Scientific Liaison Coalition (SLC) Annual Report
June 2017-2018

SLC Mission

The Scientific Liaison Coalition (SLC) has the mission to strengthen partnerships between domestic and international scientific organizations who advance science to improve human and environmental health. Currently, eight organizations actively participate in the SLC representing various disciplines within toxicology, safety, and risk assessment. At our core we believe greater collaborations between scientists from academic, industrial, and government sectors advances the science that can be used to directly improve public and environmental health.

SLC provides the opportunity for societies to expand their outreach by partnering on a global basis with other societies to advance science to improve human and environmental health and well-being. SLC actualizes its mission as a nimble coalition of scientific, biomedical, and health-based societies working collaboratively on cutting-edge webinars, conferences, and sessions/continuing education courses at scientific meetings.

The SLC is continuing its outreach to other organizations and emphasizing the “SLC Value Proposition” by succinctly articulating the benefits as follows:

Make your members love your Society even more for pennies.
Do the math!
Pennies per Member Will Provide You With

- Increased access to cutting-edge educational materials
- Additional leadership opportunities at all levels for your members
- More avenues to communicate sound science
- For a few cents it makes sense to belong.

To learn more about the SLC and to become a member, please contact Marcia Lawson, mlawson@aim-hq.com, 703.438.3115 ext. 1446.
Major 2017-2018 Accomplishments

- Multiple Webinars on Diverse New and Emerging Interdisciplinary Topics
  - Members Participate in Live Webinars
- Contemporary Concepts in Toxicology (CCT) meetings
  - Metabolic Syndrome CCT, March 11, 2017
  - Toxicological Concerns in Older Adults, a Neglected Majority, March 10, 2018

Rafael de Cabo
Keynote Speaker

On Saturday, March 10, prior to the start of the Society of Toxicology (SOT) 2018 Annual Meeting, toxicologists, clinicians, and biomedical scientists gathered for “Toxicological Concerns in Older Adults, a Neglected Majority,” a full-day CCT meeting.

Rafael de Cabo, National Institute on Aging, National Institutes of Health, started the meeting with a provocative keynote presentation on the toxicology of aging that described the public health challenge to come. Dr. de Cabo noted that the world is aging, with the number of individuals over 65 years of age now greater than those under five years of age, and he cautioned that not enough attention is being paid to this large demographic shift. The other distinguished presenters from government, academia, and the pharmaceutical industry also reflected on this growing demographic issue, the cost to society, and the toxicological challenges of managing risk in aging individuals who are often suffering from concomitant diseases and taking multiple medications. The CCT meeting’s Organizing Committee was also pleased to welcome workshop participant Sarah A. Khasawinah, Special Committee on Aging, United States Senate, to participate in this discussion. Senator Susan A. Collins (R-ME) is the chair of this Senate committee.
The workshop was highly interactive and offered a unique opportunity for experts from across the country to discuss major challenges and opportunities, as well as future collaborations, on this important topic. One of these joint efforts will be the development of a white paper as the first major outcome of this workshop. Toxicological Concerns in Older Adults was held under the auspices of the SOT CCT Committee. The concept for this workshop was advanced by the SLC, which provides a platform for different societies to partner on a global basis with the goal of advancing science to improve human and environmental health and well-being.

SLC Webinar Series

1. **Toxicity and Efficacy of Stem Cells as Therapeutic Products for Humans and Animals**, Tuesday, April 24, 2018, 11:00 AM–12:30 PM ET USA. Stem-cell based therapies are becoming very popular in humans and animals for many conditions. However, much still needs to be understood in terms of their toxicity and efficacy. Two speakers from the US Food and Drug Administration (US FDA) addressed this topic, Wei Liang, PhD, Pharm/Tox Branch 1, Division of Clinical Evaluation and Pharmacology/Toxicology (DCEPT), Office of Tissues and Advanced Therapies (OTAT), CBER, and Lynne Boxer, DVM, CVM, Office of Foods and Veterinary Medicine.


