

ONLINE



Communiqué

Special Issue 2012

SOT News

President's Message



President
Jon C. Cook

First off, I want to wish all of you a Happy New Year! This is the 2012 “Special Issue” of the SOT *Communiqué*, which means that our 51st Annual Meeting is just around the corner. I want to highlight a few activities and scientific program items that I have not discussed in previous *Communiqué* articles. SOT has programmed a total of 185 sessions that will account for more than 3,000 presentations for the [2012 Annual Meeting](#), which is ahead of our last year’s submissions! Late-breaking abstracts that are accepted will be programmed on Thursday, March 15 from 8:30 am to 12:00 noon. The Meet the Director series has finalized their slate of confirmed speakers—Linda S. Birnbaum (NIEHS), Christopher J. Portier (ASTDR), Jukka Malm (ECHA updating us on REACH), and Hal Zeniek (US EPA). The Landmarks Program will recognize the Ames Test and a plaque will be presented to Bruce Ames Monday morning before the

plenary lecture. This plaque will be placed on the UC Berkeley campus. The SOT Honorary Members are Leroy Hood (Institute for Systems Biology) and Frank Gonzalez (NIH). The Global Senior Scholar Exchange winners are Orish Ebere Orisakwe (Nigeria) and Jesus Olivero-Verbel (Colombia) who will be hosted by Judy T. Zelikoff (NYU) and Miroslav Styblo (UNC) and Michael P. Waalkes (NIEHS), respectively. The purpose of the Global Senior Scholar Exchange Program is to enhance toxicology capacity in developing countries, which is a component of our overall strategy to enhance our global outreach. The scholars will attend the SOT 2012 Annual Meeting and spend 2–3 weeks at their host university. Please welcome them to the Annual Meeting! The Council also will be hosting a Government Liaison Group Coffee meeting with government agencies to explore cross-agency collaboration opportunities. Two additional fun events will be piloted at the Annual Meeting. They are the “Tox ShowDown,” which is a quiz game, and “Hoops for the Endowment,” which is a basketball free-throw contest to raise money for the Endowment Fund. We also will have a re-formatted repeat of the Presidents’ Fun Run. The 2012 Annual Meeting has an amazing scientific program and array of activities—my hearty thanks go to the Scientific Program (SPC) and Continuing Education (CE) Committees, and the members who have championed numerous activities.

Looking forward—planning for the 2013 Annual Meeting in San Antonio is already underway. The

SPC has identified the 2013 themes: Application of Systems Biology to Toxicology; Biomarkers for Exposure Assessment, Safety Evaluation, and Translational Medicine; Effects of Nanomaterials on Biological Systems; Molecular Basis of Genetic Variability and Susceptibility to Toxicants; and, Regulatory Science: Advancing New Approaches for Hazard Identification and Risk Assessment. The CE Committee has identified the following three Target Areas: Developmental Origins of Health and Disease (DOHaD); Molecular Imaging; and, Personalized Toxicology. The submission site opened on Monday, February 13 to accept [proposals for the 2013 Annual Meeting](#) and will close on April 30. The SPC will conduct a [“Best Practices” webinar](#) in March 2012, after the Annual Meeting, with tips on how to write a proposal. If you are interested in developing a proposal, please work with your Component Groups at the Annual Meeting. SOT Council is also encouraging cross Component Group proposals, especially those with a global or translational nature.

Since this is my last *Communiqué* article as your President, I wanted to highlight some of the Council and Committee activities that are preparing us for the future. A major Council activity was developing a [Strategic Plan for 2012–2015](#). At our January Council meeting, we reviewed the Committees tactics and metrics to execute this plan and I can report that we are ready to launch our Plan thanks to the hard work of the Council and the Committees! As part of strengthening our organizational effectiveness, Council has recommended an increase in the Council term from two to three years and this [By-Laws change](#) has been approved. We will be sunsetting several Task Forces that have fulfilled their purpose and this will provide monies for new initiatives identified in the 2012–2015 Strategic Plan, including launching a ToXchange Task Force to ensure we are using twenty-first century communication tools (e.g., an App is being piloted!). The Finance Committee developed a “SnapShot report” and “Finance 101 training deck” to strengthen our financial stewardship by Council and our Committees. An [Education Summit](#) was held in October that will guide our educational activities over the next several years. Collectively, these activities will strengthen our Society and prepare us for the challenges and opportunities of the next 25 years!

In closing, it has been an honor being your President and working with the dedicated members of our Society! Thank you for allowing me the privilege to steward the Society this past year. I look forward to working with William Slikker Jr. when he takes the helm on May 1.

Jon C. Cook
2011–2012 SOT President

2012–2013 Council and Committee Members Elected

Vice President-Elect:

Norbert E. Kaminski

Treasurer-Elect:

Denise Robinson Gravatt

Councilors:

Lorrene A. Buckley

Ivan Rusyn

Awards Committee:

Samuel M. Cohen
Yvonne P. Dragan
Mary E. Gilbert

Membership Committee:

Michelle J. Hooth
Tao Wang

Nominating Committee:

(Membership-At-Large)
Martin A. Philbert

(Regional Chapters)
Rosonald R. Bell

(Specialty Sections)
James V. Bruckner
Alison C.P. Elder

SOT Awards

Achievement Award

Donna D. Zhang

Arnold J. Lehman Award

Joe L. Mauderly

Distinguished Toxicology Scholar Award

Ernest Hodgson

Education Award

John H. Duffus

Founders Award

John A. Moore

Global Senior Scholar Exchange Program

Orish Ebere Orisakwe

African Region Recipient (Nigeria)

Host: Judy T. Zelikoff (NYU)

Jesus Olivero-Verbel

Latin American Region Recipient (Colombia)

Hosts: Miroslav Styblo (UNC) and

Michael P. Waalkes (NIEHS)

Honorary Membership

Frank J. Gonzales
Leroy Hood

Leading Edge in Basic Science Award

Myung-Haing Cho

Merit Award

Curtis D. Klaassen

Public Communications Award

Martin A. Philbert

Translational Impact Award

John G. Benitez

Translational/Bridging Travel Award

Xuemei Huang

Undergraduate Educator Award

Sue M. Ford

Best Postdoctoral Publication Awards

Maryse Lemaire
Xuefeng Ren
Nisha S. Sipes

Board of Publications Award for the Best Paper in *Toxicological Sciences*

Selective Phthalate Activation of Naturally Occurring Human Constitutive Androstane Receptor
Splice Variants and the Pregnane X Receptor (*ToxSci*, 2011, 120(2): 381–391

Joshua G. DeKeyser, Elizabeth M. Laurenzana, Eric C. Peterson, Tao Chen, and Curtis J. Omiecinski

Perry J. Gerhring Diversity Student Travel Award

Alba K. Gonzales Rivera

SOT/AstraZeneca/IUTOX Travel Fellowships

Oladipo Ademuyiwa (Nigeria)
Murali Badanthadka (India)
Xiangju Huang (China)
Zhenlie Huang (China)
Guojun Li (China)
Maria Samayoa (Guatemala)
Haixue Wang (China)
Jingshu Zhang (China)
Xiaofeng Zhang (China)
Li Zhou (China)

SOT Endowment Fund/IUTOX Travel Fellowships

Sunisa Chaiklieng (Thailand)

Jianlin Lou (China)

Sponsored Awards

AstraZeneca Traveling Lectureship Award

Bhagavatula Moorthy

Colgate-Palmolive Awards for Student Research Training in Alternative Methods

Agnes Forgacs

René Viñas

Colgate-Palmolive Grants for Alternative Research

Mingzhu Fang

Jennifer Freeman

Colgate-Palmolive Postdoctoral Fellowship Award in *In Vitro* Toxicology

Melanie Adler

Pfizer Undergraduate Student Travel Award

Ashley R. Press

Darien Shapiro

Qi Wang

Brittany M. Winner

Francis A. Xin

Syngenta Fellowship Award in Human Health Applications of New Technologies

Benjamin Moeller

[Congratulations To Our Award Recipients!](#)

2012 Graduate Student Award Recipients and Finalists Named by the SOT Awards Committee

The SOT Awards Committee has selected graduate student award recipients to be recognized at the SOT 51st Annual Meeting in San Francisco, California. Agnes Forgacs, Michigan State University, East Lansing, Michigan, and René Viñas, University of Texas Medical Branch, Galveston, Texas, are named the 2012 recipients of the Colgate-Palmolive Awards for Student Training in Alternative Methods. Ms. Forgacs will travel to the National Center for Computational Toxicology, US Environmental Protection Agency, Durham, North Carolina, to complete work on her project, “High-Throughput Assay Development for Steroidogenesis.” Mr. Viñas will work on his project, “Development of an



Agnes Forgacs

Automated High-Throughput Screening Method for the Analysis of the Estrogenic Potential of Polychlorinated and Conjugated Metabolites of Bisphenol-A” at the University of Texas Medical Branch, Galveston National Laboratory—Assay Development Service Division, Galveston, Texas. SOT wishes both these Colgate-Palmolive Award recipients much success in their student research training in alternative methods.

The Novartis Graduate Student Fellowship FINALISTS, who will be interviewed by the Awards Committee at the SOT 51st Annual Meeting in San Francisco, are as follows:

- Jenna Currier, University of North Carolina, Chapel Hill, North Carolina
- Julia E. Rager, University of North Carolina, Chapel Hill, North Carolina
- Bradley P. Sullivan, University of Kansas Medical Center, Kansas City, Kansas



Rene Viñas

The fellowship recipient will be announced at the SOT Awards Ceremony on Sunday, March 11, 2012.

A record 88 graduate students will receive Graduate Student Travel Support to attend the Society of Toxicology 51st Annual Meeting in San Francisco, California. SOT Graduate Student Travel Support is provided, in part, with generous contributions from AMGEN, Inc., Battelle Foundation, Burroughs Wellcome Fund, and the SOT Endowment Funds: Education Fund, Harry W. Hays Memorial Fund, and Sheldon D. Murphy Memorial Fund. The complete list of graduate students receiving these awards will be available in the Historical Awards Listing on the

SOT website following the Annual Meeting.

