5th General EpiLipidNET Meeting

13th-15th of May 2024, Dresden, Germany
Center for Regenerative Therapies Dresden (CRTD) at TUD Dresden,
Fetscherstraße 105, 01307 Dresden

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May 13th		
9:00 – 10:30	**EpiLipidNET Management Committee Meeting** (only for MC members and appointed substitutes)	
Coffee break		
11:00 – 11:15	**Welcome and meeting opening** Maria Fedorova, TU Dresden, Germany	
11:15 – 12:00	**<u>Keynote</u>: The increasing value of lipids in health and disease** **Kai Simons**, Lipotype GmbH, Germany	
Lunch		
<u>Session 1</u>: Young Researcher and Innovators (YRI) session Chairs: **Patricia Prabutzki**, University of Leipzig, Germany and **Aleš Kvasnička**, Palacký University Olomouc, Czech Republic		
13:00 – 13:15	**An efficient and environmentally friendly approach to lipid extraction** **Andrea Venturi**, University of Perugia, Italy	
13:15 – 13:30	**Elucidating plasmanyl and plasmenyl assignment in liquid chromatography and ion mobility separations** **Jakob Koch**, Medical University of Innsbruck, Austria	
13:30 – 13:45	**Analytical strategies to study animal isotopic labelling experiment in metabolomics and lipidomics** **Océane Delos**, MTH-Metatoul, France	
13:45 – 14:00	**Lipidomics reveals polyunsaturated fatty acid, glycerophospholipid, and sphingolipid alterations in pediatric patients with inflammatory bowel diseases** **Jakub Rozhon**, Palacký University Olomouc, Czech Republic	
14:00 – 14:30	**How not to lie with charts** **Helena Jambor**, Institute for Data Analysis, Artificial Intelligence, Visualization, and Simulation (DAViS), Switzerland and TU Dresden, Germany	
Coffee break		
15:00 – 15:15	**Plasma lipids as predictors of metabolic health in people with Type 1 Diabetes** **Jessica W. Davidson**, University of Wisconsin-Madison, USA	
15:15 – 15:30	**Arachidonic acid treatment modulates linoleic acid derived oxylipin levels in human lung epithelial cells** **Rosangela Silvia Santos**, Heidelberg University Biochemistry Center, Germany and University of São Paulo, Brazil	

15:30 – 15:45	**The effects of different types of calorie restriction on the methylation levels in promoter regions of adipose tissue related genes in breast cancer mouse model** **Ayşenur Doğan**, Yeditepe University, Turkey
15:45 – 16:00	**Combining transcriptomics and lipidomics to explore biological systems: the case of hepatic lipotoxicity** **Anna Migni**, University of Perugia, Italy
16:00 – 16:20	**Beer and the Maillard reaction** **Thomas Henle**, TU Dresden and University Lohrmann Brewery
16:20 – 16:50	**Poster polonaise** (data blitz series of 60 seconds talks; every YRI participant has the opportunity to show one slide to focus attention on the topic of their poster)
17:00 – 18:30	**Poster session #1**; posters with odd numbers
19:00 – 22:00	**Come together at the biergarten Fährgarten Johannstadt** (Käthe-Kollwitz-Ufer 23B, 01307 Dresden)

May 14th

Session 2: EpiLipidNET journey over the last 4 years
Chairs: **Maria Fedorova**, TU Dresden, Germany and **Rosario Domingues**, University of Aveiro, Portugal

9:00- 9:20	**WG1: Harmonization of lipidomics workflows to increase natural lipidome coverage** **Justine Bertrand-Michel**, MetaToul, France
9:20 – 9:40	**WG2: Epilipidomics analysis and data integration strategies** **Laura Goracci**, University of Perugia, Italy
9:40 – 10:00	**WG3: Clinical significance and applications of (epi)lipidomics** **Matej Orešič**, University of Turku, Finland
10:00 – 10:20	**WG4: Integration of (epi)lipidomics with lipid signalling and mechanisms of action** **Florian Gruber**, Medical University of Vienna, Austria
10:20 – 10:35	**WG5: EpiLipidNET dissemination and outreach** **Corinne M. Spickett**, Aston University, UK
10:35 – 11:00	**STSM and ITC Grants Awarding Committee** **Joanna Godzien**, Medical University of Bialystok, Poland, **Julia Kuligowski**, Health Research Institute La Fe, Spain, **Snjezana Petrovic**, University of Belgrade, Serbia
11:00 – 11:15	**Welcome Statement by Dr. Andreas Handschuh, State Secretary of the Saxon State Ministry for Science, Culture and Tourism**
	Coffee break

