



**2024 Annual Meeting**  
Crowne Plaza Chicago O'Hare Hotel & Conference Center  
5440 North River Road  
Rosemont, IL 60018  
April 4-5, 2024

## Wednesday, April 3, 2024

- 12:00 pm – 4:00 pm **ABFT Exam** (Ideation Room)  
3:00 pm – 9:00 pm **Registration** (Concourse A)  
5:00 pm – 7:00 pm **Executive Board Meeting & Dinner**  
12:00 pm – 9:00 pm **Sponsor Set-Up** (O'Hare III)  
6:00 pm – 9:00 pm **Icebreaker** Sponsored by: Shimadzu and Forensic Fluids (O'Hare II)

## Thursday, April 4, 2024

- 7:00 am – 8:00 am **Continental Breakfast** (O'Hare II)  
7:00 am – 5:00 pm **Sponsor Exhibits** (O'Hare III)  
7:00 am – 5:00 pm **Registration** (Concourse A)  
8:00 am – 5:00 pm **Scientific Sessions** (O'Hare III)
- 8:00 am - 8:10 am **Welcome from Host and MATT President**  
Donna Coy and Prentiss Jones
- 8:10 am – 9:50 am **Scientific Session #1** – Moderator: Donna Coy, Ph.D.  
8:10 – 9:00 **Keynote Speaker Dr. Edmund Donoghue** (introduced by Dr. Steven H. Wong)  
**Chemical Terrorism: The 1982 Tylenol-Cyanide Poisonings**  
9:00 – 9:30 **Opioid Epidemic** (Dr. Ponni Arunkumar)  
9:30 – 9:50 **Remote Sampling Enabling DEI, Toxicology and TDM** (Dr. Steven H. Wong)
- 9:50 am – 10:00 am **Platinum Sponsor Introduction**
- 10:00 am – 10:30 am **Break** (O'Hare II)
- 10:30 am – 12:00 pm **Scientific Session #2** – Moderator: Russell Moskal  
10:30 – 10:45 **Hold the 'Fones! Emerging Benzodiazepine Precursors and Prodrugs** (Nathan K. Layle)  
10:45 – 11:00 **Synthetic Benzodiazepine Detection with ELISA, LC-QTOF/MS, and LC-MS/MS**  
(Dr. Alexia Lewis)  
11:00 – 11:15 **Synthetic Psychoactive Cathinones (SPCs): Predicting Toxicity using In Vitro and In Vivo Models** (Sydnee Dressel)  
11:15 – 11:30 **Benzodiazepine Trends: A Downer Is Just around the Corner** (Jonathan Tomko)  
11:30 – 11:45 **Etizolam and Umbilical Cord: Here Today, Gone Tomorrow, a Conundrum in Today's Forensic Laboratories** (Dr. Joseph Jones)  
11:45 – 12:00 **Method Development of Novel Psychoactive Substances Using a Virtual Tool** (Melinda Urich)
- 12:00 pm – 1:30 pm **Lunch** (O'Hare II) and **Sponsor Exhibits** (O'Hare III)
- 1:30 pm – 3:00 pm **Scientific Session #3** – Moderator: Dominique Gidron  
1:30 – 1:45 **Carfentanil through the Years: A Look at Data from 2016-2023** (Stuart Kurtz)  
1:45 – 2:00 **FASD in the Corrections Population** (Guida Brown)



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- 2:00 – 2:15 ***Analysis of Confiscated Vaping Products from Public School Systems across the Commonwealth of Virginia*** (Kelsey Moss)
- 2:15 – 2:30 ***Michigan and Midwest Trends in Illicit Drug Use since 2013*** (Bridget Lemberg)
- 2:30 – 3:00 ***Investigative Impacts of Substance Abuse in the Community*** (Sgt. Samantha Tovar and Detective Ryan King)
- 3:00 pm – 3:05 pm **Gold Sponsor Introduction**
- 3:05 pm – 3:30 pm **Break (O'Hare II)**
- 3:30 pm – 5:00 pm **Scientific Session #4** – Moderator: Colby Ott, Ph.D.
- 3:30 – 3:45 ***Work Smarter, Not Harder: Laboratory Process Efficiencies*** (Samantha Beauchamp)
- 3:45 – 4:00 ***Inclusive Sample Cleanup Approaches for Broad-Spectrum DOA Whole Blood Analysis*** (Yuan Li)
- 4:00 – 4:15 ***An Eye for an Eye Comparison of a Biochip Array System and a Traditional LC-MS/MS Technique*** (Jessica Adamczyk)
- 4:15 – 4:30 ***Solid-Phase Extraction and UHPLC-MS/MS Analysis of Xylazine and Medetomidine in Whole Blood*** (Jenna Plummer)
- 4:30 – 4:45 ***Evaluation of QuEChERS Extraction Method for the LC-MS/MS Detection of 35 Analytes in Submandibular Salivary Gland Tissue*** (Kailey Evanowsky)
- 5:45 – 5:00 ***Drinking Ethanol and Vaping Ethanol: Preliminary Results from a Clinical Study to Evaluate Roadside Impairment Evaluations*** (Abby Veaser)
- 6:00 pm – 6:30 pm Shuttle to Short Fuse Brewing Company (Hotel Lobby)
- 6:30 pm – 9:30 pm **MATT Networking Dinner:** Sponsored by Abbott, UTAK, and USDTL  
Short Fuse Brewing Company
- 9:15 pm – 10:00 pm Shuttle from Short Fuse Brewing Company to Crowne Plaza (Hotel Lobby)
- Friday, April 5, 2024**
- 6:00 am – 8:00 am **Breakfast Buffet** (Chicago Fire Oven at Crowne Plaza)
- 7:00 am – 1:00 pm **Sponsor Exhibits** (O'Hare III)
- 7:00 am – 12:00 pm **Registration** (Concourse A)
- 8:00 am – 9:30 am **Scientific Session #5** – Moderator: Patrick Barth
- 8:00 – 8:30 ***What Is Happening in the Midwest? RTL NHTSA Regions 5 and 7 Update*** (Dr. Sabra Jones)
- 8:30 – 8:45 ***Eyeing Inflammation: Unveiling the Ocular Impact of Cocaine, Amphetamines, and Fentanyl in Post-Mortem Analysis*** (Mohamed Said)
- 8:45 – 9:00 ***What If Monoclonal Antibody Drugs Lack Unique Tryptic Peptides for Mass Spectrometry-Based Quantification?*** (Jocelyn Abonamah)
- 9:00 – 9:15 ***Advancements in Predictive Models for Assessing Ocular Toxicity and Safety*** (Suvidha M Menon)



