives SOT Congressional Science Leadership Award



In early July, I had the privilege of joining Society of Toxicology (SOT) President Norbert E. Kaminski, SOT Executive Director Shawn D. Lamb, and SOT Communications Manager Michelle Werts in Washington, DC, to present Senator Tom Udall (D-NM) with the [2014 SOT Congressional Science Leadership Award](#). (Pictured from left to right are Ms. Lamb, Dr. Kaminski, Senator Udall, and Dr. Corcoran.)

Each year, the Society bestows its Congressional Science Leadership Award on US senators and representatives who embody one or more of the following:

1. A leader who has consistently pursued public policy or decision making relating to health and safety that is based upon sound scientific principles.
2. A leader who has demonstrated dedication to advancing legislation for the protection of human, animal, and/or environmental health that is based upon sound scientific principles.
3. A leader who clearly recognizes and supports scientific research to increase knowledge and advance protection of human, animal, and/or environmental health.

Senator Udall is an uncommon leader who is exceptional in all of these areas. The senator is championing Toxic Substances Control Act reform, working across the aisle to draft legislation that will strengthen chemical research, regulations, and information. Throughout his career, he has been a strong supporter of public health initiatives and has been a consistent advocate for environmental protection through votes to protect ocean, coastal, and Great Lakes ecosystems and to expand funding for mitigating climate change.

As a proud former New Mexican, I am pleased that such a strong supporter of science, public health, and the environment is representing the Land of Enchantment. Senator Udall is a shining example of scientific integrity and, simply stated, a role model. In my view, there is no one who is more qualified or deserving of this award.

Endowment Fund Contributors Demonstrate Their Commitment to the Future of Toxicology



Contributors to the Society of Toxicology (SOT) Endowment Fund are active participants in ensuring that the Society fulfills its vision of “creating a safer and healthier world by advancing the science of toxicology” now and in the future. In the SOT 2013–2014 fiscal year, the Education, Global Activities, SOT Strategic Priorities, and Student Travel Funds, as well as the Harry W. Hays Memorial Fund, contributed financially to SOT initiatives that address one or more of the Society’s Strategic Priorities. The Honor Roll of Contributors is being recognized in this issue of the [Communique newsletter blog](#) and is prominently displayed on the [SOT website](#).

Undergraduate Education

During the SOT 2014 Annual Meeting, the fourth Undergraduate Educator Award was presented to William D. Atchison, Associate Dean for Research and Graduate Studies, College of Veterinary Medicine, Michigan State University. During his tenure, he has trained 17 PhD students, six graduate students, and more than 100 undergraduate students. As noted in his SOT Award description: “Dr. Atchison’s passion is to provide opportunities for undergraduate education in the biomedical sciences coupled with research experiences aimed at under-represented minority students. In collaboration with the University of Puerto Rico, he developed and established a National Institutes of Health—National Institute of Neurological Disorders and Strokes-funded R25-Diversity Education grant that provides research experiences for Hispanic undergraduates. Dr. Atchison makes annual visits to campuses of the University of Puerto Rico to recruit/interview students for the program. Many of these students have gone on to participate in SOT Annual Meeting by presenting their research. To date, 40 undergraduate students have received training through this program. Similarly, Dr. Atchison has received funding from Michigan State University’s College of Veterinary Medicine to initiate a smaller program for preveterinary students.” This award was established to recognize the efforts to increase the pipeline of future toxicologists and is funded via the Endowment Education Fund. Pictured at the right is 2011–2014 SOT Councilor Dori R. Germolec (left) presenting the SOT 2014 Undergraduate Education Award to William D. Atchison (right).



Minority and Undergraduate Student Travel to SOT Annual Meeting

Hundreds of students, many of whom now are leaders in SOT, attended their first meeting by receiving a student travel award funded by the Society. Throughout the more than 53 year history of the Society, it has been recognized that this participation is essential to “building for the future of toxicology.” The Strategic Priorities Fund provided travel support for additional undergraduate students to participate in the Annual Meeting and the Undergraduate Program that is hosted by the Committee on Diversity Initiatives (CDI). This focus on undergraduate participation will continue at the 54th Annual Meeting to be held March 22–26, 2015 in San Diego, California.

Perry J. Gerry Student Travel Award



The 2014 Perry J. Gehring Diversity Student Travel Award recipient was Pamella B. Tijerina of New York University School of Medicine. This Endowment Fund 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. Ms. Tijerina participated in the 2011 Undergraduate Education Program. The Awardee is selected by CDI and recognizes Dr. Gehring who served as the 1980–1981 SOT President. In addition to his important scientific contributions, particularly in biological modeling and evidence-based assessment, he was committed to encouraging individuals from ethnic groups under-represented in the sciences to enter biomedical science and toxicology.

SOT/AstraZeneca/SOT Endowment Fund/IUTOX Travel Awards

SOT/AstraZeneca/SOT Endowment Fund/IUTOX Travel Awards are conferred to either junior or senior scientists from a country where toxicology is under-represented. These scientists must have an active research program or be currently in the practice of toxicology in order to qualify to attend the SOT Annual Meeting. In 2014, these awards, administered by IUTOX, provided support for 11 awardees who traveled to Phoenix, Arizona, from China, Egypt, India, Indonesia, Nigeria, and Tunisia. A list of the 2014 recipients is available on the [SOT website](#).

SOT Founders Award

John A. Thomas received the 2014 SOT Founders Award. The announcement of his award stated that “throughout his distinguished career, Dr. Thomas’s contributions to toxicological sciences in many different areas, ranging from the safety of nutrients and food ingredients to pharmaceuticals, diagnostics, health promoting agents, and environmental chemicals, have been highly recognized by his peers and the scientific community. He continues to be an educator and a scientist, and the discipline of toxicology will continue to benefit from his vision and leadership. During his years in academia, he mentored undergraduate and graduate students, post doctoral fellows, and numerous colleagues.”



As a member of SOT since 1971, Dr. Thomas has served as an SOT Continuing Education Lecturer (1983, 1985, and 1988); SOT Councilor (1985–1987); President of two Regional Chapter Executive Committees: Midwest Chapter (1988) and Gulf Coast Chapter (now Lone Star Chapter-1998); and as the SOT Education Committee Chair (2000). He is the recipient of multiple prestigious awards including the SOT Merit Award (1998). Pictured at the right are SOT 2013–2014 Secretary Judith T. Zelikoff (left), SOT 2014 Founders Award recipient John A. Thomas (center), and 2012–2014 Endowment Fund Board Chair Jeff Handler (right).

Matching Funds Available To Enhance Your Contribution

endowment

To add your support to the future of toxicology, please visit the [SOT website](#).

SOT Endowment Contributors 2013–2014—Thank You!



The Society of Toxicology appreciates the generosity of the SOT Endowment Contributors 2013–2014.

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An initial contribution of \$500 or more and a commitment to make cumulative contributions of \$5,000 or more within a 10-year period.

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**Seeking SOT Voting Members Response to Proposed Bylaws Change:
Membership Committee**

Each year, the Society of Toxicology (SOT) Council undertakes a complete review of the Constitution and Bylaws of SOT. During the July 2014 meeting, SOT Council approved a change in the structure of the Membership Committee to increase the number of Membership Committee members to more efficiently review the growing number of applications. Although the size of the Membership Committee has not changed in recent years, the number of applications has increased from 300 to more than 900 per year.

SOT Voting Members may provide comments on the proposed change, which are due no later than September 5, 2014. After consideration of the comments by SOT Council, the proposed Bylaw change will be submitted to the membership for a vote. Approval by two-thirds of ballots received within 60 days shall be required for adoption. The proposed changes are as follows, new text indicated by an underline.

Membership Committee Bylaws Change Recommendations

ARTICLE FOURTH—Standing Committees

Section 1. Membership Committee

“There shall be a Membership Committee consisting of ~~six~~ nine voting members of the Society who hold no other elective office, to be elected by a plurality vote of the ballots cast and who shall serve for a term of three years, except as hereinafter provided for and who shall be eligible for re-election only after a lapse of one year. ~~Two~~ Three members shall be elected annually. The President shall designate the Chair. The Membership Committee shall investigate the qualifications of the candidates for membership and shall report its recommendations to the Executive Director by June 1, October 1, or February 1 of each year.”

Announcing 2015 Global Senior Scholars—Host Applications Due September 16

The Society of Toxicology has selected two toxicology leaders from their respective countries to participate in the 2015 SOT Global Senior Scholar Exchange. Sunisa Chaiklieng is from Thailand and Deepak Dhakal is from Nepal. These Scholars will be matched with Hosts having similar research and training emphases from established toxicology programs.

[Host applications](#) will be accepted until September 16, 2014. Full details about the program are found on the [Global Senior Scholar Exchange Program web page](#).

Sunisa Chaiklieng, Dr. Biol. Hum, is an Assistant Professor of Occupational Health in the Department of Environmental Health Science and Occupational Health at Khon Kaen University, Muang, Thailand. The department provides PhD and Masters level programs in Public Health and also has three undergraduate programs in (1) Occupational Health and Safety, (2) Environmental Health Science, and (3) a combined program in Occupational Health and Safety-Environmental Health Science. Dr. Chaiklieng is the program director for a new Occupational Health and Safety MSc program that will begin in 2015.

The research focus in Dr. Chaiklieng’s department is air pollution with an emphasis on benzene. Health surveillance is of increasing importance in Thailand due to the increase in the number of cars, and there is a significant occupational exposure to benzene for those working at gas stations, and an increasing incidence of cancer in the population caused by a long-term exposure to volatile organic compounds. There is a need to establish a good biomarker for benzene exposure as well as the implementation of a uniform qualitative risk assessment to set safe exposure limits. Specific biomarkers are needed for effective detection under low concentration of exposure as well as qualitative risk assessment. Different agencies have established varying recommended levels of exposure but there is a lack of a standard for conditions of exposure. Combined expertise in different fields, i.e., toxicology, epidemiology, statistics, computer science, and engineering will be needed to establish effective health surveillance in the workplace and make Thailand safer.

Some ways that the exchange program can support her efforts include the following:

- Exchange of information about course requirements and learning outcomes for toxicology programs
- Assistance with alignment of the Master's in Occupational Health and Safety with accreditation requirements in the United Kingdom, European Union, and the United States
- Collaboration among faculty and postdoctoral trainees in writing research papers related to occupational toxicology and risk assessment
- SOT members serving as committee members for Master's and PhD students and producing joint publications
- Cooperative research in health risk assessment of benzene exposure
- Faculty exchanges for training programs

Deepak Dhakal, MS, is an Assistant Professor in the Department of Chemistry, Patan Multiple Campus, Institute of Science and Technology at Tribhuvan University, Patan, Nepal. He also is president of the National Society of Toxicology (Nepal). Although toxicology is a new area for Nepal, environmental toxicology has recently been added to the graduate chemistry curriculum and previously in the bachelor's curriculum. Mr. Dhakal has conducted research on pesticide residues in food commodities and clinical solid waste.

The appropriate Host and Host institution would have state-of-the-art capability for the analysis of toxic chemicals and the capacity for risk assessment of human health and the environment. He seeks collaboration to identify, evaluate, and control emerging environmental contaminants such as those in drinking water, pesticide residues, and stored obsolete toxic chemicals such as PCB and pesticides. Techniques would include the development and application of analytical methods focusing on separation (GC, LC), extraction/enrichment, compound-specific isotope analysis, and process-oriented environmental chemistry for organic/inorganic pollutants in air, soil, and water.

Some ways that the exchange can support his efforts include the following:

- Curriculum development to include higher level of studies in toxicology
- Mobilization of new researchers
- Sharing knowledge and skills in the topic areas mentioned above, including international seminars and workshops
- Training in and implementation of risk assessment of toxic chemicals
- Further development of technical research technical skills properly to tackle the current problems related to the management of obsolete toxic chemicals
- Improved access to publication of findings in international scientific journals
- Increased effectiveness for National Society of Toxicology (Nepal)

The Education Committee looks forward to receiving excellent Host applications for exchanges that will continue the previous success of the program into this fourth year.

Announcing the 2014 Appointees to the SOT Speaker Bureau

The Society of Toxicology (SOT) and the Continuing Education (CE) Committee is pleased to announce the six new members of the SOT Speaker Bureau: **Jon Cammack, Stephen Dertinger, Julie Goodman, Susan Laffan, Kai Wang, and David Warheit**. Their appointment to the SOT Speaker Bureau is based on their presentations during a CE course at the 2014 Annual Meeting in Phoenix. All six speakers were highly rated in the 2014 CE evaluations and received positive comments in the open-ended sections of the evaluation.

Any Regional Chapter may request a presenter from the Speaker Bureau for chapter meetings, and SOT will provide funding to cover the speaker's costs through [Funding for Regional Chapter Activities and Speakers](#). These funds are limited and evaluated on a quarterly basis, so it is important to put your request in early.

For more information on the Speaker Bureau, including biographies of the new Speaker Bureau appointees and the six members from the 2013 Annual Meeting CE program in San Antonio, please visit the [SOT website](#).

SOT Announces CSR Has Established New Systems Injury From Environmental Exposure Study Section

The Society of Toxicology (SOT) is pleased to announce that the Center for Scientific Review (CSR) at the National Institutes of Health (NIH) has chartered a new study section that will review NIH grant applications focused on environmental health and toxicology ([SOT statement](#) and [press release](#)). SOT members have been involved in encouraging the establishment of this study section for a number of years and that history was summarized in a [June 6, 2012 Communiqué Blog](#). The new Systemic Injury from Environmental Exposure (SIEE) study section represents the culmination of a decade of effort by SOT to more closely align the scientific background and expertise of NIH's research proposal reviewers to the science they are being asked to review.

SOT 2014–2015 President Norbert E. Kaminski stated that “Since 2004, the Society has been actively working with CSR to make a standing toxicological study section a reality, and we are thrilled that the SIEE study section is now in place to recognize and fund important toxicological research....The recommendations by this peer review committee will have significant impact on the direction and specific areas of research in toxicology and environmental health sciences that will be funded by NIH in the future.”

CSR Director Richard Nakamura stated, “We are pleased to have created an appropriate home for this dynamic and important group of applications,” noting “that the SIEE special emphasis panel has performed very well for the last five rounds, reviewing about 70–80 applications each time.”

The first meeting of the SIEE as an official CSR study section will be held in fall 2014. This study section is in the [Digestive, Kidney, and Urological Systems Integrated Review Group](#). CSR states that this SIEE “covers environmental health science; molecular toxicology; and the interactions of environmental factors with genes, enzymes, and other biomolecules.” A full description is available on the [CSR website](#).

SOT Welcomes 192 New Members

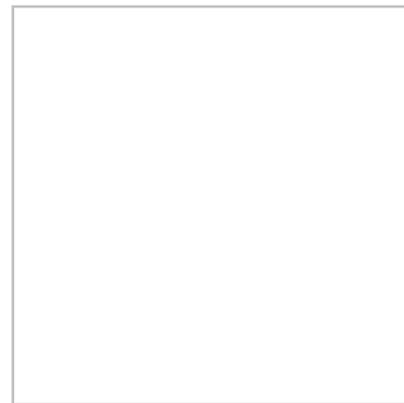
The Society of Toxicology (SOT) is pleased to announce that 192 new members, including 94 Full members, 40 Associate members, 16 Postdoctoral members, and 52 Student members, have joined the Society. These new members have become a part of our growing network of more than 7,800 members from 60 plus countries around the world. 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.”

If you know someone who is interested in joining SOT, please encourage them to visit the [SOT website](#) where they may learn more about SOT's objectives and benefits as well as the criteria for becoming an SOT member. A [membership application](#) also is available. The next membership application deadline is September 1, 2014. Applications that are complete by this deadline will be reviewed for membership by the Membership Committee in the month of September.

SOT Announces the Creation of the Celebrating Women in Toxicology Award Endowment Fund



The Society of Toxicology (SOT) is pleased to announce the creation of the Celebrating Women in Toxicology Award Endowment Fund, sponsored by the Women in Toxicology Special Interest Group (WIT SIG). Proceeds from this Fund will be used to provide cash stipends to domestic or international students (undergraduate and/or graduate students) and/or postdoctoral fellows, whose studies and/or research interests are in the toxicological sciences. Award recipients will be selected on the basis of scientific merit, leadership, and service.



This award was inspired by the generosity of Ms. Anne Wolven Garrett, one of the early leaders in toxicology. The initial seed money of \$8,000.00 is from a generous donation from Ms. Wolven Garrett's estate. It is anticipated that former colleagues of Ms. Wolven Garrett, as well as members of the WIT SIG and SOT, will make contributions to the Fund.

The Society has many female leaders who have been influential in the science of toxicology and the SOT. Ms. Wolven Garrett was one of the first women active in the Society's leadership. Beginning in the early 1970s, she served on several elected committees, several appointed committees, as Historian, and as Vice President and President of a Regional Chapter. As noted during her memorial service in 2012, she was especially proud of her work with the Society. She was known for taking budding toxicologists under her wing and ended many conversations with "hug yourself; you are very special." As a tribute to Ms. Wolven Garrett and all past and future female leaders of SOT, the Celebrating Women in Toxicology Award will recognize and encourage women who are in the early stages of developing a career in the field of toxicology.

It is intended that the total assets of the Celebrating Women in Toxicology Fund will reach \$25,000 within three years, at which time the Society will match the funds with an additional \$25,000 to qualify it as a Permanently Restricted Net Asset Fund with continuation of the Fund in perpetuity. It is expected that this goal can be accomplished by June 30, 2017, and that the first Award from the Celebrating Women in Toxicology Award Endowment Fund will be made to one or more individuals at the 2018 SOT Annual Meeting. For more information about the Endowment Fund and to provide a donation, please visit the [SOT website](#).

The Art of Becoming a Strong Risk Communicator: Training Opportunity Funded by SOT STEP

With the wonderful financial assistance from the Society of Toxicology (SOT) [Supplemental Training for Education Program \(STEP\)](#), I was able to attend a valuable short course at the Harvard School of Public Health in Boston, Massachusetts, from May 19–21, 2014. The short course was "Effective Risk Communication: Theory, Tools, and Practical Skills for Communicating about Risk." Some of the general course objectives included:

- Analyze the key components that make up risk perception,
- Develop strategies to enhance understanding and trust among audiences while minimizing conflict on risk issues,
- Craft organizational policies and messages,
- Practice critical risk communication roles, and
- Network with other risk communication professionals from around the world.

