



National Capital Area Chapter
Society of Toxicology Newsletter
Electronic Edition

March 2015

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M. Biggs, Editor

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CHAPTER MISSION STATEMENT

The National Capital Area Chapter of the Society of Toxicology (NCAC-SOT) was established to provide a regional focus for scientists of all disciplines interested in toxicology. The Chapter acts to:

- Sponsor and co-sponsor symposia on current issues in toxicology
- Provide annual awards to an outstanding student and postdoc in toxicology to assist in attending the annual meeting of the SOT
- Maintain communication with the National SOT regarding current toxicology and regulatory concerns
- Sponsor Regional Chapter events at the SOT Annual Meetings

PRESIDENT'S MESSAGE

NCAC-SOT,

As National Capital Area continues to receive wintery weather, we look forward to warmth and sunny spring days at the upcoming Society of Toxicology's 54th Annual Meeting in San Diego, California, on March 22-26, 2015. Hopefully, many of our members will have the opportunity to travel to San Diego to participate in the meeting, reconnect with friends, and build new collaborative efforts. The Annual Meeting provides opportunities to learn from your colleagues about their latest scientific breakthroughs in the field of toxicology, as well as from nationally and internationally recognized leaders who will expand your scientific horizons. I look forward to seeing each of you.

At the National Meeting the NCAC-SOT will once again be holding a joint reception with the North Carolina Regional SOT Chapter. This mixer was a great success in San Antonio and provided an opportunity to expand our networking. The event will be held on Monday March 23 at the Karl Straus Brewing Company from 5:30 to 7:30pm. I know everyone's schedule books up quickly, but please plan to join us!

And lastly, we have had a terrific increase in membership over the last year. This is a testament to the Society as a whole and to the active member in the NCAC-SOT. Let's keep this great momentum! I challenge each of you to invite an SOT member who is not yet a part of the NCAC-SOT to join us at the social event in San Diego. By extending our membership and recruiting new active members, we can increase the frequency and impact of our local chapter events.

Warmest regards,

Mark Miller
NCAC-SOT President

GRADUATE STUDENT REPRESENTATIVE'S MESSAGE

Greetings NCAC-SOT Students,

The 54th SOT Annual Meeting and ToxExpo will be March 22-26, 2014 in San Diego, California. After all of the cold weather we have had in the region over the past few months, we are definitely looking forward to enjoying warmer weather. When you register for the meeting, do not forget to sign up for the Student and Postdoctoral Scholar Events, such as the Student/Postdoctoral Mixer and the In Vitro Toxicology Lecture and Luncheon for Students. Additional details and other student events can be found at:

<http://www.toxicology.org/AI/MEET/AM2015/studevent.asp>. We look forward to seeing you in San Diego.

We highly encourage student participation in NCAC-SOT. This gives you the opportunity to network with professionals for academia, government, and industry as well as apply for NCAC-SOT awards. If you have any questions about how to get more involved with the NCAC-SOT regional chapter contact us at sot.ncac.officers@gmail.com. You can also find us on ToxChange or follow us on Facebook (SOT National Capital Area Chapter) and Twitter (SOTNCAC).

Sincerely,

Suzanne N. Martos
NCAC-SOT Student Representative

POST-DOCTORAL REPRESENTATIVE'S MESSAGE

Hello NCAC-SOT Postdocs,

The 54th Annual Society of Toxicology meeting in San Diego, CA is right around the corner. Postdoctoral participation is crucial for the success of our national meetings and provides a great opportunity to share your work with other SOT members. Don't forget to sign up for some of the postdoc-specific activities including the Postdoctoral Assembly Luncheon, the Student/Postdoc Scholar Mixer, and the In Vitro Toxicology Lecture and Luncheon. The Chat with an Expert program is a lot of fun and provides an excellent networking opportunity for postdocs. Please make sure to check out the complete list of activities at the following link: <http://www.toxicology.org/AI/MEET/am2015/studevent.asp>

If you have any questions or suggestions don't hesitate to contact me (chad.brocker@nih.gov).

Have a great spring and I look forward to seeing everyone in San Diego!

Sincerely,

Chad Brocker
NCAC-SOT Postdoc Representative

NCAC-SOT MEMBERSHIP

Did you remember to renew both your SOT and NCAC memberships this year?? Annual membership fees for NCAC-SOT are only \$25 for regular memberships and \$10 for full-time students. These negligible fees are used to fund our symposium each year and to support a myriad of student activities, including student awards, travel supplements, and K-12 outreach.

If you have not yet renewed your regional chapter membership, please do so today! You can do so online at <http://www.toxicology.org/script/loginredirect2.asp?page=dues>, or just fill out and mail in the membership application form on the next page. It's never too late to renew your NCAC-SOT membership for 2015!



National Capital Area

MEMBERSHIP APPLICATION

Name: _____

Affiliation: _____

Address _____

City: _____

State: _____ Zip Code: _____

Area Code: _____ Phone: _____ FAX: _____

E-mail: _____

Membership Type _____ Full Member (\$25) _____ Student (\$10)

Please check the most appropriate responses:

SOT Member	Highest Degree Attained		Type of Affiliation
_____ Yes	_____ A.S.	_____ M.P.H.	_____ Academia
_____ No	_____ B.A.	_____ M.S.	_____ Consulting
	_____ B.S.	_____ M.A.	_____ Contract Lab
	_____ D.V.M.	_____ Ph.D.	_____ Government
	_____ D.V.M./Ph.D.	_____ Sc.D.	_____ Industry- Chemical/Petroleum
	_____ M.D.	_____ V.M.D.	_____ Industry- Pharmaceutical
	_____ M.D./Ph.D.	_____ V.M.D./Ph.D.	_____ Industry- Other
			_____ Other- _____

Please complete the information above and send with a check, money order or credit card (payable to National Capital Area Chapter SOT, no POs) to the address below. The NCAC SOT will review your application, and you will be notified within 30 days. Those not accepted will receive a full refund. Current RC members: please do not use this form since your renewal dues are billed annually through SOT.

Payment Type: Money Order _____ Check _____ Credit Card _____

Credit Card # _____ Exp date _____

Name on Card _____

Signature _____

Please send form as a pdf to:
Nancy Beck, Treasurer
Nancy_Beck@americanchemistry.com

If paying by check, please send to:
Society of Toxicology, ATTN: Ashley Pomper
1821 Michael Faraday Drive, Suite 300,
Reston, VA 20190

NCAC-SOT OUTGOING OFFICERS

NCAC-SOT would like to thank the outgoing officers for their service. Thank you Bruce Fowler (Past President), Erik Janus (Secretary), Melanie Biggs (Councilor/Newsletter Editor), Chad Brocker (Post-Doc Rep), and Suzanne Martos (Grad Student Rep) for your years of service to our chapter!

NCAC-SOT NEWLY ELECTED OFFICERS

We would like to congratulate and welcome the newly elected officers for 2015-2016:



Erik Janus, MS (Vice President/President-Elect)

Erik Janus is the President and Managing Member of M³ Technical & Regulatory Services LLC, a consulting firm offering technical and analytical services in a wide variety of areas, including environmental health science, regulatory toxicology and alternatives to animal testing. Mr. Janus is an environmental health sciences professional with over 20 years of experience in a wide variety of public and private sector roles. Early on, he learned how to collect and manage different streams of toxicology studies, contaminant and product safety data (human toxicity, ecotoxicity, environmental fate and transport, safety data sheets) within human health risk and environmental risk models in support of regulatory submissions. Ever since, he has provided expert regulatory support, policy analysis and technical services for a number of different groups regarding the regulatory management of chemicals and products of nanotechnologies as well as emergency response and planning for chemical releases. Most recently, he worked on a wide range of regulatory, human health, toxicity, exposure and risk assessment issues of interest to the crop protection, consumer goods and chemical industries. Prior to then, Mr. Janus served in technical positions for federal and state government agencies, the Johns Hopkins Bloomberg School of Public Health and the National Wildlife Federation and has published and/or presented in a number of different areas, including “endocrine disruption” science and policy, computational toxicology, risk assessment science and policy, public health chemical emergency preparedness, and environmental health science and policy. Mr. Janus has successfully served as Secretary of the National Capital Area Chapter of Society of Toxicology since 2010.



Kelly Brant, MPH, PhD (Secretary)

Dr. Brant is a toxicologist in the Center for Tobacco Products at the Food and Drug Administration. She received her Master of Public Health in 2000 and doctorate in Toxicology in 2005 from the University of Michigan. Dr. Brant was a postdoctoral fellow at the University of Pittsburgh from 2006-2009 where she studied the effects of metals exposure on lung function. She then spent five years as a Research Assistant Professor at the University of Pittsburgh where her research interests continued in lung injury and respiratory dysfunction prior to joining the FDA in 2014. Dr. Brant is author/co-author on 17 publications. She has been active in the Society of Toxicology (SOT) and is currently a member of the SOT Regional Chapter Communication and Collaboration Committee. Dr. Brant has also been very active in the Allegheny-Erie Regional Chapter of SOT, serving as postdoctoral representative (2008-2009), President (2010-2011) and Councilor (2011-2014).



Gertrude-Emilia Costin, M.B.A., PhD (Councilor)

Dr. Gertrude-Emilia Costin is a Toxicologist and Study Director at the Institute for In Vitro Sciences, Inc. (IIVS) since 2007, where she is in charge of a wide range of safety and efficacy commercial studies and of several Research & Development projects. She is also involved in educational workshops focused on non-animal research and testing using a wide array of in vitro assay systems to assist the needs of pharmaceutical, cosmetic and personal care industry, as well as of chemicals manufacturers. She received her Ph.D. (Cum laude) from the Institute of Biochemistry of the Romanian Academy in 2001, and her M.B.A. from Aspen University, Aspen, CO, USA in 2010. Dr. Costin was a postdoctoral fellow at The National Institutes of Health, National Cancer Institute, Laboratory of Cell Biology, Pigment Cell Biology Section (2001-2005). She is author/co-author of 31 peer-reviewed articles and 2 book chapters. She has been a member of the SOT since 2011.



Shelby Skoog, PhD (Post-Doc Rep)

Ms. Skoog is currently finishing her PhD as an NSF-FDA Scholar-in-Residence program participant where she has been conducting research in the Center for Devices and Radiological Health on *in vitro* biocompatibility assessment of micro- and nanostructured surfaces for medical device applications. She will receive her doctorate from the Joint Department of Biomedical Engineering at the University of North Carolina and North Carolina State University in April 2015. She has also started an ORISE postdoctoral fellow position at the FDA to assess the biological impact of polymeric degradants evolving from biodegradable medical devices. Ms. Skoog is the author/co-author of 9 peer-reviewed research articles and 3 review articles/chapters. She has been a member of SOT since January 2014 and has participated in the National Capital Area Chapter and the Medical Device and Combination Product Specialty Section, where she was awarded the MDCPSS Graduate Student Travel Award for best abstract for the 2014 Annual Meeting. In graduate school, she volunteered for a number of scientific outreach programs and served as an organizer for the “Science Saturday” outreach program with the North Carolina Museum of Natural Sciences. Ms. Skoog looks forward to serving as a liaison between the national SOT Postdoctoral Assembly and postdoctoral fellows in the region on current initiatives and opportunities relevant to postdoctoral career development. She will advocate and encourage postdoctoral fellow participation in NCAC regional chapter activities, including symposia and outreach events.

Georgina Harris, BS, MSc (Grad Student Rep)

Georgina Harris is a PhD student Johns Hopkins School of Public Health, Department of Environmental Health Sciences. She is pursuing her PhD in Molecular Mechanisms and Pathophysiology, focusing on “Molecular Mechanisms in *in vitro* Neurotoxicology” at the Center for Alternatives to Animal Testing (CAAT). Georgina obtained her Master’s degree in Toxicology from the University of Birmingham, UK and proceeded to work as a trainee at the European Commission Validation for Alternative Methods, Systems Toxicology Unit where she authored her first publication, and she has also co-authored 7 peer-reviewed articles. Georgina has been a member of SOT since 2012, ASCCT since 2013, and Teratology Society since 2014 and would like to be more involved with NCAC-SOT as she continues with her PhD. Georgina is a recipient of the 2012 LUSH Science Prize and the 2014 Young Scientist Award at the 9th World Congress on Alternatives to Animal Use in the Life Sciences.

