



FOOD SAFETY SPECIALTY SECTION

Summer Newsletter 2025

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Councilor: Vivian Lu

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Graduate Student Representative: Kaylyn Dinh

Junior Graduate Student Representative: Wagner Tamagno

Letter from the President

Dear SOT FS³ Members,

By this time hopefully you have been able to enjoy some relaxation, taken some exciting vacation(s), and survived the blistering heat. We had a really strong 2025 meeting in Orlando, endorsing a variety of sessions and hosting not one, but two, continuing education courses. This is no small feat given that food toxicology is a small subset of the society as a whole. So, thank you to all of our members who developed and/or supported these sessions and our specialty section as a whole. For those of you who could not make the meeting this year, including many of our government colleagues, the meeting was not the same without you all, and we hope to connect during the year and in beautiful San Diego for the 2026 meeting.



We bid farewell to some outstanding officers who really contributed to the success of FS³ and made being a part of this group fun and rewarding. We would like to thank our Past President David Szabo, our Senior Councilors Kelly Almond-Abbate and Alexandria Lau, and our Graduate Student Representative Cassandra Winz. Transition paves the way for new perspectives, and we are excited to welcome Laura Markley as our VP-Elect, Maresha Charles and Vivian Lu as Councilors, Mohamed Fathi Abdallah as our Postdoc Representative, and Wagner Tamagno as our Junior Graduate Student Representative. For those of you continuing on for another year on the committee, I am excited to continue to work with you all. Lastly, we are always looking for more candidates to potentially serve as FS³ officers, so start thinking about this as a possibility now so you're ready when we get to election time!

As we head toward the end of summer and approach the fall, the amount of national and state activity and scrutiny around the safety of food additives continues to remain strong. We should care about what we eat, but we also fear the unknown. Science is intended to seek an understanding of what was previously unknown, and decisions around safety should be guided by the science and the work that all of us do. The best science, however, will only take us so far and requires a compelling story and effective communication. Whether you are in academia, government, or industry, this attention gives the field of toxicology and our membership in the food safety specialty section an opportunity to shine and promote the science of toxicology in general, the risk assessments and evaluations that support the safety of the US food supply, and the accurate communication of complex topics to the public.

We are brainstorming additional ideas/events for member engagement so if you have any ideas, please send me an email (knboyd@hersheys.com). Finally, if you are a student (or a faculty member with students), a postdoc, or an early career scientist conducting research relevant to FS³, please check out FS³ awards and consider applying for the 2026 meeting!

Good luck out there,
Kevin N. Boyd, PhD, DABT
FS³ President, 2025-2026

Incoming FS³ Officers

Vice President-Elect: Laura Markley

Dr. Markley is a toxicologist within the Human Foods Program at the US FDA where she reviews premarket notifications and addresses post-market safety issues related to food packaging. With 20 years of experience in toxicology, she holds a Ph.D. in biochemistry and molecular biology from the University of Maine and completed a postdoctoral fellowship at the US FDA in CDRH. An SOT member since 2005, she has held several leadership roles including on the SOT Nominating Committee (2025), FS3 Presidential chain (2025–2029), NCAC Presidential chain (2022–2025), and as the MSS Councilor (2020–2022). She serves on various committees including the OECD Genotoxicity Expert Group, steering committee for IWGT, Genetic Toxicology Subcommittee of the CDER PTCC, OPMAS Genetox Team, and HESI GTTC. Dr. Markley mentors students through the UM/FDA JIFSAN program and in collaboration with NCTR. Her goal for FS3 is to foster an inclusive environment for food safety toxicologists that supports professional development, mentorship, and initiatives that advance global food supply safety.



Junior Councilor: Maresha Charles



Dr. Charles is a Senior Manager of Risk Assessment and Toxicology at the Coca-Cola Company. In this capacity she manages a range of initiatives including novel material safety assessments, identifying emerging risks, and developing global scientific advocacy strategies. Prior to her current role, Dr. Charles was a cosmetic toxicologist, specializing in finished product and ingredient risk assessments—particularly for cosmeceuticals, botanicals, and bioactive ingredients—conducting evaluations of acquired brands and supporting product innovation. Dr. Charles earned her PhD in Pharmacology from Loma Linda University and is a Diplomat of the American Board of Toxicology. She is energized by community development initiatives, volunteering as a coach and judge at local science fairs, mentoring and empowering future scientists.