Personally, I took this course in order to strengthen my background in Environmental Health because our program at the University of Wisconsin, Milwaukee is relatively new and I have not had the opportunity to take any courses on risk communication. Being a PhD graduate student in a School of Public Health, I feel that it is my duty to graduate as a leader for the public health community and strong communication skills are eminently important.

My experience in the Boston area began with amazement and curiosity; I couldn't help but think of all the apt scholars who have walked through the halls of the Harvard campus and the strong history in the Boston area. The short course commenced with a check in and continental breakfast, followed by the classroom orientation, welcome, introductions, program overview, and learning objectives. My first indirect lesson came during the introductions. We were instructed to talk to our nearest neighbor for five minutes and then we would go around the room introducing our neighbors to the entire class. As my fellow classmates were introducing their neighbors in vivid detail, I realized that I had spent too much time talking and not enough time listening and asking proper questions. Therefore, within the first hour, I was reminded of the importance of being a genuine careful listener and asking appropriate questions.

Ragnar Lofstedt led the course and provided us with his book, *Risk Management in Post-Trust Societies*. The first topic of discussion was an introduction to risk perception and communication. After the introduction, Susan Dudley led a discussion on policy makers. Then after the group lunch, we had a two-part series on the effects of emotion on risk perception. Monday evening ended with a reception at the Harvard Faculty Club. Tuesday morning consisted of discussions on lessons from the media and constructing mental models. After lunch, we did a case study as a small group and then had a panel discussion with three risk communication experts. Wednesday consisted of a discussion led by Dr. Lofstedt on the importance of trust in risk communication and then a small group case study exercise on acrylamide, concluding at 1:00 pm.

Over the next 12 months, I foresee this course helping me to become a stronger leader for the community as I enter the work force. The communication practices discussed in this class will be helpful in the near future as I work on writing my dissertation, preparing publications, and giving presentations. Even though a month has taken place since the completion of the course, I have created life-long memories that are strengthened by over 20 supplemental documents, a book, 15 pages of notes, and a contact list of class attendees for future networking.

Commercial Potential of Research: SOT STEP Funds Participation in Entrepreneurship Academy



Understanding the potential of your research outside of the lab is something that can often go unnoticed. Through the Society of Toxicology (SOT) Supplemental Training for Education Program (STEP) and the National Superfund Research Program (SRP), I received the opportunity to participate in the University of California, Davis, 2014 [Biomedical and Engineering Entrepreneurship Academy \(BMEA\)](#). This three-day intensive program, aimed at realizing the value of ideas and research outside of the lab, provided valuable lessons that will benefit my current research and future career goals.

The BMEA is a series of workshops and presentations for potential entrepreneurs in the biomedical and engineering fields that introduces aspects of innovation, entrepreneurship, and commercialization. More importantly, it provides the opportunity to network with peers and mentors in the biotechnology industry. My own dissertation research at Michigan State

University involving the development of a histopathological image analysis tool highlighted the possibility of moving my ideas outside of the lab to reduce the time and cost of nonclinical histological assessments using computational approaches and cloud resources. This spurred my interest in exploring the commercialization potential of this idea and attending this unique workshop.

The program began with a challenge to create a free-standing structure using spaghetti, tape, and string that had to support a marshmallow. The objective was to build a structure as tall as possible within 18 minutes working in small groups. Although seemingly simple, it provided a worthwhile lesson: the value of acting on ideas and continuously evaluating your assumptions regarding a project. In addition, with any new venture there is uncertainty, and for innovation to succeed, these assumptions should be re-evaluated early and regularly.

This set the tone for the rest of the workshop that covered topics that included identifying the problem, describing the

value proposition, understanding intellectual property, and effectively communicating your innovation using “elevator pitches” and slide decks. Each topic addressed uncertainties associated with new ventures and approaches to reduce them. Every day included presentations from successful entrepreneurs candidly talking about their successes as well as failures and lessons learned from these experiences. The highlight was evening sessions with the opportunity to pitch ideas and discuss them with experienced mentors who included investors and industry guests. These opportunities for feedback and networking would have been difficult to have outside of the program.

In summary, the UC Davis BMEA was an exceptional career development experience. It provided clear directions for the following year as I continue to pursue the broader commercial impact of my research and more specifically, addressing the uncertainties associated with moving basic/applied research into commercial and regulatory environments. Furthermore, BMEA was a unique opportunity to build a network of colleagues and mentors who will be an invaluable resource in my future career endeavors.

Undergraduate Educator Webinar Series Adds Session on Use of Technology

In June, during the third Undergraduate Educator Network (UEN) webinar of the year, three faculty members provided examples of how they increase active learning and are able to get quick feedback on student understanding by incorporating electronic tools in classrooms. The [UEN webinar webpage](#) includes the recording of this webinar, “The Use of Technology to Teach Toxicology and Related Disciplines,” as well as the recordings and presentation slides for the other two webinars, “Education and Enrichment Activities for Educators” and “Having It All: Teaching, Research, and Service At a Small Liberal Arts College: A Toxicologist’s Perspective.” The series was moderated by Joshua Gray of the Undergraduate Education Subcommittee.

In the most recent webinar Angela Slitt, University of Rhode Island, discussed the use of Twitter® in her “Grand Challenges” course designed to engage college freshman in the problems of toxicology and how to communicate toxicology to the broader community.

Christine Curran, Northern Kentucky University, discussed several rapid response systems including clickers, quizzing systems included in campus-wide course content software packages, and even some low tech methods such as colored cards.

Emily Notch, of Dartmouth and Western New England University, compared two free polling platforms, Socrative and Poll Everywhere, which she has used in her classes and at the *In Vitro* Luncheon at the 2014 SOT Annual Meeting. She also highlighted how she used the exit polling at the conclusion of Process Oriented Guided Inquiry Learning (POGIL) group activities.

The Undergraduate Education Subcommittee welcomes feedback on the value of these webinars for toxicology faculty and is developing plans for the next year.

Undergrad Educator Network Webinar: Use of Technology to Teach Toxicology and Related Disciplines

The final Undergraduate Educator Network Webinar was held on Monday, June 23, 2014 at 3:00 pm EDT. This was the third and final webinar in the 2013–2014 Undergraduate Educator Network series and focused on the use of technology in and outside of the classroom.

Angela Slitt discussed the “Use of Twitter® to Engage Freshman in Learning Current Toxicology Concepts and Topics.” Dr. Slitt, University of Rhode Island, recently taught a “[Grand Challenges](#)” course designed to engage college freshman in the problems of toxicology and how to communicate toxicology to the broader community. She shared her

experiences using Twitter® as a tool for communicating scientific knowledge.

Chris Curran of Northern Kentucky University focused on “Rapid Response Systems: From High-Tech to No-Tech.” She covered the logistics, costs, and implementation of response systems in her courses. She also reviewed the use of quizzing technologies common on Blackboard and other course content software packages.

Emily Notch of Dartmouth and Western New England University highlighted “Free Polling Software to Engage Students and Assess in Class Group Activities.” She featured two free platforms, Socrative and Poll Everywhere, which she has used in her classes and at the *In Vitro* Luncheon at the Society of Toxicology (SOT) Annual Meeting this year. She briefly touched on general polling to address student comprehension of material, and focused more on some of the aspects of the free software that are pros and cons to choosing either one. In particular, she highlighted how she used the exit polling for post-POGIL group activities.

The webinar was moderated by Joshua Gray, US Coast Guard Academy, and a question and comment period followed the webinar and audience participation was encouraged.

To review the previous two webinars listed below, go to [Undergraduate Educator Network Webinars](#).

Education and Enrichment Activities for Educators

Presenter: Sue Ford, St. John's University, Jamaica, NY

Moderator: Joshua Gray, US Coast Guard Academy, New London, CT

Panelists: Pamela Hanson, Birmingham-Southern College, Birmingham, AL and Diane Hardej, St. John’s University, Jamaica, NY

Having It All: Teaching, Research, and Service At a Small Liberal Arts College: A Toxicologist’s Perspective

Presenter: Larissa M. Williams, Bates College, Lewiston, ME

Moderator: Joshua Gray, US Coast Guard Academy, New London, CT

Panelists: Eli Hestermann, Furman University, Greenville, SC; Eva Oberdorster, Southern Methodist University, Dallas, TX; and Gregory Hall, US Coast Guard , New London, CT, Officer, New England Association of Schools and Colleges.

Supplemental Training for Education Program Funds Three Graduate Students

One of the challenges for graduate trainees is being savvy enough to set a future career direction and pursue additional experiences outside the academic program in order to be well-equipped when it is time to send out job applications. There is wide recognition that, with respect to this challenge, the game has changed. This year the SOT Graduate Subcommittee initiated the Supplemental Training for Education Program (STEP) funding to make it easier for students to pursue opportunities for training in identified areas of professional/scientific development that are necessary for them to achieve their career goals, but outside the immediate scope of their graduate training. Three applicants were selected for [STEP](#) funding.

Matthew Wolter, University of Wisconsin-Milwaukee, completed the course [Effective Risk Communication: Theory, Tools, and Practical Skills for Communicating about Risk](#) at Harvard University in May. His research mentor is Kurt Svoboda. Mr. Wolter is among the first Environmental and Occupational Health students in the new Zilber School of Public Health; courses in communication and risk assessment are not currently available. He and his advisor feel

strongly about an environmental health professional having the ability to communicate effectively and, thus, he enrolled in this course. He participates in Toastmasters to polish his speaking skills and is engaged in leadership activities including serving as the President of the Public Health Graduate Student Association, organizing the first School of Public Health Annual Graduate Student Research Symposium and school blood drives, and monitoring and cleaning with Milwaukee RiverKeeper®.



Rance Nault, Michigan State University, will attend the [Biomedical and Engineering Entrepreneurship Academy](#) at the UC Davis Child Family Institute for Innovation and Entrepreneurship/Superfund Research Program in July. Tim Zacharewski is his advisor. During his dissertation research, he gained research skills in bioinformatics and data interpretation and was involved in the development of a computational tool to automate the quantitation of histopathological features in a high-throughput manner. This tool could be commercialized. He now seeks an introduction into biomedical research commercialization and the opportunity to learn from and interact with those who are actively involved in commercial applications of scientific research.

Alexandra Muñoz will be attending the [Masterclass on Topological Quantum Field Theories, Quantum Groups and 3-Manifold Invariants](#) at the University of Copenhagen in October. Her advisor at New York University Medical Center is Max Costa. Ms. Muñoz also received a 2013 Colgate-Palmolive Award for Student Research Training in Alternative Methods and visited the University of Applied Sciences in Switzerland to investigate the use of multivariate analysis and fuzzy modeling to detect nickel and arsenic-induced gene signatures in microarray data. She will seek a postdoctoral position that bridges toxicological research and computational physics/chemistry so this course will provide additional training in quantum theory and mathematics. She plans to use computational physics to model molecular interactions at the quantum level in order to improve prediction of toxic substances using ab initio computer modeling.



The Graduate Subcommittee and Education Committee will be evaluating the outcomes from these experiences to determine whether the program should be continued. In addition, the activities proposed in the STEP applications are indicators of the types of supplemental training desired and will inform the planning of additional efforts.

SOT provides many opportunities for professional development at the SOT Annual Meeting, through leadership groups such as the Graduate Student Leadership Committee, the Postdoctoral Assembly, Regional Chapters, Specialty Sections, and Special Interest Groups, webinars and career sessions, and through awards. For another example of how a combination of SOT activities supported the career path of an SOT graduate student, see [SOT: A Graduate Student's Perspective](#) by Agnes Forgacs.

SOT Graduate Subcommittee Promotes New Mechanisms for Toxicology Career Training

The Society of Toxicology (SOT) Education Committee established the Graduate Subcommittee last year to consider ways that the SOT can support graduate training experiences that will prepare toxicology students for new workplace realities. The Graduate Education Subcommittee's purpose is to identify training gaps and needs in current toxicology graduate programs and to develop and implement initiatives within SOT and through engagement with academia,

industry, and government partnerships to better equip graduate students in toxicology for productive and successful careers.

The [Education Summit](#) and Professional Needs Assessment Task Force and efforts such as those by National Institutes of Health (NIH) to support the [biomedical workforce](#) and [workforce diversity](#) have provided focus for our efforts.

The first new initiative was the [Supplemental Training for Education Program \(STEP\)](#). The recipients are announced in the [STEP Funds Three Graduate Students](#).

The Graduate Subcommittee hosted a meeting of toxicology department and training program heads during the 2014 SOT Annual Meeting to share information and investigate areas of interest for further interaction.

Among trends noted is the development of nontraditional ways to foster and certify skills and knowledge that are essential in the toxicology workplace. For example:

- University of North Carolina (UNC)-Chapel Hill received approval for their [Master of Professional Science in Toxicology program](#) that is beginning this fall. This program will combine advanced coursework in toxicology, experiential activities, and a breadth of business fundamentals to produce graduates who are prepared for a non-academic careers in applied toxicology. For full- and part-time students, the degree will be completed in three semesters of full-time study. UNC-Chapel Hill's first professional science master's program is in Biomedical and Health Informatics.
- Michigan State has an online master's degree in Food Safety and has now implemented a [certificate program](#) in Food Safety. This requires completion of four of the qualifying graduate courses.
- University of Washington offers several professional master's programs, with two examples here. The [Biomedical Regulatory Affairs Master of Science](#) addresses the growing need for well-trained professionals in the regulatory field. Each cohort takes evening classroom courses as well as a practicum to provide knowledge as well as job experience over two years. The degree serves those who wish to advance their careers in the medical products industry or those entering the field from related areas. The [Master of Pharmaceutical Bioengineering](#) is an evening degree program designed to enable working local engineers, scientists, researchers, and professionals in the biotechnology, pharmaceutical, and related industries to explore advanced education in the areas of molecular and cellular biology, drug discovery and design, pharmaceuticals, and translational pharmaceuticals.

We are interested in learning about other programs to encourage diversification of skills for toxicology trainees entering the work force. Please contact me, [Jim Luyendyk](#), or [Betty Eidemiller](#) at SOT Headquarters.

Take Your Next SOT Continuing Education Course—In Your Living Room

CEd-Tox, the Society of Toxicology (SOT) online Continuing Education (CE) program, houses a library of CE courses covering a broad spectrum of toxicology topics: Alternative Methods to Stem Cells; Epigenetics to Risk Assessment; Drug Hypersensitivity to Ocular Tox.

Originally launched nearly five years ago, CEd-Tox offers 32 online CE courses (mostly full length courses presented at past SOT Annual Meetings, as well as a few 45-minute Sunrise courses). These courses have become extremely popular for scientists who cannot travel to the SOT Annual Meetings, international scientists, postdocs, and graduate students.

Graduate student and postdoc members of SOT receive free access to all online CE courses. Additionally, scientists in developing countries receive free access to all courses. English language transcriptions are available with registration for select online courses.

The number of online courses will increase from 32 to 41 in a few weeks, when nine additional courses (all presented at

the 2014 SOT Annual Meeting in Phoenix) are released. The 2014 CE courses recorded as part of CED-Tox are as follows:

- Combination Products: Toxicology and Regulatory Challenges (Basic; 45-minute mini course)
- Computational and Experimental Aspects of microRNAs in Toxicology (Advanced)
- Current Trends in Genetic Toxicology Testing (Basic)
- Epidemiology for Toxicologists: What the Numbers Really Mean (Basic)
- Inhalation Studies: Challenges and Complexities (Basic)
- Methodologies in Human Health Risk Assessment (Basic)
- Nonclinical Animal Models Enabling Biopharmaceutical Advances in Translational Medicine (Basic)
- Nonclinical Pediatric Drug Development: Considerations, Study Designs, and Strategies (Basic)
- Stem Cells in Toxicology 2014 (Basic)

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

But don't just take our word for it. Here are some comments from past subscribers of CED-Tox courses:

“These courses are a terrific resource and convenient; I'm very happy that SOT has provided this alternative to attending the live courses.”—Andrew Standeven, Amanita Consulting, LLC, El Dorado, California.

“Through the great choice of speakers and topics for that particular session, I got a broad perspective and an immersive depth at the same time, about topics in green chemistry that I had no previous idea about. The speakers themselves were good, articulate speakers who were smooth to listen to and follow. The content they brought in was honest and interesting—very open, experience and discussion-based—not boring lecture style.”—Dhvani Parikh, PhD candidate 2014, University of Pittsburgh, Pittsburgh, Pennsylvania.

“We are using this course to help our internal CE (often in academia, we become so specialized that we lose sight of the forest for the trees).”—Steven Siciliano, University of Saskatchewan, Saskatoon, Saskatchewan, Canada.

We invite you to visit the [SOT website](#) for complete course information.

SOT Welcomes New Affiliate: XRpro Sciences, Inc.

We are pleased to announce that XRpro Sciences, Inc. of Cambridge, Massachusetts, has become the newest SOT Affiliate. The company provides HTS for transporters and ion channels, even in serum or high DMSO concentrations, in all standard 384-well plates. Their technology uses no radioisotopes, dyes, or fluorophores, and provides cost-effective hERG screens that can easily be justified early in the drug candidate selection process. For additional information, please visit the [XRpro® website](#). Consider demonstrating your organization's support of the Society of Toxicology by becoming an SOT Affiliate. For additional information, visit the [SOT Affiliates section of the SOT website](#) and contact [Marcia Lawson](#) at SOT Headquarters.

Ask Ashley—How Do I Use ToXchange to Enhance My Networking?