Access more information on these and other SOT Awards, on the [Awards Fellowships section](#) of the SOT website and select the award criteria for the awards in which you may be interested (i.e., Endowment Fund Awards, for Graduate Students, for Postdoctoral Fellows, for Scientists, for Undergraduate Students, and their Advisors, etc.). You also may select a specific award from the complete award listing from the drop-down menu on the SOT Awards page. Please note while most SOT Awards have an annual application deadline of October 9, many awards, especially those offered by SOT Regional Chapters, Specialty Sections, and Special Interest Groups, have deadlines throughout the calendar year. SOT offers more than 160 awards annually via all our programs. Have a look at the award site and apply for the award(s) for which you are eligible. You just may find that you will have an “awarding” experience too.

**Recipient of *Communiqué* Readership
Free Annual Meeting Registration**

Anonymous winner has provided this opportunity for two graduate students to attend, thus building for the future of toxicology.

Daniel and Patricia Acosta Diversity Student Fund Announced



The [Daniel and Patricia Acosta Diversity Student Fund](#) was established with a generous gift from Dr. Acosta and his wife to provide support for the Society of Toxicology's Diversity Student programs. The fund honors Dr. Acosta's considerable contributions to the science of toxicology and his family's strong interest in encouraging individuals from ethnic groups underrepresented in the sciences to enter the field of toxicology. Dr. Acosta is the fourth Dean of the University of Cincinnati's James L. Winkle College of Pharmacy. He was a member of The University of Texas College of Pharmacy faculty for 22 years where he helped develop a nationally ranked program in toxicology as the first director of the Toxicology Training Program. Dr. Acosta also was responsible for encouraging minority students to consider careers in pharmacy and biomedical research through several federal and private grants. Proceeds from the Fund will be used annually to further the objectives of the Society's Education Fund as determined by the SOT Council and, to the extent feasible, be identified as having been funded by the Daniel and Patricia Acosta Diversity Student Fund.

SOT Sponsors Speaker at 11th Annual Biomedical Research Conference for Minority Students

Submitted by Antonio T. Baines, representing the Committee on Diversity Initiatives

The Committee on Diversity Initiatives (CDI) staffed an exhibition booth at the 11th Anniversary Annual Biomedical Research Conference for Minority Students (ABRCMS) in St. Louis, Missouri, held November 9–12, 2011. This is the fourth year that SOT has participated in this meeting as a sponsor and exhibitor. The conference is the largest multidisciplinary national student conference designed to encourage minority students to pursue advanced education and training in the sciences. There were more than 3,300 in attendance including undergraduate students, post baccalaureate students, graduate students, postdoctoral scholars, academic program directors, faculty and staff, and representatives from government agencies, research foundations, and professional societies. The students gave over 1,500 poster and oral presentations over the course of the conference.



*SOT 2008–2009 President
Dr. Ramos with attendees*

Networking sessions introduced the students to professional societies and provided them time with representatives to learn even more. Plenary and keynote speakers, Cora Marrett (National Science Foundation, Virginia), Alejandro Sanchez Alvarado (Stowers Institute for Medical Research, Montana), Sylvester James Gates Jr. (University of Maryland, College Park), Susan Lindquist (Massachusetts Institute of Technology), and Julianne Malveaux (Bennett College, North Carolina) challenged the students to pursue their passions, look beyond the temporary, embrace change, and maintain a balance in their lives. Concurrent scientific sessions also were provided for the students.



*Kenneth Ramos and
Antonio T. Baines*

Kenneth S. Ramos, University of Louisville and 2008–2009 President of the Society of Toxicology, presented “A Tale of LINES: Epigenetic Reactivation of L1 Retrotransposon by DNA-Damaging Agents” in a session sponsored by SOT. There were approximately 125 attendees and approximately 20–25 students and faculty who remained after the talk to speak to Dr. Ramos. The exhibition booth staffed by Antonio T. Baines (SOT member, North Carolina Central University) was visited by many students, program directors, faculty, and staff to learn more about SOT and toxicology in general. Several SOT members and alumni of the Undergraduate Education Program, held in conjunction with the SOT Annual Meeting, also visited the booth to help

educate others about toxicology.

Participation in this meeting is an important way that SOT promotes the recognition of toxicology, increasing the visibility of SOT as a global resource and communicating the benefit of toxicology to external audiences, as well as building for the future of toxicology by attracting students to the field.

SOT Welcomes New Affiliate: Gilead Sciences Inc.

We are pleased to announce that [Gilead Sciences Inc.](#) has become the newest SOT Affiliate. Since 1987, Gilead Sciences has worked to discover, develop, and commercialize medications to advance the care of patients suffering from life-threatening diseases in areas of unmet medical need. In just over 20 years, Gilead has become a leading biopharmaceutical company with a portfolio of 14 marketed products, a growing pipeline of investigational drugs, and approximately 4,500 employees in offices across four continents. Gilead’s primary areas of focus include HIV/AIDS, liver disease, and serious cardiovascular/metabolic and respiratory conditions. Demonstrate your organization’s support of the Society of Toxicology by becoming an SOT Affiliate. For additional information, visit the [affiliates section](#) of the SOT website or contact [Marcia Lawson](#) at SOT Headquarters.

Strategic Task Forces Help Forward SOT Mission

SOT Council formed strategic groups aligned with the 2008–2012 SOT Strategic Plan referred to in Jon Cook’s President’s Message in this issue. The Disease Prevention Task Force (DPTF) will sunset in 2013 and the Professional Needs Assessment Task Force (PNATF) on April 30, 2012. Reports from the DPTF and PNATF are provided below.

Disease Prevention Task Force Update

By Thomas W. Kensler, Chair, and Donna Mendrick, Co-Chair

Disease prevention, in part, seeks to reduce causes and contributors to disease and disability by predicting effects and preventing exposures to dangerous biologics, chemicals, and drugs. In the

practice of toxicology, there are three levels of disease prevention: *primary prevention*—predictions of risk; *secondary prevention*—detection of early exposure and resulting effects; and *tertiary prevention*—responses to disease. The Society of Toxicology contributes to all facets of prevention through the use of mechanistic and translational sciences, and effective communications. As part of the last Strategic Plan to increase the scientific impact of SOT, the Disease Prevention Task Force (DPTF) was formed in 2008 under the leadership of Helmut Zarbl.

The DPTF was charged to evaluate what the Society was currently doing in the areas of predictive and preventive science and to formulate a road map for Council to enhance the Society's activities in these areas. Of immediate attention was to enrich the presentation of prevention-oriented topics at the SOT Annual Meeting. The goals are two-fold: to increase the awareness of our members on these topics, and to broaden the appeal and richness of our scientific program by encouraging scientists from other disciplines, especially those within disease-oriented research and practice communities, to find sufficient depth of material in our programs to sustain their engagement with toxicologists. This latter goal is a shared initiative with the Scientific Liaison Coalition.

Symposia and workshops, sponsored both by DPTF and Specialty Sections related to disease prevention, have been amplified and well-attended at the most recent SOT Annual Meetings. Groups developing proposals for future annual meetings are encouraged to incorporate disease prevention as a key element. Moreover, there is an attempt to cluster submitted presentations around this focus to provide a critical mass for interactions among like-minded scientists.

The Translational Impact Award, initiated by SOT in 2009, is another means to highlight to our members how prevention science and toxicology intersect to promote public health. To foster cross-disciplinary interactions, the DPTF created the SOT Translational/Bridging Travel Awards, sponsored by SOT and the SOT Endowment Fund, to support travel to the Annual Meeting for scientists (generally non-SOT members) active in the practice of clinical or translational sciences. The expectation is that they will take back a better appreciation of and continuing engagement in toxicology to their primary professional organizations. The DPTF also assisted in the development of a new specialty section, "Clinical and Translational Toxicology," that will provide long-term oversight to continuing fulfillment of some of these goals.

While the trajectory for enhancing the appreciation of and the need for incorporating prevention sciences within the workings of the SOT is encouraging, there is a greater need to communicate the role and contributions of toxicology in disease prevention to policy makers, politicians, and the general public. There is no quick fix to this issue, however, a greater emphasis in highlighting the importance of prevention in our science, and the presentation of this science to other stakeholders, will better position SOT and toxicology in general, as a central component of discussions establishing societal priorities for safety and preservation of health. Your input into how to enhance these communications is always welcome and you should send your comments to [Marcia Lawson](#) for dissemination to the task force.

Professional Needs Assessment Task Force Update

By Mary Beth Genter, Chair, and Gary P. Carlson, Co-Chair

The Professional Needs Assessment Task Force (PNATF) held a webinar on December 7, 2011, to summarize the results and recommendations of the Professional Needs Assessment Survey. The webinar included a roundtable of panelists comprised of the leadership of the standing committees that are evaluating and proposing implementation of the recommendations of the survey. There were 54 participants in addition to the panel members. The panel included Richard Davis Storer and Courtney E.W. Sulentic, Career Resource and Development Committee (CRAD); Stephen H. Safe and J. Craig Rowlands, Continuing Education (CE) Committee; Lorrene A. Buckley and Thomas A. Lewandowski; Education Committee, and representatives of the PNATF. The slides and audio recording can be found on the [Career Services section](#) of the SOT website.

By way of background, the PNATF was appointed in 2008, as part of the SOT Strategic Plan, with the charge to “define key areas where the Society can assist members in addressing the long-term needs of the profession.” Included in this charge was “To identify and prioritize future training needs of toxicologists, including continued training in the use of new technologies and knowledge bases.” The original Chair of the PNATF was Daniel Acosta Jr., and the previous/original members of the TF were: Kerry Blanchard, Barbara Davis, Kevin Kerzee, Elaine Valerie Knight, James C. Lamb IV, and James A. Popp. Lawrence R. Curtis and Patricia Ganey served as the previous SOT Council Contacts to the TF. Current (2011–2012) TF members are Mary Beth Genter and Gary P. Carlson (TF Chair and Co-Chair), Thomas T. Kawabata, Kevin Kerzee, James A. Popp, Timothy P. Reilly, and Mari S. Stavanja. Betty Eidemiller and Marcia Lawson have made extensive contributions as the staff liaisons to the TF, and Michael P. Waalkes is the current SOT Council Contact.

