

# Mixtures Specialty Section

*A mixture of business, social, and news*

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### *From the Past President*

Dear SOT Mixtures Specialty Section (MixSS) members,

It is bittersweet to write my last Newsletter message as the Past President for MixSS.

It has been an honor to serve on the MixSS President track for the last four years. I was very fortunate to work with hardworking and dedicated MixSS officers throughout the years. MixSS will be in great hands with our new President, Dr. Courtney Roper. I can't wait to see what MixSS will accomplish under her outstanding leadership.

We have accomplished a lot during the past year due to the diligent work of MixSS officers. Speaking of which, I would like to introduce our new officers for 2024-2025, so please see page 6.

If you are interested in serving as a MixSS officer, or if you would like to nominate someone, please reach out to us via [sotmixss@gmail.com](mailto:sotmixss@gmail.com).

We have new positions available for Student Representative (*1-year term*), Postdoctoral Representative (*1-year term*), Junior Councilor (*1-year term*), Secretary / Treasurer (*2-year term*), and Vice President-Elect (*4-year term*) for the upcoming term starting May 1<sup>st</sup>, 2025.

*Cont'd on pg 2*

## *From the Past President, continued*

This year, MixSS provided several awards to outstanding students and postdocs. With the sponsorship of [RTI International](#), we provided awards to one student and one postdoctoral fellow involved in research related to the toxicology of mixtures. For the first time, this year, MixSS hosted a virtual award competition where students, postdocs, and young investigators had the opportunity to present projects related to the mixtures field and compete for a cash award to support their travel to the SOT Annual Meeting. The travel award was conferred in honor and remembrance of our dear colleague, [Dr. Jane Ellen Simmons](#). We are hoping to continue providing JES Travel Award annually.

If you would like to consider sponsoring or contributing toward the Jane Ellen Simmons award, please send an email to [SOTmixSS@gmail.com](mailto:SOTmixSS@gmail.com) or [donate online](#).

The MixSS recognized all the winners during our reception in Salt Lake City with an achievement plaque and \$500 cash award for each winner. In addition, MixSS recognized outstanding abstracts focused on mixtures research. The top 5 abstracts were acknowledged (page 4) with blue ribbons at the SOT Annual Meeting. The top overall abstract also received a plaque at the reception (page 5). Please follow our announcements for the 2025 Annual Meeting award applications if you would like to be considered for MixSS student, postdoc, and young investigator awards. Also, check out our [MixSS Website](#) and [LinkedIn Page](#) to stay up to date on MixSS events and webinars.

Sincerely,  
Esra Mutlu, PhD, DABT  
President, MixSS (2023-2024)



# SOT 2024 Annual Meeting Recap

## MixSS-Endorsed 2024 SOT Sessions

1. Botanical-Induced Toxicity: Liver Injury and Botanical Drug Interactions (Symposium)
2. The “Cocktail Effect”: Studying the Greatest Uncontrolled Experiment Ever Launched! (Symposium)
3. Methods and Transdisciplinary Frameworks to Evaluate Cumulative Impacts to Advance Equity in Community Health, Well-Being, and Quality of Life (Informational)
4. Using Geographical Information to Promote Environmental Health and Justice (Workshop)
5. Integrating Aggregate Exposure Pathways and Adverse Outcome Pathways for Comprehensive Risk Assessment of Chemical Mixtures (Workshop)
6. Making Sense of Chaos: Recent Advances in Complex Mixtures Research and Regulation (Workshop)
7. Mixtures Poster Session

86

abstracts that were mixtures related at SOT 2024

## Mentoring Panel at 2024 SOT Mixtures Specialty Section Reception

Our 3<sup>rd</sup> annual Mentoring Event for early career scientists was a success with over 30 participants in the round-robin “speed-networking” event. Mentors from academia, industry, and government provided networking and career advice. Thank you to all our mentors for their participation and guidance!