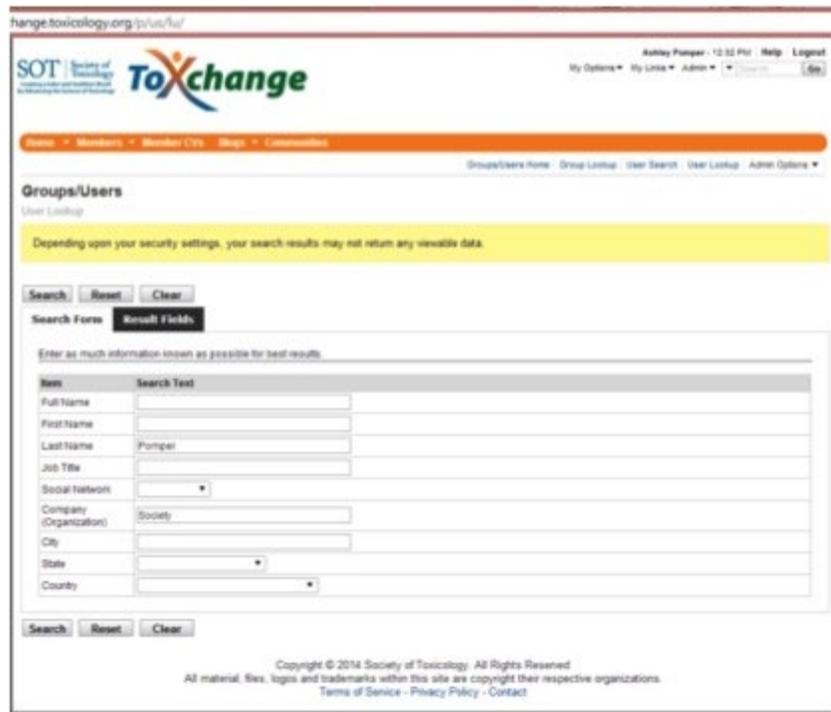
I hope that my previous blogs have helped make your Society of Toxicology (SOT) ToXchange profiles look up-to-date and sparkling. But aside from your profile, ToXchange offers many other features that can make networking with other members easy and enjoyable. This week I want to talk about the User Lookup/Member Search feature. Now that your profile looks as good as it does, other users will no doubt take notice. Finding a fellow member's profile is convenient and nearly effortless.

Here's how:

1. From the ToXchange home screen, select the “Members” drop down menu at the top of your screen in the orange bar. Then, select “Search for Members.” This option is the main and most detailed way to look up members. We will talk about the other options in this drop down menu later in the post.

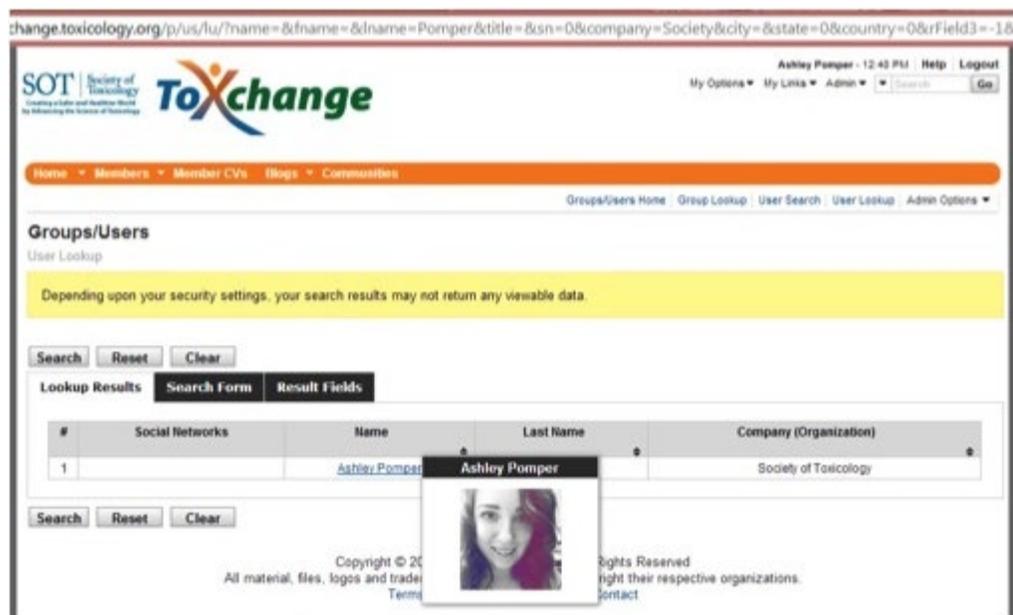
2. Here you will see options to search by Full Name, Last Name, First Name, and a number of other items. This is very convenient if you only know one item about the member you are trying to find. You can enter as much or as little information as you would like. Type in the information you know and then click “Search” at the bottom of your screen.

For an example, below, I am going to search for my last name: “Pomper” and for part of my organization name: “Society.”



The screenshot shows the ToXchange search interface. At the top, there is a navigation bar with "Home", "Members", "Member CVs", "Blogs", and "Communities". Below this is a "Groups/Users" section with a "User Lookup" link. A yellow banner states: "Depending upon your security settings, your search results may not return any viewable data." The search form includes fields for "Full Name", "First Name", "Last Name" (with "Pomper" entered), "Job Title", "Social Network", "Company (Organization)" (with "Society" entered), "City", "State", and "Country". There are "Search", "Reset", and "Clear" buttons at the bottom of the form.

3. If there are any results to your search, they will be listed as my name is in the format below. To access the user’s page, simply select the name displayed.



The screenshot shows the search results page. The URL in the address bar is: change.toxicology.org/p/us/lu/?name=&fname=&lname=Pomper&title=&sn=0&company=Society&city=&state=0&country=0&rField3=-1&... The search form is now labeled "Lookup Results". A table displays the search results:

#	Social Networks	Name	Last Name	Company (Organization)
1		Ashley Pomper	Ashley Pomper	Society of Toxicology

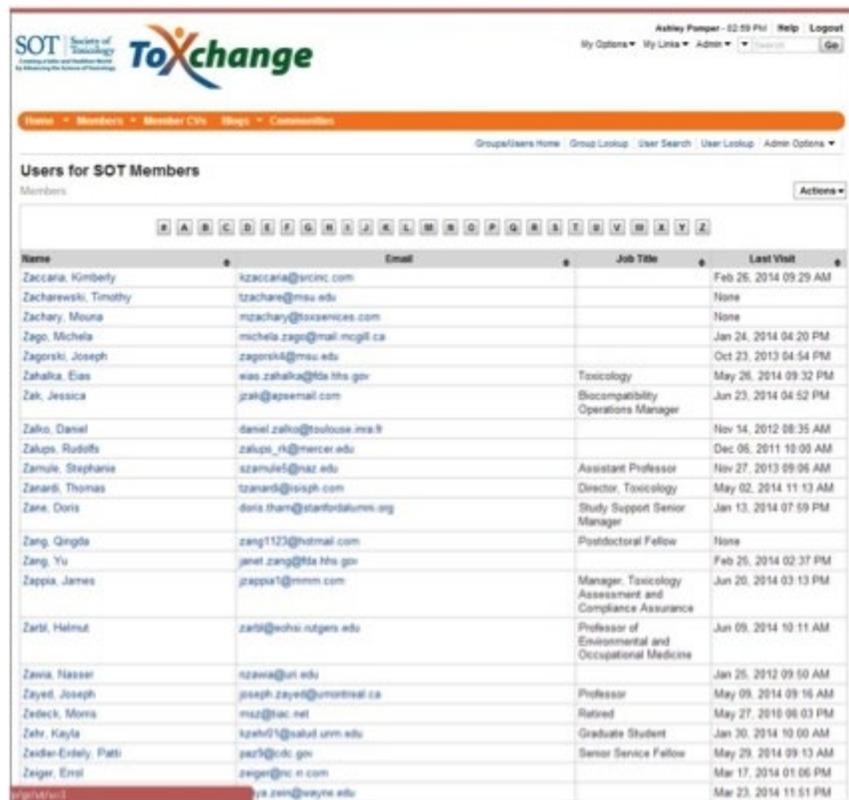
Below the table, there is a profile picture of Ashley Pomper. At the bottom of the page, there is a copyright notice: "Copyright © 2014 Society of Toxicology. All material, files, logos and trademarks within this site are copyright their respective organizations. Terms of Service - Privacy Policy - Contact".

If you would like to start a new search or clear your search, you can click the “Reset” or “Clear” buttons at the top or

bottom of your screen.

As mentioned at the beginning of the article, there are alternate ways to search for members. Under the same “Member” drop down menu, you will find the option to ‘View Members by Name’ and “View Members by Company.”

By selecting either of these groups, you will be able to look up users alphabetically based on their last name or their company.



The screenshot shows the ToXchange website interface. At the top, there is a navigation bar with the SOT logo and the ToXchange logo. Below the navigation bar, there is a breadcrumb trail: Home > Members > Member CUs > Blogs > Communities. The main content area is titled "Users for SOT Members" and includes a search bar and a table of members. The table has columns for Name, Email, Job Title, and Last Visit. The members listed are:

Name	Email	Job Title	Last Visit
Zaccaria, Kimberly	kzaccaria@srcinc.com		Feb 26, 2014 09:29 AM
Zacharewski, Timothy	tzachars@msu.edu		None
Zachary, Mouna	mzachary@toxservices.com		None
Zago, Michela	michela.zago@mail.mcgill.ca		Jan 24, 2014 04:20 PM
Zagorski, Joseph	zagorski@msu.edu		Oct 23, 2013 04:54 PM
Zahalka, Elias	elias.zahalka@hls.lhs.gov	Toxicology	May 26, 2014 09:32 PM
Zak, Jessica	jzak@epemail.com	Biocompatibility Operations Manager	Jun 23, 2014 04:52 PM
Zalko, Daniel	daniel.zalko@toulouse.inra.fr		Nov 14, 2012 08:35 AM
Zakus, Rudolf	zakus_r@mercer.edu		Dec 06, 2011 10:00 AM
Zamule, Stephanie	szamule5@naz.edu	Assistant Professor	Nov 27, 2013 09:06 AM
Zanardi, Thomas	tzanardi@usph.com	Director, Toxicology	May 02, 2014 11:13 AM
Zane, Doris	doris.zane@stanfordalumnae.org	Study Support Senior Manager	Jan 13, 2014 07:59 PM
Zang, Qingda	zang1123@hotmail.com	Postdoctoral Fellow	None
Zang, Yu	yuet.zang@hls.lhs.gov		Feb 26, 2014 02:37 PM
Zappia, James	jzappia1@mmm.com	Manager, Toxicology Assessment and Compliance Assurance	Jun 20, 2014 03:13 PM
Zartl, Helmut	zartl@wchi.rdg.ac.uk	Professor of Environmental and Occupational Medicine	Jun 09, 2014 10:11 AM
Zawia, Nasser	nzawia@un.edu		Jan 26, 2012 09:50 AM
Zayed, Joseph	joseph.zayed@unomontreal.ca	Professor	May 09, 2014 09:16 AM
Zedek, Mona	mz2@rac.net	Retired	May 27, 2010 06:03 PM
Zehr, Kayla	kzehr01@salud.umn.edu	Graduate Student	Jan 30, 2014 10:00 AM
Zedler-Erdelyi, Patti	pez9@cdc.gov	Senior Service Fellow	May 29, 2014 09:13 AM
Zeiger, Ernst	zeiger@ci.com		Mar 17, 2014 01:06 PM
Zem, Lisa	liz.zem@wayne.edu		Mar 23, 2014 11:51 PM

The “User Lookup” in all of its formats is a very valuable tool when networking and collaborating with other members of SOT. There are many more exciting features of ToXchange, and I look forward to sharing these with you in the coming months. As always, if you have any questions that you would like to be featured in a blog, please feel free to email me at [Ashley Pomper](mailto:Ashley.Pomper).

Cheers,

Just “Ask Ashley”

Ask Ashley—Spring Cleaning Your “MyPage”

Since my last post, I have received many questions regarding additional features and uses of ToXchange. This month, our theme is going to be spring cleaning! As the weather gets warmer and the days get longer, we are invigorated and much more likely to add things to our daily or weekly routines. Below are three areas you can “spring clean” to get your “MyPage” looking sunny!

1) Your ToXchange profile picture—As you know, in the past months I have been updating my profile picture and encouraging others to do so through a monthly blog article. Spring is the perfect time to update that picture with a fresh new photo!

Here’s how:

Go to your “MyPage:”

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

OR

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

Update your picture!

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

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

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

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

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

2) Your contact information—By checking your contact information and updating as it changes, you help SOT to keep accurate records in ToXchange as well as in the annual Membership Directory. It also is beneficial to networking if other users wish to contact you. You can very easily update it at any time.

Here’s how:

A) From the home screen, select the red “Update Your Profile” button at the top of your screen.

B) On your profile page, click the “Update SOT Profile” button. This button is located at the top of your profile, as you can see from my page below.

The screenshot shows the ToXchange user interface. At the top, there is a navigation bar with 'Home', 'Members', 'Member Ctrs', 'Blogs', and 'Communities'. Below this is a secondary navigation bar with 'Group/User Home', 'Group Lookup', 'User Search', 'User Lookup', and 'Admin Options'. The main content area is titled 'Ashley Pomper' and includes a 'Profile' section with tabs for 'Profile' and 'Preferences'. The 'Profile' tab is active, showing a list of fields such as 'UID', 'Remote ID', 'Full Name', 'Email', 'Company', 'Job Title', 'Department', 'Address', 'Phone', 'Fax', 'Time Zone', 'SOT Leadership', 'Member Type', 'Join date', 'Primary Research Area', 'Country of Origin', 'Ethnicity', 'Gender', 'Employer Type', 'Principal Activity', 'Research Funding Source', 'Membership in other societies', 'Year of Ph.D.', 'Ph.D. Institution', 'Name of your Ph.D. Mentor', 'Department', 'Date of Birth', 'Last Login', 'Last Updated', and 'Community Memberships'. A green arrow points to the 'Update SOT Profile' button located above the profile fields. To the right of the profile is an 'About this User' section with a profile picture and a list of user-related links: 'My Page', 'My Subscriptions', 'My Media Library', 'My Calendar', 'My Favorites', 'My Badges', 'My Picture', and 'My Presentations'. At the bottom of the page, there is a copyright notice for the Society of Toxicology.

C) Once at the “Update SOT Profile” page, select the “Edit” button.

D) You will now be brought to the “Personal Information” page where you can edit your name, address, and other contact information.

3) Your demographic information—Do you want other users to know a little more about you? Filling in the demographics fields is the perfect way to share your ethnicity, primary research area, and employment sector, to name just a few.

Here’s how:

A) From the home screen, select the red “Update Your Profile” button at the top of your screen.

B) On your profile page, click the “Update SOT Profile” button. This button is located at the top of your profile, as you can see from my page below.

C) Once at the “Update SOT Profile” page, select the “Edit” button.

D) You now will be brought to the “Personal Information” page where you can edit your name, address, and other contact information. At the bottom of the page, click the silver “Edit Demographics” button.

E) Share as much or as little as you would like!

In the coming weeks, we will be discussing Member Search and widgets!

If you have any questions that you would like answered, please feel free to [email me](#).

Until next time,

“Just Ask” Ashley

In Memoriam

In Memoriam

Emmanuel Farber

Garold S. Yost

Emmanuel Farber

The Society of Toxicology (SOT) has learned of the passing of Emmanuel Farber on August 3, 2014. Dr. Farber joined SOT in 1985 and was a member of the Carcinogenesis, Comparative and Veterinary, Toxicologic and Exploratory Pathology, and Stem Cell Specialty Sections, and the Southeastern Regional Chapter. Dr. Farber served on the first of the US Surgeon General's Advisory Committee on Smoking and Health (1961–1964) that issued the 1964 Surgeon General's Report about the risk of smoking to public health. He was born in Toronto, Ontario, Canada and received his medical degree from the Faculty of Medicine, University of Toronto in 1942. In addition, he received a doctorate in biochemistry from the University of California, Berkeley. He returned to the University of Toronto in 1975 and served as a professor and chairman of the Department of Pathology and professor in the in the Department of Biochemistry. He remained at this academic institution for the remainder of his distinguished career.

Garold S. Yost

The Society of Toxicology (SOT) has learned of the June 23, 2014 passing of Garold “Gary” S. Yost, PhD, ATS. Dr. Yost was a Professor of Pharmacology and Toxicology at the University of Utah College of Pharmacy. He received his BS from Bethel College, MS, University of Hawaii, and PhD, Colorado State University. He was a Postdoctoral Fellow at the University of California San Francisco and a Visiting Lecturer at Johns Hopkins University. Dr. Yost was the 2000 recipient of the AstraZeneca Traveling Lectureship Award and in 2001 received the Colgate-Palmolive Traveling Lectureship in Alternative Methods in Toxicology Award. He served on the SOT Awards, Education, and Membership Committees as well as the Scientific Liaison Task Force, Task Force on Student Recruitment and Retention, and the K–12 Subcommittee. In addition, he was a member of the Mountain West Regional Chapter and the Comparative and Veterinary, Inhalation and Respiratory, Mechanisms, and Systems Biology Specialty Sections. Dr. Yost joined SOT in 1984.

Around the Interwebs:

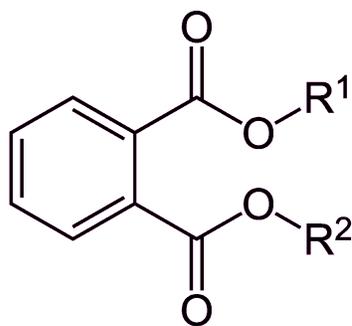
Around the Interwebs—Week of August 3, 2014

PCBs were a hot topic this week, as multiple SOT members published new research on the subject.

SOT Member Research

[Environmental Health Perspectives](#) features a report on a recent Health and Environmental Sciences Institute (HESI) workshop on the use of epidemiologic data in human health risk assessments. **Jennifer B. Pierson, Leonard Ritter, James E. Klaunig, and Kun Don Yi** are co-authors of the report, which concludes that there are a number of practical steps that could be implemented in the scientific community to ensure epidemiological data is part of risk assessments.

In another [Environmental Health Perspectives](#) paper, **Marc-André Verner** and colleagues studied the pre- and postnatal PCB concentrations in relation to cochlear status. They found that “postnatal, rather than maternal or cord PCB concentrations were associated with poorer performance on otoacoustic tests at age 45 months.”



Last month, the [Chronic Hazard Advisory Panel on Phthalates](#) issued its final report to the US Consumer Product Safety Commission on the use of specific phthalates’ use in children’s toys and childcare items. The panel, including **Chris Gennings**, recommended adding five new phthalates to the permanent ban list.

An advanced publication paper in [Environmental Health Perspectives](#) features the research of **Ellen K. Silbergeld** and colleagues. The researchers conducted a cross-sectional study of more than 500 Mexican youth to evaluate the association between blood levels of lead, cadmium, molybdenum, thallium, and uranium with vitamin D metabolism. They did not find a negative effect of the metal exposures on markers of vitamin D metabolism.

SOT Members in the News

Student member **William Klaren** recently won a [2014 K.C. Donnelly Externship Award Supplement](#) from NIEHS. With the award, he will be working at the US Department of Energy Argonne National Laboratory to determine changes in distribution of metals in the body following exposure to PCBs.