   **The Future of Publishing**, Tuesday, February 27, 11:00 AM–12:30 PM ET USA
   Presented by Gary W. Miller, PhD, Professor of Environmental Health and Associate Dean of Research in the Rollins School of Public Health at Emory University. Dr. Miller, Editor-in-Chief of *Toxicological Sciences*, provided his views on some of the trends and explained what the Journal is doing to keep abreast of these challenges. Over the past decade there have been several major changes in the scientific publication landscape. Increasing access to scientific findings, through a combination of open access and making primary data more readily available, have been major drivers of these changes. Investigators are sharing more of their data through websites and data repositories.

   **How to Get Published in Peer-Reviewed Journals**, Tuesday, February 6, 11:00 AM–12:30 PM ET USA, Presented by Mary Beth Genter, PhD, DABT, ATS, Professor, Department of Environment Health, University of Cincinnati. She is currently (2008–present) Editor-in-Chief of *International Journal of Toxicology*, the official journal of the American College of Toxicology. The webinar “How to Get Published in Peer-Reviewed Journals” provided advice, examples, and guidance on
writing and publishing effective scientific manuscripts. Topics included a review of tips for good study design, a discussion of constructing an effective abstract, and important considerations when writing a manuscript, including the choice of a journal to which a manuscript will be submitted, word usage, data presentation, and authorship considerations. She concluded with a discussion of predatory journals, and how and why to avoid publishing in them.

3. Series—Predicting Adverse Effects Before They Occur: Teratogens as an Example

The Next Thalidomide, Wednesday, December 20, 2017, 11:00 AM–12:30 PM ET USA, Presented by Anthony B. Scialli, MD, a teratologist and board-certified obstetrician-gynecologist. Dr. Scialli is Adjunct Professor in the Departments of Obstetrics and Gynecology and of Pharmacology and Physiology at Georgetown University School of Medicine, where he was a full-time Professor and director of the Residency Training Program until 2003, and Clinical Professor in Obstetrics and Gynecology at George Washington University, where he continues to see patients. His presentation addressed disease prevention. He stated: “One reason to work in toxicology is to prevent episodes of human disease before they occur by identifying and avoiding exposures that are likely to be harmful. In developmental toxicology, this practice is sometimes called, preventing the next thalidomide.”

In Bed with the Devil: Recognizing Human Teratogenic Exposures, Tuesday, November 28, 2017, 11:00 AM–12:30 PM ET USA, Presented by Jan Friedman, MD, PhD, a clinical geneticist and Professor of Medical Genetics at the University of British Columbia (UBC). In the past decade, Dr. Friedman has been a pioneer in the development and application of cytogenetic and genomic tools to understand the genetic causes and clinical consequences, and improve diagnosis of, intellectual disability syndromes. His presentation addressed the challenge to recognize that an exposure is teratogenic when the fewest possible babies have been harmed.

4. Epidemiology of Vaccine Refusal, Tuesday, March 28, 2017, 11:00 AM–12:30 PM ET USA, Presented by Saad B. Omer, MBBS MPH PhD FIDSA, William H. Foege, Professor of Global Health and Professor of Epidemiology & Pediatrics at Emory University, Schools of Public Health and Medicine. He also is a faculty member at the Emory Vaccine Center. Vaccines are among the most efficacious and cost-effective prevention tools. However, the success of an immunization program depends on high acceptance and coverage. There is evidence of an increase in vaccine refusal in the United States and of geographical clustering of vaccine refusers resulting in outbreaks. This webinar addressed the need for
development of a robust evidence base of effective interventions for reducing vaccine hesitancy.

5. **Polypharmacy and the Challenges of Optimizing Pharmacotherapy in Complex Patients**, Tuesday, February 28, 2017, 11:00 AM–12:30 PM ET USA, Presented by Cathy Yeung, Pharm D, PhD, MPH; Assistant Professor, Department of Pharmacy, University of Washington School of Pharmacy, Seattle, Washington. One of the greatest challenges facing clinical pharmacists is the rapid growth of polypharmacy, in which patients are prescribed 10 or more medications, and the associated increased risks of adverse drug reactions, drug-drug interactions, and drug-disease interactions. This webinar reviewed major pathways of drug metabolism, identified clinically relevant drug transporters, and discussed the impact of renal impairment on non-renal drug clearance.