*Special thanks to our mentors!*

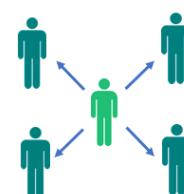
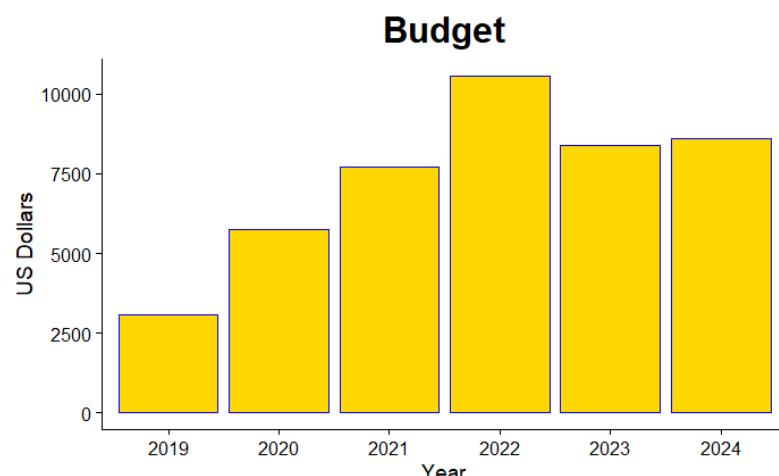
Academia: Drs. [Chris Kassotis](#) and [Jennifer Schlezinger](#)

Industry (RTI): Drs. [Reshan Fernando](#), [Keith Levine](#), and [Chamindu Liyanapati](#)

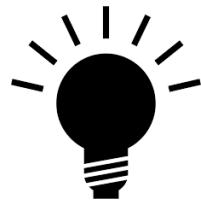
Government: Dr. [Danielle Carlin](#)



If you would like to consider sponsoring or contributing toward future events, please send an email to [SOTmixSS@gmail.com](mailto:SOTmixSS@gmail.com) or [donate online](#).



[\*\*Join  
Mixtures  
SS!\*\*](#)

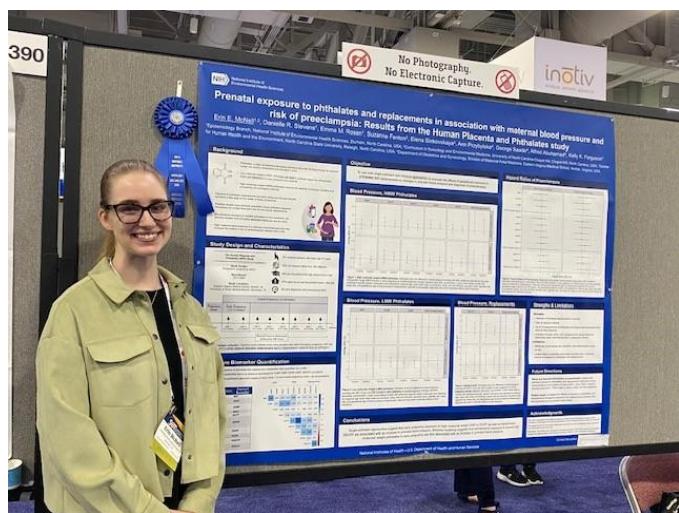


Can join at any time during the year!

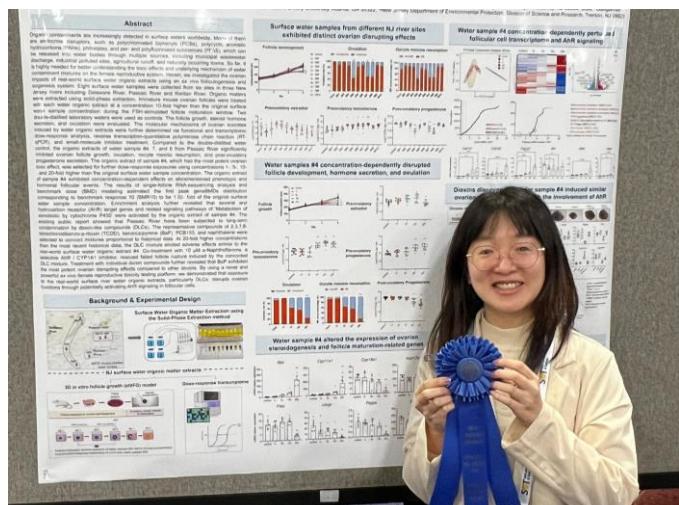
Membership fee of \$20

*SOT Student and Postdoc members receive one FREE Specialty Section membership with their SOT membership.*