New research on the effect of pre- and post-natal exposure to DDT was featured in a [Los Angeles Times](#) article. The study by **Michele La Merrill**, which appeared in [PLoS ONE](#), found that mice exposed to DDT *in utero* or soon after birth experienced changes to their metabolic processes, which led to higher risk of diabetes and obesity in adulthood.

Science News

- [Engineering a protein to prevent brain damage from toxic agents](#) (*NYU Polytechnic School of Engineering*)
- [Colorado tightening edible pot rules](#) (*USA Today*)
- [Benefits of e-cigarettes may outweigh harms: study](#) (*WebMD*)
- [Work-related solvent exposure may increase breast cancer risk](#) (*NIEHS Environmental Factor*)
- [New National Academy of Sciences report *Safe Science: Promoting a Culture of Safety in Academic Chemical Research*](#) (*National Academy of Sciences*)
- [Handheld device could enable low-cost chemical tests](#) (*Nature*)
- [Statins may protect against colon cancer](#) (*CBS News*)
- [“Gluten-free” labeling standards kick in](#) (*Associated Press*)
- [Anti-fracking measures to be officially pulled from Colorado ballot](#) (*The Hill*)
- [Effect of fracking on wildlife is basically unknown](#) (*Popular Science*)
- [EPA will regulate some TCE uses unless industries take voluntary action, official says](#) (*Bloomberg BNA*)
- [The future of medicine may depend on the most fragile places on Earth](#) (*Business Insider*)
- [Root vegetables irrigated with treated wastewater can take up certain drugs](#) (*Chemical & Engineering News*)
- [Food fight builds as U.S. regulators weigh “added sugar” label](#) (*Reuters*)
- [New law is a historic triumph for veterinarians, animal care](#) (*American Veterinary Medical Association*)
- [Chemicals in cosmetics: Is organic the safer way to go?](#) (*Fox News*)
- [Scientific review finds aspirin significantly cuts cancer rates](#) (*Reuters*)
- [Study may help explain link between uranium exposure and skin cancer](#) (*Northern Arizona University*)
- [Arctic mammals can metabolize some pesticides, limits human exposure: study](#) (*University of Guelph*)
- [Fish oil could \(one day\) come from plants](#) (*Smithsonian Magazine*)
- [Statins’ benefits far outweigh side effects: review](#) (*WebMD*)

To stay abreast of these types of items throughout the week, be sure you [“like” SOT on Facebook](#) and [“follow” SOT on Twitter](#).

Have news or research you want featured in the future? [Send me an email](#).

Around the Interwebs—Week of July 27, 2014

Multiple members had research published last week in *Environmental Health Perspectives*, while others offered insight on diverse topics, such as elk hoof rot disease and the dangers of caffeine powder.

SOT Member Research

Unconventional natural gas drilling operations, such as hydraulic fracturing, have the potential to contribute to water and air pollution a NIH Environmental Health Sciences Core Centers Working Group said recently in an [Environmental Health Perspectives](#) paper. **Trevor M. Penning** is one of the authors on the paper, which serves as a nice companion to [SOT's official position](#) on hydraulic fracturing on which Dr. Penning also contributed.



Three years ago, the National Toxicology Program listed styrene as “reasonably anticipated to be a human carcinogen” in its *12th Report on Carcinogens*. Earlier this week, this ruling was affirmed by an independent [National Research Council](#) committee, on which four SOT members participated.

Lisbeth A. Boule, Bethany Winans, and B. Paige Lawrence's study to determine exposure to an AhR ligand alters CD4+ T cell differentiation and function was published in [Environmental Health Perspectives](#). The members found that maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin did cause durable changes.

In another [Environmental Health Perspectives](#) paper, **Thomas F. Webster** and **Jennifer J. Schlezinger** investigated whether components of the flame retardant alternative Firemaster® 550 are biologically active peroxisome proliferator activated receptor ?? (PPAR??) ligands. They found that there are components in Firemaster® 550 that bind and activate PPARy.

SOT Members in the News



Some residents of Southwest Washington believe that herbicides cause elk hoof rot disease, but experts employed by the state's Department of Fish and Wildlife disagree. **Vickie Tatum** told [The Longview Daily News](#), “There is nothing in that body of research that suggests that any herbicide used in forests could or would have any relationship whatsoever to hoof rot.”

Last week, the US Food and Drug Administration (FDA) issued a warning to consumers to avoid pure caffeine powders. **Chris Holstege** and other experts discuss the health concerns and associated risks of using caffeine powder with [WebMD](#).

As reported by [The St. Louis American](#), **Pui-Ling “Melissa” Chan** has won the Southern Illinois University Edwardsville's 2014 Vaughnie Lindsay New Investigator Award. The award is presented annually to a tenure-track faculty member making significant contributions in his/her field of study and to the university.

To mark her 100th birthday, the contributions of honorary member **Frances Oldham Kelsey** to public health were featured in [FDA Voice](#). Dr. Kelsey is responsible for protecting American mothers and babies in the 1950s from the sedative thalidomide.

Science News

- [Paracetamol no better than placebo for low back pain, study finds](#) (*Reuters*)
- [Abuse of US generic-drug rules costs billions: report](#) (*Reuters*)
- [Vitamin B No Help for Alzheimer's: Review](#) (*MedlinePlus*)
- [Merkley Introduces New Legislation to Protect Families' and Children's Health](#) (*Jeff Merkley website*)

- [Moose Spit is Antifungal](#) (*Smithsonian*)
- [US court upholds FDA animal feed policy despite health concern](#) (*Reuters*)
- [Pesticide linked to three generations of disease](#) (*Washington State University*)
- [Groups Press New York State to Ban Poisons That Kill Wildlife](#) (*The New York Times*)
- [Songbirds dying from DDT in Michigan yards; Superfund site blamed](#) (*Environmental Health News*)
- [US GMO crop companies double down on anti-labeling efforts](#) (*Reuters*)
- [EPA Considering Regulating More Chemicals Under Its Rule for High-Hazard Substances](#) (*Bloomberg BNA*)
- [Forensics for the Farm Keep Food Safe](#) (*Iowa Public Radio*)
- [EPA Should Address Emerging Risks From Fracking: GAO](#) (*Bloomberg BNA*)

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Around the Interwebs—Week of July 20, 2014

Instead of completed research, this week, we found a number of announcements of SOT member research just getting off the ground—always happy news!

SOT Member Research

Last month, the [National Institute of Environmental Health Sciences \(NIEHS\)](#) gave a greenlight to a number of new research proposals. **Vicki Sutherland** will be studying BPA replacement chemicals, like BPS. **Brian Sayers** will be conducting inhalation studies of C9 alkylbenzenes. **Matthew Stout** will be characterizing the toxicity and carcinogenicity of xylenes. **Andrew Rooney** will be using a two-pronged approach for a literature-based evaluation—a systematic review and the development of an adverse outcome pathway.



Brenda A. Jensen of Hawaii Pacific University and research colleagues at the National Institute of Standards and Technology measured pollutant levels in plasma samples from 53 Hawaiian green turtles to determine whether or not manmade pollutants are causing fibropapillomatosis (pictured at right, credit: Peter Bennett & Ursula Keuper-Bennett/Wikimedia Commons) in green sea turtles. As discussed in the resultant [Environmental Science & Technology](#) paper, the scientists found that persistent organic pollutants are not a major cofactor in the turtle disease.

This week, [University at Buffalo](#) researchers, including **Jim Olson**, announced their plans for the \$11 million, 10-year study into the health of residents of Tonawanda in upstate New York. The town has lived in the shadow of emissions from the Tonawanda Coke Corp. plant. A federal court convicted the company of violating environmental laws and ordered it to support research into the health effects of its emissions. The university is waiting on the decision of an appeals court to begin work.

SOT Members in the News

Last week, the US Environmental Protection Agency’s Chemical Assessment Advisory Committee held a peer review of the agency’s draft Integrated Risk Information System assessment of ammonia. In the [Bloomberg BNA](#) report of the meeting, the thoughts and contributions of **Abby Li**, **Jill Ryer-Powder**, and **Michael Dourson** are mentioned.

Sarah Vose is quoted in a [My Champlain Valley](#) article about E. coli levels in Vermont waterways. Dr. Vose explains why certain swimming spots are temporarily closed and how the state determines safety levels.

Science News

- [Is organic food healthier? Many scientists are still skeptical.](#) (*Vox*)
- [Testimony of Kenneth Olden at the Hearing on Status of Reforms to EPA’s Integrated Risk Information System](#)

[\(IRIS\) Process before the US House of Representatives Committee on Science, Space, and Technology](#) (*US Committee on Science, Space, and Technology*)

- [Workplace Exposures and the National Action Plan for Infertility](#) (*NIOSH Science Blog*)
- [NIH system to monitor emerging drug trends](#) (*National Institutes of Health*)
- [Cholesterol-lowering Drugs May Reduce Cardiovascular Death in Type 2 Diabetes](#) (*Wake Forest Baptist Medical Center*)
- [EPA Introduces New Graphic to Help Consumers Make Informed Choices about Insect Repellents](#) (*US Environmental Protection Agency*)
- [Drug Improves Birth Rates for Women with Ovary Disorder](#) (*National Institutes of Health*)
- [Researchers create vaccine for dust-mite allergies](#) (*The University of Iowa*)
- [Northwest Wildlife Refuges to Phase Out Pesticide](#) (*Associated Press*)
- [Don't let the bedbugs bite: Research finds parasites can be killed with lower dosage of chemical](#) (*Kansas State University*)
- [Families sick from fracking turn to scientists](#) (*The Center for Public Integrity*)
- FEDERAL REGISTER: [Scientific Information Request on Behavioral Programs for Diabetes Mellitus](#)

To stay abreast of these types of items throughout the week, be sure you [“like” SOT on Facebook](#) and [“follow” SOT on Twitter](#).

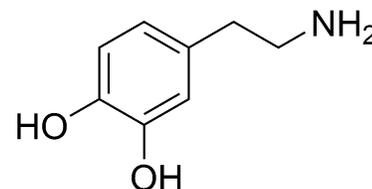
Have news or research you want featured in the future? [Send me an email](#).

Around the Interwebs—Week of July 13, 2014

This week, SOT members published research that may have implications for Parkinson’s disease, oral exposure to silver nanoparticles, and exposures to endocrine-disrupting chemicals.

SOT Member Research

In an effort to better understand the disruption of neurotransmitter vesicle dynamics—and implications for neurodegenerative diseases like Parkinson’s—**Gary W. Miller** and a research team overexpressed a brain protein known as vesicular monoamine transporter 2 in mice. These mice then exhibited an increase of dopamine intake to the neurotransmitters called synaptic vesicles. These results were published in [PNAS](#).



New research from **Mary D. Boudreau** and colleagues at the US Food and Drug Administration National Center for Toxicological Research evaluates changes in intestinal-microbiota and intestinal-mucosal gene expression in Sprague-Dawley rats after oral exposure to silver nanoparticles. The [Nanotoxicology](#) paper found that oral exposure to silver nanoparticles alters the microbiota, as well as gut-associated immune response.

SOT Members in the News

Richard Judson took to the US Environmental Protection Agency’s (EPA) [Greenversations](#) blog to discuss two recent agency papers on endocrine-disrupting chemicals, as well as the US EPA’s use of high-throughput screening assays for faster, more efficient testing.

Science News

- [The 1% of scientific publishing](#) (*AAAS ScienceInsider*)
- [Penn Researchers Successfully Alleviate Pulmonary Inflammation through Targeted Drug Delivery](#) (*University of Pennsylvania Perelman School of Medicine*)
- [Call for scientific data for use in HMPC assessment work on Myroxylon balsamum](#) (*European Medicines Agency*)
- [Concept paper on qualification and reporting of physiologically based pharmacokinetic \(PBPK\) modelling and analyses](#) (*European Medicines Agency*)

- [Hacked E-Cigs May Get around Regulations](#) (*Scientific American*)
- [Core Truths: 10 Common GMO Claims Debunked](#) (*Popular Science*)
- [Potent Spider Toxin “Electrocutes” German, Not American, Cockroaches](#) (*Johns Hopkins Medicine*)
- [EPA’s Study of Hydraulic Fracturing and Its Potential Impact on Drinking Water Resources: Published Scientific Papers](#) (*US Environmental Protection Agency*)
- [Novartis AG \(NVS\) Layoffs Announced: More Cuts May Be Looming](#) (*BioSpace*)
- [37th session of the Codex Alimentarius Commission](#) (*World Health Organization*)
- [Fish Oil supplements Lower the Incidence of Cognitive Decline](#) (*Science World Report*)
- [Should research fraud be a crime?](#) (*The BMJ*)
- [Researchers demonstrate health risks posed by “third hand” tobacco smoke](#) (*University of York*)
- FEDERAL REGISTER: [Hydraulic Fracturing Chemicals and Mixtures; Extension of Comment Period](#)

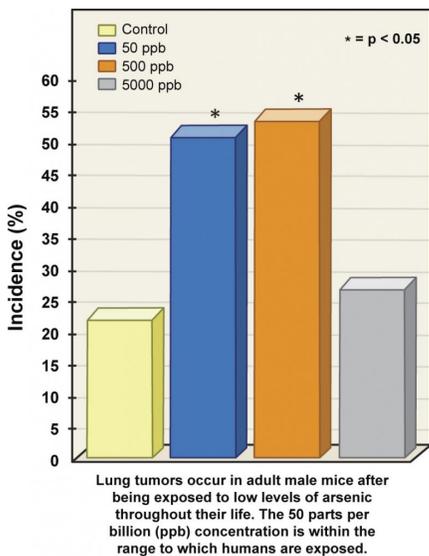
To stay abreast of these types of items throughout the week, be sure you “[like](#)” SOT on Facebook and “[follow](#)” SOT on Twitter.

Have news or research you want featured in the future? [Send me an email.](#)

Around the Interwebs—Week of July 6, 2014

A National Institutes of Health (NIH) study led by SOT members took the science media by storm this week, as the researchers uncovered some alarming connections between arsenic exposure and cancer.

SOT Member Research



“This is the first study to show tumor development in animals exposed to very low levels of arsenic, levels similar to which humans might be exposed. The results are unexpected and certainly give cause for concern,” says **Michael Waalkes** in a [NIH](#) press release on new research from the National Toxicology Program Laboratory. Fellow SOT members **Wei Qu**, **Eric J. Tokar**, and **Darlene Dixon** also worked on the study, which found that male mice who consumed arsenic in doses similar to human exposures over the course of their lives had a higher likelihood of developing lung tumors.

SOT Members in the News

[FDA Consumer Reports](#) featured the work of **Weida Tong**, who heads the US Food and Drug Administration (US FDA) National Center for Toxicological Research (NCTR) Division of Bioinformatics and Biostatistics. Dr. Tong and his team use computer and mathematical models to analyze research data from across the globe. “We collect a lot of data—a broad range of data. And the question we ask is: How do these data reflect the biological complexities of the human body?

How can we extract these data and convert them to information that can be used in the decisions that US FDA has to make in evaluating new medical products?” says Dr. Tong.

As reported by [Environmental Factor](#), many SOT members were honored with NIH Director’s Awards in a ceremony last month. Winners included **Raymond Tice**, **Jui-Hua Hsieh**, **Rebecca Boyles**, **Richard Woychik**, **Linda Birnbaum**, **John Bucher**, **Michael DeVito**, and **Suramya Waidyanatha**.

Science News

- [Oil Dispersant Compound Persists for Years after Gulf Spill](#) (*Chemical & Engineering News*)
- [Second Silent Spring? Bird Declines Linked to Popular Pesticides](#) (*National Geographic*)
- [In China’s Heartland, A Toxic Trail Leads from Factories to Fields to Food](#) (*Yale Environment 360*)
- [Agent Orange Ingredient Could Soon Be Used to Kill Superweeds](#) (*National Journal*)

[Concept paper on qualification and reporting of physiologically based pharmacokinetic \(PBPK\) modelling and analyses](#) (*European Medicines Agency*)

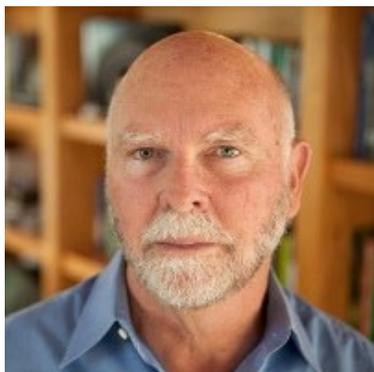
- [Bill would ban BPA in food packaging](#) (*The Hill*)
- [Funding bill would block Obama's climate rules](#) (*The Hill*)
- [VA rejects link between Gulf War service and cancers](#) (*USA Today*)
- [Binding at five sites: effective cholera inhibitor based on cholera toxins](#) (*Phys.org*)
- [Organ-organ interactions could compound nanoparticle damage](#) (*Chemistry World*)
- [Disinfected Water, Fuel Additives, Nanotubes Should Be High IARC Priorities, Advisers Say](#) (*Bloomberg BNA*)
- [Phthalates are out of infants' toys but a heavy dose is still in their food](#) (*The Washington Post*)
- [NYU Researchers Find 18 Percent of High School Seniors Smoke Hookah](#) (*NYU Langone Medical Center*)
- [Conduct of scientists \(and science writers\) can shape the public's view of science](#) (*Scientific American*)
- [Nutrition: Vitamins on trial](#) (*Nature*)
- [Acrylamide in food is a public health concern, says EFSA draft](#) (*European Food Safety Authority*)
- [Denmark scraps planned ban on phthalate chemicals](#) (*EurActiv*)
- [Research Wranglers: Initiatives to Improve Reproducibility of Study Findings](#) (*Environmental Health Perspectives*)
- [National Report on Human Exposure to Environmental Chemicals, Updated Tables July 2014](#) (*Centers for Disease Control and Prevention*)

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Annual Meeting & ToxExpo

J. Craig Venter to Deliver 2015 SOT Annual Meeting Plenary Opening Lecture



The Society of Toxicology (SOT) 54th Annual Meeting Plenary Opening Lecture will be presented by J. Craig Venter on Monday, March 23, 2015 in the San Diego Convention Center, San Diego, California. Dr. Venter is a biologist renowned for his contributions in sequencing the first draft human genome in 2001, the complete diploid human genome in 2007, and construction of the first synthetic bacterial cell in 2010.

He is the recipient of the 2008 National Medal of Science and is a member of the National Academy of Sciences. For more information, please visit the [Featured Sessions](#) descriptions on SOT Annual Meeting website as well as the [Press](#) section of the SOT website. The SOT 2015 Annual Meeting will be held March 22–26, 2015.

