



### PRESIDENT'S LETTER

Dear Sustainable Chemicals through Contemporary Toxicology Members,

The SOT Annual Meeting is now over. It was so great seeing SCCT members and potential members in person at our luncheon. We were pleased that the sessions we sponsored and co-sponsored went well. You can read about them in this newsletter. Congrats to all the session presenters!

In addition to summaries of SOT sessions, this issue also includes a summary from a webinar we co-hosted, along with a summary of ideas discussed at our luncheon at the SOT Annual Meeting about where to take SCCT in this upcoming year. If you have further ideas or want to help SCCT bring any ideas to life, please reach out. Share this newsletter with a colleague who is not a member, and let's keep SCCT growing!

I'm looking forward to supporting SCCT in my role over the coming year as Past President.

Stay well, bring peace, be bold,

Brittany Baisch, PhD, DABT  
SCCT President



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**New to SCCT** or new to sustainability in toxicology? Please [check out our website](#) to learn more about our group's mission and activities!

**Looking for some resources** related to sustainability in toxicology? We put together a (non-exhaustive) [list](#) of tools, learnings, and organizations to browse.

**Follow us on [LinkedIn](#)!** We post about events and resources related to sustainability in toxicology, as well as do member highlights. If you're interested in being featured, reach out to [Monika Roy on LinkedIn](#).

### 2023-2024 SCCT EXECUTIVE COMMITTEE: Outgoing leadership - thank you for your service over this past year!



Margaret Whittaker  
Past President & Councilor



Brittany Baisch  
President



Lauren Brown  
Vice President



Damani Parran  
Vice President -Elect



Joanna Klapacz  
Secretary/Treasurer



Azita (AJ) Cuevas  
Senior Councilor



Monika Roy  
Junior Councilor



(Vacant)  
Postdoctoral Representative



Neha Paranjape  
Grad Student Representative

## 2024-2025 SCCT EXECUTIVE COMMITTEE: Welcome the new leadership!



**Brittany Baisch**  
Past President  
& Councilor



**Lauren Brown**  
President



**Damani Parran**  
Vice President



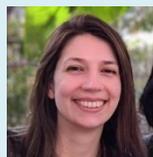
**Sara Farahmand**  
Vice President  
-Elect



**Colleen McLoughlin**  
Secretary/  
Treasurer



**Monika Roy**  
Senior  
Councilor



**Kel DeShong**  
Junior  
Councilor



**Janine Cubello**  
Postdoctoral  
Representative



**Kelly Rivenbark**  
Grad Student  
Representative

## SOT Report Out: SCCT Co-sponsored Session “It’s Not Easy Being Green: Applying Alternatives Assessment to Create Safer Consumer Products” *By: Kel DeShong*



From left: Kaley Beins (EWG), Dr. Homer Swei (EWG), Heather McKenney (ChemFORWARD), Dr. Muna Nahar (session co-chair; US EPA), and Dr. David Dorman (NC State). Not pictured: Dr. Kathryn Page (presented remotely).

This session led us through the current state of the science for chemical alternatives assessments. Dr. David Dorman of North Carolina State University spoke on the history, scope, and implementation of the 2014 National Academies framework for these alternatives assessments; Dr. Kathryn Page of The Clorox Company described a case study of a fictitious glass cleaner prepared for Safer Choice assessment; Heather McKenney of ChemFORWARD demonstrated the application of ChemFORWARD’s subscription-based service in which independently reviewed data repositories are used to select viable alternatives; and session chair Dr. Homer Swei of the Environmental Working Group (EWG) emphasized the importance of alternatives assessments at multiple levels, ranging from the ingredient itself to the product mixture, product category, and of course the consumers themselves.

The speakers enjoyed a lively and engaged audience, with several thoughtful questions asked during the panel discussion. The calls to action from the panel included 1) sharing data to fill the current data gaps and 2) harmonization of the many chemical alternatives assessment frameworks currently available.

## SOT Report Out: SCCT Co-sponsored Session “From My Cosmetics to Smart Watch, Toxicology Touches It All”

*By: Kel DeShong*

What a great turnout we had for this SCCT-endorsed session! Although scheduled in the last time slot of the day, a huge crowd turned out for the riveting session.