Junior Councilor: Vivian Lu

Ms. Lu is a Principal Scientist in the Global Scientific Affairs team of PepsiCo, Inc. She received her Master's of Science in Pharmacology & Toxicology from Michigan State University in 2021. Within her role at PepsiCo, she serves in numerous roles at various trade associations, such as the Vice Chair of the Ingredient Working Group at the Association for Sustainable Food Safety (ASFS) and as a member in the International Caramel Technical Association (ITCA) and the Flavor Safety Subcommittee of the Flavor & Extract Manufacturers Association (FEMA). She also holds a number of leadership roles internally at PepsiCo related to food ingredient safety. In prior roles, Vivian has spent time managing scientific programs for the flavor industry trade associations and testing programs at various contract research organizations in the spaces of pharmaceuticals, industrial chemicals, and crop protection. She is passionate about scientific communication and recruiting the next generations of food safety toxicologists.



Postdoctoral Student Representative: Mohamed Fathi Abdallah



Dr. Abdallah is a postdoctoral researcher at the University of Mons, specializing in the risks posed by natural toxins and emerging environmental contaminants in food. He earned his PhD in Pharmaceutical Sciences from Ghent University in 2020 and continued there as a postdoctoral fellow until 2023. His research on mycotoxins has been widely published in different peer-reviewed journals, including *Food and Chemical Toxicology*, *Food Control*, *Mycotoxin Research*, *Toxins*, *Journal of Food Science*, and *Environment International*.

Dr. Abdallah has received multiple Belgian and European fellowships, grants, and awards. His recognitions include the Young Scientist Award, Best Oral and Poster Presentation Awards, and various travel grants. In addition to his research, he is actively engaged in academia, mentoring postgraduate students and contributing to the advancement of food toxicology regulation.

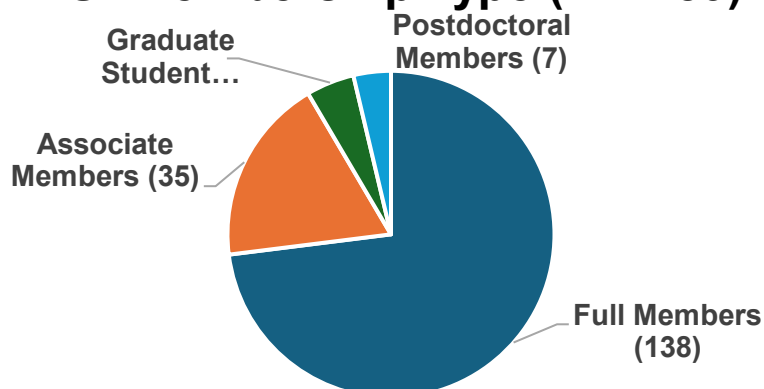
Junior Graduate Student Representative: Wagner Tamagno

Wagner Tamagno holds a degree in Biology and a Master's in Pharmacology from Brazil (2020 and 2022, respectively). He is currently a PhD candidate in Toxicology at Purdue University, where he also serves as the 2025–2026 Co-President of the Health and Human Sciences Graduate Student Organization (HHS-GSO). His research focuses on how low levels of early-life Pb exposure disrupt glutamatergic signaling and contribute to cognitive impairments and neurodegeneration, using zebrafish as a model. He also investigates gene–environment interactions involving *sort11* mutations and Pb exposure in the context of Alzheimer's disease risk. Wagner mentors undergraduate researchers and actively contributes to science communication and education. He has been a member of the Society of Toxicology (SOT) since 2023 and has published several papers on environmental toxicants. He is a 2025 R&D intern with the Global Scientific Affairs team at PepsiCo in Valhalla, NY.

