

# International Summit on Current Trends in Mass Spectrometry

## July 13-15, 2015 New Orleans, USA

### Mass spectrometry in veterinary drug residue analysis

**Fernando Ramos**

University of Coimbra, Portugal

Food safety is one of the top priorities assumed worldwide by several international organizations. The European Commission has been continuously revising and implementing legislation in order to control food from “farm to fork”. One of the constant concerns is related with inappropriate and abusive use of veterinary drugs, in food-producing animals, as growth promoters. A large number of different families of compounds can be included in such treatments being its principal route of administration by feed and drinking water. To protect the consumers from undesirable health problems, the development of analytical methods for the determination of veterinary drug residues in food of animal origin, destined to human consumption became a mandatory issue in Food Safety. In terms of analytical detection, mass spectrometry is considered a highly selective technique that provides the indispensable feature of accurate identification of the substance present in the biological samples. Mass spectrometry, as triple quadrupole coupled with liquid chromatography (LC-MS/MS) is a powerful tool that allows not just single determinations but also multi-compound detection by recording full mass spectra (scan mode), selected ion monitoring (SIM) and multiple reaction monitoring (MRM). More recently, it started to grow the application of Time-of-Flight (ToF) or High Resolution Mass Spectrometry (HR-MS) in residues analysis. Nevertheless, the potential of mass spectrometry metabolomics for veterinary drug residue analysis and chemical food safety in general will be also discussed.

### Biography

Fernando Ramos is an Associate Professor of the Pharmacy Faculty of Coimbra University and Senior Research of the CNC – Center for Neuroscience and Cell Biology. He has published more than 75 scientific publications, among books, book chapters and national and international papers, most of them in the field of drug residue analyze using Mass Spectrometry

[framos@ff.uc.pt](mailto:framos@ff.uc.pt)

### Notes: