Programme

Monday, 25 September 2017

09:00  imzML workshop - Lecture hall C
09:00  METASPACE training course - Lecture hall B
10:00  METASPACE training course - Multatuli and Maarten Maartens meeting rooms
12:00  Lunch
13:00  Welcome - Lecture hall B/C
13:15  Session 1: MSI pathology | Chairs: Kristina Schwamborn and Jeffrey Spraggins
14:00  MO1 - Can MALDI imaging of peptides from FFPE tissue be reproducible? - Sören-Oliver Deininger
14:05  MO2 - Detection of localized amino acid kinetics in tumor tissue by using mass spectrometry imaging of stable isotopes - Martijn Arts
14:10  MO3 - Variations in the abundance of lipid biomarker ions in mass spectrometry images correlate to tissue density - Michael Woolmar
14:15  MO4 - Molecular signatures of medullary thyroid carcinoma by MALDI-MSI - Andrew Smith
14:20  MO5 - Complementary bioimaging to determine nanoparticle and phospholipid distribution in lung tissue after intratracheally instillation - Dörthe Dietrich
14:25  Programme announcements and break
14:30  RAPID FIRE: 5’
14:35  SHOTGUN: 15’
14:40  REGULAR: 20’
14:45  PLENARY: 45’
15:00  Outdoor activities

Outdoor activities

The Zonheuvel Estate is located in a forest that is part of National Park 'Utrechtse Heuvelrug' and it is the perfect place for outdoor activities. On Monday afternoon several outdoor activities are organized. Please gather at the assigned location in appropriate clothing. If you did not register for one of these activities you can always join the volleyball, go for a run or hike on your own (routes are available at the reception indicated on the map) or simply relax.

Feel free to use the volleyball fields during the entire conference.

* Young Scientist Award

The OurCon Young Scientist award is intended to give talented young scientists extra recognition for their work. All presenters of an oral presentation, before or less than two years into a post-doc position, are considered for this prize and are highlighted with an asterisk* in the scientific programme and abstract book.

Tuesday, 26 September 2017

07:00  Breakfast
08:45  TP - New approaches to lipid imaging: towards localised lipid biochemistry - Shane Ellis
10:05  Coffee break
10:10  Session 2: Instrumental developments | Chairs: Zoltan Takats and Martina Marchetti-Deschmann
10:20  TO1 - MALDI-MSI and MAIV-MS Imaging on a Modified Applied Biosystems Q-Star XL QToF Mass Spectrometer - Malcolm Clench
10:35  TO2 - New HTX sample preparation platforms for molecular imaging. HTX MS Spray and SepQuant dropletProbe Liquid Interface to HPLC/MS - Alain Creissen
10:50  TO3 - Chemical and topographical 3D-surface imaging of non-planar objects on the micrometer scale using AP-MSMALDI - Mario Kompauer
10:55  TO4 - Molecular histology of lipids by laser microdissection and liquid vortex capture mass spectrometry - bridging the gap between pathologist and analyst - Tiffany Porta
11:05  TO5 - LAESI-21T-FTICR-MS: ambient molecular imaging with unparalleled mass resolution and mass accuracy - Chris Anderton
11:10  TO6 - Advanced technologies to maximize spectral and spatial performance for MALDI FTICR IMS of intact proteins - Jeffrey Spraggins
11:15  TO7 - Insights into the MALDI mechanisms: Postionization and photoracoustic experiments reveal laser spot size-dependent transitions between desorption and ablation regimes - Jens Softlisch
12:00  Lunch
13:00  Session 3: Young guns | Chairs: Anne Bruinen and Wojciech Michno
13:10  TO8 - Towards a standardised protocol for proteomic analysis of thyroid fine-needle-aspiration biopsies by MALDI-MSI: management of haemoglobin interference - Isabella Piga
13:15  TO9 - Deep learning for tumor classification in imaging mass spectrometry - Christian Elmann
13:20  TO10 - Optimization of tissue microarrays (TMA) sample preparation compatible with mass spectrometry imaging and applications - Michele Genangeli
13:25  TO11 - ME-ToF-SIMS yield as a function of matrix layer thicknesses obtained from mouse brain sections using sublimation/deposition techniques - Martin Körösén
13:30  TO12 - AP-MSMALDI MSI of lipids and metabolites in Schistosoma mansoni paracites - Patrik Kadesch
13:35  TO13 - Mitochondrial changes of articular chondrocytes by oxygen - Brenda Bakker
13:40  TO14 - Implementation of a high repetition rate laser in an AP-MSMALDI MSI system for enhanced measurement performance - Max Müller
13:45  TO15 - An open-source workflow for scalable statistical analysis of mass spectrometry imaging experiments - Kylie Bemis
14:00  TO16 - Mass spectrometry imaging of MSI contrast agent in mouse heart tissue - Ann-Christin Niehoff
15:00  Poster session - presentation of odd numbered posters
16:30  Session 4: MSI methodology | Chairs: Malcolm Clench and Peter Hoffmann
16:30  TO17 - Multiple Modes & Sensors: positive/negative ion mode MALDI-TOF and LA-ESI-MS imaging of tumor spheroids and mesothelioma samples - Martina Marchetti-Deschmann
16:40  TO18 - MALDI imaging of bile acids in mouse liver sections: impact of proton bound dimer formation between endogenous tissue metabolites - Ignacy Ragaliński
17:00  TO19 - Understanding the laser desorption ionization mechanisms of lipids from tissue sections after matrix deposition by sublimation - Pierre Chaurand
17:40  TO20 - Linkage-specific sialic acid derivatisation for mass spectrometry imaging of N-glycans in FFPE tissues - Alain Creissen
17:45  TO21 - MALDI-2-MS imaging of a multiple sclerosis (cuprizone) mouse model - Klaus Dreisewerd
18:05  TO22 - Mass spectrometry histochemistry of (neuro)peptides in formalin fixed paraffin embedded tissue: From a cockpit model to human applications - Peter Verhaert
18:25  TO23 - Multimodal imaging combining mass spectrometry and vibrational spectroscopy using a single tissue section and an integrated data processing workflow - Nicolas Desbenoit
19:00  Seated dinner - Zonheuvel restaurant

