

WS 8: An Early Warning Toolkit For Toxicologists: Turning Drug Data Into Action

Audience Knowledge: Basic

Workshop Chairs

Victoria Marland

PhD, BSc (Hons), MRSC

Vmarland001@dundee.ac.uk

Leverhulme Research Centre for Forensic Science, University of Dundee

Postdoctoral Research Assistant

Lorna Nisbet

BSc. (Hons.), MSc, PhD, PGCert, FHEA, CChem MRSC

LNisbet001@dundee.ac.uk

Leverhulme Research Centre for Forensic Science, University of Dundee

Senior Lecturer

Abstract

Early Warning Systems (EWS) play a critical role in the timely identification, monitoring, and communication of emerging drug threats and novel psychoactive substances. For laboratories and practitioners working in forensic toxicology, awareness of these developments is necessary to ensure analytical approaches remain current and responsive to changes in the drug market.

This workshop will guide participants through the different EWS currently in place or developing at national, regional and international levels; outlining their structure, function, and scope. With perspectives from UNODC, the United States, Brazil and associated regional initiatives, Australia and the United Kingdom, it will explore how data collected across different services contribute to early detection and trend analysis. Emphasis will be placed on how these systems can directly support forensic toxicology workflows, including horizon scanning for new analytes, prioritisation of reference standards, method validation planning, and contextual interpretation of case findings.

The session will also provide practical guidance on how forensic toxicologists can access and engage with these systems, including reporting mechanisms, data-sharing pathways, and collaborative networks. Real-world examples will demonstrate how intelligence

generated through EWS can serve as an early indicator of substances likely to appear in toxicology casework, enabling laboratories to proactively adapt analytical strategies.

Operational considerations, including data quality, timeliness, inter-agency collaboration, and ethical challenges, will be discussed to highlight both the opportunities and limitations of existing systems. The workshop will conclude with a panel discussion and audience Q&A.

Speakers

Victoria Marland

PhD, BSc (Hons), MRSC

Vmarland001@dundee.ac.uk

Leverhulme Research Centre for Forensic Science, University of Dundee

Postdoctoral Research Assistant

Jared Brown

MPH, FSHP, AdvPracPharm, BPharm(Hons)

Jared.brown@un.org

United Nations Office on Drugs and Crime - Drugs, Laboratory and Scientific Services
Branch

Scientific Affairs Officer (Forensic Early Warning)

Alex Krotulski

PhD

Alex.krotulski@cfsre.org

Center for Forensic Science Research and Education

Director - Toxicology & Chemistry

Gabriel Andreuccetti

PhD

Gabriel.andreuccetti@un.org

United Nations Office on Drugs and Crime - Brazil Counter-Synthetics and Southern Cone
Cooperation Project (SYNTHCOOP)

Project Coordinator

Jose Luiz Costa

PhD

Josejlc@unicamp.br

Campinas Poison Control Center, University of Campinas, Brazil

Head of Campinas Poison Control Center

Jennifer Schumann

PhD, BSc(Hons), CF

Jennifer.schumann@vifm.org

Victorian Institute of Forensic Medicine, Monash University

Head, Drug Intelligence Unit

Lorna Nisbet

BSc. (Hons.), MSc, PhD, PGCert, FHEA, CChem MRSC

LNisbet001@dundee.ac.uk

Leverhulme Research Centre for Forensic Science, University of Dundee

Senior Lecturer

Workshop Agenda

Time	Topic	Speaker
01:30 PM - 01:40 PM	Opening Remarks	Marland
01:40 PM - 02:30 PM	UNODC Forensic Early Warning Services - How to Transform and Triangulate Data for Global Impact	Brown
02:30 PM - 03:00 PM	United States Open-Access Drug Early Warning System - National Data for Real-time Impacts	Krotulski
03:00 PM - 03:30 PM	From Drug Monitoring to Toxicology Action: Brazil and Southern Cone Early Warning Systems.	Andreuccetti and Luiz Costa
03:30 PM - 04:00 PM	Break	
04:00 PM - 04:30 PM	From Data to Action: Early Warning and Drug Response in Australia	Schumann
04:30 PM - 05:00 PM	Exploring How Prison Drug Monitoring Shapes Toxicology and Drug Policy in Scotland	Marland
05:00 PM - 05:25 PM	Panel Discussion	Marland, Brown, Krotulski, Andreuccetti, Luiz Costa, Schumann and Nisbet
05:25 PM - 05:30 PM	Closing Remarks	Marland