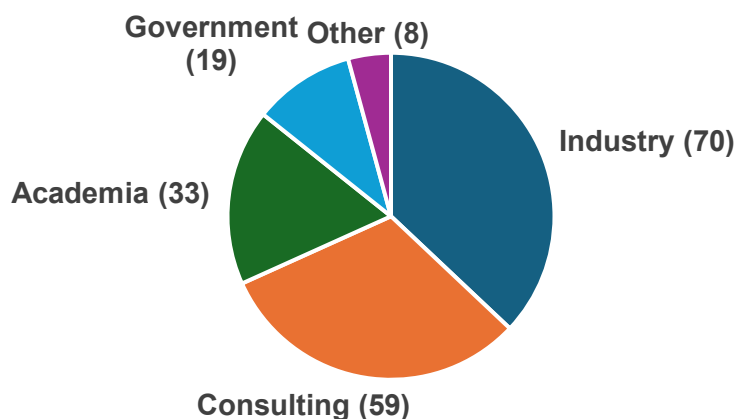


FS³ Membership and Treasury Update

FS³ Membership Type (n = 189)



FS³ Membership by Sector (n = 189)



Treasury Report

The balance as of May 2025 is \$40,196 after paying expenses of \$6,082 incurred during the 2025 Annual SOT meeting (meeting rooms, awards plaques, etc.) and including sponsor donations of \$5,600. The net assets for the Frank C. Lu Endowment Fund hold a current balance of \$62,778 at the end of May 2025.

2025 FS³ Award Recipients

Frank C. Lu Graduate Student Award: Kaylyn Dinh, Texas A&M University, "Montmorillonite Clay-Based Sorbents Reduce PFOA and PFOS in Milk"

Burdock Group Scientific Science Award: Joe Lim, University of Washington, "Toxicological Impacts of Persistent Environmental Contaminants Found in Food on Metabolic Health through Disruptions in the Gut-Liver Axis"

2025 Sponsorship Update

The FS³ Officers sincerely thank the 2025 sponsors!



Individual Sponsors

Alex Eapen Jieun Lee Satyan Kalkunte

Company Sponsors

Burdock Group, Cargill, Inc., The Coca-Cola Company, Danone, Elsevier, Exponent, PepsiCo, Vanguard Global

If you're interested in sponsoring FS³, please visit the SOT donation link [here](#).

SOT Annual Meeting Report – Orlando, Florida

FS³ Endorsed Sessions for 2025

5 Submissions (4 for Primary Endorsements): 1 Symposium, 2 CE, 1 Information

The Tox Side of Food: Building Comprehensive Safety Assessments

CE Course, 3 hrs 45 mins

This course, geared toward toxicologists in the food industry, aimed to enhance expertise in evaluating toxicology studies while honing critical-thinking skills in assessing the weight of evidence and study design. It was also for toxicologists curious about how toxicology is applied to food safety or who wanted to learn transferable skills from another subdiscipline in the field. Presentations included establishing food safety for ingredients, developing safety narratives that align with regulatory requirements, and optimizing regulatory approvals within food additives, color additives, and GRAS substances. This well-attended course provided practical insights and featured a real-world case study, offering toxicologists a valuable platform to deepen their knowledge, broaden their perspectives, and strengthen their impact on food safety and regulatory science.

Complexity of Food Packaging: Formulation, Safety, Regulation, Innovation, and Recycling

CE Course, 3 hrs 45 mins

This course provided participants with an understanding of the regulatory requirements to ensure food packaging safety while also understanding the complexities of developing sustainable and innovative food packaging. By covering fundamental concepts, providing case studies, and addressing challenges, participants gained valuable insight into ensuring food packaging meets the current safety, sustainability, and regulatory standards. This course drew strong participation, equipping attendees with the tools and knowledge needed to understand current regulatory and safety approaches for evaluating food contact materials, considering formulation, new approach methodologies, innovation, recycling, and sustainability challenges.



Toxicological and Regulatory Considerations for Emerging Technologies and Hot Topics in Food

Symposium Session, 2 hrs 45 mins

Innovation in the food industry enables development of new products that fulfill expectations fueled by consumer trends such as the desire for natural food ingredients, non-animal protein alternatives to meat and dairy products, and the production of meat without slaughter of animals, while maintaining desirable flavor and appearance of foods. Innovation must be accompanied by consumer confidence in product safety, ever more important in the information age where there is heightened awareness and focus on food ingredients, food regulation, commercial food production, and food processing, along with widely disseminated misinformation concerning the inherent safety and regulatory scrutiny of our food supply. The Food Safety Assessment framework is robust, and regulatory agencies utilize both scientific rigor and policy making authority to evaluate food ingredient safety and to extend these approaches to innovative new products.

