President’s Letter

Dear Sustainable Chemicals through Contemporary Toxicology Members,

I am honored to be the SCCT President and will do my best to fill the shoes of former SCCT President, Dr. Pam Spencer! As your president, I am committed to making sure that the SCCT Specialty Section provides you with opportunities to learn about and exchange information relating to sustainable chemical design, alternative assessments, and informed substitution. As we get ready to say goodbye to a very hot summer, I’d like to draw your attention to important deadlines:

- **Abstract submissions**: Get your abstracts submitted for the 2023 meeting in Nashville. They are due December 1, 2022. [Abstract Submissions—2023](#)
- **Book your SOT Housing**: Planning to attend the 62nd SOT meeting in Nashville? You will need housing! The SOT annual meeting housing site has opened up, so reserve your room through the [SOT housing website](#) now!
- **Awards**: If you are a graduate student or postdoc, please plan on competing for an SCCT Graduate Student or SCCT Post-Doc Award. The deadline for your submission is January 10, 2023. Besides providing you with a cash award and recognition at the SCCT annual reception, winning the award looks great on a CV! Please read about the awards on the [SCCT Awards webpage](#).

Also, the SCCT has planned an exciting autumn **webinar series** that will start in late September - please make sure to attend! Please see webinar information below along with a registration link!

SCCT President
The Ethics of Conducting Toxicological Research and Communicating Novel Findings
Toxicologists, safety scientists, and risk assessors must inform non-toxicologists about their work and its importance, but often the general public is skeptical, questioning a scientist’s credibility due to mistrust, biases, censorship, and perceived conflicts of interest with issue advocacy. In this 3-part webinar series, each with 2 speakers, these topics will be addressed through the lens of emerging scientific research and toxicological concerns. Speakers will provide insight and pointers on how toxicologists can earn trust, particularly as related to the assessment of novel scientific and sustainable innovations. This series is hosted by the SOT Sustainable Chemicals through Contemporary Toxicology and Ethical, Legal, Forensics, and Social Issues Specialty Sections. Visit the ELFSI or SCCTSS for additional abstract information and sign up instructions.

Register Now

Webinar 1: Combating Censorship and Vilification - Fri., Sept. 23, 11-12:30p Eastern
Description: Part 1 of 3 speakers will: 1) highlight recent examples of censorship of inconvenient viewpoints in toxicology, or “consensorship;” 2) speak to the importance of credibility and due diligence as an expert witness in toxicology, and how to combat vilification by focusing on the science.

- Censorship and Issue-Specific Advocacy – Is “Consensorship” the New Paradigm?
  Chris Borgert – President and Principal Scientist, Applied Pharmacology and Toxicology, Inc.

- Expert Witness Testimony and Ethics: Science Over Advocacy
  Laura Plunkett – Managing Partner, Biopolicy Solutions, LLC

Webinar 2: Toxicologists can be Trusted through Integrity and Transparency - Wed., Oct. 5, 12-1:30p Eastern
Description: Part 2 of 3 speakers will 1) provide tips for communicating a toxicologist’s role to the general public, and why we can be trusted; 2) highlight the importance of scientific integrity and transparency; and how to disseminate your knowledge effectively.

- Who is a toxicologist and how are they different than my medical doctor?
  Michael Dourson – Director of Science, Toxicology Excellence for Risk Assessment (TERA)

- Knowledge Mobilization, Scientific Integrity, and Transparency
  Wendelyn Jones – Executive Director, Institute for the Advancement of Food and Nutrition Sciences (IAFNS)

Webinar 3: Avoid Being Toxicology’s Worst Enemy - Fri., Nov. 4, 12-1:30p Eastern
Description: Part 3 of 3 speakers will 1) provide tips for interacting with the press to share your novel findings; 2) how to leverage the applied ethics framework and being a steward of scientific integrity.

- The Press is Not your Enemy! How to Engage and Interact with the Press
  Janet Raloff – Editor, Science News Media Group

- Applied ethics analyses of bias, conflict of interest, censorship, and issue advocacy
  Lyle Burgoon – Executive Chairman and Chief Scientific Officer, Raptor Pharm & Tox Ltd.

A Splash of Recognition - AAAS Invitation!
By: Lauren Brown, MS, DABT

Each year SOT's Collaborative Conferences Committee (CCC) puts forward scientific sessions from the annual SOT meeting for consideration for the Annual American Association for the Advancement of Science (AAAS) meeting.

