

## Mixtures Specialty Section

### **ANNUAL REPORT: 2021-2022**

May 1, 2021 to April 30, 2022

#### **I. Officers/Committees:**

<u>Officers</u>	<u>2021-2022</u>	<u>2022-2023</u>
President:	Mansi Krishan	Paul Price
Vice President-Elect:	Esra Mutlu	Courtney Roper
Vice President:	Paul Price	Esra Mutlu
Secretary:	Jennifer Schlezinger	Jennifer Schlezinger
Treasurer:	Jennifer Schlezinger	Jennifer Schlezinger
Past President	Thomas Webster	Mansi Krishan
Councilors:	Courtney Roper	Justin Conley
	Justin Conley	Allison Phillips
PDA Representative:	Elizabeth Medlock Kakaley	Rachel Dee
Graduate Student Representative:	Brianna Rivera	Greylin Nielsen
		Brianna Rivera (Ad-hoc)

Committees: Program, nominations, awards, webinar, communications, membership, fundraising and mentoring.

#### **II. 2021-2022 Membership total: 128**

#### **III. Key Outcomes in 2021-2022:**

#### **IV. Activities:**

##### **A. 2022 SOT Annual Meeting Activities (e.g. courses, scientific sessions, reception, poster session, mentoring event):**

- CE Course (March 27): How advances in exposure science and toxicology are changing assessments of the effects of chemical mixtures on human health. Mixtures SS co-developed it with Exposures SS
- Symposium (March 31): PFAS sum vs some? Science and Policy of Mixtures
- Workshop Session (March 28): This is Your Brain on Mixtures: Neurodevelopmental Effects of Combined Exposures
- Workshop Session (March 28): Holistic View on the Impacts of Climate Change
- Mixtures Poster Session (March 30)
- Mixtures Specialty Section Reception (March 30)
- Mixtures Specialty Section Reception Mentoring Event (March 30)

##### **B. 2022 Awards Information:**

###### **Trainee Awards:**

- A Population-Based Human In Vitro Approach to Characterize Inter-Individual Variability in Responses to Complex Mixtures. **Lucie Ford**, Texas A&M University

- Wildfires and Extracellular Vesicles: Linking Cardiopulmonary Hypoxia Signaling Alterations across Tissues in Mice Exposed to Variable Biomass Smoke. **Celeste K. Carberry**, UNC Gillings School of Global Public Health.

**Mixtures SS Best Abstract Award – Top 5 Abstract Winners**

1. Metal Exposome Influenced by Fishing Activity Reveal Differences in Metabolomic Association Networks in Cheyenne River Sioux Tribal Community, **Jolyn Fernandes**, University of Oklahoma Health Sciences Center [Best abstract award winner]
2. Indoor Fuel Sources Influence PM2.5 Chemical Composition and Alter Zebrafish Behavior, **Shayla Victoria**, University of Mississippi
3. Combined Effects of Chemical Mixtures Are Predictable for the Whole Transcriptome: A Proof-of-Concept Study with Zebrafish Embryos, **David Leuthold**, Helmholtz Centre for Environmental Research
4. Flexible Physiologically Based Pharmacokinetic (PBPK) Model for Mixtures of Dioxin-Like Compounds, **Qiang Zhang**, Emory University.
5. Traffic-Generated Pollutant-Exposure Combined with High-Fat Diet Exacerbates the Expression of Factors Associated with Alzheimer's Disease Pathophysiology in Aged C57BL/6 Wild-Type Mice, **Tyler Armstrong**, University of North Texas.

C. Other Educational Activities Conducted (e.g. webinars, in person meetings, etc.):

- Webinar with RASS was held on 8 September 2021. Dr. Jacklyn "Skye" Kelty presented on "The Missing Link: Ex vivo e-Cigarette Toxicity Modeling"
- Webinar with RASS was held on 12 January 2022. Dr. Brianna Rivera presented on "A Novel Framework to Form Sufficiently Similar Mixtures"

D. Communication Activities:

- Mix SS launched a LinkedIn page
- MixSS Newsletter October 2021
- Redesigned MixSS website and logo
- Membership survey: Mix SS launched a new membership survey to engage members. MixSS members volunteered for different Mix SS committees. Also, MixSS received some good suggestions on topics for the future webinars and sessions.

E. Mentoring activities: Mix SS held its first dedicated mentoring event at the 2022 SOT Annual Meeting. The event was held immediately prior to the Mix SS meeting. This mentoring event provided forty toxicology trainees in their early career an opportunity to interact and network with a panel of experts from different sectors i.e. government, industry, academia, CRO/consulting, including a unique perspective from recruiting expert to explore different career paths in mixtures.

F. Other and planned activities: In place of our annual officers breakfast meeting at the SOT annual meeting, we held a conference call prior to the annual meeting, as some of the officers were not planning on attending SOT in person. Also, we have monthly calls with all MixSS officers throughout the year. We have two webinars planned in connection with RASS (risk assessment specialty

section) for the fall and winter. We reviewed a number of proposed sessions and courses for the 2023 meeting and provided feedback to organizers and then to SOT.

**V. Feedback and Ideas:**

A. In what ways is your group fostering and maintaining an inclusive environment?

Mix SS welcomes every individual, advances their ideas, recognizes them for their efforts and contributions, and provides an environment that nurtures their growth.

B. How might SOT better support your group's activities (perhaps something the Society should be doing that we currently do not do, or do not do effectively, that would be of importance/benefit to the members of your component group?):

Note: If funding is listed, please provide detail on the membership need that the funding would support.

- SOT has provided good support and guidance throughout the year. Thanks to Belinda Inscho and Rosibel Alvarenga for all their help and support.
- In recent years Mix SS income from dues has not been sufficient to cover expenses (awards and Mix SS reception at SOT). Our membership and fundraising committees are working towards developing and implementing ideas for retaining existing members, expanding membership, and identifying contact (names, contact information) for sources of potential funding. However, we would appreciate any assistance SOT could provide in this area either directly or through the identification of other mechanisms for raising funding.

C. What is one thing that the Society is currently doing that impacts your component group that should be changed (e.g., stopped, modified, etc.)?

- It would be helpful if SOT can share suggestions/recommendations with smaller/relatively new specialty sections on how to increase membership and raise funds to help sustain SS activities.

D. What changes do your component group anticipate making in the way in which it operates in the coming year?

- Mix SS launched a new membership survey to engage members. Chair of each Mix SS committee will be reaching out to the MixSS members who volunteered for their committee and will be working with them to get their inputs and plan activities for the year. Mix SS received some good suggestions on topics for the future webinars and sessions.