Dr. Madhavi Billam-Mukhi of Meta led the session overview and described some of the unique challenges of biocompatibility assessments; Deborah Smegal of the US FDA walked the audience through the general steps of US FDA cosmetic color additive assessments, with examples ranging from eyebrow dyes to tattoo inks; Dr. Margaret Whittaker of ToxServices spoke on the safety assessment of wearables such as headphones and smartwatches, and even worked an analogy to cannoli into her talk (!); and Dr. Tom Lewandowski of Gradient put forth considerations for the evaluation of new wearables such as gaming products using haptic feedback and dermal monitors for infants.

The Q&A session was chaired by Dr. Mansi Krishan of Meta and co-chaired by Dr. Tom Lewandowski and several interesting questions and points were raised.



From left: Dr. Margaret Whittaker (ToxServices), Dr. Mansi Krishan (Meta), Dr. Tom Lewandowski (Gradient), Dr. Madhavi Billam-Mukhi (Meta), and Deborah Smegal (US FDA).

# Summary of Ideas from the SCCT Luncheon Discussion

During the luncheon, several ideas surfaced related to topics for future webinars, SOT sessions, and discussions:

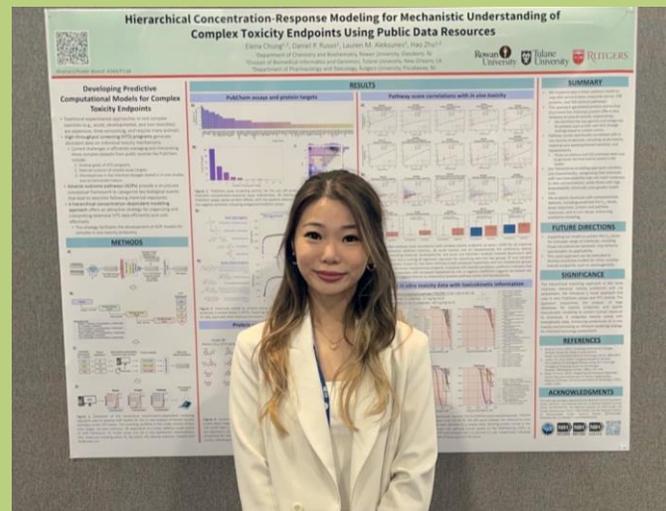
- A session comparing and contrasting different Chemical Hazard Assessment (CHA) methods: different platforms, fit-for-purpose, and when one would use a particular method
- A discussion about the [February 2024 OECD report about PFAS alternatives in cosmetics](#)
- A discussion on the importance of analytical chemistry as well as the input of chemists (as an important part of the assessment), including examples such as VOCs and semi-volatile substitutions
- A session on the [Safe and Sustainable by Design \(SSbD\)](#) framework as it applies to products such as biosurfactants
- A discussion on how chemical management frameworks are evolving globally
  - Extensive work is ongoing in the EU
- A career webinar informing students about the opportunities that lie in this field after graduation, incorporating a discussion on how the gaps between academia and industry could be bridged
  - Could include aspects of product stewardship, contemporary toxicology, alternatives assessment, and hazard elimination (for example, substituting a solvent takes a lot of effort)
- A webinar about chemical substitution success stories
- A discussion about municipal government purchasing assessments for safe and sustainable materials
  - NAM data are valuable for decision makers
- A discussion about chemical alternatives beyond hazard or cost, for example the potential climate impacts and carbon footprint of benzene derived from bio sources vs. petroleum
- A discussion about sustainable packaging raw materials and the lack of clarity on packaging guidance

## Celebrating SCCT Awardees at SOT

By: Lauren Brown

**Lucie Ford of Texas A&M University was awarded 1<sup>st</sup> place** for her work titled “Concentration-response modeling and risk characterization of 20 defined PFAS mixtures using *in vitro* assays”.

Lucie used a human hepatocyte *in vitro* model to evaluate 56 different per- and polyfluoroalkyl substances (PFAS) individually and also 20 defined PFAS mixtures—prepared to represent different exposure scenarios such as environmental concentration, regulatory limits, and biomonitoring data. She used the data to derive concentration response functions and identify points of departures (PODs). From this work, Lucie ultimately proposed a testing strategy to evaluate defined mixtures based on realistic exposure scenarios.



**Elena Chung of Tulane University and Rowan University was awarded 2<sup>nd</sup> place** for her work titled “Hierarchical concentration-response modeling for mechanistic understanding of complex toxicity endpoints using public data resources”.

