

WS 12: Robots in the Lab: Friend or Foe?

Audience Knowledge: Basic

Workshop Chairs

Dani Mata

MSFS, D-ABFT-FT

Toxicology.dani@gmail.com

Houston Forensic Science Center

Toxicology Technical Leader

Rebecca Wagner

PhD

Becky.wagner@dfs.virginia.gov

Virginia Department of Forensic Science

Chemistry Research Section Supervisor

Abstract

As laboratories face increasing pressure to decrease turnaround times with constrained resources, automation has emerged as a transformative solution. Yet while robotic systems promise to revolutionize efficiency, their implementation introduces significant technical, financial, and cultural challenges. This workshop will provide a comprehensive evaluation of automation implementation, drawing on experiences from five laboratories that have navigated these trials. Participants will explore the advantages, including improved reproducibility, reduced turnaround time, reduced pre-analytical human factors, decreased exposure to hazardous materials, and reduction of repetitive strain tasks. Conversely, we will also examine the vulnerabilities unique to automation and how to anticipate, detect, and mitigate these failure modes within a robust method. In addition, the session will candidly address major hurdles, including high upfront costs, ongoing service contracts, space constraints, specialized technical training requirements, and the risk of system downtime. Overall, the workshop will equip attendees with a realistic view of what a lab takes on when adopting automated extraction platforms.

Speakers

Dani Mata

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Toxicology.dani@gmail.com

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Rebecca Wagner

PhD

Becky.wagner@dfs.virginia.gov

Virginia Department of Forensic Science

Chemistry Research Section Supervisor

Gregory Janis

PhD

Janisg@labcorp.com

LabCorp

Research and Development AVP

Kevin Andera

BS

Kandera@ocsheriff.gov

Orange County Crime Lab-Orange County Sheriff-Coroner Department

Forensic Scientist III

Sandra Bishop- Freeman

PhD, F-ABFT

Sandra.bishop@dhhs.nc.gov

Division of Public Health, Office of the Chief Medical Examiner, North Carolina Department of Health and Human Services

Chief Toxicologist and Forensic Laboratory Director

Workshop Agenda

Time	Topic	Speaker
01:30 PM - 01:45 PM	Introduction	Mata, Wagner
01:45 PM - 02:20 PM	Integra AssistPlus	Mata
02:20 PM - 02:55 PM	Biotage Extrahera	Bishop-Freeman
02:55 PM - 03:30 PM	Hamilton Starlet	Janis
04:00 PM - 04:35 PM	Tecan EVO	Andera
04:35 PM - 05:10 PM	Validation and Implementation Challenges	Wagner
05:10 PM - 05:30 PM	Discussion Panel	All