



From Isotopocules to Metabolomes

Crutherland House Hotel, East Kilbride, 15th & 16th November 2023

PROGRAMME

Wednesday 15th November

9:00 Registration (Tea / Coffee)

10:00 Welcome from SMN Board

10:05 **Chair: Natalie Homer, University of Edinburgh**
Invited Keynote address

Professor John Langley, University of Southampton: Unravelling complexity with different hyphens

SESSION 1: Technology and People

Chair: Natalie Homer, University of Edinburgh

10:45 **Nik Ogryzo, UKRI: UKRI technician commitment action plan**

11:10 **Scott Denham, University of Edinburgh: Benefits and pitfalls of targeted metabolic profiling on an Exploris 240**

11:35 **Bart Pander, University of Edinburgh: Applications of metabolomics in biotechnology**

12:00 **Issaku Kohl, Thermo Fisher Scientific: Advances in Orbitrap based stable isotope analysis as a potential tool for metabolome research**

12:30 Lunch & posters

SESSION 2: Mechanistic Biology & Lipidomics

Chair: Phil Whitfield, University of Glasgow

13:30 **James Weatherill, University of Edinburgh: Estrogenic Profiling in Lung in Pulmonary Arterial Hypertension by Mass Spectrometry**

13:55 **Cecilia Castro, University of Aberdeen: A GOLIATH project – understanding endocrine disruption using metabolomics and lipidomics**

14:20 **Angela McIntyre, University of Dundee: Biomarkers for aortic aneurysm**

14:45 **Emily Armitage, Shimadzu: Oxygen Attachment Dissociation: A novel approach to accelerate lipidomics research.**

15:10 Afternoon Tea

SESSION 3: Gut and the Microbiome

Chair: Wendy Russell, University of Aberdeen

15:30 **Nicholas Rattray, University of Strathclyde: Defining frailty metabolism using metabolomics**

15:55 **Lauren Adams, University of Glasgow: A holistic study of the effect of the murine microbiome on metabolism and systemic inflammation using integrated molecular imaging technologies**

16:20 **Patricia Kelly, University of Strathclyde: Developing metabolomics approaches in gut health**

16:45 **Matt Lewis, Bruker: Bruker 4D-Lipidomics™: Exploring the lipidome at the speed of PASEF®**

17:10 Day 1 Wrap up

17:15 Poster and Drinks Reception, Kitch Suite, Crutherland House Hotel

19:30 Dinner, Crutherland Suite, Crutherland House Hotel

Thursday 16th November

SESSION 4: Food, Agriculture, Aquaculture and the Environment

Chair: Jules Griffin, University of Aberdeen

- 9:00 **Roberth Riggs Rondilla, University of Strathclyde:** *Chemical profiling of antibiofilm compounds from Philippine endolichenic fungi*
- 9:25 **Richard Broughton, University of Stirling:** *Precision aquaculture requires precision methodologies. Lipid markers and their role within fish nutrition and welfare*
- 9:50 **Wendy Russell, University of Aberdeen:** *Targeting the faecal and salivary metabolite profiles in ponies with differing laminitis status*
- 10:15 **Rebekah Sayers, AB SCIEX:** *Simultaneous Quantitative and Qualitative Analysis High Resolution Mass Spectrometry (HRMS)*
- 10:40 Coffee break

SESSION 5: Cancer

Chair: Nik Rattray, University of Strathclyde

- 11:10 **Johan Vande Voorde, University of Glasgow:** *Harnessing untargeted metabolomics of colorectal cancer: stratification potential and identification of the methionine cycle as a vulnerability*
- 11:35 **Kevin Rattigan, University of Glasgow:** *Therapeutic targeting of BCR-ABL-driven glucose anapleurosis in Chronic Myeloid Leukaemia stem cells*
- 12:00 **Barry Herschy, LECO:** *An Inter-laboratory study to investigate the use of GC and GCxGC-TOF-MS and HRTOF-MS as Accurate, Robust, and Enriching Tools, for Non-targeted and Semi-targeted Analysis of Mammalian Biofluids*
- 12:25 Lunch & posters

SESSION 6: Interface between metabolomics and stable isotopes

Chair: Douglas Morrison, University of Glasgow

- 13:30 **Adam King, Waters:** *Ultra-high accurate mass profiling of human urine using the SELECT SERIES MRT*
- 13:55 **Gordon McDougall, James Hutton Institute:** *Metabolic profiling approaches in Hutton crop and food research*
- 14:20 **Hannah Florance, Agilent:** *Combining bioenergetics and flux analysis to understand cellular and molecular metabolism*
- 14:45 **Invited Plenary**
Dr Isabel Garcia-Perez, Imperial College London: *¹H-NMR metabolic phenotyping for food composition, dietary assessment and personalised nutrition*
- 15:25 Day 2 Wrap up, Poster prizes, Vote of Thanks, SMN 2024 announcement and Meeting Close
- 16:00 Optional tour of SUERC

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