



FOOD SAFETY SPECIALTY SECTION NEWSLETTER

Summer / August 2023

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LETTER FROM THE PRESIDENT

Greetings!

It was great seeing those who were able to attend the SOT meeting in exciting Nashville! The Food Safety Specialty Section (FS³) was highly successful with very well attended FS³-endorsed scientific sessions and Annual FS³ Meeting and Mentoring events.



A huge thank you is extended to the generous sponsors, dedicated officers and volunteers, and all of you; the food-safety-focused FS³ members, who helped organize and attended our events.

At the March 22nd FS³ evening reception, the FS³ officers presented a business report, financial report, and announced the newly elected officers. The FS³ officers presented our prestigious awards, including the Frank Lu Student Endowment Award and Elsevier Postdoctoral award, to our selected award winners. There was a brainstorming session aimed to identify hot topics in helping guide FS³ sponsored webinars and scientific session, which included topics on food contact packaging, endocrine disruptors, biotechnology advances, and sustainability. Our pre-annual FS³ mentoring event was completely packed with undergraduate, graduate students, postdoctoral fellows, early career toxicologists and engaging mentors who came from all areas of the food safety industry. It was a wonderfully attended networking event with good food and great discussion, which we plan on recreating the event again next year!

A big THANK YOU to our outgoing officers for serving on the FS³ leadership team and their great contributions to the success of FS³: Drs. Sachin Bhusari (Past President), Fleur de Mooij (Councilor), Lois Haighton (Councilor), and Rebecca Kim (Sr. Graduate Student Rep). You are missed! Welcome to the newly elected officers: Drs. Kevin Boyd (VP-elect), Kelly Almond-Abbate (Councilor), Alexandria Lau (Councilor), and Cassandra Winz (Jr. Graduate Student Rep). Together with our current officers, we have a strong team for the 2023-2024 year, and we will continue to make our Specialty Section a

strong scientific community to better serve your needs. We encourage members from academia, government, and industry to consider nominating yourself or others for FS³ officer positions or other volunteer involvement!

In preparation for the 2024 SOT Annual Meeting in Salt Lake City, Utah, the FS³ leadership team had been hard at work and completed reviewing scientific proposals seeking sponsorship from FS³. We had received many more and high-quality proposals than last year that represents state-of-the-art advances in Toxicology and will benefit our FS³ membership. Stay tuned for our fall newsletter with a list of the FS³ sponsored sessions. If you have any thoughts and suggestions or would like to share your scientific and career achievements (employment change, publications, presentations, book chapters, etc.), please do not hesitate to contact the sotfoodsafety@gmail.com, any of the current officers, or myself.

Sincerely yours,

David Szabo, PhD, CPPS, DABT, President of FS³.

Incoming FS³ Officers



VICE PRESIDENT-ELECT: KEVIN BOYD, PhD, DABT

Kevin Boyd has been with The Hershey Company since 2017 and currently leads the Regulatory Center of Excellence at The Hershey Company. The team is responsible for staying abreast and responding to a dynamic global regulatory environment, conducting risk assessments, and managing global food safety and regulatory programs around areas such as allergens, ingredients, contaminants, and claims. Prior to joining The Hershey Company, Dr. Boyd worked as a toxicologist at S. C. Johnson & Son Inc. providing global support for a wide variety of well-known brands. Dr. Boyd is a board-certified toxicologist who received his BS degree in Biochemistry from Virginia Tech, his PhD in Toxicology from the University of North Carolina at Chapel Hill, and a postdoctoral fellowship at the Penn State College of Medicine Hershey Medical Center. He has published several book chapters and a number of scientific papers, and he is currently involved in numerous working groups and associations addressing various topics in toxicology, allergens, and food safety. I love all foods and everyone has to eat, so getting to work in food safety is rewarding. Hershey was my first job in the food industry and I was managing allergen and food safety programs but I had never been in a food manufacturing plant; so, I spent several months working in our Reese's factory, which was a really awesome learning experience. At the moment, one of my favorite aspects of working in food safety is around communication and taking complex, technical topics and distilling them down and putting them into context and practical terms, whether that be for internal communication or external communication with consumers, customers, and regulators/risk managers. In my spare time, I have two boys that keep my wife and I busy and between coaching sports, watching sports, and traveling, we are always on the run trying new experiences and building memories.

JUNIOR COUNCILOR: ALEXANDRA LAU, PhD, DABT

Dr. Alexandria Lau is currently a Senior Scientist II at ToxStrategies LLC in the Foods and Consumer Goods Practice. She went from pesticides (S. C. Johnson & Son Inc.) to chocolate (The Hershey Company) to wine (E. & J. Gallo Winery) and now consulting (ToxStrategies) for many food and beverage companies. Her work involves being the subject-matter expert in assessing chemical contaminants in products, evaluating the safety of novel ingredients, and managing programs for food allergens and pesticides. She received her bachelor's and doctorate degrees from the University of Arizona in Molecular and Cellular Biology, with a minor in Economics, and Pharmacology and Toxicology, respectively. Dr. Lau enjoys being active within the Society through volunteering with the Women in Toxicology Special Interest Group (WIT), as a mentor for the Undergraduate Education Program, and as an expert in the Chat with an Expert program. Most recently, she was awarded the SOT Science Communications Training



Award to allow her to participate in a science communication training co-led by SOT and the Alan Alda Center Partner for Communicating Science. She has been featured in Science (“Sculpting a Sweet Career in Candy”) and was also a guest on the SOT podcast “Adverse Reactions” in the episode titled, “The Delicious World of Food Safety.” In her free time, she enjoys spending time with her family and friends, baking elaborate desserts, road trips, and spoiling her French bulldog (who is more famous than she is!).



JUNIOR COUNCILOR: KELLY ALMOND-ABBATE, PHD, DABT

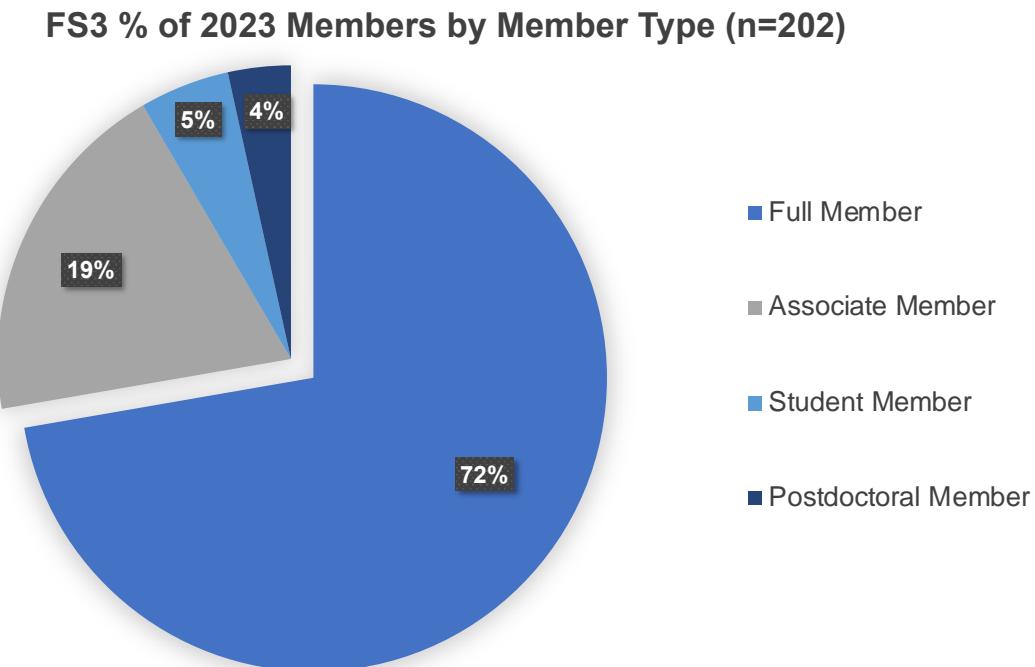
Dr. Kelly Almond-Abbate is a Senior Principal Scientist at Mars since August 2022. Prior to this, she worked at Pepsi Co. for six years where she evaluated the safety of 100+ botanical extracts, functional ingredients, flavouring substances and contaminants. She partnered with suppliers to conduct robust GRAS determinations for new ingredients and created and led internal taskforce on heat formed contaminants. In addition, Dr. Almond-Abbate was the President of ITCA. She graduated from St. John's University with a PhD in Toxicology.

JUNIOR GRADUATE STUDENT REPRESENTATIVE: CASSANDRA WINZ

Ms. Winz is entering her fourth year as a toxicology PhD student in the Joint Graduate Program in Toxicology at Rutgers University. She received a BS in biochemistry with a concentration in toxicology in 2020. Her doctoral research focuses on the role of dietary estrogenic endocrine disruptors on the progression and metastasis of breast cancer. She studies plastic additives, phytoestrogens, and mycotoxins. Ms. Winz is an author/co-author on two peer-reviewed articles, with more on the way. Ms. Winz is extremely passionate about mentoring undergraduate researchers and creating positive, inclusive environments for scientific collaboration. She is very involved in her graduate program's student association and serves on the Academic Committee for her graduate program. Additionally, she enjoys teaching younger scientists, and over the summer of 2023, she will serve as an instructor for two research training programs, one of which focuses on teaching the principles of toxicology to high school students. When she's not at the bench holding pipets, you can find her with crochet hooks in hand - she is an avid crocheter. She is delighted to serve as a graduate student representative for the Food Safety Specialty Section during the 2023-2025 term.



Membership Report:



Treasury Report:

End of Year Net Assets for 2022: \$43,796

Sponsorship Report:

A special thank you to our 2022-2023 Sponsors, Totaling \$4,100



SOT ANNUAL MEETING NASHVILLE REPORT

2023 FS³ Awards Recipients



Congratulations

To **Lei Lydia Zhang**, a graduate student at Texas A&M University for winning the **Franc C. Lu Graduate Student Award** for her work on:

'The anticancer activity of piperlongumine is due, in part to its activity as a nuclear receptor 4A1 (NR4A1) ligand'

Congratulations

To **Dr. Barbara Arroyo Salgado** from the University of Cartagena for winning the **Elsevier Postdoctoral Award** for her work on:

'The protective role of annona muricata preconditioning on Paraquat-induced damage in Caenorhabditis elegans and Beneficial use of three Bixa Orellana seed extracts on Caenorhabditis elegans'

2023 Burdock Group Scientific Award Recipients

Ashli A. Brown, Texas A&M University

Research Focus: Innovating standard Monte Carlo simulations utilizing @RISK software to assess the risk and identify threshold concentrations of dietary 5 and FUM associated with adverse health consequences in cattle.

Anish Mahadeo, University of Washington

Research Focus: Mechanisms of ochratoxin A nephrotoxicity. Human exposure and mechanism(s) of nephrotoxicity are poorly understood, but it is a known nephrotoxin associated with CKD.

FS3 Mentoring Event

The FS³ Career Mentoring event was held at the 2023 Annual Meeting in Nashville, TN. The goal of the event is to provide trainees with an opportunity to meet with experts and mentors from different sectors in food safety to discuss their career paths and assist with better understanding of potential career options in Food Safety. Mentees had the opportunity to interact with several mentors from academia and industry. There was a great turnout of students and the round-robin style event set-up let everyone meet each mentor. We thank all of the mentors and mentees who participated this past year and look forward to your support next year in Salt Lake City, Utah!

FS3 Reception

Following the mentoring event, the annual FS³ reception and business meeting was convened. We were thankful that our Vice President, David Szabo, stepped in to lead the presentation with the rest of our Executive Committee since our President, Logeswari Ponusamy, was not able to be present with us. It was great to see a packed room of members! The agenda covered a yearly overview of financials, membership, communications, webinars and the FS³ Awards Ceremony. The business meeting ended with an open discussion of upcoming webinar topics of interest and the need to continue to grow our membership! It was so great seeing everyone again and we hope to see next year in Salt Lake City. Below are a few pictures from the reception!



