November 6, 2019 (14:45–15:30)

VENDOR SEMINAR:

Latest Developments in LC- Q/TOF MS for Food Safety Testing and Authenticity Profiling

Recent developments and examples in both targeted and non-targeted strategies to assess food with LC- Q/TOF MS

Dr. John Lee, Global Food Market Manager, Agilent Technologies, Cheadle, UK

In food safety assessment, covering all threats from inappropriate use of Pesticides or Vet Drugs requires 100's of compounds to be analyzed, but quantitative assessment can be costly and time consuming. Q/TOF technology offers the chance to quantify what is likely but also to screen for many other possibilities from the same data file. Building such a concept whilst ensuring that data review can be efficient and reliable is key and both hardware and software innovation is required. In food authenticity assessment, the challenge is even greater because there are 1000's of compounds endogenous to food commodities and any of them are potential markers of in an authenticity study. Once again data review needs to be both efficient and reliable. This talk will explore the new tools being developed at Agilent to address these challenges.

Specific case studies looking at authenticity assessment with LC- Q/TOF MS

Dr. Olivier Chevallier, School of Biological Sciences, Queen's University Belfast, UK

At our Institute for Global Food Security we are delighted to be part of a hugely important project looking at Rice Fraud mitigation strategies for industry and government across the world. Agilent Hi resolution mass spectrometry is one of our key tools in this project, since it's use with metabolomics data processing is enabling us to identify different signatures from the rice, we analyze. The QTOF's high data rate also enables the rapid 2-minute methods we sometimes employ.

This talk will explore rice and some other commodities current being studied at our institute.