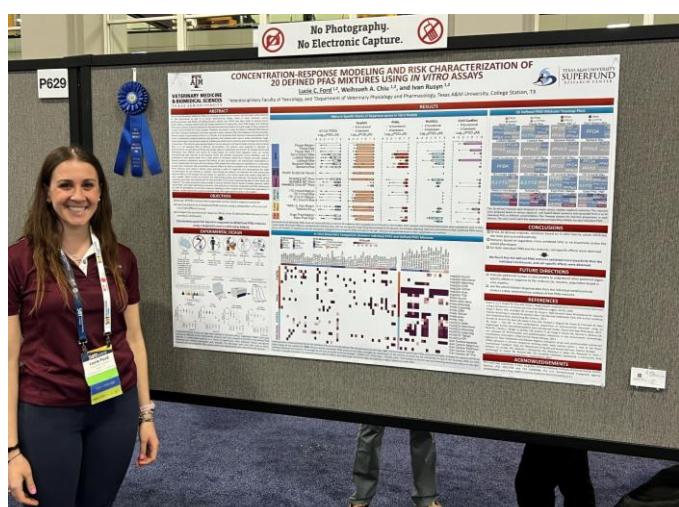
# SOT 2024 Photo Album



**Best Abstract Winner: Erin McNeil**  
(UNC Chapel Hill/NIEHS)

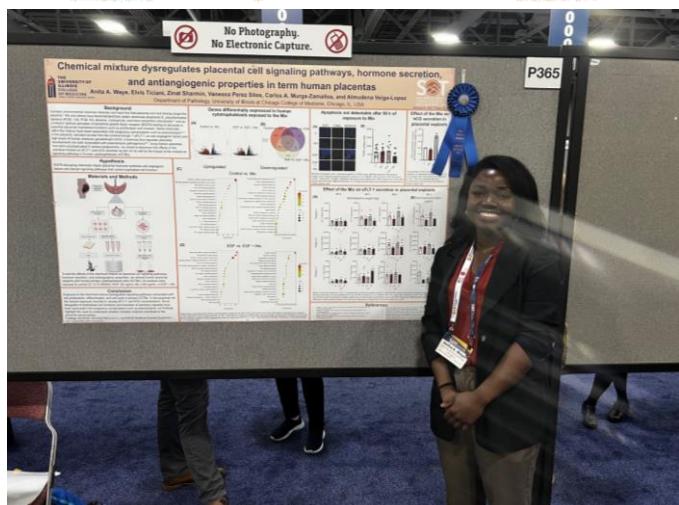
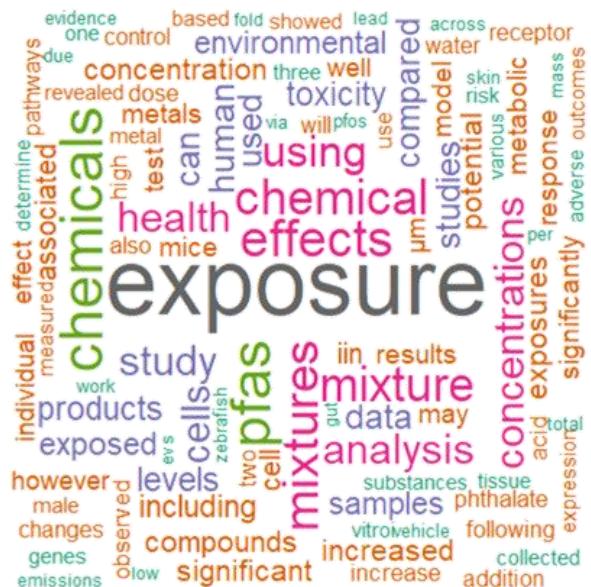


