

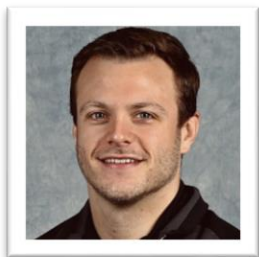
V-1 Monday, July 15, 2024

7:15-8:15 am

Restek Corporation

Location: Grand Ballroom E, 3rd floor

Recent Developments in Emerging and Persistent Contaminants



Colton Myers, R&D Manager, Sample Preparation, Restek Corporation

PFAS, mycotoxins, pesticides, and many other compound classes continue to disrupt laboratory workflows due to their chemical nature and difficult matrices, which they persist in. High-throughput laboratories need clean and effective solutions to navigate these challenges, as methods continue to emerge targeting lower limits of detection. Improving areas such as background contamination, analyte behavior, and instrument up-time is critical for accurate quantitation and creating a safer world. These challenges can be mitigated through novel sample preparation and chromatographic products. To be presented are new advancements from the Restek laboratories that showcase innovative LC, GC and sample preparation solutions targeting these emerging compound classes and problematic matrices.

V-2 Monday, July 15, 2024

12:15-1:15 pm

Agilent Technologies

Location: Grand Ballroom E, 3rd floor

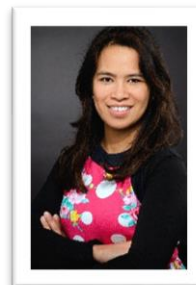
Solving Analytical Challenges in PFAS, Mycotoxin, Veterinary Drug and other Contaminants in Food



Dana Rothwein,
Technical Director
IEH Analytical Laboratories



Kyle Heater
Analytical Chemist 3
OMIC USA Inc.



Lorna De Leoz
Director, Global Food Market
Agilent Technologies

Learn about streamlined workflows and best practices for the analysis of PFAS, patulin, vet drugs, and other contaminants in food. This lunch seminar includes presentations and a panel discussion.

V-3 Tuesday, July 16, 2024

7:15-8:15 am

SCIEX

Location: Grand Ballroom E, 3rd floor

Robustness defined: PFAS in food with the next-generation SCIEX 7500+ system



Holly Lee, Food LCMS Scientist, Global Technical Marketing, SCIEX

Residue analysis in food matrices is challenged by the presence of co-extractable compounds that can result in instrument contamination and subsequent system downtime. Come hear how the new SCIEX 7500+ system successfully achieved 6,400 injections of various food extracts under experimental conditions designed to get the system dirty! Performance for various PFAS compounds in salmon, avocado, spice powder and pet food will be presented.

From Innovation to Routine: Advances in Targeted and Non-targeted Mass Spectrometry Techniques for Food Control Laboratories

Part 1: High-end chromatography for more efficient mass spectrometry



Professor Amadeo Rodriguez Fernandez-Alba, EURL-FV – EU Reference Laboratory for pesticide residues in Fruits and Vegetables, University of Almería – Spain

Recent advances in liquid and ion chromatography instrumentation can significantly improve the efficiency and robustness of MS techniques in a routine pesticide residue laboratory. For example, dual-column chromatography with two columns in one LC connected to one MS can improve utilization of the MS time to improve throughput or be used to optimize sensitivity by allowing mobile phase combinations favoring either positive or negative ionization. Another common challenge is a robust and reliable analytical workflow for polar pesticides. An IC-MS/MS workflow was demonstrated for the validation of several food matrices with hundreds of injections, making it ideal for laboratories facing high sample volumes.

Part 2: Non-Targeted Approach for Authentication of Spices and Herbs using GC-Orbitrap MS technology



Ed George, Vertical Marketing Manager, Environmental and Food Safety, Thermo Fisher Scientific, San Jose, CA

Adulteration of spices typically refers to the practice of adding impurities or low-quality substances to spice products, with the intent to deceive consumers and maximize profits. A non-targeted GC-Orbitrap technology workflow using solid phase micro-extraction (SPME) arrow technology and a multivariate statistical analysis was developed to effectively profile intentionally adulterated oregano samples. The workflow includes extraction, deconvolution, and identification of unknown compounds using mass spectral libraries, PCI mode to confirm molecular ions, and additional MS/MS experiments to support the proposed formula.

You will learn:

How dual chromatography can be used routinely to improve productivity and sensitivity.

- How IC-MS/MS meets the challenge of polar pesticides analysis.
- How GC-Orbitrap's high resolution accurate mass system and easy-to-use software can pinpoint adulteration.

What You Might Not Know About Solid-Phase Extraction



Don Shelly, Consultant, UCT

Numerous papers have explored using C18 and HLB sorbents for extraction and purification. However, these papers often overlook a crucial detail - the origin of the sorbents. The manufacturing origin of these sorbents is crucial. This presentation will discuss the differences among C18 produced by 5 different manufacturers and highlight a few underutilized sorbents.

V-6 Wednesday, July 17, 2024

12 noon-1:00 pm

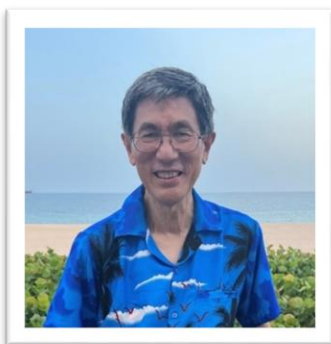
Waters Corp.

Location: Grand Ballroom E, 3rd Floor

From Trace Quantitation to New Discoveries – A Day in the Life of a Waters MS Applications Scientist



Hosted by: *Narendra Meruva, PhD, MBA, Director, Americas Food & Environmental Markets, Waters Corporation,*
[Narendra Meruva@waters.com](mailto:Narendra_Meruva@waters.com)



Presenter: *Gordon Fujimoto, PhD, Chemical Analysis Group Leader, Americas Mass Spectrometry Applications Laboratory, Waters Corporation,* [Gordon Fujimoto@waters.com](mailto:Gordon_Fujimoto@waters.com)

Food and environmental contaminants encompass a wide range of analytes, including pesticides, veterinary drugs, PFAS, mycotoxins, and the unknown. Scientists often specialize in specific contaminant classes or analytical techniques, and instrument vendors seek to collaborate with these experts to develop cutting-edge technologies and enhance laboratory capabilities. Successful partnerships require a shared understanding of industry challenges and opportunities... But who possesses extensive knowledge of both food and environmental matrices, hands-on experience with diverse contaminants and constituents, and deep expertise in trace analysis and discovery? Enter Waters Mass Spectrometry (MS) Applications Scientists! Often described as “jacks of all trades and masters of everything,” these MS Applications Scientists assist current and future collaborators by showcasing how the right analytical tools—whether it’s LC with routine tandem quadrupole MS or APGC with advanced HRMS—can address their specific laboratory needs. From analyzing cucumbers, fish, and water to studying botanicals and soil, no two days are alike for these scientists! Join us for lunch to learn about a day in the life of an MS Applications Scientist at Waters and discover how they contribute to scientific partnerships.