2015-2016 NCAC-SOT EXECUTIVE BOARD MEMBERS CONTACT LIST

President:	Pedro L. Del Valle (2015-2016) U.S. Food and Drug Administration 301-796-2111 pedro.delvalle@fda.hhs.gov	Postdoctoral Representative:	Shelby Skoog (2015-2017) U.S. Food and Drug Administration 301-796-2800 Shelby.Skoog@fda.hhs.gov
Vice President/ President-elect:	Erik Janus (2015-2016) M ³ Technical & Regulatory Services 304-839-2276 erik.janus@gmail.com	Graduate Student Representative:	Georgina Harris (2015-2016) John Hopkins University 410-614-4916 gharri27@jhu.edu
Past President/ Councilor	LCDR Mark Miller (2015-2016) National Institute of Environmental Health Sciences 919-541-7758 mark.miller2@nih.gov		
Secretary:	Kelly Brandt (2015-2018) U.S. Food and Drug Administration 301-796-7917 Kelly.Brandt@fda.hhs.gov		
Treasurer:	Nancy Beck (2014-2017) American Chemistry Council 202-249-6417 Nancy_Beck@americanchemistry.com		
Councilors:	Gertrude-Emilia Costin Newsletter Editor (2015-2018) Institute for In Vitro Sciences, Inc. 301-947-6524 ecostin@iivs.org		
	David Szabo Website coordinator (2013-2016) Reynolds American Inc. 336-741-4435 szabod@rjrt.com		
	Susan A. Laessig Student Liason (2013-2016) US Environmental Protection Agency 202-564-5232 laessig.susan@epa.gov		

ANNUAL SOT MEETING AND JOINT REGIONAL RECEPTION IN SAN DIEGO

The SOT Annual meeting is March 22 to 26 in San Diego. There will be a **joint NCAC/NC-SOT reception** on Monday March 23 at the Karl Straus Brewing Company from 5:30 to 7:30pm. Please come and catch up with colleagues and friends and meet some new ones! Hope to see you there. <http://www.karlstrauss.com/>

Please see the following website for more annual meeting information:

<http://www.toxicology.org/AI/MEET/am2015/am.asp>

Students Compete for Bern Schwetz Student Travel Awards

Students who are attending the 54th Annual SOT Meeting in San Diego, CA, who are full time students and have had an abstract accepted for the meeting program are invited each year to apply for awards to support travel to the meeting. The deadline for graduate and postdoctoral students to apply for the NCAC-SOT Bern Schwetz Student Travel Award was extended to February 28, 2015. Criteria for the award included clear descriptions of the hypothesis, methods, results, and conclusions, and the originality and significance of the research. The winner received a travel award of \$400.

The winner of the 2015 Award is:

Vohra, Sanah, Center for Food Safety and Applied Nutrition, U.S. Food and Drug Administration, Office of Applied Research and Safety Assessment (OARSA), Division of Toxicology (DOT), Neurotoxicology and In vitro Toxicology Branch (NIVTB), MOD-1 Laboratories, Laurel, MD. Acute Renal Toxicity to Diglycolic Acid: Preliminary Findings of an In Vitro to In Vivo Comparison.

Annual SOT NCAC-SOT Presenter List

The table below shows the NCAC-SOT members who will be presenting at the annual meeting. It does not include late breaking abstracts and may not include every NCAC-SOT presenter, so please check the SOT mobile app. There is exciting research being presented from our regional members!

Session Day	Time	Title	Abstract ID	Name		Presentation Title	Institution
March 23	9:30 AM	Risk Assess I	208 Poster Board -315	Emily	Golden	No Significant Risk Level (NSRL) Derivation for Pulegone	ToxServices LLC
March 23	9:30 AM	Metals	337 Poster Board -556	Michael	Madejczyk	Early Evidence of Organ Injury after Acute Oral Exposure to Nickel in Rats	ORISE
March 23	9:30 AM	Nanotox, General, Environmental, Metals	316 Poster Board -533	Girish	Kumar	Effect of Silver Nanoparticles (AgNP) on Surface Marker Expression of Human Bone Marrow Stromal Cells (hBMSCs)	FDA
March 23	9:30 AM	Metals	339 Poster Board -558	Laura	Savery	Global Assessment of Copper and Zinc Concentrations in Free-Ranging Sperm Whales (<i>Physeter macrocephalus</i>)	Wise Laboratory of Environmental and Genetic Toxicology, Exponent, Inc.
March 23	1:00 PM	Alt to Mammalian Models II—Skin, Eye, Liver	421 Poster Board -108	Joanna	Matheson	ICCVAM Integrated Decision Strategy for Skin Sensitization	CPSC
March 23	1:00 PM	Genetic Tox I	534 Poster Board -252	Ofelia	Olivero	Role of Helicases in Removal of Zidovudine (AZT)-Induced Genotoxicity in DNA-Repair Deficient Human Cultured Fibroblasts	NCI
March 23	1:00 PM	Risk Assess II	575 Poster Board -328	David	Szabo	Consumer Exposure and Risk Assessment of E-Liquid Ingredients in E-Cigarettes: A Practical Framework for Industry and Regulators	Reynolds American Inc.
March 23	1:00 PM	Pharmaceutical Safety: Small Molecule Case Studies	633 Poster Board -438	Marion	Ehrich	Safety Study in Mice of an Agent with Potential As an Anti-Infective	Virginia Tech