**2<sup>nd</sup> Place Best Abstract: Tingjie Zhan**  
(Rutgers University)

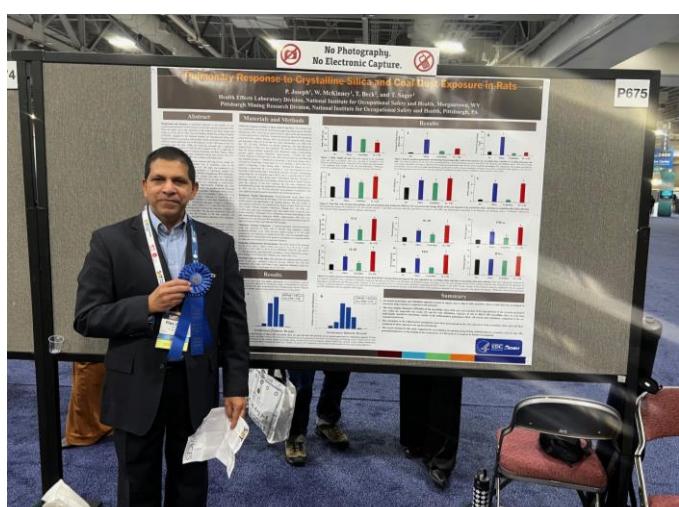


**4<sup>th</sup> Place Best Abstract: Lucie Ford**  
(Texas A&M University)

Word cloud of all 86 abstracts!



**3<sup>rd</sup> Place Best Abstract Place: Anita Waye**  
(University of Illinois at Chicago)



**5<sup>th</sup> Place Best Abstract: Pius Joseph**  
(CDC-NIOSH)

# 2024 SOT Award Winners



***Jane Ellen Simmons Travel Award Winner:***  
**Samantha Heldman**  
**Wayne State University**

Early Developmental Exposure to Liquid Crystal Monomer Mixtures Impacts Zebrafish Locomotive Behavior, Cellular Respiration, and Adiposity



***Student Award Winner:***  
**Juliana Agudelo Areiza**  
**University of Rhode Island**

Evaluation of Legacy and Replacement Per- and Polyfluoroalkyl Substances (PFAS) in Human Livers  
Banked over the Past 20 Years



***Postdoc Award Winner:***  
**Elise Hickman**  
**UNC Chapel Hill**

Chemical and Non-Chemical Stressors in a Postpartum Cohort through Wristband and Self Report Data: Novel Links between Increased Chemical Burden, Economic, and Racial Stress



# Outgoing Officers

2023–2024



Past President  
Paul S. Price



President  
Esra Mutlu



Vice President  
Courtney Roper



Vice President-Elect  
Jennifer Schlezinger



Secretary/Treasurer  
Shannah Witchey



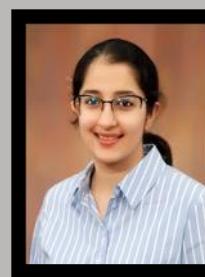
Senior Councilor  
Allison Phillips



Junior Councilor  
Christopher D. Kassotis



Postdoctoral Rep  
Kristin M. Eccles



Graduate Student Rep  
Ishita Virmani

2024–2025

# Incoming Officers



Past President  
Esra Mutlu



President  
Courtney Roper



Vice President  
Jennifer Schlezinger



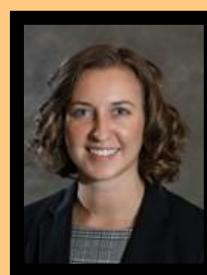
Vice President-Elect  
Allison Phillips



Secretary/Treasurer  
Shannah Witchey



Senior Councilor  
Christopher D. Kassotis



Junior Councilor  
Rachel Dee



Postdoctoral Rep  
Thomas Jackson



Graduate Student Rep  
Samantha Heldman

# Meet Your New Officers

## **Rachel Dee, Junior Councilor**



Dr. Rachel Dee is a global regulatory toxicologist at Corteva Agriscience. In this role, Dr. Dee serves as a mammalian toxicology subject matter expert, coordinating human safety testing for conventional and emerging crop protection technologies with a keen interest in formulations and mixture science. Before joining Corteva, Dr. Dee received her PhD in Pathology from the University of North Carolina at Chapel Hill under the mentorship of Joan Taylor, PhD, where she studied blood pressure regulation via smooth muscle and assessed the therapeutic capability of a new anti-hypertensive. For her postdoc, Dr. Dee evaluated the toxicity of chemicals nominated to the National Toxicology Program (NTP) at the National Institute for Environmental Health Sciences (NIEHS) under the mentorship of Kristen Ryan, PhD. Previously, Dr. Dee has served as the Postdoctoral Representative for the Mixtures Specialty Section (MixSS) and the Continuing Education Committee. Dr. Dee is also passionate about science communication and trainee career exploration. In her “free” time, Dr. Dee enjoys doing anything outside, trying to make her partner’s cats love her, and learning embroidery.