Evidence-Based Methods in Toxicology: Progress in the Past Decade and Collaborative Projections for the Future

Chair, Heather Schaefer, US FDA

The adoption of evidence-based methodologies in the field of toxicology and environmental health has experienced rapid growth in the past decade. This demonstrates the advantages that systematic review processes (e.g., transparency, reproducibility, rigor) bring to an assessment process but also highlights challenges the field faces in applying evidence-based medicine techniques to toxicology. Success in advancing methodologies has been achieved via collaborative efforts to share experiences and develop, test and refine tools and approaches, as well as provide educational opportunities. This session aims to summarize and provide case examples of the advancements and challenges in evidence-based methods in toxicology. It also will serve as a forum for participants to learn about the direction of evidence-based methods, collaboration opportunities and educational opportunities. This session will open with a brief introductory talk to characterize the scope of advances made in evidence-based toxicology over the past decade. A series of presentations will then highlight application of these methods to investigations of safety of food, drugs, and chemicals. A concluding talk will summarize future directions and challenges the toxicology community faces and its vision for the future. An open comment period will allow for identification and discussion of ongoing collaboration efforts open to the field.



New Approach Methodologies to Evaluate Botanical Safety

Chairs, Michelle Embry, HESI and Hellen Oketch-Rabah, United States Pharmacopeia

Botanical supplements and herbal medicines are used globally and are growing in popularity for both disease treatment and prevention in some regions, especially because of the COVID-19 pandemic. Botanicals encompass plant-derived products, fungi and algae and are naturally complex with varying chemical compositions because of factors such as differences in growing conditions, extraction processes, and changes to the finished product. Ensuring the safety of these products is an important public health priority, yet most regulatory structures do not require toxicity testing and rely on information related to history of safe use. Conventional *in vivo* and *in vitro* toxicity testing methods that are often used for safety assessment of chemicals and pharmaceuticals were developed for use on single, discrete chemicals rather than the complex mixtures that represent most botanical substances. As a result, toxicity data for many botanical mixtures are lacking, and few new approach methodologies (NAMs) have been evaluated for their suitability with these complex mixtures. This session will provide an overview of the current regulatory landscape for botanical products, discuss gaps and recent efforts and study data to improve or design new methodologies and highlight successes and challenges associated with study design, method development and data interpretation of these approaches. The session will begin with a brief outline of botanical dietary supplements highlighting the importance of evaluating toxicity for these complex mixtures and the unique challenges associated with studying them. Progress in the use and application of NAMs and analytical approaches for botanicals within a risk-based context will set the stage for this outline that will be followed by an overview for the current regulatory landscape. The next three talks will highlight specific progress and assay results, including novel data generation across various NAMs that can be used to evaluate diverse endpoints of toxicological importance. These include developmental neurotoxicity batteries, *in vitro* enterotoxicity assays, and toxicogenomic approaches to evaluate systemic toxicity.

Tiny Tox Talk: The Importance of Toxicology for Food Innovation

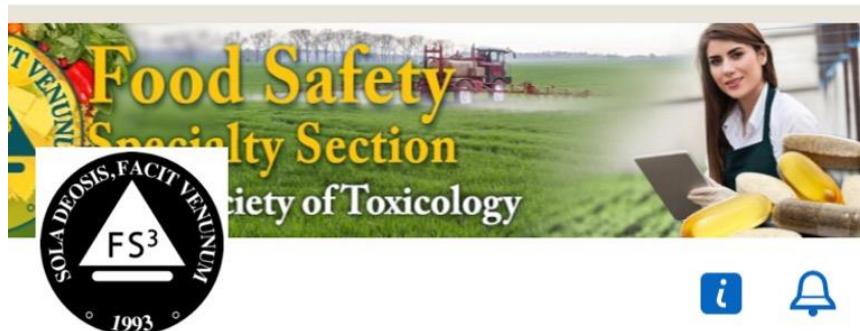
Lois Houghton, Intertek

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Call for Expert Volunteers

SOT FS³ is seeking nominations for experienced speakers in the Food Safety Field to be part of the SOT Speaker Directory. Up to five expert members from FS³ membership will be nominated. Please nominate yourself or someone you know who would be willing to serve as a potential speaker and be listed in the SOT directory. Nominations can be sent to fs3.proposals@gmail.com

Don't Forget to Join us on [LinkedIn](#)



SOT Food Safety Specialty Section

Listed group



REMINDER:

The abstract submission period for the 2024 Annual Meeting and ToxExpo will begin August 15th and end November 13th, 2023. More information on the submission process is available on the [Annual Meeting Website](#).