

Workshop 6 Wednesday, 19th September, 17:15-19:15 (Room D)

Mass Spectrometry for Food Safety

Organizer: Jentaie Shiea (Nat'l Sun Yat-Sen Univ., Taiwan)

Scope of Session: Recent food incidents have drawn the public's awareness of how food supply is regulated and inspected to be deemed safe for consumption. The common food harmful substances include foodborne microorganisms, mycotoxins, chemical residues, pesticides, melamine, plasticizers, and chemical contaminants from food packaging and processing. Only trace amount of these harmful substances is sufficient to cause harmful health effects. Thus, mass spectrometry plays a critical role as an excellent analytical tool to identify food contaminants accurately and efficiently. This workshop explores the recent advances and application of mass spectrometry to food safety, and challenges in food sample preparation.

Keywords: Food safety, Mass spectrometry, Foodborne microorganisms, Mycotoxins, Chemical residues, Pesticides, Food packaging and processing

Speech orders and titles:

17:15-17:20 Introduction (by Prof. Jentaie Shiea)

17:20-17:35 Prof. R Graham Cooks (Purdue Univ., USA) "DESI and Paper Spray in Food Safety Analysis"

17:35-17:50 Dr. James Chang (Thermo Scientific Inc., USA) "High Resolution LC/MS/MS and its Application on Food Safety Analysis"

17:50-18:05 Dr. Elizabeth Crawford (IonSense Inc., USA) "Contaminant screening with DART-MS: Aanalysis of pesticides, phthalates and illegal food dyes"

18:05-18:20 Dr. Wenjian Sun (Shimadzu Research Lab., Shanghai, China) "Rapid Screening of Contaminated Food with Desorption Corona Beam Ionization Source"

18:20-18:35 Dr. Simon Hird (The Food and Environment Research Agency, UK) "Different approaches to using LC-MS to solve challenges encountered whilst ensuring the safety of the food supply"

18:35-18:50 Prof. Ming-Tseng Wu (Kaohsiung Medical Univ., Taiwan) "Mass spectrometry as a tool for the detection of melamine-related urolithiasis in clinical practice"

18:50-19:05 Dr. Ojima Noriyuki (Shimadzu Corp., Japan) "Ultra Fast Mass Spectrometry Analysis for Food Safety"

19:05-19:15 Further discussion and closing remarks