SOT 2015 Annual Meeting, San Diego, California: Registration and Housing Now Are Open

The Society of Toxicology (SOT) 2015 Annual Meeting registration and housing are now open. Please take a moment to register and make your hotel reservation for the 54th SOT Annual Meeting to be held March 22–26, 2015, in San Diego, California. Take advantage of the Early Bird Registration and the offering of hotels available at discounted room rates. Rooms are available at the government rate and they go quickly. For a listing of hotels, please go to the [2015 Annual Meeting website](#).

Key Deadlines:

- Abstract Submission: October 7, 2014
- Award Nominations: October 9, 2014
- Early Bird Registration: January 31, 2015
- Housing Reservation: February 19, 2015
- Standard Registration: February 28, 2015
- Cancellations: February 28, 2015

The information below will be of interest to you as well:

- [Annual Meeting General Information](#)
- [Annual Meeting Supporter Opportunities](#)
- [Awards and Fellowship](#)
- [Continuing Education Course Descriptions](#)
- [Forms and Applications](#)
- [Meeting Requests](#)
- [San Diego, Host City](#)
- [Scientific Sessions](#)
- [ToxExpo](#)
- [Visa Information](#)

Now Is the Time to Book Your 2015 SOT Annual Meeting Ancillary Meetings—Deadline December 12

Plans are underway for the 2015 Society of Toxicology (SOT) Annual Meeting in San Diego, and if your organization would like to reserve a room for a business or social event, you will need to submit an [Ancillary Meeting Form](#) to SOT Headquarters for approval. Ancillary functions may only be hosted by SOT Affiliates, Exhibitors, Supporters, or organizations otherwise associated with SOT. All ancillary functions are held outside of the San Diego Convention Center in nearby hotels.*

Ancillary meeting spaces book fast—submit your request now! Only meeting requests made by December 12, 2014, will be listed on the Annual Meeting Calendar in the *Program*. If your organization plans on holding an off property event, please let [Amy Willis](#) know by February 23, 2015. The Society would like to be able to provide a listing of all SOT-related events to the city bureau and INA Security.

No hospitality functions or ancillary meetings may be scheduled during the following SOT events:

- Sunday, March 22, 8:15 AM–12:00 Noon and 1:15 PM–5:00 PM: Continuing Education
- Sunday, March 22, 5:15 PM–7:30 PM: Awards Ceremony and Welcome Reception
- Monday, March 23, 8:00 AM–9:00 AM: Opening Plenary Lecture
- Monday, March 23, 9:15 AM–12:00 Noon and 2:00 PM–4:45 PM: Scientific Sessions
- Tuesday, March 24, 9:00 AM–11:45 AM and 1:30 PM–4:15 PM: Scientific Sessions
- Tuesday, March 24, 4:30 PM–6:00 PM: Annual Business Meeting (No SOT Events Should Conflict)
- Wednesday, March 25, 8:00 AM–9:00 AM: Keynote Medical Research Council (MRC) Lecture
- Wednesday, March 25, 9:00 AM–11:45 AM and 1:30 PM–4:15 PM: Scientific Sessions

- Thursday, March 26, 9:00 AM–11:45 AM: Scientific Sessions

* *The hotels are not permitted to book meeting space without authorization from SOT.*

The goal of the Society is to create a safer and healthier world by advancing the science of toxicology. To this end, the Society reserves the right to deny an Ancillary Meeting request from any organization whose objectives, or past actions, are deemed counterproductive to those of SOT.

SOT 2015 Enhancement of Animal Welfare Award—Nominate Someone Today!



The Society of Toxicology (SOT) Enhancement of Animal Welfare Award is presented annually to a member of the Society in recognition of contributions made to the advancement of toxicological science through the development and application of methods that replace, refine, or reduce the need for experimental animals. This award recognizes outstanding or significant contributions made by members of SOT to the scientifically sound and responsible use of animals in research. The achievement recognized may be either a seminal piece of work or a long-term contribution to toxicological science and animal welfare. Pictured at the right: 2013 SOT Enhancement of Animal Welfare Award recipient Martin L. Stephens (left) receiving this honor from 2011–2013 SOT Councilor Donald A. Fox (right).

As with most SOT Awards, nominations for the Enhancement of Animal Welfare Award should include the nominee's abbreviated *curriculum vitae* (*CV*) and both a primary and seconding letter of nomination from Full Members of the Society. Please remember to include documentation and description of the significant contributions to toxicology by the nominee. Moreover, please note that letters of nomination should include an analysis and discussion of the importance of the contributions made and how the nominee meets the award criteria. Letters simply stating accomplishments found in the *CV* are insufficient.

If you know an SOT Member who has advanced the welfare of research animals or made other major contributions to public awareness of research animals in Toxicology, please take a moment to nominate him or her for this award today. To nominate yourself or a colleague, please visit the [SOT Awards and Fellowships](#) page on the SOT website. Nominations will be accepted online through October 9, 2014.

SOT Enhancement of Animal Welfare Award Winners

- 2000 Yves Alarie
- 2001 Alan Goldberg
- 2002 Gary Williams
- 2003 Frank G. Gerberick and Ian Kimber
- 2005 Daniel Acosta
- 2006 William S. Stokes
- 2007 Thomas Hartung
- 2009 Sally Robinson
- 2010 Leonard M. Schechtman
- 2013 Martin L. Stephens

Accepting Nominations for the 2015 SOT Education Award

The Society of Toxicology (SOT) is committed to excellence in toxicological education and has recognized educators in toxicology for almost 40 years. As a result, SOT bestows the Education Award to an individual who is distinguished in the arena of teaching and training toxicologists, and who has made significant contributions to toxicology. Pictured SOT Councilor Ivan Rusyn (right) presents the SOT 2014 Education Award to Herman Autrup (left).



As with most SOT Awards, nominations for the Education Award should include the nominee's *curriculum vitae (CV)* and both a primary and seconding letter of nomination from Full Members of the Society that include documentation and description of the significant contributions to toxicology by the nominee. Please note that letters simply listing accomplishments found in the *CV* are not sufficient without analysis and discussion of the importance of the contributions and how the nominee meets the award criteria.

If you have benefited from the instruction of a superb educator or know someone highly respected within the realm of education in toxicology who has made meaningful contributions to the discipline, please take a moment to nominate him or her. You can submit nominations for the SOT Education Award by visiting the [SOT Awards and Fellowships](#) section of the SOT website. Nominations are accepted online through October 9, 2014.

Previous Education Award Winners

- 1975 Harold C. Hodge
- 1976 Ted A. Loomis
- 1977 Robert B. Forney
- 1978 (No Award)
- 1979 Sheldon D. Murphy
- 1980 Herbert H. Cornish
- 1981 Frederick Sperling
- 1982 Lloyd W. Hazleton
- 1983 Julius M. Coon
- 1984 Frank Guthrie, Ernest Hodgson
- 1985 William B. Buck
- 1986 Robert I. Krieger
- 1987 Gabriel L. Plaa
- 1988 John Autian
- 1989 Tom S. Miya
- 1990 Charles H. Hine
- 1991 Hanspeter R. Witschi
- 1992 Dean E. Carter
- 1993 Curtis D. Klaassen
- 1994 Robert A. Neal
- 1995 William Carlton
- 1996 Robert Snyder
- 1997 Albert E. Munson
- 1998 David J. Holbrook
- 1999 Jules Brodeur
- 2000 Gary Carlson
- 2001 Harihara Mehendale
- 2002 Joseph Borzelleca
- 2003 Frederick W. Oehme
- 2004 A. Jay Gandolfi
- 2005 Nobuyuki Ito

- 2006 Robert A. Schatz
- 2007 Torbjörn Malmfors
- 2008 Steven Cohen
- 2009 Janice E. Chambers, Serrine S. Lau
- 2010 Tetsuo Satoh
- 2011 Michael Gallo
- 2012 John H. Duffus
- 2013 Rick G. Schnellmann
- 2014 Herman N. Autrup

Nominate a Well-Qualified Candidate for the SOT Distinguished Toxicology Scholar Award



The Distinguished Toxicology Scholar Award is one of the preeminent awards of the Society of Toxicology (SOT). It is presented to a member of SOT who has made substantial and seminal scientific contributions to our understanding of toxicology. The prime consideration for this award is scientific accomplishments. The winner of this award will be invited to deliver the Distinguished Toxicology Scholar Award Lecture at the 2015 SOT Annual Meeting in San Diego, California, March 22–26, 2015. Pictured is Richard E. Peterson (*right*) being presented with the SOT 2014 Distinguished Toxicology Scholar Award by SOT Vice President Peter L. Goering (*left*).

If you know of a colleague or other scientists deserving of such a high honor, please take time to nominate him or her for this award. Nominations should be made for individuals who have made significant and influential contributions to, or made strides advancing, our understanding of the science of toxicology. Nominees should be active scientists currently involved in toxicological research.

As with the majority of SOT Awards, nominations for the Distinguished Toxicology Scholar Award should include the nominee's *curriculum vitae* (*CV*) and both a primary and seconding letter of nomination from Full Members of the Society that include documentation and description of the significant contributions to toxicology made by the nominee. Please note that letters simply listing accomplishments found in the *CV* are not sufficient without analysis and discussion of the importance of the contributions and how the nominee meets the award criteria.

Make this a memorable summer; nominate a renowned toxicologist for the SOT 2015 Distinguished Toxicology Scholar Award! Nominations are accepted online at the [SOT Awards and Fellowships](#) section of the SOT website through October 9, 2014.

Distinguished Toxicology Scholar Award Winners

- 2003 Henry C. Pitot
- 2004 Gerald N. Wogan
- 2005 Daniel Nebert
- 2006 Sten G. Orrenius
- 2007 Stephen H. Safe
- 2008 Toshio Narahashi

- 2009 Lance R. Pohl
- 2010 Harihara M. Mehendal
- 2011 Oliver Hankinson
- 2012 Ernest Hodgson
- 2013 John J. Lemasters
- 2014 Richard E. Peterson

Nominations Now Being Accepted for the 2015 Arnold J. Lehman Award

The Society of Toxicology (SOT) Arnold J. Lehman Award, named to honor SOT Founder Arnold J. Lehman, is presented to recognize an individual who has made a major contribution to risk assessment and/or the regulation of chemical agents, including pharmaceuticals. This contribution may have resulted from the application of sound scientific principles to regulation and/or from research activities that have significantly influenced the regulatory process. Pictured is B. Bhaskar Gollapudi (left) being presented with the 2014 Arnold J. Lehman Award by SOT Treasurer Denise Robinson Gravatt (right).



If you know a deserving scientist who has made this type of major contribution to the field of toxicology, please take the time to nominate that individual this summer. Nominees may be employed in academia, government, or industry. Don't wait until it is too late—Nominate now!

As with the majority of SOT Awards, nominations for the Arnold J. Lehman Award should include the nominee's *curriculum vitae (CV)* and both a primary and seconding letter of nomination from Full members of the Society that include documentation and description of the significant contributions to toxicology by the nominee. Please note that letters simply listing accomplishments found in the *CV* are not sufficient without analysis and discussion of the important contributions and how the nominee meets the award criteria. Nominations will be accepted online on the [SOT Awards and Fellowships](#) portion of the SOT website through October 9, 2014.

Past recipients of the Arnold J. Lehman Award:

- 1980 Allan H. Conney
- 1981 Gabriel L. Plaa
- 1982 Gary M. Williams
- 1983 David P. Rall
- 1984 Tibor Balasz
- 1985 Frederick Coulston
- 1986 Gerrit Johannes Van Esch
- 1987 John P. Frawley
- 1988 Kundan S. Khera
- 1989 Richard H. Adamson
- 1990 Harold C. Grice
- 1991 Bernard A. Schwetz
- 1992 Roger O. McClellan
- 1993 Thomas W. Clarkson
- 1994 Bruce Ames
- 1995 Emil A. Pfitzer
- 1996 John F. Rosen
- 1997 (No Award)
- 1998 Helmut Alfred Greim
- 1999 (No Award)

- 2000 Carole A. Kimmel and Janardan K. Reddy
- 2001 Samuel M. Cohen
 - 2002 Dennis Paustenbach
 - 2003 Michael L. Dourson
 - 2004 Melvin E. Andersen
 - 2005 Rory Conolly
 - 2006 Kathryn Mahaffey
 - 2007 Harvey J. Clewell
 - 2008 Vicki Dellarco
 - 2009 Michael Bolger
 - 2010 Edward V. Ohanian
 - 2011 Bette Meek
 - 2012 Joe L. Mauderly
 - 2013 Moiz Mumtaz
 - 2014 B. Bhaskar Gollapudi
-

SOT 2015 Awards Season Opened July 1

The Society of Toxicology (SOT) is pleased to announce that July 1, 2014, marked the beginning of SOT's 2015 Awards Season. Completed nominations and applications must be received by October 9, 2014.

The SOT Awards Committee encourages you to submit a nomination or an application for a 2015 Award. If you know a colleague deserving of recognition for his or her work, please take some time to nominate them for one or more of the SOT Awards. There are many prestigious awards presented at the annual SOT Awards Ceremony. Such awards include the Achievement and Merit Awards, available to SOT members, and the Translational Impact and Leading Edge in Basic Science Awards, which are open to members and nonmembers. Further information on individual awards such as award criteria, and nomination or application details are available on the [Awards and Fellowships section](#) of the SOT website. Please take some time to review the award descriptions and familiarize yourself with the requirements and nominate or apply for a 2015 SOT Award.

Many of SOT's prominent awards require two full members of the Society to provide a primary and secondary letter of nomination. Both letters should clearly explain the qualities and contributions to toxicology that qualify the nominee for the award. The nominee's abbreviated *curriculum vitae* (CV) also should be included. Please use the SOT Awards and Fellowships online nomination and application system to upload the primary and secondary nomination letters as well as the abbreviated CV. Simply visit the [Awards and Fellowships section](#) of the SOT website and select the appropriate award from the complete listing. The online nomination and application site is open from July 1 through October 9, 2014.

Recipients will be recognized at the annual Awards Ceremony at the 2015 SOT Annual Meeting in San Diego, California, and many awards provide a plaque and award stipend. Award recipients are listed on the SOT Website, in the Annual Meeting *Program*, and the annual SOT *Membership Directory*.

In addition to the SOT National Awards described above, there are several sponsored awards available to students, postdoctoral fellows, and researchers that share the October 9 deadline. Please see the [Awards and Fellowships section](#) of the SOT website and select sponsored awards from the criteria drop down menu to view all the sponsored award descriptions and criteria.

There also are numerous Regional Chapter, Special Interest Group, and Specialty Section awards offered and celebrated each year during the SOT Annual Meeting. These awards may have various deadlines and are listed on the [Awards and Fellowships section](#) of the SOT website. Most SOT or Component Group Student Awards require that the applicant be a student member in good standing or that they have submitted a completed [membership application](#).

Please note: Several awards, including the Graduate Student Travel Support Awards, require that the applicant submit

an abstract for the annual meeting. All abstracts for the 2015 SOT Annual Meeting are to be submitted online by October 7, 2014.

Are You Eligible for SOT Graduate Student Travel Support to the Annual Meeting?

The Society of Toxicology (SOT) is pleased to provide travel support for the 2015 Annual Meeting to graduate students who are PhD candidates in toxicology at the time of the Annual Meeting, March 22–26, 2015. Graduate students may apply for this travel support by October 9, 2014 via the [Awards and Fellowships section](#) of the SOT website.

Applicants must be presenting platform talks or posters at the Annual Meeting and be Student members of SOT or have a [membership application](#) pending at the time of application for the travel support. Doctoral candidates presenting a platform talk or poster at the 2015 Annual Meeting, who are not yet Student members of the Society, should apply for membership by September 1, 2014.

Those accepted for Student membership in the Society during the autumn of 2014 will qualify for the Early Bird Registration discounted rates for the Annual Meeting as a Student member. So submit your membership applications early to be eligible for both the SOT Graduate Student Travel Support as well as the Early Bird Registration for the Annual Meeting. Recipients are selected by a randomized process giving priority to students with the most seniority in graduate school. Funding amounts for this award are determined annually by the SOT Awards Committee. Applicants may only receive this funding once.

Key Dates:

September 1, 2014

Applications for SOT Membership Due

Note: Sponsor letter from your advisor/mentor required.

October 7, 2014

Abstract Submission Deadline

Note: You must submit an abstract electronically via the Online Abstract Submission System and provide the Control ID number assigned to your abstract in your application for SOT Graduate Student Travel Support.

October 9, 2014

Applications for SOT Graduate Student Travel Support due for travel to the 2015 SOT Annual Meeting.

Nominate a Deserving Member for the 2015 SOT Achievement Award

The Society of Toxicology (SOT) Achievement Award is presented to a member of the Society who, within 15 years since obtaining the highest earned degree, has made significant contributions to toxicology. One of the long-standing SOT Awards, the SOT Achievement Award was first presented in 1967. This is one of the first awards envisioned by the Society, and its recipients have achieved success not only early in their careers but also throughout their careers.

Pictured is Matthew Campen (left) who was presented with the SOT 2014



Achievement Award for the significant contributions to toxicology that he has made in the early stages of his career by 2011–2014 SOT Councilor John C. Lipscomb (right).

If you know a deserving colleague who is within 15 years of receiving his or her highest degree in 2015 (i.e., MD, PhD, DVM, or other highest degree received in 2000 or later), then please take the time to nominate that colleague this summer. Don't wait until it's too late!

Similar to many of the SOT Awards, nominations for the Achievement Award should include the nominee's *curriculum vitae (CV)* and both a primary and seconding letter of nomination from Full members of the Society that include documentation and description of the significant contributions to toxicology by the nominee. Please note that a letter simply listing accomplishments found in the *CV* is not sufficient without analysis and discussion of the important contributions and how the nominee meets the award criteria.

Make this a summer to remember: nominate a deserving colleague for the 2015 SOT Achievement Award! Nominations accepted online on the [Awards and Fellowship section](#) of the SOT website through October 9, 2014.