Social media

Follow us on Twitter, Facebook and LinkedIn for the latest updates, MSI-related job vacancies and more!
**Session 5: Clinical MSI | Chairs: Ron Heeren and Andreas Römppp**

- **09:00** - WO1 - The fucose score: distinguishing lethal from indolent prostate cancers using N-glycan MALDI mass spectrometry - Richard Drake
- **10:05** - Coffee break
- **10:35** - WO2 - MALDI-MS imaging applications utilizing the SunChrom SunCollect - Plybn Flinders
- **10:50** - WO3 - Shedding new light on spinal cord injury - Michel Salzet
- **11:10** - WO4 - Molecular distribution and classification of Diffuse Large B-Cell Lymphoma resistant to R-CHOP treatment - Britt Claes*
- **11:15** - WO5 - Multimodal mass spectrometry imaging of N-glycans and proteins identifies biomarkers of tumor progression in myxoid liposarcoma - Bram Heijls*
- **11:35** - WO6 - Histology-guided proteomic analysis to investigate the molecular signatures of clear cell Renal Cell Carcinoma (cRCC) grades - Martina Stella*
- **11:55** - Poster session - presentation of even numbered posters

**Session 6: Non-clinical MSI | Chairs: Liam McDonnell and Peter Marshall**

- **13:00** - WO8 - Metabolites, infection markers and toxins in plants and insects: visualizing the actors - Bernhard Spengler
- **13:20** - WO9 - Uncovering chemotherapeutic heterogeneity during viral infection of a bloom-forming alga using mass spectrometry imaging - Guy Schleyer*
- **13:35** - WO10 - Multivariate MALDI-ToF MS imaging of artificial pollen grain mixtures - Kristina Schwaumbom
- **13:55** - WO11 - Ambient surface analysis of historic manuscripts by imaging mass spectrometry: DESI and LESA - James Newton
- **14:00** - WO12 - Monitoring of Pseudomonas aeruginosa infection in a rat model - Anton Skriba
- **14:20** - WO13 - Round robin of formalin-fixed paraffin-embedded tissues in mass spectrometry imaging - Benjamin Balluff
- **14:40** - WO14 - New developments for mass spectrometry imaging - Shannon Connell

**Session 7: Pharmacological MSI | Chairs: Markus Steeckel and Sheerin Shoibles-Latham**

- **09:30** - ThO1 - Multimodal imaging of drug and excipients in rat lungs following an inhale administration of controlled-release drug laden PLA micro-particles - Peter Marshall
- **10:05** - Coffee break
- **10:35** - ThO2 - Distribution of perifosine in 3D cell aggregates by MALDI-MSI - Markéta Machálová*
- **10:55** - ThO3 - State-of-the-art multimodal mass spectrometry approach targeting triacrinone acetate and its effects in osteoarthritic human cartilage - Florian Barré*
- **11:10** - ThO4 - Biomarker monitoring by quantitative MALDI imaging: application to the tryptophan-tryptophan pathway in immuno-oncology - Rémi Al-Aid Belkacem
- **11:25** - ThO5 - Mass spectrometric analysis of endogenous molecules and chemotherapy Doxorubicin in a three-dimensional cell culture model of osteosarcoma - leva Palubeckaitē
- **11:40** - ThO6 - Ion mobility separation (IMS) combined with a new DESI set-up for imaging large biomolecules directly from tissue - Mark Towers

**Session 8: Bioinformatics | Chairs: Theodore Alexandrov and Josephine Bunch**

- **13:00** - ThO7 - Annotation-guided MS/MS molecular identification for spatial metabolomics - Andrew Palmer
- **13:35** - ThO8 - Fast segmentation of large MSI data using a tSNE deep neural network hybrid algorithm - Alex Dexter*
- **13:55** - ThO9 - An easy-to-use software program for the ensemble pixel-by-pixel classification of MALDI-MSI datasets - Manuel Galli*
- **14:10** - ThO10 - SCLS Lab & SCLS Cloud: software for mass spectrometry imaging - Jan-Hendrik Koburg
- **14:25** - ThO11 - Do proteomic and lipidomic molecular images provide similar information on tumor heterogeneity? - Gregorz Mrukwa*
- **14:40** - ThO12 - Interactive computational analysis for 3D mass spectrometry imaging using hierarchical stochastic neighbor embedding - Walid Abdulmolua*

**Session 9: Future of MSI | Chairs: Gary Corahs and Pierre Chaurand**

- **13:00** - ThO13 - Can real-time molecular analyses change the paradigm of dog sarcoma diagnosis and classification? - Isabelle Fournier
- **16:00** - ThO14 - Native liquid extraction surface analysis (LES)A mass spectrometry imaging of folded proteins - Rian Griffiths
- **16:20** - ThO15 - Big community data analytics for metabolite imaging mass spectrometry - Theodore Alexandrov

**Shuttle Bus Schedule: Train Station**

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Shuttle service between train station Driebergen-Zeist (DZ) and the hotels will run every 30 minutes.

**Shuttle Bus Schedule: Zonheuvel - Hotels**

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KdK: Kontakt der Kontinenten; VdV: Van der Valk; Zh: Zonheuvel
Missed the last bus? Call +31 343 473 500 (Zonheuvel) for a taxi.