Session Day	Time	Title	Abstract ID	Name		Presentation Title	Institution
March 24	9:00 AM	In Vitro Cardiovascular Safety	1159 Poster Board -560	Richard	Calvert	Dietary Supplement Ingredients Alter Beating Parameters of iCell Cardiomyocytes	FDA
March 24	9:00 AM	Alter to Mammalian Models III	1193 Poster Board -624	William	Irwin	Organelle Imaging Toxicology: Novel Analysis of the Sandwich High-Content Screening Project	EPA
March 24	9:00 AM	Ox Injury and Redox Biology	1035 Poster Board -323	Sainath	Babu	Protective Role of Methionyl Dipeptide against Hypochlorous Acid Toxicity Depends on Sequence	Hampton University
March 24	9:00 AM	Understanding and Communicating Uncertainty in Hazard Assessment and Dose	Platform Session 871	Nancy	Beck	Introduction	American Chemistry Council
March 24	9:34 AM	Understanding and Communicating Uncertainty in Hazard Assessment and Dose	Platform Session 873	Nancy	Beck	Unpacking Toxicity Assessments to Understand and Improve Confidence	American Chemistry Council
March 24	10:03 AM	Understanding and Communicating Uncertainty in Hazard Assessment and Dose	Platform Session 874	Nancy	Beck	Presenting Uncertainty in the Context of Biological Monitoring and Exposure Information	American Chemistry Council
March 24	1:00 PM	Repro Tox I	1438 Poster Board -424	Jennifer	Fleischer	Derivation of a Maximum Allowable Dose Level for Methyl Chloride	ToxServices LLC
March 24	1:00 PM	Neurotox, Neurodegen Disease— Parkinson's Disease	1529 Poster Board - 564	Georgina	Harris	Molecular Mechanisms of Rotenone and MPP+ Damage to Dopaminergic Neurons in a Human Neuronal 3D Model	Johns Hopkins Bloomberg School of Public Health

Session Day	Time	Title	Abstract ID	Name		Presentation Title	Institution
March 24	1:00 PM	Repro Tox I	1418 Poster Board - 404	Barbara	Neal	Absence of Adverse Effects on Developmental Toxicity in an F1 Extended Two-Generation Reproductive Toxicity Study with Carbendazim	Exponent Inc
March 24	1:00 PM	Cigarettes, E-Cigarettes, and Hookah	1537 Poster Board -601	David	Szabo	Evaluation of Chromatographic Profiling Methods for E-Cigarette Aerosols	Reynolds American Inc.
March 24	1:30 PM	Invest MOA in Chem Carc	Platform Session 1639	Jason	Fritz	Scalable Adverse Outcome Pathways for Evidence Organization in Cancer Mode-of-Action Analysis	EPA
March 25	9:00 AM	Risk Assess III	1897 Poster Board - 450	Maureen	Gwinn	Potential Mode of Action for Noncancer Effects following Exposure to Libby Amphibole Asbestos	EPA
March 25	9:00 AM	Risk Assess III	1864 Poster Board - 405	Susan	Makris	Incorporating Transgenerational Testing and Epigenetic Mechanisms into Chemical Testing and Risk Assessment: A Survey of Transgenerational Responses in Environmental Chemical Studies	EPA
March 25	9:00 AM	Risk Assess III	1865 Poster Board	Nancy	Beck	Evaluation of Study Quality Criteria Frameworks	American Chemistry Council
March 25	9:00 AM	Risk Assess III	1880 Poster Board -427	Andrew	Kraft	The Use of Glial Changes in Neurotoxicity Risk Assessments	EPA
March 25	9:00 AM	Regulation/Policy	1913 Poster Board -513	Francis	Kruszewski	Read-Across of Existing Hazard Data Fulfills HPV Chemical Program Requirements and Avoids Unnecessary Chemical Testing	American Cleaning Institute