This year, a 2022 SOT symposium developed by SCCT officers Dr. Margaret Whitaker and Ms. Lauren Brown entitled: Safer Chemical Selection Tools and Practices: Successes ADVANCING SAFER Chemical Selection ON A GLOBAL SCALE was selected by the SOT CCC as a session to propose to the AAAS. The informational session provided an overview of the concept of safer chemical selection and how it varies from the standard risk assessment approach.

In addition, the information session aimed to provide attendees with an understanding of the tools and practices that are increasingly being used by toxicologists to minimize regrettable substitution and promote the selection of safer chemicals, ingredients, and materials. Dr. Whittaker and Ms. Brown were honored by the invitation and are awaiting a response from AAAS. Updates to come.
The SOT SCCT Special Section offers a “Best Abstract Postdoctoral Scholar Award” at the Annual SOT meeting to postdoctoral scholars who are engaged in research that is directly relevant to sustainable toxicology, green toxicology, and/or New Approach Methodologies (NAMs). The research topics can include alternatives assessment, circular economy, sustainable design, and informed substitution, among others. At the 2022 SOT meeting held in San Diego, I was one of two postdoctoral researchers to be honored with this award for my research contribution entitled “Addressing the Essential-Use Concept through the lens of Functional Substitution”. My project began in late 2021 as a collaboration between several people involved in the development and interpretation of the Essential-Use Concept (EUC) policy in Europe – Drs. Ian Cousins, Martin Scheringer, Zhanyun Wang, and Elizabeth Harriman of the Massachusetts Toxics Use Reduction Institute (TURI), myself and advisor Dr. Joel Tickner from the Lowell Center for Sustainable Production (LCSP) at the University of Massachusetts Lowell. The collaboration came about in response to the EUC 2019 proposed policy that is now a key element of the European Commission’s Chemicals Strategy for Sustainability (CSS). In short, there are many chemicals and chemical groups of concern that pose potential health hazards to humans and ecological systems. As a result, governments need rapid decision-making approaches for phasing these out and moving towards safer chemicals. The Commission is currently working on defining the criteria and mechanisms for implementing the concept in the EU’s chemicals legislation.

The challenge is that the EUC is an approach for expediting the restriction of all but “essential use” chemicals that are “necessary for the health, safety, or functioning of society” however this approach does not identify how to move towards safer alternatives. Therefore, our collaboration group discussed the intersection of the EUC with Functional Substitution (FS), an approach that starts with the functional use of a chemical of concern, evaluates if the function is necessary for the application, and then examines whether safer and effective chemical, product/process design, or product service alternatives exist to fulfill that function.

More detailed discussions on FS took place during SOT and resulted on two approaches to thinking about FS in the context of the EUC: 1. Rethinking performance needs and testing requirements, or 2. Grouping/ranking methodology using comparative toxicology. These approaches were illustrated with examples of chemical uses and fed into a draft decision tree illustrating the integration of FS and the EUC. The draft decision tree and refined analysis were recently published in the Environmental Science & Technology and can be accessed here (June, 2022). The goal of this work was to help broaden alternative solutions earlier, especially for unclear cases of essentiality. It will be interesting to see how the implementation of the EUC unfolds over the next years and how the framework will be more broadly applied in government and company policies.

Please consider applying for a SCCT graduate student or post-doc award, more information can be found here: SCCT Awards.
Meet the 2022-2023 SCCT Executive Committee

Meet our EC team above, also welcome the new Graduate Student Representative - Neha Paranjape!

She is a 3rd year Ph.D. student in the Human Toxicology Program at the U. of Iowa studying the neurotoxic effects of Polychlorinated Biphenyls (PCBs), with a specific focus on astrocytes. Before joining the Ph.D. program, she earned B.Sc. in Microbiology from U. of Pune, India and an M.Sc. in Virology from the National Institute of Virology, India. Currently, she is serving as Vice-Chair on the Student Advisory Committee (SAC) for her graduate program and working towards the betterment of student life. Apart from SOT, she is also an active student member of American College of Toxicology and has received their North American Graduate Fellowship in 2021. Join me in welcoming her into the team. Neha, thank you for volunteering!