Session 3: Lipidomics and lipid research towards understanding diseases and health Chair: **Florian Gruber**, Medical University of Vienna, Austria	
11:45 – 12:15	**Keynote: Lipidomics biomarker discovery – a case study** **Anne Bendt**, Singapore Lipidomics Incubator, Singapore
12:15 – 12:35	**The biochemical complexity of the lipid metabolic network in inherited metabolic diseases** **Markus A. Keller**, Medical University of Innsbruck, Austria
12:35 – 12:55	**Remodelling of plasma epilipidome in Parkinson's disease patients** **Marcello Manfredi**, University of Piemonte Orientale, Italy
12:55 – 13:15	**Regulation of de novo sphingolipid synthesis by directional acyl-CoA channelling. Role in systemic energy expenditure** **Nils J. Færgeman**, University of Southern Denmark, Denmark
Lunch	
Session 4: Panel discussion "Lipidomics in industry settings" Chairs: **Maria Fedorova**, TUD Germany and **Olga Vvedenskaya**, Lipotype	
14:30 – 15:30	**Panellists: Cruciani, Gabriele** (Mass Analytica), **Da Silva, Katyeny Manuela** (Johnson & Johnson), **Gabaldon Colomina, Yeray** (oloBion SL), **Gijón, Miguel** (Cayman Chemical), **Klose, Christian** (Lipotype), **Mokochinski, Joao** (Thermo Fisher Scientific), **Schäbler, Stefan** (Agilent Technologies), **Wernisch, Stefanie** (Bruker Daltonics)
Coffee break	
16:00 – 17:00	**Dissemination and outreach:** Demonstration and "try yourself" session with **EpiLipidNET community-created games "Lipodrome" and "Know Your Fats"** **Corinne M. Spickett**, Aston University, UK
17:00 – 18:30	**Poster session #2**; posters with even numbers
19:00 – 22:00	**Conference dinner at the restaurant Rauschenbach** (Weiße Gasse 2, 01067 Dresden)

May 15th	
Session 5: Exploring lipidome over different dimensions Chair: **Laura Goracci**, University of Perugia, Italy	
9:15 – 9:45	**Keynote: Exploring the lipidome in tissue and cells** **Ingela Lanekoff**, Upsala University, Sweden
9:45 – 10:05	**Regiospecific analysis of natural lipidomes using ultra-high performance liquid chromatography-mass spectrometry and machine learning** **Baoru Yang**, University of Turku, Finland
10:05 – 10:25	**Recognition of NeuGc GM3 ganglioside by the anti-tumor antibody 14F7 is modulated by the membrane environment** **Michal Grzybek**, TU Dresden, Germany

Coffee break	
Session 6: Epilipidome and beyond	
Chair: **Joanna Godzien**, Medical University of Bialystok, Poland	
11:00 – 11:30	**Keynote: Identification of new phospholipids involved in vascular inflammation** **Valerie O'Donnell**, Cardiff University, UK
11:30 – 11:50	**Fatty acid nitration: phospholipids as a major source of anti-inflammatory nitrated fatty acids** **Francisco Jose Schopfer**, University of Pittsburgh, USA
11:50 – 12:10	**A frameshift variant in the Maresin 1 receptor LGR6 alters human phagocyte responses and increases disease incidence** **Jesmond Dalli**, Queen Mary University of London, UK
12:10 – 12:30	**The whole blood oxylipin response: a new tool to assess and understand the inflammatory response to various immune stimuli in humans** **Cécile Gladine**, INRAE, France
Lunch	
Session 7: Analytical tools in lipidome research	
Chair: **Rosario Domingues**, University of Aveiro, Portugal	
13:30 – 14:00	**Keynote: Ultra-high resolution shotgun: what it takes and what it gives?** **Andrej Shevchenko**, MPI-CBG, Germany
14:00 – 14:20	**Application of a spatial multi-omics pipeline to study prostate cancer heterogeneity** **Jakub Idkowiak**, KU Leuven and Leuven Cancer Institute, Belgium
14:20 – 14:40	**Identification and quantification of iodolipids in single rat thyroid glands using liquid chromatography mass spectrometry** **Gerasimos P. Sykiotis**, Lausanne University Hospital and University of Lausanne, Switzerland
14:40 – 15:00	**Proposition of a scoring system for data quality assessment in mass-spectrometry-based lipidomics** **Nils Hoffmann**, Forschungszentrum Juelich, Germany
Coffee break	
15:30- 16:30	**Closing/prizes/future of EpiLipidNET community**

CA19105- Pan-European Network in Lipidomics and EpiLipidomics

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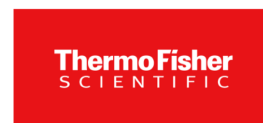
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