

iSLS10 Satellite workshop: ‘Pre-analytical considerations as prerequisite for successful clinical application of plasma lipidomics’

Date and location: Tue 8 March 2022, 2-4pm, hybrid model: on-site at Centre for Life Sciences, 28 Medical Drive, National University of Singapore, Singapore 117456 and via online platform.

What this workshop is about: Lipid metabolites are directly or indirectly implicated in a variety of physiological and pathophysiological processes. Lipids are hence potential biomarkers for early diagnosis, prognosis, and therapeutic decision making of various health and diseases conditions. However, the pre-analytical requirements for these bioactive lipid molecules can be challenging, especially in the context of (pre-)clinical studies.

The goal of our workshop is to identify and discuss methodological and technological tools to tackle current limitations in the application of plasma lipidomics assays in clinical research and diagnostics arising from pre-analytical prerequisites. We therefore structure the workshop into (I) pre-analytical considerations for different lipid classes, (II) metadata collection (III) the use of novel microsampling techniques for lipidomics.

For each topic, we will have an introductory presentation followed by an active discussion with the on-site and online participants. The presentations will provide overviews of pre-analytical aspects exemplified for plasma endocannabinoids, of data management with a focus on metadata collection, and of capillary blood microsampling tools, highlighting their advantages and limitations.

Expected outcome: A draft conference proceedings summarizing key points discussed and identified. Such a document could facilitate future meetings working on this critical part of the lipidomics workflow.

Who should attend? Anyone interested in implementing plasma lipidomics assays for clinical research or potential diagnostic purposes. Analytical scientists, clinicians or study coordinator with interest or expertise in pre-analytical aspects of lipids and small molecules.

Speakers:

Organizer and Chair: Anne K Bendt, PhD, Principal Investigator at National University of Singapore & Deputy Director of SLING, the Singapore Lipidomics Incubator. anne.bendt@nus.edu.sg

Lisa Hahnefeld, PhD, pharmazentrum frankfurt/ZAFES, Institute of Clinical Pharmacology, Johann Wolfgang Goethe University, Frankfurt, Germany / Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, and Fraunhofer Cluster of Excellence for Immune Mediated Diseases (CIMD), Frankfurt, Germany

Bo Burla, PhD, Head of Data at Singapore Lipidomics Incubator (SLING), Life Sciences Institute, National University of Singapore, Singapore

Margret Thorsteinsdottir, PhD, Faculty of Pharmaceutical Sciences, University of Iceland, Hagi, Hofsvallagata 53, 107 Reykjavik, Iceland

Costs: free for participants of iSLS10. **To sign up,** please visit <https://isls10.eventengage.app/register> and email anne.bendt@nus.edu.sg for any additional information.