Connecting with Green Chemistry at the American Chemical Society

Green Chemistry & Sustainable Energy Summer School

By: Monika Roy, PhD, MSPH

This summer I had the opportunity to attend the American Chemical Society (ACS) Green Chemistry & Sustainable Energy Summer School in Golden, CO. This was a week-long workshop at the Colorado School of Mines geared toward graduate students and postdocs. This year’s diverse cohort consisted of over 60 participants from institutions in South and North America – Chile, Argentina, Brazil, Colombia, Mexico, the U.S., and Canada, to name a few. Most participants were chemists specializing in catalysis, polymers, organic synthesis, nanomaterial synthesis, and other diverse subfields. Many participants were working on interesting, applied research projects, like carbon capture, biofuels, pollution abatement, and lifecycle assessment. Among all the various types of chemists, there was one environmental engineer, and I was the lone toxicologist! The week consisted of lectures from faculty and industry professionals on a variety of topics mostly outside the scope of my training in grad school. For instance, using greener solvents, thinking about carbon management, and the development of new hydrogen energy technologies were just some of the topics covered. It was also interesting to hear the feedback from participants after lectures about how they thought the methods they were using were “green,” but they learned about ways where they could be improved.

One of the main overarching themes of the week was “systems thinking” – something to which I could relate. In my toxicology training, I studied not only about how certain chemical pollutants might affect human health, but also, I learned about their potential effects on a broader scale. For instance, chemicals used to

Consider nominating yourself or someone else for the 2023-2024 Executive Committee! Open positions will be Vice-President Elect, Councilor, and Postdoctoral Rep. Interested? Share your biosketch with Past President Pam Spencer (PJSpencer@ANGUS.com) for consideration.
create a consumer product might impact the workers in the factory, adjacent communities to the factory, consumers of the product, and communities close to the eventual disposal site of the chemical(s). Protecting the people and ecosystems that might be harmed by chemicals or chemical processes are important considerations in both toxicology and in sustainable chemistry – including a systems approach when thinking about the potential impacts of a chemical, material, product, or process. I’m glad I was able to bring perspective, via a toxicological lens, to the summer school in the group work and discussions.

Due to the ongoing work in this field, many elements on the periodic table that have been problematic to human and ecosystem health will be phased out in just a few short decades. It is imperative that innovation takes precedent to create more safe and sustainable alternatives, and I learned from the lectures about the technologies that are being developed as well as from the participants describing the kind of pioneering research, they are doing in some of these areas. One of the most important aspects of the summer school was that it brought together participants from different fields in a unique way that a normal society conference does not do. We were able to learn about each other, do group work, have conversations about these important topics, and make collaborative connections for work in the future. It will be exciting to see all the great products that come from collaborations like this! 2023 Summer School Applications for grad students and post-docs open November 2022, more information can be found here ACS Green Chemistry Summer School or email gceducation@acs.org.

SCCT 2021-2022 Accomplishments

Despite still being a young Specialty Section, the SCCT had some great accomplishments!

- SCCT Webinar Series: There is an exciting SCCT upcoming free 3-part webinar series coming this Fall—see info on page 2 of this newsletter & registration coming soon at SCCT Events. (You can also check out previous webinars using the link.)
- Session Proposal Review: The Executive Committee reviewed 1 proposal for the 2023 Annual Meeting. We encourage membership to brainstorm with the SCCT to increase this number for the 2024 session proposals. Check out our page for information on the research topics in scope of the SCCT
- 2022 Best Abstract Awards: 2 Postdocs were awarded the SCCT Outstanding Abstract Award at the 2022 SOT meeting (consider applying - visit SCCT Awards for 2023 grad student and postdoc application details)
- 2022 Annual Specialty Section Meeting: Despite COVID-19, the SCCT held a very well attended (35+) in-person luncheon at the Annual SOT meeting in San Diego – it was great to see people in person!
- CE Course at 2022 SOT: We had record number of attendees at the CE course entitled: Principles and Applications of Read-Across in Human Health Risk Assessment! This is a strong example of great collaborations with important content around a key research area: how to fill data gaps for chemicals lacking experimental toxicology data.
- Growing the membership: SCCT membership is now up to 84 members – Share Join SCCT with colleagues who share the SCCT research areas (see link above)!
- Newsletter: Continues to capture SCCT news & updates - all editions available here

Thanks to the Executive Committee & the SCCT membership who continue to move the SCCT agenda forward!

Call for Volunteers

Your feedback is important - share your ideas for webinars, newsletter content, furthering communications (social media, blogs, etc.), award judging. Contact President Meg Whittaker (Mwhittaker@toxservices.com).

Good News Corner

Tell us your accomplishments and exciting SCCT work you are involved with - good news and let us celebrate with you! Contact A.J. Cuevas at azitakj@gmail.com so we can highlight you in the next newsletter!