The Professional Needs Assessment (PNA) Survey was developed in collaboration with the CRAD, CE, Education, Membership, and Research Funding Committees. The survey design and execution were conducted in conjunction with the SOT Data Task Force. The survey targeted SOT Full, Associate, and Postdoctoral members and was available for members to complete during October 2009. TF members and SOT undertook extensive data analyses.

The survey was comprised of approximately 30 questions that covered five broad areas: Demographics of Respondents; Overview of Existing and Proposed SOT Programs; Professional Training/Development; Work and Life Balance; and Future of Toxicology. A summary of the results of the survey will be broken down accordingly. [Read more...](#)

Toxicology Salary Survey Data Gathered—Results to Be Announced

For more than two decades, the Toxicology Salary Survey has been conducted to provide the toxicology profession with up-to-date realistic salary information. The current survey, which was sent to all SOT members on January 27, 2012, is the eighth survey conducted since 1988, and it is of special interest because of current economic conditions. In addition to the membership of SOT, the members of the following participating societies and organizations also have received the Salary Survey:

- Academy of Toxicological Sciences (ATS)

- American Board of Toxicology (ABT)
- American College of Toxicology (ACT)
- Environmental Mutagen Society (EMS)
- Roundtable of Toxicology Consultants (RTC)
- Society of Environmental Toxicology and Chemistry (SETAC)
- Safety Pharmacology Society (SPS)
- Society of Toxicologic Pathology (STP)
- Teratology Society (TS)

The participation of all these organizations provides a valid cross-section of the profession. The published data will be presented only in the aggregate and categories that have limited sample size will not be reported.

Shayne Gad, Gad Consulting and the Society of Toxicology Career Resource and Development Committee conducted this survey. The summary of the data collected will be compiled by Dr. Gad for use by the toxicology community and should be available by early April 2012. In addition, the results of this survey and 22 years of trend analysis of all previous surveys will be published in much more detail in the *International Journal of Toxicology* later in the year.

SOT appreciates your help in developing an accurate snapshot of salaries and other demographic information for those professionals who have chosen toxicology as a career.

SAVE THE DATE!

An International Symposium
May 14–16, 2012 | Paris, France



Environmental Stressors in the Developmental Origins of Disease: Evidence and Mechanisms

Contemporary Concepts in Toxicology Meeting hosted by the Society of Toxicology

Scientific Sessions

- Keynote Presentations
- Programming and Epigenetics
- Immune System Programming
- Developmental Basis of Obesity/Metabolic Syndrome
- Developmental Origins of Neurobehavioral Deficits and Disease
- Gene Expression, Metabolomics, and Cancer
- Environment and Obesity in Spanish Birth Cohorts
- Developmental Origins of Reproductive Diseases/Dysfunctions
- Developmental Basis of Cardiovascular Disease
- Environmental-Nutrition Interactions and Disease Prevention
- Conference Conclusion

There will be ample time for discussion and viewing of the posters.

Standard Abstract Submission Deadline: March 22, 2012



National Institute for Environmental Studies



International Society for Developmental Origins of Health and Disease (DOHaD)



To Learn More and to Register, Visit www.toxicology.org/pptoxiii.asp.



“SACNAS” Spells “SUCCESS” for Salish Kootenai College at Recent SACNAS Annual Meeting

Submitted by Douglas K. Stevens, Head, Department Life Sciences, Salish Kootenai College, Pablo, Montana. He was named 2011 SACNAS Distinguished Community/Tribal College Mentor of the Year.



Dr. Stevens

At the recent annual meeting of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS, San José, California, October 26–30, 2011), four out of five students from Salish Kootenai College’s (SKC) Department of Life Sciences garnered undergraduate student awards for their posters, two of which were in the area of toxicology. In addition, Amy Stiffarm (Gros Ventre tribe) presented a poster that was chosen by National Institutes of Health to be featured during the October 2012 celebration of the 40th Anniversary of the National Institute of General Medical Sciences (NIGMS) Minority Opportunities in Research program. On the surface, this news may not seem very “earth shattering.” However, when one considers that students from only two institutions, UCLA and University of New Mexico, were awarded more (nine and five, respectively), with much larger student delegations, and Salish Kootenai College is a small, tribal college on the Flathead Indian Reservation in western Montana, and, furthermore, these students were from a brand new Bachelor’s degree program, the first “molecular-based” 4-year degree to be offered at any tribal college, then maybe the magnitude of the achievement becomes evident.

Few people outside the tribal college and university (TCU) system really know much about TCUs, their mission and their capacity. The TCU system was started approximately 40 years ago to address the lack of success of Native students in mainstream institutions (Boyer, 1997). They often have very humble beginnings, such as abandoned high schools and other “low rent” accommodations. Additionally, a reservation high school is usually quite rural and under funded and so is challenged in developing the academic potential of its students. TCUs usually have an open enrollment policy with placement exams, instead of entrance exams. Approximately 70% of the incoming freshmen at SKC need some form of remediation, typically in English, math, or both.

SKC was founded in 1977 under similar circumstances. Thirty-four years later, it currently has a student population of approximately 1,000 and is accredited by the Northwest Commission on Colleges and Universities. This is the same commission that accredits other northwestern universities, such as the University of Washington. SKC is a leader in the TCU movement and currently has three BA and 10 BS degrees, of which the BS (Life Sciences) is one of the newest, having received official accreditation in November 2010.

When it comes to science at TCUs, the most common first science curriculum is in Environmental Science. This is for many reasons. Native Americans tend to have stronger



Jamie Cahoon (Salish—Pend d’Orielle), Loretta Grey Cloud (Crow Creek Sioux), Trey Saddler (Chippewa Cree), and Was'tewin Smiley (Navajo—Eskimo)

ties to the environment, compared to other ethnic groups, environmental science tends to be more “place-based,” and this curriculum serves as a track to environmental resource management positions within tribal governments. That is, it is a track to a job on the reservation where unemployment rates are usually well above the national average.

—*Dakota Sioux*)

By contrast, math and “hard science” (a term we do not use as our position is that science is not “hard”) is a “hard” sell. Native Americans are much more tied to their home and area than the rest of the US population who tend to be quite mobile when it comes to career options. There are no tier one research institutions on reservations, so for science students, there is not the draw of local employment. Jobs are off-reservation, so students must be open to relocating, at least for part of their professional life. Against this backdrop, most Native students find it difficult to make a connection between their lives on the reservation and a life in science. [Read more...](#)

Member Spotlight

New Members in 2011

In 2011, the Society of Toxicology welcomed 821 new members, including 299 Full, 100 Associate, 98 Postdoctoral, and 324 Student members. New members are part of our network of more than 7,100 members from 61 different countries. Members from academic institutions, industry, government, and other scientific organizations are committed to SOT’s vision of “creating a safer and healthier world by advancing the science of toxicology.” You can view the full listing of [new members in 2011](#) on the SOT website.

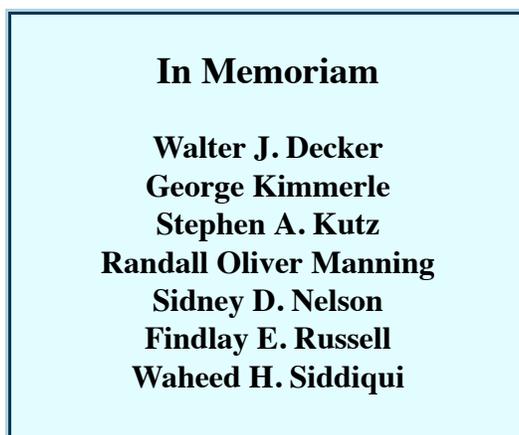
SOT Members Receive ATS Designation and Recertification

Seventeen SOT members were certified as Fellows of the Academy of Toxicological Sciences (ATS) from June 2011 to January 2012. The new fellows are Brad Bolon, William K. Boyes, Bryan Delaney, Craig H. Farr, Paul M.D. Foster, Li Jie Fu, Bruce G. Hammond, Deborah K. Hansen, Patricia B. Hoyer, Janis E. Hulla, Gregory S. Ladics, Bernadene A. Magnuson, Michael J. McCabe, Curtis J. Omiecinski, Jean F. Regal, Larry W. Robertson, and Madhusudan G. Soni.

During that same timeframe, ATS Fellows who have demonstrated their continued commitment to ATS by seeking and attaining recertification are David C. Dorman, Peter L. Goering, Michael P. Holsapple, Alan Hoberman, Bruce J. Kelman, James C. Lamb IV, Charlene A. McQueen, Richard Miller, Michael J. Olson, Merle G. Paule, MaryJane Selgrade, and Robert G. Ulrich.

Since 1981, the [Academy of Toxicological Sciences \(ATS\)](#) has certified toxicologists who are recognized by their peers for their expertise and sound scientific judgment; these toxicologists are awarded the title of Fellow. The purpose of this recognition and certification is to ensure the competence and experience of professionals whose work affects public welfare.

In Memoriam



Stephen Ammarell Kutz

Submitted by Jane S. Allen

Stephen Ammarell Kutz died November 20, 2011, a few days after being diagnosed with pancreatic cancer. Dr. Kutz was born in Wilmington, Delaware and graduated from the University of Delaware where he competed on the swim team, received a doctorate from West Virginia University, and did postdoctoral work at the University of Wisconsin. His outstanding work in the pharmaceutical industry bettered the lives of millions of patients worldwide. After a successful career at ICI/AstraZeneca (including a secondment year in the UK), he became a founding member of the toxicology group at Glaxo/GlaxoWellcome/GSK in 1991. After more than a decade performing preclinical development, line management, and international due-diligence in North Carolina, he returned to Wilmington, Delaware to head Toxicology for Adolor and then Trevena. He joined SOT in 1983 and was a member of the Mid-Atlantic Regional Chapter and the Comparative and Veterinary Specialty Section.

He will long be remembered for his ever-constant kindness, his generosity in mentoring others, his sense of humor, his scientific acumen, his really serious love of golf, his insight in managerial issues, his cheerful self-discipline, his exemplary balance of work and family, and his devotion to his wife Reyne and their children and grandchildren. All of his friends and colleagues, now spread around the globe, will miss him.