Session Day	Time	Title	Abstract ID	Name		Presentation Title	Institution
March 25	9:00 AM	Develop Tox I	1712 Poster Board -115	Gary	Wolfe	Nonclinical Embryo-Fetal Development Assessment of GLYX-13, an NMDAR Novel Modulator, in Rats and Rabbits	Smithers Avanza
March 25	9:00 AM	Risk Assess III	1871 Poster Board -414	Deborah	Smegal	Feasibility of Conducting a Human Health Risk Assessment for 3-MCPD Esters and Glycidyl Esters in Food	FDA
March 25	9:00 AM	Risk Assess III	1862 Poster Board -403	Jessica	Wignall	Using DRAGON to Organize Data and Decisions for AOP Development: An Example with Inorganic Arsenic	ICF International
March 25	9:00 AM	Risk Assess III	1864 Poster Board -405	Susan	Makris	Incorporating Transgenerational Testing and Epigenetic Mechanisms into Chemical Testing and Risk Assessment: A Survey of Transgenerational Responses in Environmental Chemical Studies	EPA
March 25	1:00 PM	Nanotox, In Vivo	2357 Poster Board -655	Bernard	Jortner	Safety Studies on a Cerium-Containing Nanomaterial	Virginia Tech

2015 SPRING SYMPOSIUM

Please look for emails soon for information on the upcoming spring symposium.

NCAC-SOT SPONSORS GIRL SCOUT SCIENCE DAY

NCAC-SOT sponsored the 8th Annual Girl Scout Nation's Capital Science Day on November 14, 2014, which was organized by the Girl Scouts Council Nation's Capital Service Unit 37. This event introduced scientific terms and ideas to Cadets (6–8th grade), Seniors (9–10th grade), and Ambassadors (11–12th grade) using hands-on experimental protocols designed to be performed by a group of 15- 20 girls in 30 minutes.

This year, the event focused on just the older Girl Scouts, including Cadets and Seniors. The Girl Scouts participated in two experiments. For the Science badge, the Cadets performed more technical experiments related to toxicity: protein (The Crooked Cell) and blood typing (No Trace Left Behind). Dr. Mary Stapleton of Towson University supplied materials and volunteers to perform “The Crooked Cell”, an experiment that introduced the Girl Scouts to basic laboratory skills (e.g., pipetting and gel electrophoresis) as well as the role of genetics in disease. The “No Trace Left Behind” experiment focused on forensic science. It educated the Girl Scouts not only on the science behind forensics but also to alternative careers in science. This year, the experiment was led by three of our former ‘graduates’ from past Science Days. These three Girl Scout teens have been participating in Science Day since its inception and demonstrated how much they have learned in the past by teaching these lessons to a new group of Scouts.

Based on the evaluation responses from the Girl Scouts attending and their leaders, Science Day was again a great success. The Girl Scouts were able to take copies of experimental protocols home to share with their family. These lab notebooks not only included the experimental set-ups but also the Instructor's Notes to help explain the protocols to their families. These experiments would not have been possible without the financial support of the NCAC-SOT Regional Chapter, and through them, the SOT Council Subcommittee on Regional Chapter Funding.



2014 FALL SYMPOSIUM

The NCAC-SOT held its fall symposium at the U.S. Consumer Product Safety Commission in Bethesda on November 20, 2014. This symposium was co-sponsored with the SOT Mixtures Specialty Section. The focus of the symposium was on Evaluating Toxicological Mixtures using Molecular Approaches. People are continuously exposed to a wide range of xenobiotic chemicals, natural compounds, and environmental stressors. This raises concerns because of the potential interaction among these mixtures, and the potential for adverse health effects are largely unknown. The Center for Disease Control and Prevention (CDC) in its Fourth National Report on Human Exposure to Environmental Chemicals (December 2009) reported exposure data from a population sample of 2500 for each period survey (1999–2000, 2001–2002, and 2003–2004) for environmental chemicals. CDC has measured 212 chemicals in people's blood or urine, including 75 chemicals that have never before been measured in the US population. The challenge for the field of toxicology now is how to predict and assess the impact of these chemical mixtures on current or future human health. Keynote speakers included Drs. Cynthia Rider, Margaret Whittaker, and Gladys Erives.

