

Speaker Ts. Dr. Mohd Hafis Yuswan

Ts. Dr. Mohd Hafis Yuswan is a Research Officer with a Ph.D. in Halal Products Science, possessing extensive knowledge and expertise in advanced analytical techniques for halal analysis. His research journey began at the Agro-biotechnology Institute (ABI) in Malaysia, where he spent 5 years conducting proteomics studies on mushrooms using LC-QToF-MS. He then joined Biocon Sdn. Bhd. as an Analyst for 3 years, focusing on insulin characterization using LC-IonTrap-MS to ensure the quality and effectiveness of insulin products.

Currently, he serves as a Research Officer at the Halal Products Research Institute, UPM. Since 2017, he has been at the forefront of halal analysis, utilizing advanced techniques such as chemometrics-assisted shotgun proteomics and multiple reaction monitoring by LC-QToF-MS and LC-QTrap-MS, respectively. His research focuses on establishing peptide markers for halal meat, ensuring the integrity and compliance of halal products. Additionally, he conducts research on peptide markers for halal meat-glue, addressing emerging concerns in the industry.

DEADLINE TO REGISTER

18 OCOTBER 2023

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METHOD OF **PAYMENTS**

OPTION 1: Invoice / Vot Transfer (UPM STUDENT ONLY) Vot Number:

> **OPTION 2:** PayGate UPM



- Scan code and click "MAKE PAYMENT" button.
- 2. Select "LC-MS QTOF SIRI 2" and insert participant's details in the form.

PAYMENT REFERENCE: Participant's full name & Institution

MYR 800

- Research Assoc.

MYR 1,000

- Student
- **Public Sector**
- Private Sector



WORKSHOP **LCMS QTOF** Series 2

PROTEIN PROFILING

25 - 26 OCTOBER 2023

HALAL PRODUCTS RESEARCH INSTITUTE **UNIVERSITI PUTRA MALAYSIA**



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INTRODUCTION

In the issue of halal food purity studies, scientific equipment such as liquid chromatography mass spectrometry (LC-MS-QTOF) is essential for studies based on proteins and small molecules such as metabolites. Liquid chromatography - mass spectrometry (LC-MS) is an analytical chemistry technique that combines the physical separation capabilities of liquid chromatography (or HPLC) with the mass analysis capabilities of mass spectrometry (MS). Paired chromatography - MS systems are popular in chemical analysis because the individual capabilities of each technique are synergistically enhanced. While liquid chromatography separates mixtures with several components, mass spectrometry provides the structural identity of individual components with high specificity molecular and detection sensitivity.

The LC-MS technique requires specific post-analysis methods in analyzing the data generated by LC-MS. Some of the required methods for the LC-MS technique include converting raw data to open data, searching through a database, and validating database results. All of these techniques will be carried out using the open-source software known as Trans-Proteomics Pipeline (TPP).

OBJECTIVES



To expose the participants on the usage of LC-MS in protein analysis.



To demonstrate the fundamental method of using LC-MS QTOF correctly in protein analysis.



To demonstrate the appropriate postanalysis method for LC-MS QTOF data for protein samples.

PARTICIPANT

Student, researcher and individual who have interest on conduct research and development using LCMS QToF

VENUE

Seminar Room Halal Products Research Institute Universiti Putra Malavsia 43400 UPM Serdang, Selangor

CONTACT US



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Day 1 25.10.23

8.30 am - 09.00 am 09.00 am - 09.30 am 09.30 am - 11.15 am

11.15 am - 11.30 am 11.30 am - 01.00 pm 01.00 pm - 02.00 pm

05.00 pm

Registration

Opening ceremony & briefing Lecture 1: QToF Theory &

Hardware Overview

Refreshment

Practical 1: Tuning & Calibration

Break / Lunch

02.00 pm - 05.00 pm Practical 2: QToF Acquisition

Tea break

Day 2

26.10.23

08.30 am - 09.00 am Registration

10.30 am - 11.00 am

11.00 am - 12.30 pm

12.00 pm - 02.00 pm Break / Lunch

04.30 pm - 05.00 pm Reporting

05.00 pm

09.00 am - 10.30 am Practical 3: Running Samples

Refreshment

Practical 4: Qualitative Analysis

02.00 pm - 04.30 pm Practical 5: Quantitative Analysis

Tea break

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