Randall Oliver Manning

Randall Oliver Manning passed away on January 16, 2012. He was born on October 12, 1956, in Dublin, Georgia, and received his bachelors, masters, and doctorate degrees from the College of Agriculture at the University of Georgia. Dr. Manning was a postdoctoral associate and an assistant research toxicologist in the Department of Pharmacology and Toxicology, College of Pharmacy at the University of Georgia. In 1990, he became the state toxicologist for the Environmental Protection Division at the Georgia Department of Natural Resources. In addition, he was an adjunct professor for the Rollins School of Public Health at Emory University and the Interdisciplinary Toxicology

Program at the University of Georgia. He joined SOT in 1991 and was a member of the Comparative and Veterinary, Reproductive and Developmental, and Risk Assessment Specialty Sections. Dr. Manning served as the president of the SOT Southeastern Regional Chapter.

Sidney Donald Nelson

Sidney Donald Nelson, Professor of Medicinal Chemistry and Dean Emeritus of the College of Pharmacy, University of Washington (UW), passed away Friday, December 9, 2011, following a heart attack. He was 66 years old. He was born on August 18, 1945, in Seattle, was raised in Bothell, Washington, and attended UW, where he graduated in 1968 with a BS in pharmacy. Following military service in the US Army Medical Corps at Rodriguez US Army Hospital in Puerto Rico, he returned to graduate school, initially at UW and subsequently at the University of California-San Francisco, where he received a PhD in pharmaceutical chemistry in 1974. Dr. Nelson joined SOT in 1982 and was a member of the Pacific Northwest Regional Chapter and the Comparative and Veterinary and Mechanisms Specialty Sections. After working for a few years at the National Institutes of Health in Bethesda, Maryland, he accepted an appointment as Assistant Professor of Medicinal Chemistry in the School of Pharmacy at UW, where he remained for the duration of his remarkable career, progressing through the ranks to become full professor and Dean of the School from 1995 to 2008. Dr. Nelson's research and teaching have been recognized nationally and internationally through the conferring of numerous awards and honorary appointments.

51st Annual Meeting & ToxExpo

2012 Annual Meeting Highlights



The Society of Toxicology 51st Annual Meeting and ToxExpo will feature more than 3,000 presentations including special lectures and the recently programmed late-breaking and grace period abstracts. Some of the highlights include the following:

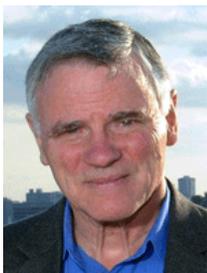
- **Plenary Opening Lecturer:** Leroy Hood, Institute of Systems Biology, Seattle, Washington, “Systems Medicine, Systems Toxicology, Transformational Technologies and the Revolution from Reactive to Proactive (P4) Medicine”—Predictive, Personalized, Preventive, and Participatory—on Monday, March 12, 8:00 am–9:00 am, Convention Center, Exhibit Hall A. Dr. Hood will be inducted as a 2012 Honorary SOT member at the Sunday night Awards Ceremony.

- **[Keynote Medical Research Council \(MRC\) Lecture:](#)** Witold Filipowicz, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland, will deliver the lecture, “Role of microRNAs in Control of Gene Expression in Human Physiology and Pathology,” on Tuesday, March 13, 8:00 am–9:00 am, Convention Center, Room 103.
 - **[Meet the Directors Special Symposium:](#)** Panel of experts from the Agency for Toxic Substances and Disease Registry (ATSDR), National Institute of Environmental Health Sciences (NIEHS), US Environmental Protection Agency (US EPA), and the European Chemical Agency (ECHA) will provide information of interest to the SOT membership during their individual talks on Wednesday, March 14, 9:00 am–11:45 am, Convention Center, Room 302.
 - **[SOT/Eurotox Debate:](#)** This traditional Annual Meeting feature that originated in the early 1990s continues in which leading toxicologists advocate opposing sides of an issue of great toxicological importance. Debaters will address the proposition: “Comparative Hazards: Chemicals in the Environment Are the Largest Risk to Human Health,” on Monday, March 12, 4:30 pm–5:50 pm, Convention Center, Room 307.
 - **[Two Regional Interest Sessions:](#)** “Bridging the Green Chemistry Gap between Product Discovery and Availability” and “What’s the Buzz: Bee Health and California’s Agricultural Industry.”
-

50th Anniversary Books Are Still Available

SOT members will be able to receive a copy of the deluxe 50th anniversary publication, the [Society of Toxicology: The First Fifty Years](#), by visiting the SOT Pavilion, Booth #1700 in the Exhibit Hall. The book is a collection of stories written by various members and leaders of the Society and the publication contains sections of photographs that cover the last 50 years. These vignettes and photos are priceless and are yours free-of-charge. The deluxe books will be available at the 25-Year (or More) Member Reception and the Member Business Meeting.

Plenary Opening Lecture: Leroy Hood



Leroy Hood, Institute for Systems Biology (ISB) in Seattle, Washington, will deliver the [Opening Plenary Lecture, “Systems Medicine, Systems Toxicology, Transformational Technologies, and the Revolution from Reactive to Proactive \(P4\) Medicine.”](#)—Predictive, Personalized, Preventive, and Participatory, on Monday, March 12, 8:00 am–9:00 am, Moscone Convention Center, Exhibit Hall A. He will explain that the challenge for biology in the twenty-first century is the need to deal with its incredible complexity. One powerful way to think of biology is to view it as an informational science. This view leads to the conclusion that biological information is captured, mined, integrated by biological networks, and finally

passed off to molecular machines for execution. Dr. Hood also will discuss the emerging technologies

(measurement and visualization) that will transform medicine and the analyses of toxicity over the next 10 years—including next generation DNA sequencing, targeted mass spectrometry, micro-fluidic protein chips, and single-cell analyses.

It appears that systems approaches to disease, together with pioneering changes in technology and the development of powerful new computational and mathematical tools, will transform medicine over the next 5–20 years from its currently reactive state to a mode that is predictive, personalized, preventive, and participatory (P4). In conclusion, Dr. Hood will describe what P4 medicine will do for the individual patient. He also will consider the societal impact of P4 medicine and how ISB has created global strategic partnerships to bring P4 medicine to patients.

Keynote MRC Lecture: Witold Filipowicz



Witold Filipowicz, Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland, will deliver the [Keynote Medical Research Council \(MRC\) Lecture, “Role of microRNAs in Control of Gene Expression in Human Physiology and Pathology.”](#) on Tuesday, March 13, 8:00 am–9:00 am, Moscone Convention Center, Room 103. This lecture will provide current knowledge about the mechanism of miRNA-mediated repression of gene expression, procedures to identify miRNA targets, as well as a role of miRNAs in selected human pathologies and the use of miRNA profiling as a diagnostic tool in human diseases and in tissue and cell

injuries. MiRNAs have been found to be secreted from cells via exosomes and their profiling in human serum and other body fluids appears to be a promising diagnostic tool in different pathologies. MiRNAs also may play important roles in cellular responses to xenobiotic stresses and in control of drug-metabolizing enzymes. In addition, miRNAs or compounds blocking their function represent promising therapeutic agents.

MicroRNAs (miRNAs) are a novel class ~20-nt-long regulatory RNAs expressed in eukaryotes. MiRNAs regulate gene expression post-transcriptionally, by imperfectly base-pairing to 3'UTR of mRNAs, what results in translational repression or mRNA deadenylation and degradation. The number of different miRNAs in humans reaches ~1,000, and ~50% of all human genes are predicted to be subject to miRNA regulation. Although specific functions and target mRNAs have been assigned to only a fraction of identified miRNAs, much evidence exists that miRNAs participate in the regulation of nearly all cellular and developmental processes. Expression of many miRNAs is tissue or development specific and major changes in miRNA expression are observed in human pathologies, including cancer. Clearly, discovery of miRNAs added a new dimension to the complexity and regulation of eukaryotic genomes.

Timothy J. Shafer to Present *In Vitro* Toxicology Lecture and Luncheon for Students

Timothy J. Shafer, US Environmental Protection Agency, Research Triangle Park, North Carolina, will deliver the [In Vitro Lecture, “Can In Silico and/or In Vitro Testing be used for Toxicity Assessment](#)



[Instead of *In Vivo* Approaches?](#)” Monday, March 12, 12:00 noon–1:20 pm, Marriott Marquis, Golden Gate Ballroom B, hosted by the SOT Education Committee and sponsored by the Colgate-Palmolive Company. The goal of the *In Vitro* Toxicology Lecture series is to feature important research using *in vitro* and alternative techniques to study basic mechanisms and to illustrate how these test methods benefit animal welfare by refining, reducing, and replacing animal use whenever it is feasible. Graduate students, undergraduates, postdoctoral scholars, and recipients of Colgate-Palmolive awards are among the guests at the *In Vitro*

Toxicology Lecture and Luncheon. Students and postdoctoral scholars register via the Annual Meeting registration, and the \$10 deposit will be returned upon entry to the event. Dr. Shafer will present an introduction to the topic, and then participants will discuss related questions and report responses.

Research Funding Sessions and Brown Bag on “Strategies for Submitting Successful Grants”

On Tuesday and Wednesday, March 13 and 14, 9:00 am–4:30 pm, Room 270, the Research Funding Committee again is providing the [Research Funding Session: Research Funding Information Room](#). Program and review staff from agencies that fund research, including National Institutes of Health and the Center for Scientific Review, and National Institute of Environmental Health Sciences (NIEHS) will be available for individual conversations. Check the posted schedule at the NIEHS booth (2037) for specific times staff members will be available to answer your questions about scientific review or grant opportunities. The schedule also will be available at the registration area and in Room 206, site of the [“Strategies for Submitting Successful Grants: Brown Bag Lunch,”](#) on Tuesday, March 13, 12:00 noon–1:30 pm.

This investigators’ luncheon focuses on strategies for submitting successful grant packages. Panelists will be on hand to talk about the ins and outs of what makes a successful grant submission, what you should do before putting pen to paper, how to write the grant, what strategies are used to help make grant submissions stand out, and how the application progresses through the review process. Panelists for this brown bag luncheon include Janice Benson-Allen, Scientific Review Officer, NIEHS; Heather B. Patisaul, Assistant Professor, North Carolina State University; and Stacey Lynn Harper, Assistant Professor, Oregon State University.

