

SHIMADZU LUNCH PRESENTATION AT METABOLOMICS 2026

DATE: JUNE 22TH, 2026

TIME: 12:20 – 1:20 P.M

WELCOME TO BUENOS AIRES, ARGENTINA!

MAKE THE MOST OF YOUR METABOLOMICS 2026 EXPERIENCE BY JOINING SHIMADZU'S LUNCHTIME SEMINAR ON THE SECOND DAY OF THE EVENT. SHIMADZU IS A GLOBAL COMPANY HEADQUARTERED IN KYOTO, JAPAN.

SIMPLIFYING METABOLOMICS ANALYSIS WITH THE SMART METABOLITES DATABASE



Isabela de Oliveira e Silva

Metabolite analysis often involves the investigation of diverse and complex matrices, such as those originating from environmental and food-related fields. In this context, the application of techniques such as gas chromatography coupled with mass spectrometry (GC-MS) can present significant challenges, making the analytical workflow more complex. The Smart Metabolites Database is a solution that fully supports metabolic compound analysis by simplifying data workflows with advanced Shimadzu instrumentation, combining optimized software with high-performance hardware to deliver automated, highly efficient, and exceptionally sensitive metabolomic analysis.

The session will cover:

1. Technological advances in Shimadzu instrumentation, which provide high sensitivity, improved operational efficiency, and greater ease in the acquisition and processing of data derived from metabolomic analyses.
2. Benefits of using the Smart Metabolites Database, which contains a wide variety of registered metabolites and facilitates the entire workflow by automating processes from method development to the required quantitative analysis.
3. Solutions for statistical analysis, highlighting the capabilities enabled by software tools that streamline and facilitate the analytical process.
4. Solutions offered by Shimadzu for metabolomics analysis, including the GCMS-QP2020NX and GCMS-TQ8050NX systems.

IMPORTANCE OF AN INTEGRATED APPROACH IN METABOLOMICS



Laudiceia Alves de Oliveira

Metabolomics requires a comprehensive and integrated strategy to address the complexity and diversity of small molecules in biological systems. A successful approach combines robust sample preparation, high-resolution analytical techniques, and advanced data processing to ensure reliable and meaningful results. By integrating these elements, it is possible to increase metabolite coverage, improve identification confidence, and generate biologically relevant insights from complex datasets.

The session will cover:

1. The importance of an integrated metabolomics approach that combines advanced instrumentation, optimized workflows, and data analysis strategies to achieve comprehensive and reliable metabolome coverage in untargeted studies.
2. Key technological advancements in high-resolution mass spectrometry, enabling improved mass accuracy, sensitivity, and robustness.
3. Shimadzu's solutions for metabolomics, highlighting the LCMS-9050 QTOF for high-resolution analysis and the LH-40 for automated and efficient and scalable workflows.
4. Strategies for plant metabolomics to support advances in agriculture, such as crop improvement, biomarker discovery, and the development of more resilient and productive plant varieties.
5. Shimadzu's dedicated metabolomics software solutions that enable efficient data processing, peak detection, annotation, and statistical analysis, transforming complex datasets into actionable biological insights.

