



University of Colorado Anschutz Medical Campus

## Translational Toxicology - Environmental and Immunological Toxicomics

**Wednesday, August 23<sup>rd</sup> [Anschutz Health Sciences - 1890 N Revere Ct, Aurora, CO 80045]**

6:30 – 8:00 pm Registration Open--- *Floor 1 Foyer South*  
 7:00 – 9:00 pm **Networking Reception Hosted by T street**

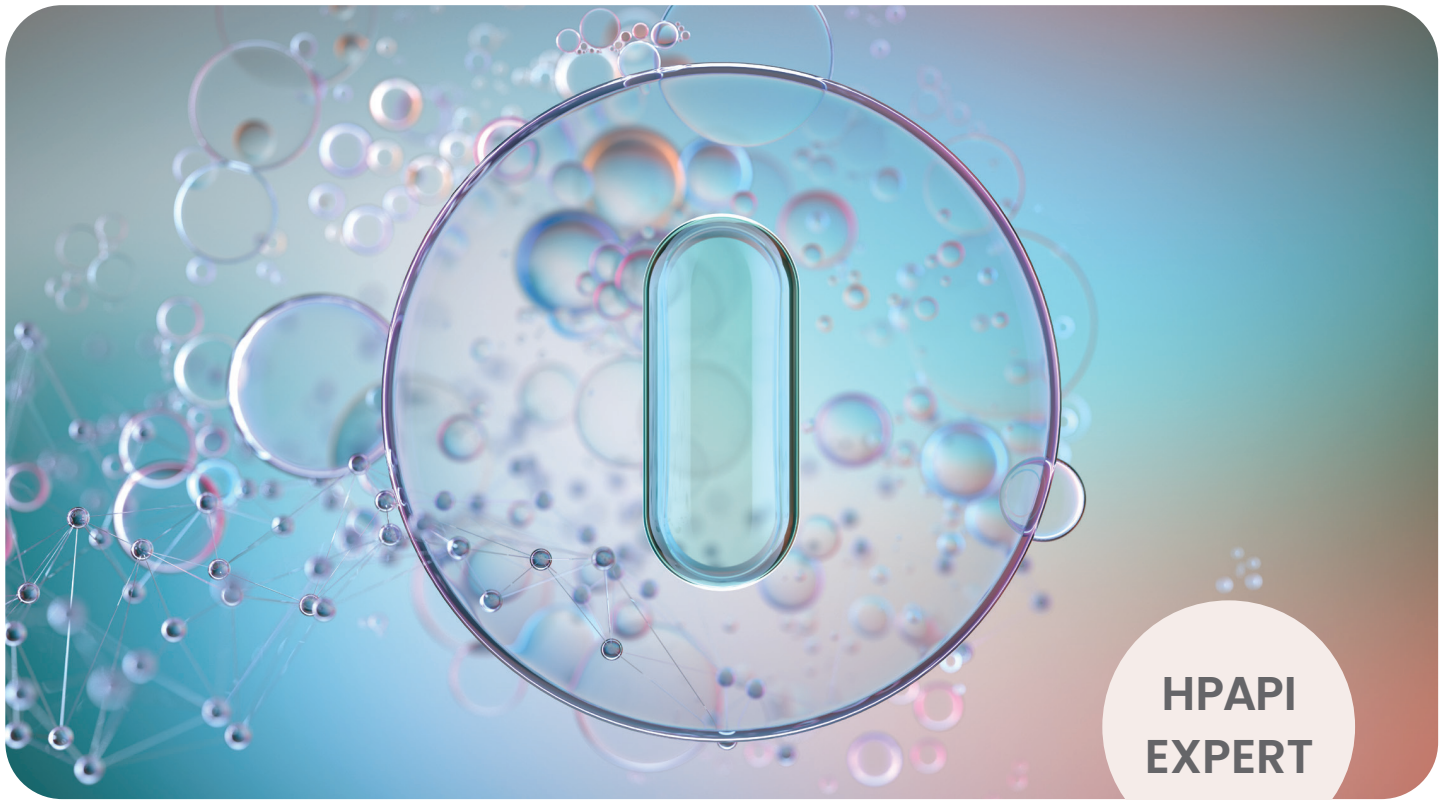
**Thursday, August 24<sup>th</sup> [Research 2, Krugman Hall - 12700 East 19th Ave, Aurora, CO 80045]**

7:30 – 8:20 am Registration Open  
 7:30 – 8:20 am **Continental Breakfast**  
 8:20 – 8:30 am **Introduction** – Kris Fritz, Vice-President MWSOT, and Luke Montrose, RMWSS Founder  
 8:30 – 10:00 am **Plenary Topic I: Translating Mechanisms in Neurotoxicology** (James Roede, PhD, CU Anschutz)  
 8:30 – 9:20 am **Keynote Speaker** --- Heather Patisaul, PhD, North Carolina State University – “Translational Neurotoxicology: Linking Exposure to Disease”  
 9:20 – 9:40 am Paige Anton, CU Anschutz – “Binge Ethanol Accelerates Neuroinflammation and Cognitive Dysfunction in Advanced Age”  
 9:40 – 10:00 am Amanda Latham, Colorado State University – “Pharmacologic Modulation of the Glucocorticoid Receptor reduces Parkinsonian Neuropathology caused by Rotenone toxicity in a murine model”  
 10:00 – 10:15 am **Networking Break**  
 10:15 – 12:05 pm **Plenary Topic II: Smoke toxicology beyond the lungs** (Adam Schuller, PhD, Colorado State)  
 10:15 – 11:05 am **Keynote Speaker** --- Matt Campen, PhD, University of New Mexico – “Wildfire Smoke Drives Sustained Neurological Metabolomic and Inflammatory Complications”  
 11:05 – 11:25 am David Scieszka, PhD, University of New Mexico – “Neurological and Cardiac Outcomes from Modeled Wildfire Smoke Exposure Persist for a minimum of 10 Weeks”  
 11:25 – 11:45 am Brenna Baird, University of New Mexico – “Wildfire Smoke and Ozone Induced Metabolic and Neuroinflammatory Outcomes Mediated by the Interplay of Dietary Fatty Acids”  
 11:45 – 12:05 pm Adam Schuller, PhD, Colorado State University – “Robust Differences in Mouse Pre-Frontal Cortex Gene Expression Profiles Following Exposure to an Occupationally Relevant Dose of Laboratory Generated Wildfire Smoke”  
 12:05 – 1:15 pm **Lunch and Career Workshop (Dr.’s Patisaul, Moreno, Hassett-Sipple, & Drechsel)**  
 1:15 – 2:35 pm **Plenary Topic III & IV: \*\*Concurrent Sessions\*\***  
Inflammation-mediated toxicity (Rebecca McCullough, PhD, CU Anschutz)  
 1:15 – 1:35 pm Alessandro Venosa, University of Utah – “Spatial Investigation of Stress and Inflammation in the Healthy and Susceptible Lung”  
 1:35 – 1:55 pm Alissa Threatt, Colorado State University – “Omega-3 Fatty Acid Metabolite Resolvin D1 Regulates the Pulmonary Immune Response to Agricultural Dust”  
 1:55 – 2:15 pm Genova Mumford, Colorado State University – “IKK Kinase Complex and Microglia - An In-Vivo Exploration of the Impact of the IKK Kinase Complex on Prion-Induced Inflammation”  
 2:15 – 2:35 pm Casey McDermott, Colorado State University – “Developmental Exposure to Manganese Exacerbates Neuroinflammation after Viral Infection through Innate Immune Inflammatory Signaling in Astrocytes”  
**Climate change, smoke, and vulnerable populations** (Dewie Roth, Colorado State University)  
 1:15 – 1:35 pm Tom Moore, Denver Metro / North Front Range - Regional Air Quality Council – “Smoke Effects on Ozone Nonattainment Planning in the DM/NFR region”  
 1:35 – 1:55 pm Detlev Helmig, PhD, Boulder AIR LLC – “Atmospheric Pollution and Chemical Signatures in Recent Wildfire Plumes in the Northern Colorado Front Range”

1:55 – 2:15 pm	Stephanie Pease, MPH, Colorado School of Public Health – “Prescribed Burning Impacts, Perceptions, and Wildfire Risk-Risk Tradeoffs in Colorado: Year 1 Work in Progress Summary”
2:15 – 2:35 pm	Dewie Roth, Colorado State University – “Categorization of Skilled Nursing Facilities Based on Population Vulnerability and Fine Particulate Air Quality Monitor Deserts”
2:35 – 2:50 pm	<b>Networking Break</b>
2:50 – 3:50 pm	<b>Plenary Topic V &amp; VI: **Concurrent sessions**</b>
	<b><u>Metal &amp; Nano Toxicants</u></b> (Alicia M Bolt, PhD, University of New Mexico)
2:50 – 3:10 pm	Rachel Speer, PhD, University of New Mexico – “Arsenic and UVR Co-Exposure Results in Unique Gene Expression Profile Identifying Key Co-Carcinogenic Mechanisms”
3:10 – 3:30 pm	Sydney Risen, Colorado State University – “Non-toxic Nanologomers™ Targeting NLRP3 and NF-κB are Protective in Experimental Autoimmune Encephalomyelitis (EAE) Mouse Model of Multiple Sclerosis
3:30 – 3:50 pm	Charlotte McVeigh, University of New Mexico – “Investigating the Role of Adipocytes in Tungsten Mediated Breast Cancer Metastasis to the Bone Using Orthotopic Mouse Models”
	<b><u>Communicating Smoke Data</u></b> (Luke Montrose, PhD, Colorado State University)
2:50 – 3:02 pm	Jason Sacks, MPH, U.S. Environmental Protection Agency – “Recent Highlights from EPA’s Wildland Fire Research”
3:02 – 3:14 pm	Tara Webster, PhD, Colorado Department of Public Health and Environment – “Clearing The Air: Plain Language in Health Communication”
3:14 – 3:26 pm	Derek A. Drechsel, PhD, & Chris Kuhlman, PhD, CTEH – “Effective Communication of Data When Preparing for and Responding to Smoke Incidents”
3:26 – 3:38 pm	Sally Hunter, Idaho Department of Environmental Quality – “Overview of an Interagency Program for Smoke Forecasting and Public-facing Campaign for Smoke Messaging and Preparedness”
3:38 – 4:00 pm	Panel Discussion
4:00 – 6:00 pm	<b>Poster Session</b>
Evening	<b>Free for Networking and Dinner</b>

## Friday, August 25<sup>th</sup> [Research 2, Krugman Hall - 12700 East 19th Ave, Aurora, CO 80045]

7:30 – 8:00 am	<b>Continental Breakfast</b>
8:00 – 10:00 am	<b><u>Plenary Topic VII: Translational models and exposure paradigms</u></b> (Chris Migliaccio, PhD, University of Montana)
8:00 – 8:40 am	Richard J Johnson, MD, CU Anschutz – “Epidemics of Chronic Kidney Disease in Agricultural Communities: Could Toxicants and Climate Change be Playing a Role”
8:40 – 9:00 am	Chris Migliaccio, PhD, University of Montana – “Wood Smoke Laboratory Systems to Model Wildfire Exposure Events”
9:00 – 9:20 am	Matthew Gibb, PhD, CU Anschutz – “In Vitro Alveolar Model for Assessing Chemical Respiratory Sensitizing Potential”
9:20 – 9:40 am	Jacob Smoot, Colorado State University – “Plastic Dominates Developmental Toxicity Responses to Burn Pit-Related Smoke in Zebrafish: Role for Polycyclic Aromatic Hydrocarbons”
9:40 – 10:00 am	Russell Hunter, University of New Mexico – “Impacts of Gestational Ozone Exposure on Maternal Cardiovascular Health and Placental Development”
10:00 – 10:20 am	<b>Networking Break</b>
10:20 – 12:00 pm	<b><u>Plenary Topic VIII: Organ-specific toxicity</u></b> (Alessandro Venosa, PhD, University of Utah)
10:20 – 10:40 am	Arthur Stem, CU Anschutz – “Sugarcane Ash and Sugarcane Ash-Derived Silica Nanoparticles Alter Cellular Metabolism in Human Proximal Tubular Kidney Cells”
10:40 – 11:00 am	Lauren Thompson, CU Anschutz – “Population Pharmacokinetics and Pharmacodynamics to Model the Effects of 5-HT3 Antagonist Antiemetics on Cisplatin Nephrotoxicity”
11:00 – 11:20 am	Logan Dean, Colorado State University – “Immunophenotypic Characterization of the Lung Following Organic Dust Exposure”
11:20 – 11:40 am	Daniel G. Foster, CU Anschutz – “Progression of Silica-induced Pulmonary Fibrosis Is Arrested After Selective Ablation of Col1a1+ Fibroblasts”
<b>11:40 – 12:00pm</b>	<b>Awards Presentation and Closing (lunch provided after closing)</b>



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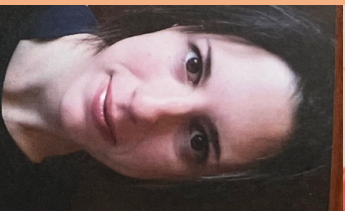
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- <https://vetmedbiosci.colostate.edu/degree-programs/graduate/ms-toxicology/>



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