Recipients of the SOT Achievement Award:

- 1967 Gabriel L. Plaa
- 1968 Allan H. Conney
- 1969 Samuel S. Epstein
- 1970 Sheldon D. Murphy
- 1971 Yves Alarie
- 1972 Robert L. Dixon
- 1973 (No Award)
- 1974 Morris F. Cranmer
- 1975 Ian C. Munro
- 1976 Curtis D. Klaassen
- 1977 James E. Gibson
- 1978 Raymond D. Harbison
- 1979 Michael R. Boyd
- 1980 Philip G. Watanabe
- 1981 (No Award)
- 1982 Frederick P. Guengerich
- 1983 (No Award)
- 1984 Melvin E. Andersen
- 1985 Alan R. Buckpitt
- 1986 Sam Kacew
- 1987 James S. Bus
- 1988 Jeanne M. Manson
- 1989 James P. Kehrer
- 1990 Michael P. Waalkes
- 1991 Debra Lynn Laskin
- 1992 Michael P. Holsapple
- 1993 David L. Eaton
- 1994 James L. Stevens

- 1995 Lucio G. Costa
 - 1996 Kenneth Ramos
 - 1997 Kevin E. Driscoll
 - 1998 Rick G. Schnellmann
 - 1999 Michel Charbonneau
 - 2000 Christopher Bradfield
 - 2001 Martin Philbert
 - 2002 Ruth Roberts
 - 2003 Lois D. Lehman-McKeeman
 - 2004 David Dorman
 - 2005 (No Award)
 - 2006 Jose E. Manautou
 - 2007 Jeffrey M. Peters
 - 2008 Ivan Rusyn
 - 2009 Russell S. Thomas
 - 2010 Gary W. Miller
 - 2011 Nathan Cherrington
 - 2012 Donna D. Zhang
 - 2013 Wei Xu
-

SOT Annual Meeting Publications—A Great Resource Just A Click Away

You know you heard about it (e.g., cutting-edge research, methodological advances, or regulatory implications) at an Society of Toxicology (SOT) Annual Meeting, but you are not certain of the timeframe. Whether this information was imparted recently or decades ago, you likely can find what you are seeking by accessing the SOT Annual Meeting Publications available on the [SOT website](#). The materials from the 2014 SOT Annual Meeting are featured and the [publications archives](#) includes materials from 1964 to 2014. Moreover, you can access [The Toxicologist Database](#) and search the archives of SOT Annual Meeting Abstracts (including Late-Breaking Abstracts) from 2003 to the present. There is no time like the present to peruse these SOT Annual Meeting publications as you start to plan for the 54th SOT Annual Meeting, March 22–26, 2015 in San Diego, California.

Now Is the Time to Reserve Your Booth for ToxExpo 2015

The 2015 Society of Toxicology (SOT) Annual Meeting and ToxExpo will bring together over 6,500 toxicologists, research scientists, academicians, federal government officials, and private industry representatives. Each year 330+ exhibitors gather on the show floor to interact with attendees, present their products and services, and discover the variety of business-to-business connections available. [ToxExpo](#) provides the opportunity to build on existing relationships and network for new ones.

By all indications, the 2015 SOT Annual Meeting will be another very successful event—the ToxExpo 2015 exhibit floor is already 78 % booked. Don't miss your opportunity to join us from March 22–26, 2015 in San Diego, California!

For more information, contact Exhibits Manager, [Ray Luca](#).

SOT PDA 2015 Best Postdoctoral Publication Awards: Submission Deadline October 9

The work of postdoctoral trainees advances new discoveries and knowledge to address the important questions in

toxicological sciences. Each year the Postdoctoral Assembly (PDA) is proud to recognize the outstanding toxicological research published by the Society of Toxicology (SOT) postdoctoral members through the Best Postdoctoral Publication Awards (BPPA). In this way, the PDA recognizes the contributions of postdoctoral fellows to the science of toxicology.

The PDA is pleased to announce the availability of the 2015 BPPA recognizing outstanding postdoctoral researchers who have recently published papers in the field of toxicology as a result of the work conducted during the postdoctoral research experience. The PDA encourages all SOT members to identify and nominate postdoctoral scholars who have contributed to the advancement of toxicology and have their novel findings published in peer-reviewed papers (online, in print, or in press).

The PDA Board, in collaboration with subject matter experts in the appropriate fields, reviews all applications. The review process follows the National Institutes of Health conflict-of-interest, confidentiality, and nondisclosure policies. Three awards will be presented at the PDA Luncheon during the SOT 2015 Annual Meeting in March. Awardees receive \$250 and a plaque recognizing their achievement.

Further information and application materials can be found on the [Best Postdoctoral Publication Awards page](#). For any questions, please contact [Kathryn Page](#).

Eligibility for 2015 Nominations follows below:

- The research reported in the paper must have been conducted while the applicant was engaged in a postdoctoral research experience.
- The applicant must be a member of SOT or must have submitted a membership application by the award application deadline.
- The applicant must be first author on a peer-reviewed paper published online, in print, or in press, between October 1, 2013, and September 30, 2014.
- Review articles will not be accepted unless they contain unique data, methods, and/or analysis (meta-analyses, decision analyses, etc.)
- Co-first authored papers will be accepted with clear delineation of the applicant's effort.
- The application must be supported by a letter from the research advisor.
- Only one publication may be submitted by each applicant.
- PDA Board Members are eligible to apply, but if they do, they will not participate in the award review process.

Applications are due by 12:00 midnight Eastern Time on October 9, 2014.

2015 Founders Award—Nominate A Deserving Member Today!

The first Society of Toxicology (SOT) Founders Award was presented in 2008 to recognize the contributions of those professionals who have demonstrated outstanding leadership in the development or application of state-of-the-art approaches that reveal safety levels of chemical and physical agent exposure with a high degree of certainty. This award is funded by the Founders Fund, an SOT Endowment Fund, created to honor the visionaries that organized and dedicated their time to establish SOT. Pictured at the right are SOT 2013–2014 Secretary Judith T. Zelikoff (left), SOT 2014 Founders Award recipient John A. Thomas (center), and 2012–2014 Endowment Fund Chair Jeff Handler (right).



Only Full, Emeritus, or Retired members of SOT are eligible for this award. These members must have made significant contributions to toxicology and also clearly demonstrated leadership in fostering the role of toxicology in safety-decision making. Nominate a deserving SOT member today!

As with the majority of SOT Awards, nominations for the Founders Award should include the nominee's abbreviated

CV and both a primary and seconding letter of nomination from Full members of the Society that include documentation and description of the nominee's significant contributions to toxicology. Please note that letters simply listing accomplishments found in the CV are not sufficient without analysis and discussion of the important contributions and how the nominee meets the award criteria. Nominations are accepted online at the [SOT Awards and Fellowships webpage](#) through October 9, 2014.

Founders Award

- 2008 John Doull
- 2009 Roger O. McClellan
- 2010 James S. Bus
- 2011 Joseph F. Borzelleca
- 2012 John A. Moore
- 2013 William Alfred Suk
- 2014 John A. Thomas

SOT SIG-CG Global Hot Topics SOT Annual Meeting Event To Continue in 2015

The Special Interest Group—Collaboration Group (SIG-CG) is a governance body comprised of representative leaders from the Society of Toxicology (SOT) SIG Executive Committees. With approval from SOT Council, the SIG-CG planned and executed a special “Hot Topics” event to provide 2014 SOT Annual Meeting attendees with the opportunity to hear from a panel of expert speakers discussing issues of toxicological concern to the global community (see summary below). After the panel discussion, session attendees engaged in a question and answer session with the panelists. The 2014 event was organized by SIG-CG Co-Chair, Kristina D. Chadwick (Women in Toxicology [WIT] SIG), along with past and present members of the SIG-CG, Brinda Mahadevan (Association of Scientists of Indian Origin [ASIO] and WIT SIGs), Betina Lew (Hispanic Organization of Toxicologists [HOT] and WIT SIGs), and Irene Abraham (Toxicologists of African Origin [TAO] and WIT SIGs). Plans are underway for a 2015 SOT Annual Meeting “Hot Topics” event, which is entitled “Global Drug Development and Natural Products: End of an Era or an Endless Frontier.” There will be two outstanding speakers who have published extensively about natural products, their contributions to human health, and their potential safety issues.

First Annual SIG-CG Event: Global Hot Topics: Air Pollution Around the World: Global Concerns

It was a typical SOT Annual Meeting Monday, with stimulating scientific discussions and enthusiastic poster presentations that were packed with a heavy dose of toxicology and regulatory affairs. The SOT Special Interest Group Collaboration Group (SIG-CG) held a “Hot Topic” event: “Air Pollution Around the World: Global Concerns.” It consisted of an international panel of three speakers who presented on the toxicological impacts of air pollution originating from sources common to their regions. This event included a good dose of science, public health, politics, and socioeconomic factors impacting air pollution.

Jan Topinka from the Institute of Experimental Medicine Czech Republic, Prague, discussed his work on Gene Expression Profiles in Asthmatic Children Living in Localities with Different Extents of the Air Pollution. His research revealed changes in the gene expression profiles of children who were exposed to air pollution. The concern was that exposure to air pollution may result in detrimental diseases including cancer in young children.

Paulo Saldiva from the University of São Paulo, Brazil, discussed Sugar Cane Burning and Adverse Health Effects in the Exposed Population. His research showed the adverse impact of sugar cane burning emissions on the health of the population in the city of Piracicaba in southeast Brazil and linked the elements generated from sugar cane burning to respiratory illness in both children and the elderly.

Evans Afriyie-Gyawu from Georgia Southern University discussed Toxicological Implications of Smoke from Burning Scrap Automobile Tires for Singeing Meat in Africa (Ghana). Many slaughter houses in some developing countries (such as Ghana and Nigeria) are known to use open fires, set with scraps of automobile tires, to singe the fur of slaughtered goats, sheep, cows, etc. intended for human consumption. Human exposures to chemicals through ingestion and/or inhalation are detrimental and carcinogenic in many cases.

Interestingly, although the three speakers presented on different regions and sources of air pollution, their issues shared the common theme of political pressures that prevent the practice of good science. One of the speakers pointed out a frightening reality that due to economic pressures the population in his region is forced to choose between air pollution and job security. This session engaged the audience and led to an interesting discussion as scientists from diverse backgrounds offered solutions on how to combat these global public health issues.

Time to Enlist: As a Tox ShowDown Contestant!

Enough pussyfooting around, folks, it's time to enlist.

Come March in San Diego, the fourth annual installment of the Society of Toxicology (SOT) endearingly wacky, Graduate Student Leadership Committee (GSLC) supported Tox ShowDown will be back with a vengeance.

In case you need reminding (and don't we all), Tox ShowDown is a quiz game in which three teams of three toxicologists each—the Endocrine Disruptors, the Free Radicals, and the Toxic Metabolites—vie with each other to answer deadly serious and seriously silly questions, directly and remotely related to toxicology, its history, science, and manifestation in popular culture.

Do you know, for example, whether salvarsan, mechloroethamine, vincristine, or tamoxifen was the first successful chemotherapy drug? Or whether Iceland's signature distilled beverage is brennivin, akvavits, lapponia, or naerfot? Or what plant was used by his wife to poison the Roman Emperor Claudius? If you do, bravo!

If not, join the club and take a wild guess to possibly earn your team winning points. You've got a good six months to bone up on your toxicological trivia. As always, there are generous prizes galore for all players, with something special for the winning team members, and a phenomenal door prize. Expect a cash bar, a sometimes sober moderator, a hanging judge, and a (whiskey) barrel of laughs.

We still have openings for the teams. So, show us what you're made of, and do the patriotic thing. Send expressions of interest today to [Meghan Cromie](#), GSLC Secretary, and don't let us march off to this battle without you.

Science News

August 2014 *Toxicological Sciences*, Vol. 140 Issue 2 Now Available Online



The August 2014 Vol. 140, Issue 2 of *Toxicological Sciences* is now available online. To have the email Table of Contents (eTOC) alerts delivered to you as well as Advance Access notification of the latest papers and research in *Toxicological Sciences* as soon as they are accepted and posted to the website, please [register](#) online.

The paper selected for the Editor's Highlight in this issue is [Toxicogenomics in the 3T3-L1 Cell Line, a New Approach for Screening of Obesogenic Compounds](#) by Anna Pereira-Fernandes, Caroline Vanparys, Lucia Vergauwen, Dries Knapen, Philippe Germaines Jorens, and Ronny Blust. The Editor's Highlight by *Toxicological Sciences* Editor-in-Chief Gary W. Williams notes that "Obesity has reached epidemic proportions across the world, and with it come several serious health issues. Obesogens are chemicals proposed to disrupt lipid homeostasis and potentially promote the deposition of fat stores. The relative contribution of such chemicals to the overall problem of obesity is not clear, but it is a topic worthy of study. Initial studies have examined a limited number of suspected compounds. In this issue of *Toxicological Sciences*, Pereira-Fernandes et al. describe a transcriptomic screening approach using pre-adipocytes cells. While these results will need to be validated by *in vivo* studies, such high throughput strategies will be essential if we hope to test the thousands of chemicals to which we are exposed for their potential to alter energy homeostasis and body composition."

The mission of *Toxicological Sciences*, the official journal of the Society of Toxicology, is to publish the most influential research in the field of toxicology.

August Science News Alert—Upcoming Meetings

Society of Toxicology 54th Annual Meeting—March 22–26, 2015, San Diego, California

The 54th Society of Toxicology (SOT) Annual Meeting will be held March 22–26, 2015, in San Diego, California. This conference is the largest meeting of its kind and features a broad range of scientific sessions and a thematic program that provides participants with a unique opportunity to deepen their knowledge in topical areas and interact with leaders in their respective disciplines. The 2015 themes include: Advancing Clinical and Translational Toxicology; Approaches for Protecting Vulnerable Populations; Epigenomic Influences in Toxicological Responses; Safety Assessment Approaches for Product Development; and Strategies for Exposure and Risk Assessments. The scientific program includes a plenary session, the MRC Lecture, symposia, workshops, roundtable discussions, informational sessions, regional sessions, as well as platform and poster sessions. The 2015 Opening Plenary Lecture will be presented by J. Craig Venter. SOT anticipates that more than 6,500 toxicologists from more than 50 countries will attend. The SOT Annual Meeting also features the ToxExpo, which is the largest exhibition dedicated to toxicology and the biomedical sciences. The exhibition features 350 exhibitors, exhibitor-hosted sessions, and the opportunity to debut cutting-edge products, services, and technologies. For additional information and to register, please visit the [SOT 2015 Annual Meeting website](#).

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

Environmental Mutagenesis and Genomics Society 45th Annual Meeting—Late Breaking Abstract Deadline August 25, 2014, Orlando Florida

The 45th Annual Meeting of the Environmental Mutagenesis and Genomics Society (EMGS) will be held September 13–17, 2014, at the Hilton Orlando Lake Buena Vista, in Orlando, Florida. This year's theme is "Integrating Environmental, Genomic, and Health Research." The meeting will provide a forum for the latest research on DNA damage and repair, mechanisms of mutagenesis, epigenetic regulation, and their contributions to environmentally-induced human disease. In addition, current regulatory issues and risk assessment strategies will be discussed. EMGS is unique in that it provides a platform for the cross-disciplinary integration of basic and applied sciences that provide an understanding of the impact of genetic toxicity on human populations. The goals of this meeting are to (1) build on our past contributions to the field of environmental and molecular mutagenesis and DNA repair and more fully understand the role of epigenetics in these basic mechanisms; (2) integrate applied genetic toxicology with basic research in DNA damage and repair, toxicogenomics, and epigenetics; (3) determine how emerging technologies can lead to a better understanding of environmentally-induced genetic disease; (4) have these data serve as a foundation for human risk assessment for disease and disease prevention; and (5) aid in the support of knowledge-based regulation to protect

public health and the environment. This is a meeting not to be missed. For additional information, visit the [EMGS 2014 Annual Meeting website](#).

American College of Toxicology's Course Practical Application of Toxicology in Drug Development—September 15–19, 2014, Edinburgh, UK

This American College of Toxicology course, taught by distinguished experts, is designed to provide a basic training in toxicology. The course will be held from September 15–19, 2014, in Edinburgh, Scotland, United Kingdom. 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. This toxicology course is intended to benefit individuals working with small and large molecules from biotechnology and pharmaceutical companies, along with those from Contract Research Organizations and regulatory agencies that are interested in toxicology. Regulatory toxicology in drug development will be emphasized, particularly from the European perspective. For full course details and to register, visit the [ACT course website](#).

Twelfth International Conference on Neuroprotective Agents—September 28–October 1, 2014, Charlottesville, Virginia

The Twelfth International Conference on Neuroprotective Agents will be held from September 28–October 1, 2014, at The Boar's Head Inn in Charlottesville, Virginia. This conference brings together researchers involved in (1) conditions toxic to the nervous system (e.g., heat, diabetes, drugs (therapeutic and illicit), alcohol, anesthetic agents, and stroke); (2) neurodegenerative processes "toxic" to the nervous system (e.g., Parkinson's disease, Alzheimer's disease); (3) molecular and nanotechnology techniques for understanding nervous system disorders, nervous system repair mechanisms, and neurotoxicity issues; and (4) the fields of personalized, predictive, and preventive medicine as they relate to neuroprotection. This series of biennial conferences is relatively unique in its role of bringing together clinical and basic science researchers from various countries and various disciplines related to neuroprotection in an intellectually stimulating and socially relaxing environment to discuss strategies to protect the nervous system. For additional information, please visit the [conference website](#).

International Society of Exposure Science 24th Annual Meeting—October 12–16, 2014, Cincinnati, Ohio

The International Society of Exposure Science 24th Annual Meeting will be held October 12–16, 2014, at the Hilton Netherland Plaza Hotel in Cincinnati, Ohio. The theme of the meeting is "Exposure Science Integration to Protect Ecological Systems, Human Well-Being, and Occupational Health." The program will foster the integration of exposure science as applied to community, occupational, and ecological health as recommended by the National Research Council (NRC) Exposure Science in the 21st Century. Presentations in the program will highlight the value that exposure science has brought to the protection of health and the environment and its growing importance in the face of such global threats of population pressure, climate change, nitrogen cycling, water and energy availability. The 2014 meeting also includes four pre-conference courses on October 12, taught by renowned experts. Topics for the courses include Biomonitoring, Introduction to Source Apportionment Modeling, Risk Assessment, and Real-time Monitoring for Environmental and Occupational Health. For more information or to register visit the [ISES 2014 Annual Meeting website](#).

Safety Pharmacology Society 14th Annual Meeting—October 19–22, 2014, Washington, DC

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

the Updates and Perspectives on Comprehensive In Vitro Proarrhythmia Assay (CIPA). The meeting also will offer a full day of Continuing Education courses on October 19, both on an introductory level as well as advanced courses for the expert, and the Diplomate in Safety Pharmacology (DSP) Certification exam will be held the day before the meeting on October 18. For preliminary meeting information, please visit the [SPS Annual Meeting website](#).

Notice of Change in Criteria for Renewal of Domestic Animal Welfare Assurances

Notice Number: [NOT-OD-14-099](#)

Issued by National Institutes of Health ([NIH](#))

Purpose

This Notice informs Public Health Service (PHS) awardee institutions of a change in the criteria for renewing the Domestic Animal Welfare Assurance (Domestic Assurance). Previously, Domestic Assurances were renewed, regardless of funding, every four years, provided that the institution submitted a renewal Domestic Assurance document to the NIH Office of Laboratory Animal Welfare (OLAW) prior to the expiration date. Under the new criteria, Domestic Assurances will be renewed only if the institution has current PHS funding.

Criteria for Renewal of Domestic Assurances

Effective December 1, 2014, OLAW will not renew a Domestic Assurance unless the institution has current direct or indirect PHS funding for activities involving animals. PHS funding components include the NIH, the US Centers for Disease Control and Prevention (CDC), and the US Food and Drug Administration (FDA). Institutions without current funding will receive a letter of inactivation on the expiration date of their Domestic Assurance. Lack of an Assurance will not adversely affect the institution's ability to apply for future PHS funding. For more information, please visit the [NIH website](#).

Background

The PHS Policy on Humane Care and Use of Laboratory Animals ([Policy](#)) requires that "No activity involving animals may be conducted or supported by the PHS until the institution conducting the activity has provided a written Assurance acceptable to the PHS, setting forth compliance with the Policy." US institutions that receive PHS funds through a grant or contract award are required to have a Domestic Assurance approved by OLAW before conducting activities involving live vertebrate animals. Domestic institutions without current direct or indirect PHS funding have no requirement to maintain an active Domestic Assurance.

OLAW approves Domestic Assurances for periods of four years. Six months prior to the end of the approval period, OLAW contacts Assured institutions and requests submission of a renewal within 120 days of the expiration date. This timeline allows for OLAW to negotiate, review, and approve the Assurance prior to the expiration date.

NIEHS Notice of Correction: RFA-ES-14-007 Superfund Hazardous Substance Research and Training Program

Notice of Correction of Additional Information on Eligibility for RFA-ES-14-007 "Superfund Hazardous Substance Research and Training Program (P42)"

Notice Number: NOT-ES-14-009

Related Announcements

[RFA-ES-14-007](#)

Issued by

[National Institute of Environmental Health Sciences \(NIEHS\)](#)

Purpose

The purpose of this Notice is to correct the number of applications that can be submitted to [RFA-ES-14-007](#) "Superfund Hazardous Substance Research and Training Program (P42)."

Part 2. Section III. Eligibility Information

Currently reads:

Number of Applications

Applicant organizations may submit more than one application, provided that each application is scientifically distinct.

Modified to read:

Number of Applications

Only one application will be accepted from each eligible applicant organization (normally identified by having a unique DUNS number or NIH IPF number).

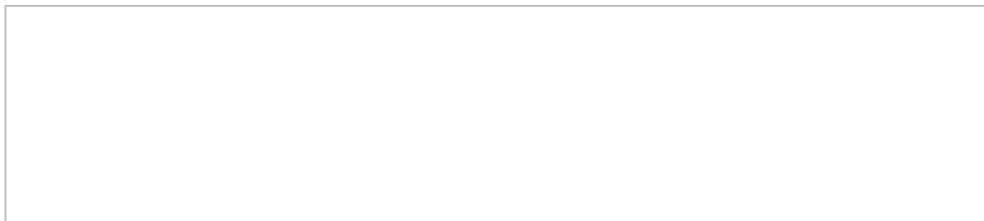
All other aspects of this FOA remains the same.

NIEHS is announcing the continuation of the Superfund Hazardous Substance Research and Training Program, referred to as Superfund Research Program (SRP) Centers. SRP Center grants will support problem-based, solution-oriented research Centers that consist of multiple, integrated projects representing both the biomedical and environmental science and engineering disciplines; as well as cores tasked with administrative, community engagement, research translation, training, and research support functions. The scope of the SRP Centers is taken directly from the Superfund Amendments and Reauthorization Act of 1986, and includes: (1) advanced techniques for the detection, assessment, and evaluation of the effect on human health of hazardous substances; (2) methods to assess the risks to human health presented by hazardous substances; (3) methods and technologies to detect hazardous substances in the environment; and (4) basic biological, chemical, and physical methods to reduce the amount and toxicity of hazardous substances.

Letter of Intent Due Date(s) August 3, 2014

Application Due Date(s) September 3, 2014

***ToxSci* EIC Gary Miller Describes Upcoming Changes to SOT's Journal**



The July 2014 issue of *Toxicological Sciences* includes an Editorial, “Ch-Ch-Ch-Changes,” by Editor-in-Chief Gary Miller on upcoming enhancements to this official journal of the Society of Toxicology. Below are the opening and closing paragraphs of this editorial, the complete text of which can be accessed by visiting the [Toxicological Sciences](#) website and/or by referring to your print copy of the journal.

“David Bowie, Bob Dylan, Tracy Chapman, and Otis Redding have all written about change. To many, the anticipation of the unknown is met with trepidation and angst. For others, it is their lifeblood. I land somewhere in the middle. While considering the upcoming changes to *Toxicological Sciences* my subconscious says, “If it isn’t broken, don’t fix it” while moments later I hear, “If you aren’t moving forward you are falling behind.” Tinkering with a high-quality journal poses some risk, but in this competitive enterprise we call science, stagnation is not an option. My initial thoughts on this topic are reflected in another anthem of change by Tens Year After, “I’d love to change the world, but I don’t know what to do...”

“As Editor-in-Chief my goal has been and will continue to be to make *Toxicological Sciences* as good of a journal as it possibly can be. Over the next several months I hope to hear from many of you about what you like and don’t like about the changes you will start to observe in September. The success of these changes cannot be determined from the editorial office, but only from the toxicological community, “...so I leave it up to you.”

The mission of *Toxicological Sciences*, the official journal of the Society of Toxicology, is to publish the most influential research in the the field of toxicology.

Current Intervention Strategies in the NCI PREVENT Cancer Preclinical Drug Development Program

Chemoprevention research in the Division of Cancer Prevention (DCP) was restructured in 2011 creating the PREVENT Cancer Preclinical Drug Development Program. This Program provides for peer-review of applications from the general research community for development of (1) small molecules or biologicals, including vaccines, for cancer prevention, or (2) biomarkers to facilitate clinical evaluation of prevention strategies. The process for applying to the Prevent Program is described at the [National Cancer Institute website](#). Applications are submitted twice yearly and reviewed by a panel of experts from the extramural community and National Institutes of Health (NIH) scientists outside DCP and scored for scientific merit, feasibility, *etc*. Top scoring applications undergo secondary review and prioritization by a panel of DCP and other NIH scientists. Applications with potential for near-term clinical translation are given highest priority.

Approved projects are implemented as Task Orders via a system of contracts with academic and nonprofit, independent research institutions that provide the full range of preclinical studies, including good laboratory practice toxicology, needed to support Investigational New Drug Applications. Twenty-five Task Orders addressing a range of intervention strategies have been awarded in the first two years of the Program. Small molecules targeting classic aspects of inflammation as well as newer molecular-targeted agents (n=16) are under study. Pharmacodynamic assays are coupled to efficacy studies. Immunoprevention strategies targeting tumor-associated antigens as well as antigens from cancer-associated infectious agents (n=6) are being pursued. Studies aimed at identifying intermediate biomarkers (n=3) also are under investigation.

The PREVENT Cancer Program has engaged a broad cross-section of investigators, supporting preclinical development of agents addressing a wide variety of cancer prevention strategies. A member of the Chemopreventive Agent Development Research Group should be present in the Research Funding Room during the 2015 SOT Annual Meeting.

Upcoming Burroughs Wellcome Fund Grants Deadlines

Below you will find information about Burroughs Wellcome funding opportunities:

Career Awards at the Scientific Interface

Advancing the careers of physical, chemical, or computational science researchers and engineers whose work addresses biological questions.

Preproposal Deadline: September 1, 2014

The Burroughs Wellcome Fund's [Career Awards at the Scientific Interface](#) provide \$500,000 to bridge advanced postdoctoral training and the first years of faculty service. Awards are intended to foster the early career development of researchers with backgrounds in the physical/mathematical/computational sciences and engineers whose work addresses biological questions.

These awards are open to US and Canadian citizens or permanent residents as well as to US temporary residents. For complete eligibility requirements, please visit the [Burroughs Wellcome website](#).

Career Awards for Medical Scientists

Awards foster the development and productivity of physician-scientists who are early in their careers and help them make the critical transition to becoming independent investigators.

Application Deadline: October 1, 2014

Five-year \$700,000 awards for physician-scientists bridge advanced postdoctoral/fellowship training and the early years of faculty service. Proposals must be in the area of basic biomedical, disease-oriented, or translational research. Proposals in health services research or involving large-scale clinical trials are ineligible.

Awards are made to degree-granting institutions in the US or Canada on behalf of the awardee.

New for 2014: The Burroughs Wellcome Fund will make up to two additional awards to clinically trained psychiatrists who focus on research at the interface of neuroscience and psychiatry. These proposals must demonstrate evidence of integration of neuroscience and psychiatry in project design. For complete eligibility requirements, please visit the [Burroughs Wellcome website](#).

Investigators in the Pathogenesis of Infectious Disease

Awards for assistant professors to study infectious disease pathogenesis, with a focus on the intersection of human and pathogen biology. This program is intended to shed light on how infectious disease systems work by encouraging assistant professors to take on fundamental biological questions at the intersection of human and microbial biology.

Application Deadline: November 3, 2014

Five-year awards provide \$500,000 for opportunities for accomplished investigators at the assistant professor level to study pathogenesis with a focus on the intersection of human and microbial biology. The program is intended to shed light on the overarching issues of how human hosts handle infectious challenge. The awards give recipients the freedom and flexibility to pursue new avenues of inquiry and higher risk research projects that hold potential for advancing significantly the biochemical, pharmacological, immunological, and molecular biological understanding of how infectious agents and the human body interact. For complete eligibility requirements, please visit the [Burroughs Wellcome website](#).

Notice of Intent to Publish FOA for Medical Rehabilitation Research Resource (R24)

Notice of Intent to Publish a Funding Opportunity Announcement for Medical Rehabilitation Research Resource (R24)

Notice Number: NOT-HD-14-022

Key Dates:

Release Date: August 6, 2014

Estimated Publication Date of Announcement: September 2014

First Estimated Application Due Date: December 2014

Earliest Estimated Award Date: July 2015

Earliest Estimated Start Date: August 2015

Related Announcements:

[RFA-HD-09-013](#)

Issued by:

[Eunice Kennedy Shriver National Institute of Child Health and Human Development](#)

Purpose:

The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), in continued collaboration with other National Institutes of Health (NIH) Institutes, intend to support a national network of research infrastructure in medical rehabilitation. The aim of this Funding Opportunity Announcement (FOA) is to solicit applications for research cores that provide access to cutting-edge expertise in biomedical, behavioral, and/or psychosocial domains that are particularly relevant to medical rehabilitation research. Applicants should propose a program of research resources and collaborative opportunities in a specific content area. Within the context of rehabilitation research, NICHD is specifically seeking to establish centers in each of the following domains: clinical trial design; applied behavior to promote therapeutic interventions, exercise, and health; engineering and environmental support; and personalized medicine. In addition, NICHD is open to supporting centers in other relevant research domains provided that the applicants can justify that the proposed expertise is unique and “teachable,” and has potential for promoting medical rehabilitation research and improving outcomes for people with disabilities. NICHD also welcomes renewal applications from currently funded rehabilitation infrastructure networks that are continuing to evolve and meet the needs of the rehabilitation research community.

This Notice is being provided to allow potential applicants sufficient time to develop meaningful collaborations and resources. Applications may include secondary collaborations with other institutions.

The FOA is expected to be published in Fall 2014 with an expected application due date in Winter 2014.

This FOA will utilize the R24 activity code. Details of the planned FOA are provided provided below.

Research Initiative Detail:

This Notice encourages investigators with expertise and insights into the broad area of Medical Rehabilitation Research sufficient time to develop applications in response to this new FOA. NICHD encourages collaborations among biomedical, behavioral, engineering, and/or psychosocial researchers. Aside from more traditional rehabilitation approaches, NICHD especially encourages support for clinical trial design, applied behavior, engineering and the environment, and personalized medicine in order to promote functional improvement, rehabilitation, and participation for people with disabilities.

Each applicant must propose a program of didactic interactions (e.g., workshops, courses, written material, and websites), opportunities for consultations and on-site collaborations, and strategy for pilot funding. In addition, the research cores may support intramural activities related to technique development, adaptation, and validation. It is up to the applicant to justify the relevance of their proposed research domain and provide evidence of access to appropriate

expertise and unique, cutting-edge research support.

APPLICATIONS ARE NOT BEING SOLICITED AT THIS TIME.

Inquiries:

Please direct all inquiries to:

Ralph M. Nitkin, PhD
NICHD
Telephone: 301.402.4206
Email: RN21E@NIH.GOV

Announcement of the NIGMS “Stories of Basic Science to Medical Advances” Challenge

Announcement of the NIGMS “Stories of Basic Science to Medical Advances” Challenge

Notice Number: [NOT-GM-14-124](#)

National Institute of General Medical Sciences

Purpose

The National Institute of General Medical Sciences (NIGMS) announces a challenge titled “Stories of Basic Science to Medical Advances.” This Challenge aims to track medical advances stemming from NIGMS—supported basic science.

The National Institutes of Health (NIH) seeks the public’s help in capturing NIGMS’ progress toward its strategic goal to “advance awareness and understanding of the basic biomedical research enterprise, including its value, requirements, and potential impact.” The goal of the Challenge is to identify past advances that are serving (or have served) to improve human health and well-being but not ongoing studies that may, in the future, have a major impact. NIGMS will use these examples to help inform the historical context of scientific breakthroughs and NIGMS’ role in supporting them. These examples will augment the institute's ongoing efforts to link advances in human health and well-being to taxpayer-supported basic research and to stimulate further innovation by explaining the value and the impact of basic research on human health.

For more information about eligibility, registration, and submission requirements, please visit the [NIGMS Challenge website](#).

Please direct all inquiries to:

Darren Sledjeski, PhD
NIGMS
Telephone: 301.594.0943
Email: [NIGMS Challenge](#)

Small Molecule Drug Discovery and Development for Disorders of the Nervous System (U44)

Blueprint Neurotherapeutics Network (BPN): Small Molecule Drug Discovery and Development for Disorders of the Nervous System (U44)

Activity Code: U44 Small Business Innovation Research (SBIR) Cooperative

Agreement: Fast-Track

Announcement Type: New

Funding Opportunity Announcement (FOA) Number [PAR-14-292](#)

Companion Funding Opportunity

[PAR-14-293, UH2/UH3 Phase Innovation Awards Cooperative Agreement](#)

Number of Applications

[See Section III. 3. Additional Information on Eligibility.](#)

Catalog of Federal Domestic Assistance (CFDA) Number(s) 93.853, 93.273, 93.242, 93.213, 93.279, 93.865, 93.121

Funding Opportunity Purpose

The Blueprint Neurotherapeutics Network (BPN) invites applications from neuroscience investigators seeking support to advance their small molecule drug discovery and development projects into the clinic. Participants in the BPN receive funding for activities to be conducted in their own laboratories and the opportunity to collaborate with National Institutes of Health-funded consultants and contract research organizations (CROs) that specialize in medicinal chemistry, pharmacokinetics, toxicology, formulations development, chemical synthesis under Good Manufacturing Practices (GMP), and Phase I clinical testing. Projects can enter either at the Discovery stage, to optimize well-validated hit compounds through medicinal chemistry, or at the Development stage, to advance development candidates through Investigational New Drug (IND)-enabling toxicology studies and phase I clinical testing. Projects that enter at the Discovery stage and meet their milestones may continue on through Development. BPN participants receive intellectual property rights to drug candidates developed through the program.

Letter of Intent Due Date(s) 30 days before the application due date.

Application Due Date(s) October 21, 2014, February 11, 2015, August 11, 2015, February 11, 2016, August 11, 2016, February 8, 2017.

R01 NIH Transformative Research Awards Available: Letter of Intent Due September 10

Announcement Type

Reissue of RFA-RM-13-008

[Funding Opportunity Announcement \(FOA\) Number RFA-RM-14-003](#)

[See Section III. 3. Additional Information on Eligibility](#)

Catalog of Federal Domestic Assistance (CFDA) Number(s) 93.310

Funding Opportunity Purpose

The goal of the National Institutes of Health (NIH) Transformative Research Awards initiative is to provide support for collaborative investigative teams or individual scientists who propose transformative research projects, which, if successful, would have a major impact in a broad area of biomedical or behavioral research. To be considered transformative, projects must have the potential to create or overturn fundamental scientific paradigms through the use of novel approaches, to transform the way research is conducted through the development of novel tools or technologies, or to lead to major improvements in health through the development of highly innovative therapies, diagnostic tools, or preventive strategies. Consistent with this focus, applications supported under the Transformative Research Awards initiative will reflect ideas substantially different from mainstream concepts.

Several key features of this FOA have been designed to emphasize to applicants and peer reviewers that these applications are very different from conventional, investigator-initiated research awards. The application format and requirements for explicitly addressing specific issues focuses attention on the importance of the problem, the novelty of the hypothesis and/or the proposed methodology, and the magnitude of the potential impact rather than on experimental details. Reviewers will be instructed to emphasize significance and innovation in their evaluations, and these criteria will be the primary basis for funding decisions. These features are intended to steer applicants and reviewers, at each step of the process, toward the goal of this initiative, which is to solicit and fund unusually bold and potentially transformative research.

Projects in any area of NIH interest, including basic, clinical, translational, and behavioral studies, are encouraged and will be considered responsive to this FOA. Though technical and conceptual risks are expected in highly innovative projects, clinical research also must address the potential risk to human subjects. Clinical researchers are encouraged to submit applications as long as rigorous assessment of participant risk/benefit ratios compellingly indicates the ratio to be in favor of the potential benefit. Many of the advances in public health have been achieved through clinical trials, which necessarily involve some risk to participating human subjects. NIH acknowledges the presence of such risk and has established a set of clinical research ethics principles that provides guidance regarding the risk/benefit ratio in clinical research. Applicants proposing clinical research should contact Scientific/Research staff at the appropriate NIH Institute or Center (IC) to ensure that their applications conform to IC-specific policies for clinical research.

