



Cannabis and Alcohol in Human Performance Investigation Cases

2023 IACT Workshop
Sponsored by the SOFT/AAFS
Drugs & Driving Committee

Location: Charleston Marriott, Charleston, SC
Date: Friday, April 21, 2023 (Half Day)
Time: 8:00 AM – 12:00 PM

Workshop Chairs: Ayako Chan-Hosokawa and Erin Karschner

Target Audience: Forensic practitioners and law enforcement of all levels of experience

Abstract:

Cannabis and alcohol are the two most prevalent drugs in suspected impaired driving investigation cases. The pro-cannabis movement in conjunction with the 2018 Farm Bill made cannabis and cannabis-derived products (e.g., edibles, dietary supplements, e-cigarette liquids, etc.) more commercially accessible. Cannabis and alcohol are popular to use on their own, but are often used together, compounding problems associated with their use.

This workshop will discuss current trends in cannabis products, pharmacology and general physiological and behavioral effects, and review driving simulator studies and crash risk. The workshop will also highlight analytical methods to separate, detect, and quantify cannabinoid isomers. Additionally, the workshop will include presentations on GC-FID carrier gas modification for alcohol analysis, the impact of stop-limits testing, and the results of triple-draw studies. Finally, the workshop will conclude with case studies involving cannabis and alcohol and interpretation challenges. This workshop will explore the following learning objectives:

1. Attendees will be aware of the Δ^9 -tetrahydrocannabinol (Δ^9 -THC) isomer containing products available on the market and the changes that have occurred in Δ^9 -THC potency.
2. Attendees will understand analytical challenges associated with cannabinoids and ethanol and will be able to apply knowledge to improve existing methods.
3. Attendees will learn techniques to prepare and approach testimony as an expert witness using stimulator studies, epidemiological data, and case studies.

Course Specifics:

The course fee includes registration, all course materials, attendance certificate, and breaks. Attendees will be responsible for travel, lodging, and meal expenses.

Agenda:

- 8:00 – 8:30: Background: Trends in THC products & potency (Erin Karschner)
- 8:30 – 9:00: Effect of Delta-9-THC: Alone and in combination with ethanol (Jolene Bierly)
- 9:00 – 9:30: What we know from driving simulator studies and epidemiological data (Rebecca Hartman)
- 9:30 – 10:00: Innovative sample preparation, screening, and confirmation for cannabinoids (Sarah Stratton)
- 10:00 – 10:15: Break
- 10:15 – 10:30: Screening & confirmation for ethanol (carrier gas modification) (Bill Schroeder)
- 10:30 – 10:50: What we learned Part I: Impact of stop-limit testing (ADFS Toxicology)

10:50 – 11:10: What we learned Part II: Triple-draw studies (Vanessa Beall)

11:10 – 11:25: Case studies: Cannabinoids and ethanol (TBD)

11:25 – 11:45: THC interpretation challenges (Aya Chan-Hosokawa)

11:45 – 12:00: Q & A Panel Discussion (All Speakers)