**Upcoming Conference:**

FutureTox IV Progress to Maturity: Predictive Developmental and Reproductive Toxicology for Healthy Children: November 14–16, 2018, Westin Hotel Crystal City, Arlington, VA. This conference focused on bringing together basic, clinical, and regulatory scientists to bridge the translation from historical approaches to Tox21 implementation relative to risk assessment and regulatory decision-making for matters pertaining to developmental health, life-stage progression, and the human reproductive cycle. The meeting also will look at implementing the 21st-century vision and regulatory considerations relevant to commercial chemicals in the environment and medical products for guidance based on new results. The FutureTox series focuses on building the road for 21st-century toxicology and risk assessment practices, utilizing *in vitro* data and *in silico* models for predictive toxicology, and taking the high-throughput risk assessment paradigm forward to address challenges in implementing the emerging big-data toolbox for risk assessment and regulatory decision-making.

**Cutting-Edge Scientific Exchanges**

An overarching goal of the SLC is to plan and develop scientific forums on topics that are timely and relevant to environmental health and human disease prevention. These platforms can range from webinars and scientific sessions to stand-alone meetings. The diversity of the SLC participating societies provides enhanced opportunities for organizing multidisciplinary meetings of interest to diverse groups such as:

- Carcinogenicity
- Clinical Studies
- Computational Sciences
• Drug Development
• Genomics
• Public Health Issues
• Reproductive/Developmental
• Risk Assessment/Risk Management

Benefits of Membership

• Participation in identifying and fostering awareness of cutting-edge interdisciplinary scientific advances
• Networking opportunities across diverse scientific societies
• Low cost, high impact investment
• Enhanced volunteer opportunities

Raising Awareness about the SLC

The SLC website (http://www.toxicology.org/slc.asp) launched in 2014 has grown to include all the SLC webinar recordings. These recordings are freely accessible, demonstrating the SLC commitment to sharing knowledge to improve human and environmental health.

For the SOT 2018 Annual Meeting, the SLC again participated in the SOT Global Gallery of Toxicology, which included societies from around the world. The poster developed for this event is available to travel to the meetings of the representative societies. In addition, SLC leadership attended the IUTOX Global Collaboration Coffee that provided opportunities for networking with the leadership of these societies.

Monthly Conference Calls and Face-to-Face Meetings

The SLC convenes a conference call each month to foster ongoing activities and to generate ideas for future initiatives. There also are two meetings a year, in the fall and spring. The next meeting is on November 13 and 14, 2018, at the Westin Hotel, Crystal City, Arlington, VA.
Current Supporting and Participating SLC Organizations

American College of Medical Toxicology (ACMT)
American College of Toxicology (ACT)
Environmental Mutagenesis and Genomics Society (EMGS)
Safety Pharmacology Society (SPS)
Society for Risk Analysis (SRA)
Society of Toxicology Pathology (STP)
Society of Toxicology (SOT)
Teratology Society (Teratology)

Current SLC Governance Committee

Kenneth L. Hastings (SOT), Chair
Hanan Ghantous (ACT), Incoming Chair
Mary Alice Smith (Teratology), Immediate Past Chair
Donna L. Mendrick, Society Representative, At–Large
Mary Jeanne Kallman (SPS), Society Representative
Rosalie K. Elespuru (EMGS), Society Representative
Anne H. Chappelle (SOT Council Contact), Society Representative
Thomas B. Knudsen Society Representative, At–Large
Kenneth E. McMartin (AACT), Society Representative
Susan Emeigh Hart (STP), Society Representative
Marcia G Lawson SLC Administrator
Current SLC Representatives

AACT: Kenneth E. McMartin
      Kirk L. Cumpston

ACT: Hanan N. Ghantous
     Andy Kiorpes
     Tracey Zoetis

EMGS: Rosalie K. Elespuru
      Catherine F. Gibbons

SPS: Carrie G. Markgraf
     Mary Jeanne Kallman

SRA: John “Jack” R. Fowle, III

STP: Susan Emeigh Hart
     Kevin McDorman
     Kevin Keane

SOT: Anne H. Chappelle
     Laurie Haws
     George M. Woodall, Jr.

Teratology: John M. DeSesso
          Alan Hoberman

At-Large Representatives
Thomas B. Knudsen, Donna L. Mendrick