Letter of Intent Due Date(s) September 10, 2014

Application due date October 10, 2014

For additional information, please visit the [NIH website](#).

National Cancer Institute Is Now Participating in Two SCORE Awards

The National Cancer Institute is now participating in two Support of Competitive Research (SCORE) Awards.

[PAR-14-017](#) "Support of Competitive Research (SCORE) Pilot Project Award (SC2)"

[\(NOT-CA-14-048\)](#)

PAR-14-019 "Support of Competitive Research (SCORE) Research Advancement Award (SC1)"

[\(NOT-CA-14-049\)](#)

[National Cancer Institute](#)

The SCORE Program is a developmental program designed to increase the research competitiveness of faculty and research base of institutions with a historical mission and/or demonstrated track record of training and graduating students from backgrounds under-represented in biomedical research. In addition, eligible institutions must award science degrees to undergraduate (BS or BA) and/or graduate students (MS or PhD) and have received on average less than 6 million dollars per year of National Institutes of Health (NIH) R01 support (total cost) in the last 2 fiscal years.

Application Dates: January 25, 2015, May 25, 2015, January 25, 2016, May 25, 2016

IDeA Networks of Biomedical Research Excellence Funding Available

IDeA Networks of Biomedical Research Excellence (INBRE) [P20]

Activity Code [P20](#) Exploratory Grants

Announcement Type Reissue of [PAR-12-205](#)

Funding Opportunity Announcement (FOA) Number [PAR-14-233](#)

See [Section III. 3. Additional Information on Eligibility](#).

Catalog of Federal Domestic Assistance (CFDA) Number(s) 93.859

Funding Opportunity Purpose

The purpose of the Institutional Development Award (IDeA) Networks of Biomedical Research Excellence (INBRE) program is to augment and strengthen the biomedical research capacity of an IDeA-eligible state. The grant awards are made to independent biomedical research institutes and/or biomedical research institutions that award doctoral degrees in the health sciences or sciences related to health within IDeA-eligible states. The INBRE program represents a collaborative effort to sponsor research between research intensive institutions and institutes, primarily undergraduate institutions, community colleges, and minority serving institutions (Hispanic-Serving Institutions, Historically Black Colleges and Universities, Tribally Controlled Colleges and Universities, Alaska Native and Native Hawaiian Serving Institutions), as appropriate.

Applicants are encouraged to establish a state-wide network before submission. ***Only one application should be submitted per IDeA-eligible state.***

The primary goals of the INBRE program are to: (1) build on the established multi-disciplinary research network with a scientific focus to strengthen the biomedical research expertise and infrastructure of the lead and partner institutions; (2) build and increase the research base and capacity by providing support to faculty, postdoctoral fellows and graduate students at the participating institutions; (3) provide research opportunities for students from primarily undergraduate institutions, community colleges, and minority-serving institutions and serve as a “pipeline” for these students to continue in health research careers within IDeA states; and (4) enhance science and technology knowledge of the state’s workforce.

Letter of Intent Due Date(s) 30 days before the application due date

Application Due Date(s) May 27, 2015; May 26, 2016

For additional information, please visit the [NIH website](#).

National Cooperative Drug Discovery/Development Groups Program Funding Available

[National Cooperative Drug Discovery/Development Groups \(NCDDG\) for the Treatment of Mental Disorders, Drug or Alcohol Addiction \(U19\)](#)

The purpose of the National Institutes of Health (NIH) National Cooperative Drug Discovery/Development Group

(NCDDG) Program is to create multidisciplinary research groups or partnerships for the discovery of pharmacological agents to treat and to study mental illness or drug or alcohol addiction. The objectives of this program are to: accelerate innovative drug discovery; develop pharmacologic tools for basic and clinical research on mental disorders, or drug or alcohol addiction; develop and validate tools in support of experimental therapeutic studies of innovative new candidates for mental disorders; and support early phase human clinical testing to rapidly assess the safety and efficacy of promising drug candidates and new indications for IND-ready agents for the treatment of mental disorders or alcohol addiction. This Funding Opportunity Announcement (FOA) encourages applications to advance the discovery, preclinical development, and proof of concept testing of new, rationally based candidate agents to treat mental disorders or drug or alcohol addiction, and to develop novel ligands as tools to further characterize existing or to validate new drug targets. Partnerships between academia and industry are strongly encouraged. For additional information, please visit the [NIH website](#).

Key Dates

Deadlines: October 23, 2014; February 23, 2015; June 23, 2015; October 23, 2015; February 23, 2016; June 23, 2016; October 24, 2016; February 23, 2017

For more information, please visit the [NIH website](#).

Purpose

The intent of this FOA is to encourage applications from academic, biotechnology, or pharmaceutical industry investigators interested in participating with the National Institute of Mental Health (NIMH), the National Institute on Drug Abuse (NIDA), or the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in a NCDDG program. The objectives of this program are to advance the discovery, preclinical development, and proof of concept testing of new, rationally based candidate agents to treat mental disorders or drug or alcohol addiction and to develop novel ligands as tools to advance biological research on the function of genes, cells, and biochemical pathways implicated in the etiology and pathophysiology of mental disorders, drug or alcohol addiction, and as potential new therapeutics. Partnerships between academia and industry are strongly encouraged.

Each NCDDG program should consist of a multi-disciplinary team of scientists with appropriate expertise to further the development and evaluation of novel compounds. Scientists from both academia and the pharmaceutical industry are encouraged to participate within an NCDDG; scientists from foreign institutions and NIH Intramural laboratories may participate in some aspects. It is anticipated that the interaction of academic and non-profit research institutions with industry and NIH via the NCDDG model will: (1) accelerate the discovery and development of new therapeutics for mental disorders, drug or alcohol addiction; (2) increase the availability of pharmacologic research tools (including imaging agents) for basic and clinical research; (3) facilitate the development and validation of models and pharmacodynamic (PD) measures to evaluate novel therapeutics for mental disorders; (4) increase the availability of new IND-ready compounds and agents suitable for testing in humans; and (5) facilitate the development and validation of new clinical measures or biomarkers suitable for use in human proof of concept trials of novel therapeutics for mental disorders or alcohol addiction.

The goal of the NCDDG program is not to duplicate or compete with the private sector but to complement and accelerate the development of research tools for new molecular targets implicated in mental disorders, drug or alcohol addiction, and effective compounds and agents for the prevention and treatment of psychiatric and addictive disorders, as well as core features of these illnesses, especially in areas of unmet medical need.

For more information, please visit the [NIH website](#).

Fulbright-Fogarty Fellows and Scholars in Public Health Funding Available

The [Fulbright-Fogarty Fellows and Scholars in Public Health partnership](#) promotes the expansion of research in public health and clinical research in resource limited settings for both medical or graduate student fellows and postdoctoral scholars. The [Fogarty International Center](#) is dedicated to advancing the mission of the National Institutes of Health (NIH) by supporting and facilitating global health research conducted by US and international investigators, building partnerships between health research institutions in the US and abroad, and training the next generation of scientists to address global health needs. Fogarty has partnered with the Fulbright Program, regarded as the flagship international education exchange program sponsored by the US government. Deadline: October 14, 2014 ([Fellows](#)).

NCI: Outstanding Investigator Grant (R35)

Outstanding Investigator Award (R35)

([PAR-14-267](#))

National Cancer Institute

This Funding Opportunity Announcement (FOA) invites grant applications for the Outstanding Investigator Award (R35) in any area of cancer research. The objective of the National Cancer Institute (NCI) Outstanding Investigator Award (OIA) is to provide long-term support to experienced investigators with outstanding records of cancer research productivity who propose to conduct exceptional research. The OIA is intended to allow investigators the opportunity to take greater risks, be more adventurous in their lines of inquiry, or take the time to develop new techniques. The OIA would allow an Institution to submit an application nominating an established Program Director/Principal Investigator (PD/PI) for a 7-year grant.

It is expected that the OIA would provide extended funding stability and encourage investigators to embark on projects of unusual potential in cancer research. The research projects should break new ground or extend previous discoveries toward new directions or applications that may lead to a breakthrough that will advance biomedical, behavioral, or clinical cancer research.

Letter of Intent Due Date: September 20, 2014

Application Due Date(s): October 20, 2014, by 5:00 pm local time of applicant organization.

For additional general information and deadline dates about this FOA, please visit the [NIH website](#).

NIDDK: Mentored Research Scientist Development Award (K01)

National Institute of Diabetes and Digestive and Kidney Diseases

Application Receipt/Submission Date(s): Multiple dates

([PAR-14-266](#))

[Deadlines: February 12, June 12, and October 12](#)

The overall goal of the National Institutes of Health (NIH) Research Career Development program is to help ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the nation's biomedical, behavioral, and clinical research needs. In addition to this opportunity, NIH Institutes and Centers (ICs) support a variety of other mentored career development programs designed to foster the transition of new investigators to research independence. These other programs may be more suitable for particular candidates. NIH also supports non-mentored career development programs for independent investigators. More information about Career programs may be

found at the [NIH Extramural Training Mechanisms website](#).

The objective of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Mentored Research Scientist Development Award (K01) is to provide salary and research support for a sustained period of “protected time” (3-5 years) for intensive research career development under the guidance of an experienced mentor, or sponsor, in the biomedical, behavioral, or clinical sciences leading to research independence. The expectation is that, through this sustained period of research career development and training, awardees will launch independent research careers and become competitive for new research project grant (e.g., R01) funding.

The NIDDK invites K01 applications from advanced postdoctoral and/or newly independent research scientists (usually with a PhD degree) who are pursuing careers in research areas supported by the NIDDK. This should ensure a future cadre of well-trained PhD scientists working in the broad areas of research supported by NIDDK. These areas include diabetes, endocrinology, metabolic diseases, digestive and liver diseases, nutrition, obesity, kidney and urologic diseases, and hematology. For more information, please visit the [NIH website](#).

NIH: Center of Excellence for Natural Product Drug Interaction Research (U54)

Center of Excellence for Natural Product Drug Interaction Research (U54), National Center for Complementary and Alternative Medicine

[\(RFA-AT-15-001\)](#)

Application Receipt Date: December 04, 2014

The purpose of this Funding Opportunity Announcement (FOA) is to solicit applications for a Center of Excellence for Natural Product Drug Interaction Research to provide leadership in the study of natural product drug interactions. The ultimate goal of this program is to develop a definitive approach to determining the clinical relevance of pharmacokinetic interactions between natural products and medications. The Center will (1) identify, prioritize, and source four to six natural products with potential to exhibit clinically significant interactions with commonly used medications; (2) work collaboratively with the National Institutes of Health (NIH) to develop and execute a statement of work for each of the selected natural products that will address existing gaps in the scientific literature and result in a definitive assessment regarding the clinical relevance of any pharmacokinetic interaction; (3) establish a set of best practices to address the unique challenges related to the study of natural product interactions with drugs; and (4) develop and maintain a database and public access portal for the data and methodology resources generated; thereby, facilitating better design of future research and ultimately better decisions regarding the concomitant use of medications and natural products. For more information, please visit the [NIH website](#).

NIEHS: Identification of Mitochondria-Cell Signaling Networks in Response to Environmental Stress

The National Institute of Environmental Health Sciences (NIEHS) has released a Funding Opportunity Announcement (FOA) that supports the development of technologies and experimental models to more precisely track signaling between the mitochondria and other cellular processes under environmental stress conditions, including mitochondrial-nuclear signaling with respect to epigenetic regulation, DNA damage response, or response to oxidative stress. This FOA, Innovative Approaches for the Identification of Mitochondria-Cell Signaling Networks in Response to Environmental Stress, uses the R21/R33 Phased Innovation Award mechanism to develop new technologies and experimental models to elucidate mitochondrial-cell signaling. Technologies developed in the R21 phase may include more sensitive reagents for detection of specific reactive oxygen or nitrogen species, enhanced approaches for metabolic flux analysis, and expanded *in vitro* or experimental models for identifying alterations in signaling pathways in response

to environmental stressors. Successful completion of milestones outlined in the R21 phase will enable investigators to be considered for the R33 phase to conduct additional pilot testing and validation of these technologies using environmental stressors to probe bidirectional communication resulting in either altered cellular programming or mitochondrial function or both. A Letter of Intent is due by August 15, 2014 and the application is due by September 15, 2014. For more information on this announcement (RFA-ES-006), please visit the [NIH website](#).

Legislative and Regulatory Update

SOT Continues to Forge Relationships with TSCA Legislators

Members of the Society of Toxicology (SOT) Toxic Substances Control Act (TSCA) Task Force continue to step up efforts to meet with members from the House and Senate who have responsibility for modernizing this 1976 legislation. Since February, SOT TSCA Task Force members have met with leaders on the House Committee on Energy and Commerce and the Senate Environmental and Public Works Committee to talk about the importance of drafting legislation that is grounded on the best available science. SOT Task Force members, including Chair Daland Juberg, Deborah Cory-Slechta, George Gray, Jim Lamb, and Mark Lafranconi, have stressed to staff and Members of Congress that they are not engaged in any policy debates, but rather are seeking Congress' support for three principles that include the following:

- Flexibility in the choice of the most appropriate specific techniques for generating information used in the safety and risk assessment process.
- Authority to the US Environmental Protection Agency to judge when, and how, to apply new techniques and methods for generating information for safety and risk assessment within TSCA.
- Consistent application of terms and concepts that are used in the safety and risk assessment throughout the proposed legislation.

The House Subcommittee on Environment and Economy has distributed two separate drafts seeking input from various stakeholders. Just recently, the House Democrats on the Subcommittee distributed a red line version for the second draft to indicate what language and changes they are seeking to the House draft. In other action, the Senate has not scheduled any hearings or markups on S. 1009, and it is uncertain what action, if any, the Chair, Sen. Barbara Boxer (D-CA) will take on the measure.

Since March, SOT's TSCA Task Force has submitted three separate letters to address the various drafts that Rep. John Shimkus (R-IL) has introduced, including a response to address scientific issues that were raised in the red line version. Since February, this task force has held 24 meetings with various Members and their staff. During each session, Task Force representatives have emphasized the importance of the principles noted above, the toxicologist's role in implementing TSCA reform legislation, and their willingness to serve as technical advisers to both Democrats and Republicans responsible for modernizing the 1976 statute.

Sylvia Matthews Burrell Sworn in as 22nd Secretary of US Health and Human Services

On June 9, 2014, Sylvia Mathews Burwell was sworn in as the 22nd Secretary of the US Health and Human Services (HHS). The US HHS announcement of her assuming the leadership of this agency described her as "a results-driven manager" who has led large and complex organizations across the public and private sectors. As the Secretary of US HHS, Ms. Burwell oversees more than 77,000 employees. According to this announcement, Secretary Burwell "has called for the Department to operate under three guiding tenets: to deliver results on a wide range of complex issues; to strengthen the relationships that drive progress; and to build strong teams with the talent and focus needed to deliver impact for the American people." For additional information, please visit the [US HHS website](#).

US EPA to Hold Public Workshop To Discuss NRC Report on IRIS

The US Environmental Protection Agency (US EPA) is planning a public workshop to discuss some specific recommendations from the National Academies National Research Council (NAS NRC) May 2014 report on the Integrated Risk Information System (IRIS) related to further improving the scientific quality of IRIS assessments. The workshop will take place October 15–16, 2014, in the Washington, DC, area, and it will be available by webinar. Specific details, including the location, agenda, and how to register, will be available at a later date.

According to the US EPA announcement of this workshop, the NRC “commended US EPA for its substantive new approaches, continuing commitment to improving the process, and successes to date. They noted that the program has moved forward steadily in planning for and implementing changes in each element of the assessment process. They also provided several recommendations which they said should be seen as building on the progress that US EPA has already made.” This workshop will allow US EPA to receive input from the public and scientific community about some specific topics related to the NRC May 2014 recommendations. For additional information, please visit the [US EPA website](#).

Humane Cosmetics Act Proposed by Congressman Moran

US Congressman James P. Moran (D-VA) introduced a bill in the 113th Congress, [H.R. 4148](#), to “phase out cosmetic animal testing and the sale of cosmetics tested on animals.” He reiterated this position in an invited essay in *Scientific American*, [Beauty and the Beasts: The US Should Ban Testing Cosmetics on Animals](#).

Position Advertisement(s)

Employment Position: US Food and Drug Administration: Pharmacologist/Toxicologist



US Department of Health and Human Services Food and Drug Administration

Pharmacologists/Toxicologists

The US Food and Drug Administration (FDA) is seeking scientists to serve as Pharmacologists and Toxicologists in the Office of New Drugs (OND) in the Center for Drug Evaluation and Research located in Silver Spring, Maryland. The Office of New Drugs’ mission is to protect and enhance the health of the public through the review and evaluation of scientific data submitted by pharmaceutical manufacturers in support of New Drug, New Biologics, and Investigational New Drug applications (NDA/BLA/IND), and determine if candidate drugs are reasonably safe to be tested or marketed for human use. Our scientists contribute to drug development programs and in evaluating safety testing results. The pharmacologist/toxicologist reviews and evaluates the results of nonclinical pharmacological and toxicological studies submitted in support of NDAs, BLAs, and INDs. These reviews serve as the basis for calculating safe starting doses for first-in-human clinical trials, safety in later clinical trials for the proposed marketing indication, and address product labeling.

Qualifications: Candidates for Civil Service or US Commissioned Corps must be US citizens. Permanent US residents may apply for staff fellowship appointments. Candidates must meet the following basic requirements:

Pharmacologist—A degree with a major in appropriate biological, medical, veterinary, or physical science, or in pharmacy that included at least 30 semester-hours in chemistry and physiology and 12 semester-hours in pharmacology.

Toxicologists—Degree: toxicology; or an appropriate discipline of the biological, medical, or veterinary sciences that included at least 30 semester-hours in chemistry, biochemistry, or physiology, and 12 semester-hours in toxicology.

Graduates of foreign colleges/universities must provide proof of US education equivalency certification.

Highly Desirable: An advanced degree in a relevant biological science, such as a PhD in Pharmacology or Toxicology, or a DVM, is highly desirable.

Salary: Salary Commensurate with Education and Experience

For Consideration: Please submit an electronic curriculum vitae with a cover letter via email at: OND-Employment@fda.hhs.gov no later than September 30, 2014. Please indicate that you are applying to Pharm/Tox.

US FDA is an equal opportunity employer and has a smoke free environment.

Minorities, women, individuals with disabilities, and veterans are encouraged to apply.