SOT Recognizes Prestigious Award Recipients

Awards Ceremony Music

Performed by Glenn Staller, Classical Guitarist
Sunday, March 11, 4:45 PM–5:15 PM

Awards Presentations

Sunday, March 11, 5:15 PM–6:30 PM

All Attendees Welcome!

SOT Award Lectures



[Merit Award Lecture: Reprogramming the Liver](#)

Monday, March 12, 12:30 PM–1:20 PM, Convention Center Room 304

Lecturer: Curtis D. Klaassen, University of Kansas Medical Center, Kansas City, Kansas



**[Leading Edge in Basic Science Award Lecture:
Inorganic Phosphate Hidden Signal?](#)**

Tuesday, March 13, 7:00 AM–7:50 AM, Convention Center Room 304

Lecturer: Myung-Haing Cho, Seoul National University, Seoul, South Korea



**[Distinguished Toxicology Scholar Award Lecture:
Environmental Chemicals: From Biochemical and Molecular
Toxicology to Education and Outreach](#)**

Tuesday, March 13, 12:30 PM–1:20 PM, Convention Center Room 304

Lecturer: Ernest Hodgson, North Carolina State University, and North Carolina Agromedicine Institute, Raleigh, North Carolina



**[Translational Impact Award Lecture: Medical Toxicology Evaluations of the
2008 TVA Fly Ash Spill](#)**

Wednesday, March 14, 12:30 PM–1:20 PM, Convention Center Room 304

Lecturer: John G. Benitez, Vanderbilt University, Medical Center, Nashville, Tennessee

SOT 2012 Honorary Memberships

The Society of Toxicology awards Honorary membership to persons who are not members of the Society in recognition of outstanding and sustained contributions to advancing the science and field of toxicology. The 2012 SOT Honorary Members are Frank J. Gonzalez and Leroy Hood.

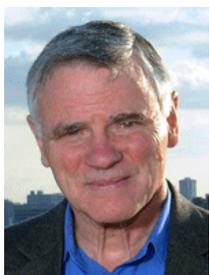
Frank J. Gonzalez



During the last 30 years, Frank J. Gonzalez has made major advances that have significantly moved the field of carcinogenesis forward. His interests in drug/chemical carcinogen metabolism led to the identification and characterization of many cytochrome P450s and phase II xenobiotic metabolizing enzymes. This interest ultimately led to his seminal studies elucidating how regulatory transcription factors modulate expression of xenobiotic metabolizing enzymes that contribute to cancer etiology, through the generation and characterization of countless knockout, transgenic, and “humanized” mouse models. Many of the mouse models generated by Dr. Gonzalez during his tenure at the National Cancer Institute have been utilized by countless investigators and have provided invaluable tools to allow for continued progress in the field of carcinogenesis. His most recent research interests have focused on applying metabolomics to bridge the gap in knowledge between genomics and proteomics. Towards this goal, he has established a center for metabolomics where he uses this approach for his own research goals that have made significant advances in our understanding of how xenobiotic metabolism drives carcinogenesis using both rodent and human models.

Dr. Gonzalez also has served as a mentor for many postdoctoral fellows, providing exceptional training that has led to the development of many scientists in the field. He has served on numerous grant peer-review panels, as editor/associate editor and on the editorial boards of many journals, has reviewed thousands of manuscripts for his peers, and has provided hundreds of invited presentations at national and international meetings to share unpublished findings that are of interest to investigators in the field of carcinogenesis. He is among the top ten “most highly cited” authors in the fields of toxicology and pharmacology, and he has held this distinction for at least the last two decades.

Leroy Hood



Leroy Hood is a renowned scientist and pioneer in systems biology and medicine. While at Caltech, Dr. Hood, along with his colleagues, developed the DNA sequencer and synthesizer and the protein synthesizer and sequencer—four instruments that paved the way for the successful mapping of the human genome. His accomplishments are many including the concept of the 4Ps in medicine—Predictive, Preventive, Personalized, and Participatory—which lead to his receipt of the prestigious Russ Prize (2011), awarded by the Academy of Engineering.

In addition to his impressive accomplishments, he is a co-founder of the Institute for Systems Biology (ISB) in Seattle, Washington. ISB was established to address the greatest challenge of twenty-first century science—understanding biological complexity. Since its founding in 2000, ISB has been a pioneering source of new knowledge, innovative technologies and computational tools, and creative ways of understanding, conducting, and communicating science. ISB is catalyzing fundamental paradigm changes in how the life sciences and medicine are practiced globally.

The Society will also welcome Dr. Hood back to celebrate our 51st Annual Meeting as the [Opening Plenary Lecturer](#); he delivered the Society's 1998 Medical Research Council (MRC) Lecture entitled "Genes and Genomes: Deciphering the Periodic Table of Life."

SOT Annual Meeting Itinerary Planner

Can't wait to get your hands on the comprehensive Annual Meeting planning tool known as the final *Program*? Well, wait no more! SOT has organized the [Itinerary Planner online](#) and [mobile app](#) (for display using your smartphone, tablet, or iPad) versions to include the featured lectures, special programs, and social events, such as luncheons and receptions, as well as the [Exhibitor Hosted Sessions](#). You also can have all the functionality of the online Itinerary Planner delivered conveniently to your tablet or iPad.

Annual Meeting Job Bank Center Provides a Cost-Effective Way for Employers and Candidates to Interact

Located in the Moscone Convention Center, Room 272, the on-site Job Bank Center offers a venue to facilitate interviews at the SOT Annual Meeting. For your convenience, printers will be available for producing hard copies of candidate profiles and position descriptions. All candidates and positions must be sought online.

The on-site Job Bank Center is available during the following hours of operation:

| | |
|---------------------|-----------------|
| Sunday, March 11 | 1:00 PM–5:00 PM |
| Monday, March 12 | 9:00 AM–5:00 PM |
| Tuesday, March 13 | 8:30 AM–5:00 PM |
| Wednesday, March 14 | 8:30 AM–5:00 PM |

Access to the online [Job Bank](#) is conveniently available, any time, via the internet. In advance of the meeting, employers will be able to make reservations for these interview rooms, allowing better scheduling for employers and candidates. For further information, please contact [Kelly Martin](#).

Education-Career Development Sessions You Should Plan to Attend

These sessions provide tools and resources to toxicologists that will enhance your near-term and long-term professional and scientific development.

- ["Career Alternatives and Transitions: New Challenges and Opportunities in Today's Job Market"](#)

[for Toxicologists,” Tuesday, March 13, 1:30 PM–4:15 PM, Room 308](#)

- [“The Art of Negotiation: A Fundamental Skill for Scientists,” Tuesday, March 13, 4:30 PM–5:50 PM, Room 307](#)
- [“Refining Your Science Communications Skills,” Wednesday, March 14, 4:30 PM–5:50 PM, Room 307](#)

Preregistered Attendees to Receive Badges Soon—Ribbons Should Have Arrived

Name badges will be mailed to all preregistered attendees by mid-February. In appreciation for serving on SOT Committees and Task Forces and as officers in the Regional Chapters, Specialty Sections, Special Interest Groups, and other SOT bodies, volunteers will receive (by separate mailing), appropriate ribbon(s) to affix to their SOT 51st Annual Meeting badges. In recognition of their generous support of SOT programs, 2011–2012 SOT Endowment Contributors will be mailed a distinctive ribbon. If you do not receive the badge or the appropriate ribbon(s) by mail, please check with the Registration Desk at the meeting. Look for the “Badge Only” signage to facilitate pickup.

“Hoops for the Endowment Fund”—Fun and Easy—Be Sure to Participate

“Hoops for the Endowment Fund” is a fun and easy way to raise funds for your favorite Endowment Fund. All the [Society Funds](#) and [Named Funds](#) that make up the [SOT Family of Endowment Funds](#) can benefit from your support and participation. All 51st Annual Meeting attendees are welcome to participate on behalf of your favorite Endowment Fund(s). Basketball hoops will be set up in Aisle 2300 of the ToxExpo Exhibit Hall so that you may shoot free-throws on-site.

Participating in this event is as easy as 1-2-3! Just take a moment to download the [“Hoops for the Endowment Fund” Participation Kit](#). It has all the information you need to register as either an individual participant or as a team (up to five players). All Regional Chapters, Special Interest Groups, and Specialty Sections—especially those with Named Funds in the SOT Endowment Family of Funds—are especially encouraged to participate both as individual and team players.

Below are a few points to facilitate your participation. You may:

- Participate as an individual or team member—or both!
- Raise contributions for the Endowment Fund (Society or Named Funds) of your choice.
- Sponsor yourself or your team.
- Begin shooting free-throws before the Annual Meeting.
- Shoot free-throws at the Annual Meeting (Aisle 2300 of the ToxExpo Exhibit Hall).
- Use the special “Hoops” Donor Forms and sample letters to collect contributions.
- Continue your efforts following the SOT Annual Meeting. The event goes through the end of

March—so you may acquire sponsors during the Annual Meeting and shoot on-site or afterwards (through March 31, 2012).

Why not get started now? Download the forms from the [“Hoops for the Endowment Fund” Participation Kit](#).



Everyone who participates will receive a “Hoops for the Endowment Fund” sticker to wear during the Annual Meeting.

The SOT Endowment Fund Board and Council would like to thank the [Toxicologists of African Origin Special Interest Group](#) for their help in launching and sponsoring this Endowment fundraising activity.

Special thanks to Calvert Labs and Charles River for sponsorship of the two basketball hoops in Aisle 2300 of the ToxExpo Exhibit Hall!

“Hoops for the Endowment Fund” Basketball Free-Throw Competition

A FUNdraiser sponsored by the
Toxicologists of African Origin (TAO-SIG)

Monday, March 12–
Wednesday, March 14
In Exhibit Hall, during ToxExpo hours

Hoop it up for the Endowment Fund!
Be sure to participate as a free-throw shooter
or sponsor (or both!) in this FUN event.