Dr. Cynthia Rider serves as a Toxicologist in the Division of the National Toxicology Program (NTP) at the National Institute of Environmental Health Sciences. Dr. Rider gave an excellent overview of mixtures research as part of the Toxicology in the 21st Century (Tox21) program. She discussed the use of high-throughput screening to evaluate simple and complex mixtures combinations and the development of quantitative models, such as statistical and system-based models, for predicting toxicity of mixtures.

Dr. Margaret Whittaker is currently the Managing Director and Chief Toxicologist of ToxServices LLC. She serves as the project manager and technical lead of projects assessing the safety of consumer products, cosmetics, pharmaceuticals, medical devices, food additives, drinking water, and municipal drinking water system components. Dr. Whittaker discussed the need, process, emerging techniques and resource tools for identifying chemicals with safer human health and environmental profiles and provided an overview of interactions among different programs including GreenScreen, ToxCast, and Tox21. Dr. Whittaker clearly defined data gaps that will need to be addressed for the future of mixtures assessment.

Dr. Gladys Erives serves as a Toxicologist in the Office of Science at the FDA Center for Tobacco Products. Although often thought of as a single chemical exposure, tobacco products and e-cigarettes expose individuals to a large number of known and unknown chemicals. Dr. Erives provided a historical perspective on tobacco products regulation and an overview of the components and diversity of e-cigarette products. She also discussed available toxicology data and the lack of a scientific consensus on what appropriate data sets (chemical lists, toxicants and biomarker exposure) and testing paradigms (e.g. e-cigarette aerosol production) should be used to compare e-cigarettes to other e-cigarettes, conventional cigarettes, other tobacco products and nicotine replacement products.



Margaret Whittaker, ToxServices; NCAC-SOT President
Mark Miller: NCAC-SOT VP Pedro DelValle

Postdoctoral Students Present Research at Fall Symposium

Postdoctoral students were invited to present their original research on any topic during the poster exposition at the Fall Symposium. We anticipate more opportunities for students and post-docs to present at future Spring and Fall/Winter Symposia. NCAC-SOT presented two awards for outstanding research at the Fall Symposium held on Nov. 20, 2014 at the CPSC in Bethesda, MD. Each of the winners received a cash award of \$200.

Dr. Eric Sussman, Center for Devices and Radiological Health (CDRH) at the U.S. Food and Drug Administration, Silver Spring, MD. “The effect of assay format on cytotoxicity measurements of nanosilver surfaces”.

Dr. Anurag Mishra, CDRH, at the U.S. Food and Drug Administration, Silver Spring, MD. “Induction of autophagy at non-cytotoxic concentrations of silver nanoparticles in HepG2 cells”.

Networking Event Following Fall Symposium

After a productive day of talks and discussions, attendees convened for a networking social hour at a local Bethesda business. This provided an excellent opportunity to better connect with NCAC members, plan future directions for the chapter, and discuss the latest science and new breakthroughs in toxicology.

Acknowledgements

The NCAC-SOT would like to thank the Consumer Product Safety Commission for generously providing space for us to hold this meeting. In addition, we thank both ToxServices and Environ for their generous donations that allowed us to provide lunch and Student Awards at this event.



NCAC-SOT Treasurer's Report - February 16, 2015				
by Nancy Beck, Treasurer				
Account activity since last report (Dated Aug 7, 2014, in August 2014 Newsletter)				
July 31, 2014 (Closing balance)				\$7,025.47
Debits				
	11/21/14	2014 Fall Symposium Catering	\$907.88	
	12/11/14	Girl Scout Science Day	\$629.02	
	1/2/15 Fall Symposium Poster Award Winners	1 st place	\$200.00	
		1 st place	\$200.00	
	Total Debits		\$1936.90	(\$5088.57)
Credits				
	9/18/14	Dues (Renewals and New Members)	\$25.00	
	9/29/14		\$25.00	
	10/17/14		\$25.00	
	11/13/14		\$25.00	
	12/5/14		\$570.00	
	1/5/15		\$1280.00	
	11/05/14		Girl Scout Day SOT Reimbursement	\$663.00
	11/13/14	Environ and Toxservices Sponsorship	\$1500.00	
	Total Credits		\$4,113.00	(\$9,201.57)
January 31, 2015* (Closing balance)				\$9,201.57
*Most recent bank statement in our possession.				