



43rd Annual Meeting of the Mountain West Society of Toxicology

Addressing Health Impacts of Complex Exposures in a Changing Environment

Hotel Albuquerque at Old Town, Albuquerque, NM

Wednesday, August 20

- 5:00–7:00 PM** On-Site Registration & Badge Pickup **[West Atrium]**
- 7:00–9:00 PM** Welcome Social **[Sawmill Market]**

Thursday, August 21 – [Alvarado ABC]

- 7:00–8:30 AM** Breakfast Provided
- 8:00–8:30 AM** *Welcome & Opening Remarks* – Don A. Godwin, Dean, and Sebastian Medina, University of New Mexico College of Pharmacy
- 8:30–9:00 AM** *Celebrating the Legacy and Impact of the MWSOT* – Drs. Todd Thompson and Matthew Campen, University of New Mexico
- 9:00–9:10 AM** Break

Plenary Session I: Innovative Toxicology Models for Addressing Environmental Challenges

Session Chair: Sebastian Medina, PhD, University of New Mexico

- 9:10–10:00 AM** **Keynote: *Twins, Telomeres & Tourists – in SPACE!* – Susan M. Bailey, PhD; Colorado State University**
- 10:00–10:10 AM** Break
- 10:10–10:30 AM** *Environmental Pollutant Effects on Liver Pathophysiology: Leveraging Novel Optical Imaging Techniques and Approaches* – **Rama R. Gullapalli, PhD; University of New Mexico**
- 10:30–10:50 AM** *Decoding Lung Cell Behavior with Spatial Transcriptomics* – **Alessandro Venosa, PhD; University of California, Davis**

Proudly Supported by:



- 10:50–11:10 AM** *Quantitative Analysis and Identification of Micro- and Nanoplastics in the Hemisphere of a Human Brain – **Laurissa Barela**, Graduate Student; University of New Mexico*
- 11:10–11:15 AM** Break
- 11:15–11:35 AM** *Longitudinal Study of Bone Marrow Adipocytes Throughout Tungsten-Enhanced Breast Cancer Metastasis – **Charlotte McVeigh**, Graduate Student; University of New Mexico*
- 11:35–11:55 AM** *Intranasal Infection with Western Equine Encephalitis Virus Induces Dynamic Temporal Gliosis and Progressive Neurodegeneration in the Hippocampus of C57Bl/6 Mice – **Aidan Briggs**, Graduate Student; Colorado State University*
- 11:55–12:15 PM** *Point-of-Use Technologies for Environmental Detection of Heavy Metals on Tribal Lands – **Gabriel P. López, PhD**; University of New Mexico*
- 12:15–1:30 PM** Lunch Break (*on your own*)

Plenary Session II: Emerging Contaminants and Evolving Exposure Risks

Session Chair: *Alicia Bolt, PhD, University of New Mexico*

- 1:30–1:50 PM** *Understanding Mechanisms of Microplastic Generation and Chemical Transformation from Thermal Oxidation, Ultraviolet Radiation, and Mechanical Abrasion – **Jorge Gonzalez-Estrella, PhD**; Oklahoma State University – **NM-INSPIRES Invited Speaker***
- 1:50–2:10 PM** *Environmental Microplastics Promote Colon Tumorigenesis via Piezo1–Ca²⁺–ROS Signaling and Hypoxia-Induced Metastatic Pathways – **Xiang Xue, PhD**; University of New Mexico*
- 2:10–2:30 PM** *Per- and Polyfluoroalkyl Substances Inhibit Human Neonatal Cytochrome P450 CYP3A7 Retinoic Acid Hydroxylase Activity – **Michaela Hvizdak**, Graduate Student; University of Colorado Anschutz Medical Campus*
- 2:30–2:35 PM** Break
- 2:35–2:55 PM** *Deacetylation of SOD3 by Sirtuins Restores Furin Cleavage – **Emily Mitchem**, Graduate Student; University of Colorado Anschutz Medical Campus*



Proudly Supported by:



- 2:55–3:15 PM** *The Impacts of a Western Diet and Healthy Fatty Acids on Wildfire Smoke-Induced Neuroinflammation* – **Brenna Baird**, Graduate Student; University of New Mexico
- 3:15–3:35 PM** *Wildfire-Induced Immunological Dysfunction and the Role of Ovarian Hormone Signaling* – **Katie Zychowski, PhD**; University of New Mexico
- 3:35–3:45 PM** Break

Plenary Session III: Environmental Drivers of Immunotoxicity, Neurotoxicity, and Developmental Risk

Session Chair: *Sumira Phatak, PhD, University of New Mexico*

- 3:45–4:05 PM** *Astrocytic STING Signaling is Context-Dependent Across Environmental Insults* – **Adam J. Schuller, PhD**; Colorado State University
- 4:05–4:25 PM** *Chronic Low-Dose Exposures of Cadmium and Hyperglycemia Drive Dysfunctional Hepatic Mitochondrial Biogenesis and Dynamics* – **Rahul Kumar**, Graduate Student; University of New Mexico
- 4:25–4:45 PM** *Pathological and Biomarker Profiles in Aging Dogs with Cognitive Decline* – **Julie Moreno, PhD**; Colorado State University
- 4:45–4:50 PM** Break
- 4:50–5:10 PM** *Aging-Associated Glial Activation and Blood-Brain Barrier (BBB) Degradation in Canine Cognitive Decline Syndrome (CCDS)* – **Sean Boland**, Graduate Student; Colorado State University
- 5:10–5:30 PM** *Mast Cells Are Critical Initiators of Acute Pulmonary Inflammation from Chemical and Environmental Toxicants* – **Matthew Gibb, PhD**; University of Colorado Anschutz Medical Campus
- 5:45–7:00 PM** **Poster Session & Networking [Alvarado D]**
Exhibitor booths/Light snacks and cash/ticket bar available
- 7:00–10:00 PM** **Awards Dinner and Networking Reception [Pavilion]**
Full meal and cash/ticket bar available

Proudly Supported by:



Friday, August 22 – [Alvarado ABC]

- 7:00–8:30 AM Breakfast Provided
- 8:00–9:00 AM ***Shaping the Future of Mountain West Society of Toxicology: Trainee Development Breakfast*** – All Trainees Invited to Participate

Plenary Session IV: Translational Toxicology and Community-Engaged Science

Session Chair: *Michaela Hvizdak, University of Colorado Anschutz Medical Campus*

- 9:00–9:50 AM ***Keynote: Chronic Kidney Disease of Unknown Etiology: A Hidden Epidemic Driven by Multifactorial Occupational and Environmental Risk Factors*** – Jared M. Brown, PhD; University of Colorado Anschutz Medical Campus
- 9:50–10:00 AM Break
- 10:00–10:20 AM *Metals and Climate Health: Lessons Learned about Community Engagement* – José Cerrato, PhD; University of New Mexico
- 10:20–10:40 AM *How Can Immunotoxicology Research Support Community-Based Environmental Health Studies?* – Esther Erdei, PhD; University of New Mexico
- 10:40–10:50 AM Break
- 10:50–11:10 AM *The Association Between Chronic Drought Conditions and Metals Exposure in Drinking Water in the San Luis Valley, Colorado* – Kathy James, PhD; University of Colorado Anschutz Medical Campus
- 11:10–11:30 AM *Impact of Human-Relevant Di-n-Butyl Phthalate Exposure on Ovulation, Fertilization, and Early Embryo Development in a Mouse Model* – Zeliann Craig, PhD; University of Arizona
- 11:30–12:00 PM Closing Remarks

Proudly Supported by:

