

Workshop #4: Chasing Impairment – Advancement in Technologies or a Paradigm Shift? – You be the Judge!

Date: Monday October 28, 2024

Time: 8:00 AM – 12:00 PM

Rates:

MEMBER RATES		
Early Bird Registration June 26 – September 11 \$150	Late Registration Begins September 12 \$175	On-site Registration Begins October 10 \$200
NON – MEMBER RATES		
Early Bird Registration June 26 – September 11 \$200	Late Registration Begins September 12 \$225	On-site Registration Begins October 10 \$250

Chairs

Suman Rana, MSc, MBA, PhD
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Jasmine Maxwell, MSFS
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Abstract

The legalization of cannabis for medicinal and recreational purposes across various geographies presents new challenges for forensic and safety professionals, particularly concerning the assessment of impairment. The prolonged presence of cannabinoids in biological samples that is greatly affected by the frequency and chronicity of cannabis use contrasts with the duration of cannabis impairment, necessitating novel methodologies to predict impairment at the time of an incident or use during work hours in safety sensitive workplaces. In the drug testing industry, current efforts are directed towards techniques capable of discerning recent use, with a particular focus on breath-based testing to minimize detection windows, thereby preventing off-work hours' use from unjust implications. Simultaneously, advancements in technology now enable the evaluation of cognitive impairment, irrespective of the cause, through monitoring neurophysiological indicators such as reaction time, hand-eye coordination, decision-making latency, divided attention tasks and balance, all currently utilized in field sobriety tests.

This workshop aims to explore these latest advancements in the field of drug and impairment testing, offering attendees insights into innovative approaches for assessing drug use and impairment. Topics of discussion will include cutting-edge techniques for detecting recent cannabis use via the development and implementation of breath-based testing protocols, and the utilization of neurophysiological indicators via an app based computerized system to gauge cognitive impairment effectively. Attendees will gain valuable knowledge about the practical applications of these advancements in diverse contexts,

including workplace safety, law enforcement, and public health initiatives, as well as learn about their limitations.

Learning Objectives

1. Inform the forensic community of the new cannabis breath testing technology, its utility, and limitations.
2. Provide insights into the technology behind THC breath capture/testing devices and the analytical processes in the laboratory to test cannabis breath samples.
3. Inform the community of the new neuroscience-based impairment assessment technologies, their utility, and limitations.
4. Provide insights into the science behind the cognitive impairment assessment technology that tests for actual impairment rather than the cause of impairment and discuss real-life applications.

Faculty

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Professor Dr. Dr. (h.c.) Marilyn Huestis
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Dr. Jason Hudson
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Audience Knowledge Level

Intermediate - Involves more advanced concepts requiring some technical working knowledge or prior exposure to the subject matter.

Workshop Agenda

Time	Topic	Speaker
8:00-8:15 am	Workshop introduction	Jasmine Maxwell
8:15-9:15 am	Pharmacology and history of cannabinoids in breath and insights into the latest breath testing technology developed by Hound Labs, Inc.	Marilyn Huestis
9:15-10:00 am	Science and technology behind breath testing developed by Cannabix Technologies Inc.	Bruce Goldberger
10:00-10:30 am	Break	
10:30-11:00 am	Laboratory workflows for breath testing.	Jason Hudson
11:00-11:40 am	Advancements in cognitive impairment assessment technologies with focus on science, technology, and applications of DRUID test by Impairment Science.	Suman Rana
11:40-12:00 pm	Panel Discussion	All