

## Workshop #13: How Am I Suppose To Analyze That?! A Master Class in Sample Preparation

Date: Tuesday October 29, 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

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### Abstract

The daily life of a toxicologist working in a laboratory environment often involves analyzing antemortem and postmortem samples for the presence of toxins and/or toxicants. Typically, the samples for analysis are complex in matrix composition making them unamenable to direct analysis via gas or liquid chromatography coupled to mass spectrometry. Furthermore, the quality of data collected when analyzing samples in complex matrices is severely compromised if the sample clean-up methodology is not effective. This can lead to the detection of interferences that suppress or enhance your target analyte which could result in the incorrect reporting of testing results and the defiling of your testing instruments. All laboratory toxicologists should have a strong knowledge of sample preparation methodologies that can be applied to all manners of complex matrices submitted for analytical testing. This knowledge however takes years of laboratory testing experience to accumulate. This workshop will offer a Master Class on sample preparation techniques covering matrices ranging from "ok that's not so bad" to "yeah that's yucky" to "ok that's just gross!".

### Learning Objectives

1. To teach the participants the actual chemistry of sample preparation in a way that allows them to develop a logical and effective plan for extracting target analytes out of complex matrices.
2. To share real world experiences from scientist who have tackled the challenge successfully analyzed complex matrix samples.

- To equip participants with a working knowledge of the advantages and disadvantages of various sample preparation technology when devising a plan of attack on a complex sample.

### Faculty

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### Audience Knowledge Level

Intermediate- Advanced

### Workshop Agenda

Time	Topic	Speaker
1:30 - 2:15 pm	The "Actual" Science of Sample Preparation – Vandell	Victor Vandell
2:15 - 2:40 pm	Oral Fluid Discussion – Handling Buffers and Saliva	Sarah Bartock

2:40 - 3:05 pm	Blood, Serum, and Plasma Extraction Considerations	Wen Dui
3:05 - 3:30 pm	Umbilical Cord Discussion – Knot your Average Cord	Simuli Wabuyele
3:30 - 4:00 pm	Break	
4:00 - 4:25 pm	Brain and Meconium Discussion	Victoria Cheng
4:25 - 4:50 pm	Postmortem Specimens: Hair, Tissues, and Fluids	Jason Hudson
4:50 - 5:10 pm	Automation Advancements	Karin Thomassian
5:10 - 5:30 pm	Questions and Practical Knowledge Discussion – All Speakers	All