Individuals and teams welcome. Sponsorship
forms and tournament rules available at the
SOT Pavilion in the ToxExpo Hall.
Participation open to ALL SOT members AND
registered attendees at the 2012
Annual Meeting.

Come shoot some hoops and have some fun
while raising money for your favorite Endow-
ment Funds.



[SOT appreciates the generous support of our Annual Meeting Sponsors.](#)

SOT Pavilion—Full Schedule of Activities

Located in the ToxExpo Exhibit Hall, the SOT Pavilion (#1700) is your place to connect and learn about SOT programs, services, membership benefits, and more. Find out about the SOT Endowment Fund; *Toxicological Sciences*; SOT awards, and sponsored awards and fellowships; ToXchange—the SOT member network; educational programs directed across the spectrum from K–12 to throughout the toxicology career; and everything taking place at the Annual Meeting. Be sure to stop by during one of the following scheduled events for specific information on these topics, programs, or component groups:

Monday, March 12

- 10:00 AM–11:00 AM ToXchange Tutorial—Getting Started (Introductory)
Hispanic Organization of Toxicologists—Meet and Greet
- 11:00 AM–12:00 Noon Northland Regional Chapter—Meet and Greet
- 12:00 Noon–1:00 PM Diversity Endowments (Elaine Knight)
K–12 Outreach (Maureen R. Gwinn)
- 1:00 PM–2:00 PM Endowment Fund (Andy Hays, Esq.)
- 2:00 PM–3:00 PM Endowment Fund (Andy Hays, Esq.)
ToXchange Tutorial—Join the Discussion (Intermediate)
- 3:00 PM–4:00 PM *ToxSci*: Manuscript Essentials (Michael L. Cunningham, Editor-in-Chief and
an Associate Editor)
Women in Toxicology SIG—Meet and Greet

Tuesday, March 13

- 9:00 AM–10:00 AM Graduate Student Leadership Committee (GSLC Chair/Officer)—Meet and
Greet
Contemporary Concepts in Toxicology Meeting Proposal Questions
(Deborah Cory-Slechta)
- 10:00 AM–11:00 AM Hispanic Organization of Toxicologists—Meet and Greet
- 12:00 Noon–1:00 PM ToXchange Tutorial—Building your Profile Page (Basic/Intermediate)
- 1:00 PM–2:00 PM Toxicologists of African Origin (TAO) SIG—Meet and Greet
- 2:00 PM–3:00 PM North Carolina Regional Chapter—Meet and Greet
Guest Lecturer/ToxScholar (Jennifer L. Rayner and Teresa L. Leavens)
- 3:00 PM–4:00 PM *ToxSci*: Manuscript Essentials (Michael L. Cunningham, Editor-in-Chief and
an Associate Editor)
ToXchange Tutorial—Join the Discussion (Intermediate)

Wednesday, March 14

- 10:00 AM–11:00 AM ToXchange Tutorial—Building your Profile Page (Basic/Intermediate)
Hispanic Organization of Toxicologists—Meet and Greet
- 2:00 PM–3:00 PM ToXchange Tutorial—Join the Discussion (Intermediate)
North Carolina Regional Chapter—Meet and Greet

3:00 PM–4:00 PM *ToxSci*: Manuscript Essentials (Michael L. Cunningham, Editor-in-Chief and an Associate Editor)
Women in Toxicology SIG—Meet and Greet

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

Monday, March 12 9:00 AM–4:30 PM

Tuesday, March 13 8:30 AM–4:30 PM

Wednesday, March 14 8:30 AM–4:30 PM

SOT members are invited to visit and receive a copy of the deluxe 50th anniversary publication, the [*Society of Toxicology: The First Fifty Years*](#). The book is a collection of stories written by various members and leaders of the Society and the publication contains sections of photographs that cover the last 50 years. These vignettes and photos are priceless and are yours free-of-charge. The deluxe books are also available at the 25-Year (or More) Member Reception and the Member Business Meeting.

2012 ToxExpo Exhibit Hall Hours

[ToxExpo](#) is the profession's largest trade show of its kind anywhere. Attendees and exhibitors from around the globe gather to exchange ideas and debut cutting-edge products, services, and technologies. Toxicologists and industry professionals have the unparalleled opportunity to gain first-hand knowledge of the latest advances from more than 360 exhibitors.

The following are the exhibit hours for the 2012 ToxExpo:

Monday, March 12 9:00 AM–4:30 PM

Tuesday, March 13 8:30 AM–4:30 PM

Wednesday, March 14 8:30 AM–4:30 PM

ToxExpo Time!

In addition to the standard Exhibit Hall hours and poster presentation times, one hour of dedicated ToxExpo Time has been allotted in the scientific program for attendees to visit with exhibitors. ToxExpo Time will take place on Wednesday, March 14, from 1:00 pm–2:00 pm.

More than 40 [Exhibitor Hosted Sessions](#) will be held during the Annual Meeting.

Use the [ChirpE Mobile Application for ToxExpo](#) to access ToxExpo information and browse a real-time ToxExpo floor plan, search for 2012 exhibitors, products, and services, and virtually interact

with these exhibitors.

ToxExpo Prize Drawings \$500

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

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

San Francisco Roundtable Focuses on SOT Education Summit Recommendations for Toxicology Professional Needs and Training

You have the opportunity to contribute to the advancement of SOT programs related to professional needs and toxicology training by participating in the roundtable “The Future of Toxicology Education: Outcomes of the Toxicology Educational Summit” on Wednesday, March 14, 2012, from 12:00 noon–1:20 pm during the SOT 2012 Annual Meeting in San Francisco, California.

Over more than a year, the Education Summit Organizing Team has been reviewing reports, analyzing data, eliciting and reviewing input from toxicologists, and discussing how SOT can best assist in preparing trainees and professionals to be well-prepared for their careers, whether in academia, industry, government, or in other employment areas where toxicology is vital. These efforts culminated in the Education Summit October 20–21, 2011, in Baltimore, Maryland. Toxicology thought leaders gathered to develop recommendations to improve toxicology education and training from the undergraduate across the toxicology career spectrum. In addition to review and discussion of recommendations during the Annual Meeting roundtable, the final report from the Summit will be widely disseminated.

The roundtable is chaired by Aaron Barchowsky, chair of the Education Summit Organizing Team. Members of that group represented the Education Committee, Career Resource and Development Committee, and the Professional Needs Assessment Task Force, including Gary P. Carlson, Mary Beth Genter, Dori R. Germolec, Stephen H. Safe, and Courtney E.W. Sulentic. SOT committees will be charged with using the recommendations to direct committee activities.

Education Summit breakout group reports and recordings of presentations are available on the [Education Summit](#) webpage. The Summit was sponsored by SOT with assistance from National Institute of Environmental Health Sciences, including Director’s Funds and Grant Number R13ES021130.

SOT Mentors Young Scientists through Annual Meeting

Undergraduate Support

The SOT commitment to mentoring young scientists is evident in the ways that the Society supports undergraduate participation in the SOT Annual Meeting. These include four sources of travel support, complimentary meeting registration, and special activities for undergraduate students.

The Education Committee reviews applications for the Pfizer Undergraduate Travel Award and selects recipients from the outstanding applicants based on their meeting abstracts, academic record, and statements from the applicant and mentor. The 2012 awardees include Ashley R. Press, High Point University (research conducted at Rutgers University); Darien Shapiro, University of Utah, Qi Wang, Rutgers University; Brittany M. Winner, Sam Houston State University; and Frances Xin, St. Olaf College (research conducted at Louisiana State University). Pfizer toxicologists host these awardees at special events during the meeting.



Program participant learns about graduate school opportunities

The Perry J. Gehring Diversity Student Travel Award provides special recognition and travel support for an undergraduate or a graduate student who participated in the SOT Undergraduate Minority Program within the last 3 years and is presenting an abstract at the meeting. Alba Katiria Gonzalez Rivera from the University of Puerto Rico, Arecibo, a 2009 program participant, is the 2012 recipient. University of Washington graduate student Katie M. McDonald, a 2010 program participant, will receive Honorable Mention. The Committee on Diversity Initiatives (CDI) selects and recognizes the recipients of this Endowment award.

Recipients of the two awards mentioned above will display identifying ribbons on their posters. SOT Annual Meeting attendees are encouraged to look for these posters and discuss their work with these scientists.

CDI has awarded travel support to 37 undergraduate students and six faculty advisors from institutions all over the United States. One award program, now in the 23rd year, is directed to students from ethnic groups underrepresented in the sciences and their advisors. Other funding supports students from schools receiving low levels of federal funding in science, math, and engineering. The funded students will be engaged in the SOT Undergraduate Education Program from Saturday, March 10, through midday Monday, March 12. Two alumni of the undergraduate minority program are particularly important to the program this year, CDI Chair Jennifer L. Rayner, a 2001 program participant, and opening speaker Antonio T. Baines, who attended in 1993.

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

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

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

The Graduate Student Leadership Committee hosts this [mixer](#) opportunity for students and postdoctoral scholars to gather, to meet new colleagues, and to reestablish relationships in an informal atmosphere at the beginning of the SOT 2012 Annual Meeting. The mixer will be held on Sunday, March 11, 7:30 pm–9:00 pm, Marriott Marquis, Yerba Buena Salon 9. Tickets are obtained at no cost either by registering for this event on the [Annual Meeting Registration Form](#) or by requesting a ticket on-site at the Registration Desk. A ticket and meeting badge are required to attend. Complimentary refreshments and a cash bar are available. For additional information, please contact [David Rossé](#).



SOT K–12 Activities Emphasize Toxicology Outreach for Scientists

The SOT Education K–12 Subcommittee wants you to find it easy to take your toxicology outside the workplace to engage students and inspire them to consider careers in toxicology. From the [special outreach event](#) at the Lawrence Hall of Science, University of California, Berkeley, on Saturday, March 10, to showcasing example programs during the Toxicology Education and Policy Poster Session Tuesday, March 12, in the ToxExpo Exhibit Hall from 9:00 am–12:30 pm, colleagues will be providing you with many opportunities at the SOT meeting to learn how to become more engaged in outreach activities.

Toufan Parman is the coordinator for the event at the Lawrence Hall of Science. Although SOT is not providing transportation from the Convention Center, we encourage early meeting arrivals to find their way to the museum to volunteer (contact [Betty Eidemiller](#)) or to participate. You can take BART to the downtown Berkeley station and then the AC Transit #65 bus; more information is found on the [Museum website](#). Apart from the three activity centers and interactive drama hosted by SOT, the museum has a planetarium and many outstanding exhibits to explore, including Tony Hawk Rad Science, Imagnate, and an earthquake simulator.



Meet the Toxicologist! Joanna Matheson, member of the K–12 Subcommittee, helped organize the 2011 and 2012 K–12 events.



A Koshland visitor explores the toxicology display.

SOT members are invited to stop by the High School Student Poster Exposition near the SOT Pavilion in ToxExpo on Tuesday and Wednesday, March 13 and 14, to discuss research with young scientists. You also can meet K–12 Subcommittee chair Maureen Gwinn at the SOT Pavilion Monday, March 12, from 12:00 pm–1:00 pm for informal conversation and sharing of ideas.

Even beyond the activities at the SOT Annual Meeting, the K–12 Subcommittee is working to make it easier for every SOT member to be involved in toxicology outreach in his or her neighborhood and region. Almost every Regional Chapter has a K–12 outreach contact, and the contacts are

meeting with the K–12 Subcommittee to synergize efforts to support colleagues by sharing successful activities, resources, and ideas. Watch for more information about these plans. In addition, another group is developing an easy-to-use website that will provide access to age-appropriate/graded toxicology outreach materials, for a wide variety of activities (e.g., videos, presentations, hands-on activities, “how-to” guides). We will be soliciting your ideas for this site. Both of these initiatives will be featured in posters in the Toxicology Education and Policy poster session mentioned above. Inspiring students early to think about toxicology as a career is important to the future of toxicology, and every toxicologist can find a way to share their discipline through formal and informal education activities.

Science News

Scientific Program Committee to Hold “Best Practices” Webinar March 22

Excellent session proposals are the backbone for the SOT Annual Meeting, and the Scientific Program Committee (SPC) is offering the opportunity for everyone to discuss strategies for submitting successful proposals. The SPC values the input we receive from the membership, in particular the Specialty Sections, Special Interest Groups, SOT Committee’s and Task Forces with respect to the Annual Meeting Program.

Therefore, please mark your calendar for Thursday, March 22, 2012, to participate in a [“Best Practices” Webinar](#) from 12:00 noon to 1:30 pm EST. The SPC is continuing this event based on the success of the inaugural webinar that took place in 2011.

We anticipate this webinar will continue and expand the dialogue, provide an overview of the submission, review, and decision process, and answer some of the frequently asked questions related to proposal submission. We are aware of the exciting opportunities as well as challenges for the proposal developers and would like to discuss how we can continue to improve this process and make our SOT activities even stronger.

This webinar will provide insight into the SPC review process including proposal feedback, the distinction between tentative vs. final acceptance, and the sponsorship and endorsement process and what this means to each front-line review group (SS/SIG/Committee/Task Force).

We hope that you'll set aside some time to participate in this interactive session; specific webinar details including the dial-in information will be posted to ToXchange and sent to the reviewer group, presidential, or chairperson chain. Should you have any questions, please feel free to contact [SOT Headquarters](#) at 703.438.3115.

SOT Sponsored Non-SOT Meetings of Other Science-Based Organizations

SOT is committed to strengthening partnerships with other scientific and health-based organizations and sponsors meetings that may be of interest to you. Please see the information below and contact the organizers directly if you wish to participate.

Isocyanates Health, Past, Present, and Future—November 1–2, 2012

A meeting focused on “Isocyanates Health, Past, Present and Future” will be held November 1–2, 2012, at the National Institutes of Health (NIH) Natcher Conference Center, Bethesda, Maryland. The purpose of this international multidisciplinary conference is to identify and discuss the latest knowledge and important issues on the health effects of isocyanates, including current best evidence about exposure monitoring, environmental controls, and clinical management. SOT members are being extended a discount to attend. In addition to SOT, the meeting sponsors include the National Institute of Environmental Health Sciences (NIEHS), US Department of Health and Human Services (DHHS), NIH, National Cancer Institute (NCI), National Institute for Occupational Safety and Health (NIOSH), American College of Occupational and Environmental Medicine (ACOEM), and the Canadian Institute for the Relief of Pain and Disability (CIRPD). For additional information, contact conference@cirpd.org and/or visit the [Isocyanates Health conference website](#).

Mechanisms of Neurotoxicity and Implications for Neurological Disorders (Barcelona)—July 13

Update: SOT members are entitled to half off the regular registration fee.

[Visit the FENS Forum 2012 website](#).

To see a full list of recently sponsored meetings, please see the latest edition of the [SOT Science News Alert](#)

Eurotox2012—Early Bird Registration Extended to February 29: CE Courses June 17, 2012

The 48th EUROTOX Congress, celebrating 50 years of toxicology organizations in Europe, will be held June 17–20, 2012, at the Stockholm Waterfront Congress Centre. The scientific program is designed with input from toxicologists from all parts of Europe and around the globe and will

incorporate cutting-edge toxicology and safety science. The Continuing Education Courses will be held on Sunday, June 17. Six different courses cover current toxicological/risk assessment issues and are structured to promote active participation. These courses include Epigenetics for toxicologists; Chemical hazard assessment: from theory to practice; New challenges in modeling human exposure to chemicals; Risk assessment of combined exposures to multiple chemicals; Risk assessment of immunotoxicity for chemicals; and Chemical safety assessment for the REACH 2013 registration deadline; what have we learnt from registrations submitted in 2010. Visit the [EUROTOX Congress website](#) to discover the wide range of topics representing the latest scientific and regulatory developments in toxicology. Register before February 29, 2012, to benefit from the Early Bird Rates. For additional information on submitting an abstract, please visit [Eurotox2012](#).

Annual Meeting Themes Are Announced—Proposal Deadline April 30

Do you have an idea for a scientific session or Continuing Education (CE) course that should be presented at the 52nd SOT Annual Meeting in San Antonio? It is not too early to start thinking about ideas and making plans. The timely themes and CE target areas have been announced and are provided below.

Application of Systems Biology to Toxicology: Recent technological advances allow the study of multiple interacting networks in cellular systems and facilitate studies of how such complex networks respond to toxicants. The integrated application of genomics, proteomics, metabolomics, computational modeling, and bioinformatics to cell-specific and organ-specific toxicity as well as to broader questions in toxicology continues to develop. Application of these technologies will provide for systems to improve predictive toxicity tools, enable more complete understanding of the mechanisms underlying the toxicity of pharmaceutical agents and environmental chemicals, and facilitate the interrogation of disease etiology and prevention.

Biomarkers for Exposure Assessment, Safety Evaluation, and Translational Medicine: The development of biomarkers that can be applied to assessing exposure, predicting toxicity, defining mechanisms of toxicity, and improving translation of preclinical and clinical toxicity has impacted how toxicology research is carried out. Developing the basic biology and analytical tools to support biomarker identification, development, and validation is critical to the successful incorporation of biomarkers in all areas of toxicology research.

Effects of Nanomaterials on Biological Systems: Research in the toxicology of nanomaterials has expanded along with the application of this technology in material science research and development. Factors that influence the potential for toxic responses and identification of relevant target organs for exposure and toxicity are critical to the development of cogent and reliable risk assessment for these materials. Basic, applied, and regulatory science must converge in order to address the needs for this class of materials that will advance understanding of potential impacts on human and environmental health.

Molecular Basis of Genetic Variability and Susceptibility to Toxicants: Many toxicants alter gene

expression and many types of toxicities can be affected by variation in gene expression or genetic polymorphisms. Similarly, age-dependent gene expression can influence toxic responses and epigenetic perturbations influence heritable gene expression. Both genetic and epigenetic differences can influence the individual's response to pharmaceuticals and environmental chemicals. It is recognized that single nucleotide polymorphisms that directly affect genetic differences on rates of metabolism, but for other responses, such as behavior, the connections are more complex. Linking genetic, epigenetic, and environmental variables with exposure data is essential to accurately define potential beneficial or adverse effects of chemicals and to assess disease susceptibility and prevention.

Regulatory Science: Advancing New Approaches For Hazard Identification and Risk

Assessment: Regulatory science encompasses the science(s) used to evaluate the safety, efficacy, quality, and performance of any product. Advancements in regulatory science will facilitate the development and evaluation of innovative new products. As we modernize the tools used to assess the potential risks from drugs, environmental chemicals, food, and other products, we must also consider the global applications of such methods and strategies to drive better risk assessment decisions. This theme is intended to foster session content that will provide for perspective on ongoing efforts to improve hazard identification and risk assessment with emphasis on how best to coordinate these efforts for more consistent regulatory practices around the world.

Continuing Education (CE) Target Areas

Developmental Origins of Health and Disease (DOHaD): There is a large and active area of research demonstrating that *in utero* early life exposures play a determining role of defining the risk of later disease. This has profound and far-reaching implications not only for disease and its prevention but also for health promotion.

Molecular Imaging: This topic describes the advancement of molecular imaging technologies as they are applied to the study of chemical mode of action and toxicity. It describes how molecular imaging and analysis approaches can be used to visualize detailed changes in cells and tissues. It describes how existing technologies measure changes in living animals in real time to follow the development and progression of toxicant-induced tissue damage and apical toxicities.

Personalized Toxicology: This topic describes the emerging science involved in personalized investigation of the genome that not only enables highly efficacious targeted therapeutics but also facilitates predictive translational toxicity screening. Personalized toxicology represents a shift to a focus on being more proactive, preventive, and predictive in terms of risk assessment and therapeutic screening strategies as opposed to just on treatment and disease.

Regardless of whether a scientific session or CE course is related to a scientific program theme, or the CE Target Area, all proposals are evaluated on their merit. All topics for proposal submission are welcome and will be reviewed under the current criteria for their timeliness and relevance to the field of toxicology. If you wish to submit a proposal for consideration, we encourage you to begin working with your Specialty Section and Special Interest Group.

We hope you will consider developing a proposal for the 52nd Annual Meeting in San Antonio, Texas in 2013! [Session proposal submissions](#) are due by April 30, 2012.