Elena developed a method by which to use publicly available data sources with high throughput screening information to develop a hierarchical concentration-dependent modeling approach that organizes and interprets this data to develop AOP models. The approaches developed can create predictive models to identify potentially new toxicants, assist in drug development, and evaluate potential unintended adverse effects from off target effects.

# A Summary of the Webinar “Driving Safer Chemicals Through Alternatives Assessment”

By: Monika Roy

On April 3<sup>rd</sup>, 2024, SCCT co-hosted a webinar with the [Association for the Advancement of Alternatives Assessment \(A4\)](#) and the [Society of Environmental Toxicology and Chemistry \(SETAC\)](#) titled “Driving Safer Chemicals Through Alternatives Assessment”.

## Alternatives Assessment as a Step-wise Process to Support Substitution



“One of the most essential, and powerful steps to change is understanding that there are alternatives”  
- Mary O’Brien

Dr. Colleen McLoughlin of Enhesa kicked off the webinar to introduce the topic and agenda. [Molly Jacobs](#), who stepped in for Dr. Joel Tickner of the [Sustainable Chemistry Catalyst](#) at the University of Massachusetts Lowell, was the first speaker and introduced chemical alternatives assessment as a tool to support the field of informed substitution. She talked about the general steps of the process for conducting an alternatives assessment and clarified differences between alternatives assessment and other fields such as risk assessment and sustainability assessment.

Following Molly, [Dr. Pam Spencer](#) of Advacion Corporation was the next speaker. She touched on the applications of alternatives assessment in new product development and needs for the future. She talked about three key factors driving the need for alternatives assessment in new product introduction, went through a case study, and provided some key insights at the end (see image to the right).

## Key Insights

- Companies have long been using a form of AA to launch new products based on comparative safety, performance & cost (standard practice)
- Sustainability attributes are emerging and important enhancements and key indicators in selection of new products
- Challenge is having the appropriate tools to match the various product development stages to rapidly inform decisions (e.g., ability to parse out product data for carbon footprint, energy consumption, waste generation) when current data collected at facility or site level
- Difficult to assess impacts along value chain today for ingredient manufacturer
- Current focus AA is on key indicators directly under manufacture control



The webinar wrapped up with [Catherine Rudisill](#) moderating three commentators, starting with [Dr. Michelle Bloor](#) of the University of Glasgow and SETAC World

Council member. Dr. Bloor spoke about recent UN efforts and updates on the sound management of chemicals, waste, and pollution prevention. [Annegaaike Leopold](#) of ibacon GmbH and representative of SETAC EU spoke about the relationship between alternatives assessment and the EU Chemicals Strategy for Sustainability and the Safe and Sustainable by Design (SSbD) concept. Finally, [Dr. Lauren Heine](#) of ChemFORWARD spoke about the next generation of chemical hazard assessment to create broad access to transform markets, including the importance of sector initiatives to tackle the safer alternatives to certain chemical classes.

The webinar was recorded and can be viewed [here](#).

Other resources to learn more about chemical alternatives assessment:

- [Chemical Alternatives Assessment](#) 2023 SETAC Technical Issues Paper
- [Driving Safer Chemicals Through Alternatives Assessment](#) 2023 SETAC Globe Article
- [Alternatives Assessment: An Analysis on Progress and Future Needs for Research and Practice](#) 2023 IEAM Journal Article
- [Analysis of Alternatives Training](#) by the European Chemicals Agency (ECHA)
- [A Framework to Guide Selection of Chemical Alternatives](#) by the National Academy of Sciences

## SCCT Session Proposals for the 2025 Meeting!

Dear SCCT Members, we can't believe it's already time to put together session proposals for the 2025 meeting! The SCCT Executive Committee is looking forward to seeing many proposal submissions seeking SCCT endorsement! To receive feedback on your proposal prior to the SOT submission deadline, please send your session proposals in Word format to Damani Parran at [damani.parran@ehs-support.com](mailto:damani.parran@ehs-support.com) **ASAP so we can turn them around to you in time for the May 15<sup>th</sup> deadline!**

## VOLUNTEER OPPORTUNITIES!

Thanks to those who filled out the volunteer survey recently and we will be reaching out to you! For those of you who missed it but are interested in helping out with webinar planning, newsletter content, furthering communications (social media, blogs, etc.), or award judging, your engagement is welcome and please reach out to incoming President Lauren Brown ([lbrown@toxstrategies.com](mailto:lbrown@toxstrategies.com)) if interested.