Speakers addressed safety considerations regarding innovations in the food industry in the areas of precision fermentation (use of microbes modified to produce a specific product), alternative proteins (meat and milk alternative proteins), biotics (prebiotics, probiotics, postbiotics), infant formula ingredients, and cultivated/cultured meat. The session was highly informative, well attended and engaging with a Q&A session that followed the speaker presentations.

Nonessential Heavy Metals in Food: How Low Should We Go?

Informational Session, 1 hrs 20 mins

Nonessential heavy metals in foods can be harmful, especially to vulnerable populations like children, older adults, and those with chronic health conditions. Although levels in individual foods are low, cumulative exposure to heavy metals can increase due to their presence in many foods.

The session was well attended despite the lunch hour! Dr. Brinda Mahadevan (Brincor Associates, LLC) discussed sources and the impact of heavy metals in food. Dr. Brenna Flannery (US FDA) explained the need for regulatory limits on these contaminants. Dr. Peter Pressman (University of Maine) focused on high levels of heavy metals affecting sensitive populations. Dr. A. Wallace Hayes (University of South Florida) provided examples of derisking approaches to support food safety.



2025 Other FS³ Events

The Great Additive Debate: Does the US actually permit significantly more food additives than the EU?

Webinar, 500+ Registrants, Recording [Link Here](#)

Speakers: Tony Pavel (Keller & Heckman LLP) and Karin Ke (Keller & Heckman LLP)

This session explored whether there are in fact 10,000 food additives in the U.S. food supply compared to 400 in the EU. While comparisons like these are popular, they often lack necessary context. Nevertheless, these numbers have been a primary talking point in mainstream media, state legislation, congressional hearings, and discussions around the safety of the US food supply. The session outlined where the numbers came from, their accuracy, the safety evaluations of food additives, and provided an in-depth analysis of the number of food additives in the U.S. compared with the EU. The session concluded that the EU permits virtually all the same food additives and inputs as the US, with key differences arising from how each region categorizes these substances. By unpacking the data and regulatory distinctions between these two regions, this session offered attendees a clearer understanding of the complexities surrounding food additive comparisons and helped cut through the noise of oversimplified narratives often seen in public discourse.

Cultivated Chocolate: The Sweet Side of Cellular Agriculture

October 29, 2025 2-3 PM EST, Registration [Link Here](#)

Speakers: Steven Lang (California Cultured) and Deepti Kulkarni (Covington & Burlington LLP)

Production of chocolate through the means of cellular agriculture is an emerging, sustainable alternative to traditional cocoa production. This innovative approach involves cultivating cacao cells within controlled bioreactor environments, enabling a consistent and high-quality chocolate product without the inherent vulnerabilities associated with conventional agricultural practices. Cellular agriculture promises to offer consumers consistent and high-quality chocolate experience while promoting a more ethical and sustainable chocolate supply chain. As research and development in this field continues to advance, cellular agriculture may become a key driver of innovation and sustainability in the chocolate industry. This session will delve into the science and safety behind the development of cultivated chocolate as well as discussion on the evolving regulatory landscape for novel foods.



**UPCOMING
WEBINAR**

[Register now!](#)

The 2025 Mentoring Event was held in collaboration with the Hispanic Organization of Toxicologists (HOT) Special Interest Group during the annual SOT meeting in Orlando, FL. This engaging session featured a panel of representatives from both groups in a question-and-answer format. Undergraduate and graduate students, postdocs, and early career scientists had the chance to ask a wide range of questions, from the importance of networking to practical tips for both introverts and extroverts. The session was well attended, sparking vibrant discussions and leaving the group with gems to reflect on. A heartfelt thank you to the panelists and attendees for contributing to the success of this event!



FS³ Reception

After the mentoring event, members gathered for the FS³ reception, a fantastic opportunity to mingle, connect, and enjoy great food. The reception was followed by the business meeting, which included discussions on the year's finances, membership updates, communications, and the FS³ Awards Ceremony. The session was led by our current Past President, Amy Roe, along with our officers, to whom we extend our gratitude. It was a pleasure seeing everyone, and we look forward to reconnecting next year in San Diego, CA!



Have session ideas, want to run for a committee position, or have suggestions for FS³? Reach out to Kevin Boyd (knboyd@hersheys.com) or any FS³ officer.