Advance the Science of Toxicology: Consider Organizing a CCT Meeting

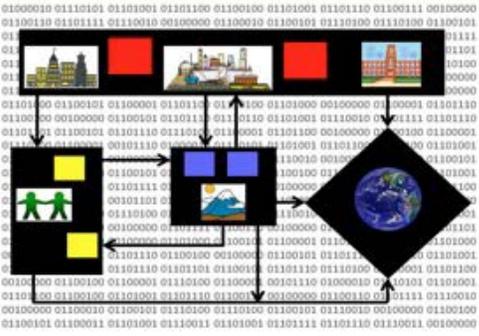
[Contemporary Concepts in Toxicology \(CCT\) Meetings](#) expand the opportunities and forums for members to engage in the exchange of ideas and information relevant to toxicology. CCT meetings are one- to two-day focused, open registration, scientific meetings in contemporary and rapidly progressing areas of toxicological sciences.

If you think that your research area could be enhanced by thought leader collaboration or that public health and safety could be improved by disseminating your research findings more broadly; please consider organizing an SOT CCT Meeting. The CCT Conference Committee and the SOT Headquarters staff are prepared to help move your meeting forward.

CCT Meetings focus on a wide range of topics and future CCTs address the following:

- [Building for Better Decisions: Multiscale Intergration of Human Health and Environmental Data](#)—May 8–11, 2012, Research Triangle Park, North Carolina, United States
- [PPTOX III: Environmental Stressors in the Developmental Origins of Disease: Evidence and Mechanisms](#)—May 14–16, 2012, Paris, France
- FutureTox: Building the Road for the 21st Century Toxicology and Risk Assessment Practice—October 18–19, 2012, Arlington, Virginia, United States

In order to sustain the quality standards of the Society, only meetings in which SOT maintains scientific and administrative control will be considered. Meetings developed and administered by other organizations may be eligible for endorsement by the Society of Toxicology.



Announcement

Building for Better Decisions: Multi-Scale Integration of Human Health and Environmental Data

WHY: Toxicologists and other environmental scientists now face the challenge of integrating increasingly complex data to translate our work, and predict adverse outcomes in various applications.

WHAT: An SOT Contemporary Concepts in Toxicology Workshop: An open, international conference featuring breakout groups related to exposure, dose-response, ecosystem impacts, life cycle/cost-benefit, and information technology that provide an opportunity for scientific discussion and debate. In addition, abstracts can be submitted for poster presentations to facilitate discussions and develop recommendations.

WHO: Sponsored by the SOT and US EPA with:

| | | |
|----------|-------|----------------------------|
| DOD ACE | SETAC | American Chemistry Council |
| DOE PNNL | SRA | Environ Corp. |
| NRC | ISES | OGC |
| USDA | iEMSS | OpenMI |
| US FDA | | TERA |
| USGS | | |

WHEN: May 8–11, 2012

WHERE: US EPA Campus, Research Triangle Park, North Carolina

**For complete information
(Agenda, Abstract Submission,
Registration, etc.), visit:
[https://www.toxicology.org/ai/meet/
cct_b4bd.asp](https://www.toxicology.org/ai/meet/cct_b4bd.asp)
**Deadline for Abstract Submission is
March 23, 2012****

Legislative and Regulatory Update

SOT Members Selected As Nominees to Two Government Agencies

Two Working Groups of the SOT Council have selected SOT members to forward to two government agencies for consideration as advisory panel members. The following SOT members have been selected as possible nominations.

Scientific Advisory Committee on Alternative Toxicological Methods (SACATM) National Institute of Environmental Health Sciences

- | | |
|--------------------|----------------|
| David Amacher | Brandon Jeffy |
| Anthony Bahinski | Stefan Pfuhrer |
| Harvey Clewell III | Laura Plunkett |
| Erica Dahl | Jean Regal |

Bruce Fowler

The US Environmental Protection Agency Science Advisory Board Chemical Assessment Advisory Committee (IRIS)

| | |
|-----------------------|-----------------|
| Daniel Acosta Jr. | Daland Juberg |
| James Bruckner | Lawrence Lash |
| Harvey Clewell III | Mark Miller |
| George Corcoran | Anthony Scialli |
| Steven David Holladay | Ladd Smith |

While SOT has forwarded these members as potential candidates for these two advisory panels, the agencies now assume responsibility for selecting the finalists and the process can take a few months to complete.

SOT continues to encourage members to submit their names to serve on the federal agencies government advisory panels when requested via email. Self-nominations are acceptable or you may choose to nominate a colleague.

SOT Submits Comments on Administration’s Bioeconomy Request for Information

With the help of three Specialty Sections of the Society, including Drug Discovery Toxicology, Risk Assessment, and Regulatory and Safety Evaluation, SOT submitted a set of comments to the Office of Science and Technology Policy to address key scientific “grand challenges.” The Request for Information followed the announcement last September that the Obama Administration wanted to launch a National Bioeconomy Blueprint that would detail Administration-wide steps to harness biological research innovations to address national challenges in health, food, energy, and the environment.

While SOT did not address all the questions that were put forward in the Federal Register notice of October 11, 2011, SOT did respond to questions concerning workforce development/professional training needs, critical challenges that prevent high-throughput approaches from accelerating bioeconomy-related research, regulations that are unnecessarily slowing or preventing bioinnovation, and challenges that new or emerging technologies pose to the existing regulatory structure and ways that agencies can address those challenges. For more details, see the [comments submitted by SOT](#).

SOT Member Bernard Goldstein Testifies on the Public Health Implications of Unconventional Gas Drilling Before House

Subcommittee

Bernard D. Goldstein, longtime SOT member and Professor Emeritus of Environmental and Occupational Health and Dean Emeritus of the University of Pittsburg Graduate School of Public Health, presented testimony Wednesday, February 1, 2012, before the House Energy and Environment Subcommittee on Science, Space and Technology on US Environmental Protection Agency Hydraulic Fracturing Research.

Goldstein noted that the overall theme of his testimony is that, “It is in the nation’s and in industry’s best interests to maximize the yield of natural gas while minimizing the short-term and long-term environmental and public health costs,” and urged the committee to address the possibility of adverse public health impacts associated with unconventional gas drilling. Pointing to research he conducted of those who testified against drilling to the Natural Gas Subcommittee of the Secretary of Energy’s Scientific Advisory Board, he noted that about two-thirds cited health concerns. He went on to say that the public’s concerns about potential health effects is legitimate, noting that there are many agents of toxicological concern in the fracking mixture and “many other agents about which we know too little.” He also pointed out that as far as he knows, there is no study underway which thoroughly explores exposures and outcomes related to unconventional gas drilling activities. He said, based on his experience as a doctor and a toxicologist, “there is genuine cause for concern and the current lack of almost any support for research directly related to the health effects of unconventional gas drilling is shortsighted and counterproductive.” He went on to urge Congress to update certain mixtures studies by providing funding to apply modern toxicological advances to the chemical mixtures that are being used or result from hydraulic fracturing.

Referring to an analysis that he and two other colleagues produced for publication in the *Environmental Health Perspectives*, he noted that of the 52 members appointed to two state commissions and the federal government, they could not identify a single person with a background in any health field. He also pointed out that the Department of Health and Human Services wasn’t among the three federal agencies specified to be involved in the ongoing federal effort. He said, “Ignoring the public health implications of unconventional natural gas extraction is not going to work.” He concluded by saying “It is in the best interest of the nation to invest in understanding the potential adverse health consequences of this activity. The most cost-effective time, and in fact, the only cost-effective time to make this investment is now rather than to wait until the inevitable clamor for such research when diseases begin to appear that are associated with natural gas drilling activities.”

US FDA to Host Public Meeting on Tobacco Research and US FDA’s Priorities

The US Food and Drug Administration (US FDA) will host a public meeting on Wednesday, February 29, 2012, from 9:00 am–5:00 pm at the US FDA’s Center for Tobacco Products headquarters in Rockville, Maryland. The title of the all-day session is, “FDA’s Center for Tobacco Products Research Program: Expanding Research Base for Tobacco Product Regulation.” SOT has been asked to participate along with several other scientific organizations to discuss US FDA’s tobacco research

priorities as well as to get feedback from the research community on those priorities. US FDA officials also are interested in learning the best ways to reach researchers who may be new to tobacco research and how to attract established researchers from various disciplines into tobacco-related research. The meeting will be webcast and more details are available on the [Tobacco Products Meeting website](#).

Position Advertisement(s)

Safety Manager/Senior Safety Manager—Novartis



Job ID #93419BR

Main Responsibilities

- Establishes and assesses the safety (Human Food Safety, Target Animal Safety, Worker/User Safety, Environmental Safety) of Veterinary Medicinal Products during research, development, registration, and marketing.
- Serves as Sponsor Representative and plans, initiates and monitors GLP safety and toxicity studies with various internal and contract laboratories.
- Assumes global responsibility for the safety part of registration dossiers, prepares and maintains Safety Expert Reports and Safety Assessments according to applicable international regulatory requirements.
- Acts as Safety Representative on global project teams and leads and/or acts as team member in safety expert teams.
- Interacts closely, as Safety Representative, with regulatory authorities and industry organizations.

Requirements

- University degree (PhD preferred, DVM with research experience or MS with significant relevant work experience are also encouraged to apply).
- Broad experience in toxicology with a +5 years experience in a relevant position. Certification as DABT or European Registered Toxicologist is an asset.
- Experience in the preparation of regulatory documents for submission and in interacting with health authorities (e.g., US FDA CVM, EMA CVMP, US EPA, JMAFF) is preferred.
- Experience with planning, running and/or contracting regulatory toxicology, target animal safety and residue depletion studies under GLP.
- Proven experience with the principle of risk assessments in scientific and decision-making processes.
- Team player and strong communicator in a global environment. Excellent verbal and written communication skills in English.

Novartis Animal Health offers competitive benefits and a pay for performance compensation

structure. Please [apply online](#) at or mail/fax a resume and cover letter to:

Novartis Animal Health, Attn: Human Resources
3200 Northline Ave. Suite 300
Greensboro, NC 27408

Fax: 336.387.1403