

THEO MURPHY INTERNATIONAL SCIENTIFIC MEETING

Mass spectrometry imaging – challenges and opportunities for next-generation capabilities

Monday 23 – Tuesday 24 November 2015

Organised by Professor Ian Gilmore, Professor John Vickerman, Professor R. Graham Cooks, Professor Anne Dell CBE FMedSci FRS and Professor Richard Caprioli

THE
ROYAL
SOCIETY

DAY 1				DAY 2			
SESSION 1 Advances in mass spectrometer and instrument design for imaging Chair: Nicholas Winograd		SESSION 2 Data mining, informatics and interpretation Chair: Ron Heeren		SESSION 3 Seeing is believing? Quantification in mass spectrometry imaging Chair: John Vickerman		SESSION 4 Challenges in molecular imaging Chair: Anne Dell CBE FMedSci FRS	
09.00	Welcome by the Royal Society & Ian Gilmore						
09.05	Ron Heeren Ion microscopy with pixelated detectors: new avenues in MSI research	13.30	Jason Swedlow The open microscopy environment: open image informatics for the life and biomedical sciences	09.00	Nicholas Winograd Quantification in mass spectrometry imaging	13.30	Zoltan Takats Rapid stratification of cancer patients using imaging and in-vivo mass spectrometric approaches
09.35	Julia Laskin Nanospray desorption electrospray ionisation (nano-DESI) imaging of biological systems	14.00	Steffen Neumann Does LC/MS metabolomics metabolite annotation make sense for imaging MS?	09.30	Pieter Dorrestein Digitizing the chemistry of microbes and people through molecular 3D cartography	14.00	Bernhard Spengler High performance MALDI MS imaging at cellular resolution and beyond
09.50	Josephine Bunch Advances in MALDI MSI	14.15	Olga Vitek Statistical methods for mass spectrometry-based imaging	09.45	John Fletcher Matrix effects in secondary ion mass spectrometry of biologicals	14.15	Claude Lechene Ion microscopy at the nanoscale
10.05	Alexander Makarov Orbitrap mass spectrometry for imaging	14.30	Jeff Spraggins Imaging mass spectrometry: unique approaches for the structural identification of biomolecules	10.00	Sarah Trimpin Spontaneous conversion of proteins to highly protonated gas-phase ions using aprotic matrices	14.30	Discussion
10.20	Discussion	14.45	Discussion	10.15	Discussion		

11.00	Coffee	15.30	Tea	11.00	Coffee	15.30	Tea
11.30	Further discussion	16.00	Further discussion	11.30	Further discussion	16.00	Ian Gilmore Summary of discussions and closing remarks
12.30	LUNCH	17.00	CLOSE	12.30	LUNCH	17.00	CLOSE

Draft programme 16 November 2015 – Subject to change