

Workshop #7: Are We Entering the Post-Fentanyl Era – or Have We Already Entered It?

Date: Monday October 28, 2024

Time: 1:30-5:30 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

Marthe Vandeputte, PhD

PhD Researcher

Laboratory of Toxicology, Ghent University, Belgium

marthe.vandeputte@ugent.be

Sara Walton, MSFT

Forensic Toxicologist

Center for Forensic Science Research and Education (CFSRE), PA, U.S.

sara.walton@cfsre.org

Abstract

Of the different classes of new psychoactive substances, the growing group of new synthetic opioids (NSOs) is of particular concern owing to the high risk of overdose linked with opioid misuse. NSOs can be broadly categorized into analogues of the potent analgesic fentanyl and more structurally diverse, non-fentanyl-related substances. Between 2012 and 2018, the majority of emerging NSOs were fentanyl analogues. By 2019, this balance had shifted towards the appearance of non-fentanyl NSOs, shaping what is considered to be the current 'post-fentanyl analogue era'. Today, non-fentanyl NSOs (e.g., nitazenes) are increasingly present at the street level, mixed with or mis-sold as heroin or other drugs, or as ingredients of fake opioid, benzodiazepine, or ecstasy tablets. In the United States, this situation is exacerbating the ongoing opioid crisis; in Europe, potential heroin shortages are expected to influence recreational opioid markets in the near future, and a further shift towards synthetic opioids is just one of different plausible scenarios. This delicate situation requires a coordinated, multidisciplinary response by all stakeholders.

Learning Objectives

1. Provide insight into the changing landscape of new synthetic opioids and their growing presence on the recreational drug market, with a specific focus on the associated challenges that require a multidisciplinary, coordinated response from all stakeholders (including law enforcement personnel, clinicians, forensic toxicologists).
2. Understand the analytical process for the detection of new synthetic opioids, requiring highly sensitive techniques and comprehensive analysis.
3. Explore the role of pharmacological characterization in the evidence-based risk assessment and prioritization of harm reduction strategies with the aim of mitigating opioid-related harms.

Faculty

Marthe Vandeputte, PhD
PhD Researcher
Laboratory of Toxicology, Ghent University, Belgium
marthe.vandeputte@ugent.be

Sara Walton, MSFT
Forensic Toxicologist
Center for Forensic Science Research and Education (CFSRE), PA, U.S.
sara.walton@cfsre.org

Luli Akinfiresoye, PhD
Pharmacologist
Drug Enforcement Administration (DEA)
Luli.R.Akinfiresoye@dea.gov

Simon Elliott, PhD
Director
Elliott Forensic Consulting / Toxicology UK
simon@toxicologyuk.co.uk

Alex Krotulski, PhD
Director – Toxicology & Chemistry
Center for Forensic Science Research and Education
Alex.krotulski@cfsre.org

Grant Glatfelter, PhD
Postdoctoral Fellow
Designer Drug Research Unit (NIDA, NIH)
grant.glatfelter@nih.gov

Michael Baumann, PhD
Chief
Designer Drug Research Unit (NIDA, NIH)
mbaumann@intra.nida.nih.gov

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
1:30-1:35 pm	Welcome & Introduction	Sara Walton & Marthe Vandeputte
1:35-2:15 pm	U.S. law enforcement encounters of NPS opioids: Regulatory responses post fentanyl-related substances (FRS) class control	Luli Akinfiresoye
2:15-3:00 pm	Don't believe the hype? Are synthetic opioids a public enemy in the United Kingdom?	Simon Elliott
3:00-3:30 pm	Postmortem forensic investigations involving nitazene analogues and other novel synthetic opioids	Alex Krotulski

3:30-4:00 pm	Coffee break	
4:00-4:30 pm	Non-targeted LC-QTOF-MS analysis and targeted LC-QQQ-MS analysis of novel synthetic opioids	Sara Walton
4:30-5:00 pm	Something old, something new, something borrowed, something blue: <i>in vitro</i> functional characterization of non-fentanyl-related synthetic opioids	Marthe Vandeputte
5:00-5:30 pm	Pharmacology of <i>N</i> -pyrrolidino nitazene analogues emerging on recreational drug markets	Grant Glatfelter & Michael Baumann