



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

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10:50-11:10 AM	<i>Quantitative Analysis and Identification of Micro- and Nanoplastics in the Hemisphere of a Human Brain – Laurissa Barela, Graduate Student; University of New Mexico</i>
11:10-11:15 AM	Break
11:15-11:35 AM	<i>Longitudinal Study of Bone Marrow Adipocytes Throughout Tungsten-Enhanced Breast Cancer Metastasis – Charlotte McVeigh, Graduate Student; University of New Mexico</i>
11:35-11:55 AM	<i>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</i>
11:55-12:15 PM	<i>Point-of-Use Technologies for Environmental Detection of Heavy Metals on Tribal Lands – Gabriel P. López, PhD; University of New Mexico</i>
12:15-1:30 PM	Lunch Break (<i>on your own</i>)

Plenary Session II: Emerging Contaminants and Evolving Exposure Risks

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

1:30-1:50 PM	<i>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</i>	
1:50-2:10 PM	<i>Environmental Microplastics Promote Colon Tumorigenesis via Piezo1-Ca²⁺-ROS Signaling and Hypoxia-Induced Metastatic Pathways – Xiang Xue, PhD; University of New Mexico</i>	
2:10-2:30 PM	<i>Per- and Polyfluoroalkyl Substances Inhibit Human Neonatal Cytochrome P450 CYP3A7 Retinoic Acid Hydroxylase Activity – Michaela Hvizzdak, Graduate Student; University of Colorado Anschutz Medical Campus</i>	
2:30-2:35 PM	Break	
2:35-2:55 PM	<i>Deacetylation of SOD3 by Sirtuins Restores Furin Cleavage – Emily Mitchem, Graduate Student; University of Colorado Anschutz Medical Campus</i>	

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2:55–3:15 PM	<i>The Impacts of a Western Diet and Healthy Fatty Acids on Wildfire Smoke-Induced Neuroinflammation</i> – Brenna Baird , Graduate Student; University of New Mexico
3:15–3:35 PM	<i>Wildfire-Induced Immunological Dysfunction and the Role of Ovarian Hormone Signaling</i> – 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	<i>Astrocytic STING Signaling is Context-Dependent Across Environmental Insults</i> – Adam J. Schuller, PhD ; Colorado State University
4:05–4:25 PM	<i>Chronic Low-Dose Exposures of Cadmium and Hyperglycemia Drive Dysfunctional Hepatic Mitochondrial Biogenesis and Dynamics</i> – Rahul Kumar , Graduate Student; University of New Mexico
4:25–4:45 PM	<i>Pathological and Biomarker Profiles in Aging Dogs with Cognitive Decline</i> – Julie Moreno, PhD ; Colorado State University
4:45–4:50 PM	Break
4:50–5:10 PM	<i>Aging-Associated Glial Activation and Blood-Brain Barrier (BBB) Degradation in Canine Cognitive Decline Syndrome (CCDS)</i> – Sean Boland , Graduate Student; Colorado State University
5:10–5:30 PM	<i>Mast Cells Are Critical Initiators of Acute Pulmonary Inflammation from Chemical and Environmental Toxicants</i> – Matthew Gibb, PhD ; University of Colorado Anschutz Medical Campus
5:45–7:00 PM	Poster Session & Networking [Alvarado D] <i>Exhibitor booths/Light snacks and cash/ticket bar available</i>
7:00–10:00 PM	Awards Dinner and Networking Reception [Pavilion] <i>Full meal and cash/ticket bar available</i>

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Friday, August 22 – [Alvarado ABC]

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

Plenary Session IV: Translational Toxicology and Community-Engaged Science

Session Chair: Michaela Hvizzak, 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	<i>Metals and Climate Health: Lessons Learned about Community Engagement</i> – José Cerrato, PhD; University of New Mexico
10:20–10:40 AM	<i>How Can Immunotoxicology Research Support Community-Based Environmental Health Studies?</i> – Esther Erdei, PhD; University of New Mexico
10:40–10:50 AM	Break
10:50–11:10 AM	<i>The Association Between Chronic Drought Conditions and Metals Exposure in Drinking Water in the San Luis Valley, Colorado</i> – Kathy James, PhD; University of Colorado Anschutz Medical Campus
11:10–11:30 AM	<i>Impact of Human-Relevant Di-n-Butyl Phthalate Exposure on Ovulation, Fertilization, and Early Embryo Development in a Mouse Model</i> – Zelieann Craig, PhD; University of Arizona
11:30–12:00 PM	Closing Remarks

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