## **Thomas Jackson, Postdoctoral Rep**

Dr. Thomas Jackson is a biologist in the Public Health and Integrated Toxicology Division of the US EPA. He received his PhD in Toxicology from North Carolina State University under the supervision of Dr. Scott Belcher, where his dissertation focused on characterizing how developmental exposure to cadmium caused obesity and metabolic syndrome in adult female offspring. Dr. Jackson joined the US EPA in 2021, where his work focuses on understanding drivers of individual susceptibility to disease by untangling the complexities of exposures or mixtures on health outcomes using primarily rodent models. He has authored > 25 peer-reviewed publications and was awarded a patent on an assay for the rapid measurement of protein affinity for PFAS using differential scanning fluorimetry. Dr. Jackson has recently accepted a position as a principal investigator in the Reproductive and Developmental Toxicology Branch of the US EPA.



## **Samantha Heldman, Graduate Student Rep**



Samantha Heldman is a Pharmacology PhD candidate in the School of Medicine at Wayne State University. Under the mentorship of Dr. Christopher Kassotis, Samantha’s dissertation research focuses on characterizing the endocrine and metabolism disrupting potential of liquid crystal monomers (LCMs), which are essential components of the liquid crystal displays in the screens of many of our favorite electronic devices. Her work has demonstrated that LCMs, individually and in mixtures, can significantly disrupt the transcriptional activity of nuclear receptors involved in key metabolic pathways as well as promote adipogenesis *in vitro*. To explore the implications of these findings, she is currently utilizing a suite of physiological, behavioral, and genomic methods to investigate the metabolic health impacts of early developmental LCM exposure in a zebrafish model. When she is not badgering her friends and family to fix their cracked phone screens, Samantha enjoys rock climbing, karaoke, and spending time with her foster dogs.

# Looking to the Year Ahead

## SOT Orlando, Florida 2025

March 16-20, 2025.....	<u><a href="#">SOT 2025 Orlando</a></u>
August 1, 2024 .....	Registration and Housing open
November 13 <sup>th</sup> , 2024 .....	Abstract submission deadline
October 9, 2024 .....	SOT Awards deadline
January 31 <sup>st</sup> , 2025 .....	<u><a href="#">Mixtures SS Best Overall and Best Student/Postdoc Awards Deadline</a></u>

## MixSS Jane Ellen Simmons SOT Travel Award

This year, the MixSS is organizing a virtual event in early 2025, where students, postdocs, and young investigators will have the opportunity to present their projects related to the mixtures field. The competition will provide an award to support travel to the 2025 SOT meeting in Orlando. This award will be conferred in honor and remembrance of our dear colleague, [Dr. Jane Ellen Simmons](#). We are indebted to her service and legacy.

If you would like to be considered for this award, please follow MixSS announcements via member emails, MixSS [website](#), and [LinkedIn](#). We look forward to receiving your applications!

The application deadline is November 13<sup>th</sup>, 2024, and the competition will be in early 2025.



*Dr. Jane Ellen Simmons,  
1952–2022*

## Co-Sponsored Webinars with RASS

***Look out for our upcoming September 11<sup>th</sup> seminar to be presented jointly with [RASS!](#)***

[MixturesSS Past and Upcoming Events](#)

September 2023

[Watch](#)

Dr. Kristin Eccles - Health Canada

*Methodological Details For Quantifying The Risk of Exposure to Environmental Chemical Mixtures Via a Common Molecular Target Using a Geospatial Modeling Approach*

Dr. Paul Price – Risk Sciences International

*The Hazard Index at Thirty-seven*

January 2024

[Watch](#)

Dr. Jason Lambert - Office of Research and Development, US EPA

*Advancing the Science of PFAS Mixtures Assessment*



# MIXTURES

## SPECIALITY SECTION

Please consider donating to the Mixtures Specialty Section so that we can continue to offer exciting events and awards!

Email: [SOTmixSS@gmail.com](mailto:SOTmixSS@gmail.com)

[Donate Online](#)

Are you on LinkedIn? Now we are too! Connect with the Mixtures Specialty Section on LinkedIn to stay up to date on Specialty Section announcements, SOT Annual Meeting deadlines, and upcoming webinars.

[Find the MixSS LinkedIn Page HERE](#)

 LinkedIn

See you in Orlando!