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- 9:15 – 9:30 ***A Laboratory Developed Test for Xylazine in Vitreous Fluid via the Randox Xylazine ELISA Kit***  
(Austin Wilkinson)
- 9:30 am – 10:00 am **Silver Sponsor Introduction**
- 10:00 am – 10:30 am **Break (O'Hare II)**
- 10:30 am – 12:00 pm **Scientific Session #6** – Kimberly Tomlinson, M.S.Ed., MT (ASCP)
- 10:30 – 11:00 ***State of the Cannabis Industry: A Tumultuous Year in Review*** (Dr. Michele Glinn)
- 11:00 – 11:15 ***Analysis of  $\Delta$ -8-THC,  $\Delta$ -9-THC, and Isomer Metabolites in Whole Blood by LC-MS/MS*** (Jared Burkhart)
- 11:15 – 11:30 ***Why Some People "Green Out". The Analysis of "Hemp-derived" Cannabis Products Using LC-MS/MS*** (Ashleigh Outhous)
- 11:30 – 12:00 ***Ethanol and Cannabis and the Wild World of Vapes: What Happens with Weak Regulatory Oversight*** (Dr. Michelle Peace)
- 12:00 pm – 1:00 pm **Scientific Session #7:** Poster Presentations (O'Hare II)
- 12:00 pm – 1:00 pm **Lunch (O'Hare II)**
- 12:00 pm – 1:00 pm **Sponsor Break-Down**
- 1:00 pm – 3:00 pm **Scientific Session #8** – Moderator: Robert Payson, Ph.D.
- 1:00 – 1:15 ***A New Assay for Phosphatidylethanol (PEth) in Blood via Gas Chromatography-Electron Impact- Mass Spectrometry (GC-EI-MS)*** (Dr. James V. DeFrancesco)
- 1:15 – 1:45 ***QT Prolongation, SARS-CoV-2 Antagonism, CNS Modulation, Ubiquitous Adulterant, Therapeutic Panacea: The Mechanics and Machinations of Diphenhydramine***  
(Dr. Prentiss Jones)
- 1:45 – 2:00 ***A Targeted Assessment of Postmortem Blood Lead and Death from All Causes*** (Syann Hollins)
- 2:00 – 2:15 ***Drug Detection in Urine Using EC-SERS and DART-MS*** (Dr. Colby Ott)
- 2:15 – 3:00 ***Abundance of Newly Emerging Drugs that Will Be Challenging to the Tox Lab and Law Enforcement*** (H. Chip Walls)
- 3:00 pm – 4:00 pm **MATT Business Meeting (O'Hare III)**



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## **Poster Presentations**

***Investigating Benzodiazepines in Umbilical Cord Specimens: Is There a Correlation between Half-Life and Positivity Rates?*** (Katie Lea and Kaye Weese), 001

***The Study of OTC Drugs on Blowfly Larvae and the Adult Flies, Focusing on Substrate Ingestion and Direct Injection into the Larvae, with Larvae and Adult Fly Drug Concentrations Determined by HPLC and Ion Mobility Mass Spectrometry.*** (Ashely Rathbun, Emma Sas, Sarah Jackson, Melody Stevens and Mark Sabo, Ph.D.), 002

***Positive Outcomes Monitoring Therapeutic Medications at a Michigan Veterans Treatment Court in Oral Fluid*** (Chris Thomas), 003

***Determination of Xylazine in Oral Fluid Using ELISA and LC-MS/MS*** (Corey Widman), 004

***Analysis of Synthetic Cathinones in Blood and Urine by SPE and LC-MS/MS*** (Stephanie Haviland), 005

***Trends in Tranq: Prevalence of Xylazine in the American Midwest*** (Ankita Mondal), 006

***Streamlining Urine LC/MS/MS Workflows to Meet ASB/OSAC Recommendations for Drug-Facilitated Crime Investigations*** (Jason Truskowski), 007

***The Optimized Separation of Cannabis Terpenes/Terpenoids via GC/EI/MS*** (Kristina Martinet), 008

***The Benefits of 2.1 mm Internal Diameter Analytical Columns for the Analysis of Drugs of Abuse by LC- MS/MS*** (Melinda Urich), 009

***A Statistical Analysis of Michigan State Police Positive 1'-Difluoroethane Cases from 2016 to 2023*** (Brooke Wichterman), 010

***Identification of Prenatal Exposure to Acetyl Fentanyl in Umbilical Cord Tissue and Co-Exposure with Other Substances in a High-Risk Population*** (Patrick Barth), 011

***Enzymatic Hydrolysis Performance of B-One®: a Comprehensive Review*** (Janet Jones), 012