

3rd EpiLipidNET general Action meeting

21-23 September 2022

Venue: Amphitheatre Carlos Borrego, Departamento de Ambiente
(Building 7) University of Aveiro, 3810-193 Aveiro, Portugal

*All time given in PT time

21st September 2022	
Young Researcher and Innovators (YRI) Meeting	
13:00 – 14:00	Registration
14:00 – 14:15	Welcome and YRI Committee updates Rosario Domingues, University of Aveiro, Portugal Tomáš Pluskal, Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Czech Republic
Session 1: Lipid metabolism Chair: Tomáš Pluskal , Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Czech Republic	
14:15 – 14:30	Novel lipid biomarkers for algal resistance to viral infection in the ocean Guy Schleyer, Weizmann Institute of Science, Israel
14:30 – 14:45	A dynamic interplay between lipid droplets and autophagy supports the resistance of cancer cells to nutrient stress Špela Koren, Jožef Stefan Institute, Slovenia
Session 2: Lipid technology and innovation Chair: Karlo Parchem , Gdańsk University of Technology, Poland	
14:45 – 15:00	Nanodelivery strategies based on lipids obtained from larvae biomass for skin diseases with barrier impairment Cíntia Almeida, Universidade Lusófona's Research Center for Biosciences & Health Technologies, Portugal; University of Alcalá, Spain
15:00 – 15:15	Development of a LC-MS/MS method for novel oxylipins in newborn urine. Validated quantification of known Isomers and semiquantitative analysis of potentially unknowns Ángel Sánchez-Illana, University of Valencia, Spain; University of Montpellier, France
15:15 – 15:45	Coffee break & poster session

Session 3: Lipid in health and diseases	
Chair: Silvia Radrezza, MPI CBG, Dresden, Germany	
15:45 – 16:00	Effect of vegan diet on plasma lipidome in Czech and Italian population Klára Dohnalová, Institute of Molecular Genetics of the Czech Academy of Sciences, Czech Republic
16:00 – 16:15	Development of a novel approach for apocrine sweat microsampling and its utilization in cancer screening using pseudotargeted lipidomics Aleš Kvasnička, Palacký University Olomouc, University Hospital Olomouc, Czech Republic
Panel discussion:	
Where do we go next? Career paths, chances and obstacles in the Lipidomics field	
Chair: Patricia Prabutzki, Leipzig University, Germany	
16:15 – 17:15	Panellists: Valerie O'Donnell, Cardiff University, UK; Ansgar Korf, Bruker Daltonics GmbH & Co. KG, Bremen, Germany; Maria Fedorova, TU Dresden, Germany
17:15 – 18:15	Poster session
18:15 – 18:30	Closing
18:30 – 22:00	Walk & Chat & Dinner
22nd September 2022	
From 8:00	Registration
8:30 – 10:30	Action Management Committee (MC) meeting (only for MC members)
10:30 – 11:15	Coffee break
11:15 – 11:30	Welcome by Vice-Rector and Coordinator of CESAM, University of Aveiro
11:30 – 11:45	Welcome and EpiLipidNET updates Rosario Domingues, University of Aveiro, Portugal Maria Fedorova, TU Dresden, Germany
11:45 – 12:15	EpiLipidNET in action: updates on STSMs and ITC grants Joanna Godzien, Medical University of Bialystok, Poland Julia Kuligowski, University & Polytechnic Hospital La Fe, Valencia, Spain Snjezana Petrovic, University of Belgrade, Serbia
12:15 – 13:00	Keynote lecture Discovery of lipid biomarkers: the value of the difference, the dangers of plasma, the power of a trend Alla Kloss, Sanofi, USA

13:00 – 14:00	Lunch break
Session 1: Identification and Annotation in Lipidomics Chairs: Justine Bertrand-Michel , Université de Toulouse, France and Amaury Cazenave-Gassiot , National University of Singapore, Singapore	
14:00 – 14:05	Introduction by Chairs
14:05 – 14:30	Basics of glycerolipid structural identification Juliette Jouhet , Université Grenoble Alpes, France
14:30 – 14:45	Identification and annotation of lipids Gerhard Liebisch , University of Regensburg, , Germany
14:45 – 15:00	Knowledge resources for lipid biology: SwissLipids, Rhea and UniProtKB Alan James Bridge , SIB, Centre Medical Universitaire, Geneva, Switzerland
15:00 – 15:15	ChEBI: A chemistry database and ontology Adnan Malik , EMBL-EBI, Cambridge, UK
15:15 – 15:30	LIPIDMAPS Matt Conroy , LIPID MAPS, Cardiff, UK
15:30 – 15:45	LipidLynxX: a data transfer hub to support integration of large scale lipidomics datasets Zhixu Ni , TU Dresden, , Germany
15:45 – 16:00	Discussion: Way towards harmonization
16:00 – 16:30	Coffee break & poster session
Session 2: Oxidized phospholipids: biological significance and identification strategies Chairs: Laura Goracci , University of Perugia, Italy and Pedro Domingues , University of Aveiro, Portugal	
16:30 – 16:35	Introduction by Chairs
16:35 – 17:05	Oxidized phospholipids in cell death and inflammation Valery Bochkov , University of Graz, Austria
17:05 – 17:35	Integrating the potential of ion mobility spectrometry – mass spectrometry (IMS-MS) in the separation and structural characterization of oxidized glycerophospholipid isomers Antonia Garcia , Universidad San Pablo CEU, Madrid, Spain
17:35 – 17:55	LC-MS/MS epilipidomics of oxidized complex lipids Palina Nepachalovich , TU Dresden, , Germany
17:55 – 18:15	Investigating the potential of ion mobility: from oxylipins to complex oxidized lipids Katyeny Manuela Da Silva , University of Antwerp, Belgium
18:15 – 18:45	Discussion: Exploring the epilipidome- directions and current limits
20:00	Dinner (Restaurante do Lago, Hotel Melia, Cais da Fonte Nova 5, Aveiro)

23rd September 2022	
8:30 – 9:00	Keynote lecture FAHFAs – from antioxidant defence system to neutral lipid metabolism Ondřej Kuda , Institute of Physiology of the Czech Academy of Sciences, Czech Republic
Session 3: Pre-analytical and analytical workflows for clinical lipidomics Chairs: Matej Oresic , Örebro University, Sweden and Margrét Þorsteinsdóttir , University of Iceland, Iceland	
9:00 – 9:05	Introduction by Chairs
9:20 – 9:40	Impact of pre-analytical factors on data quality in clinical lipidomics Tuulia Hyötyläinen , Örebro University, Sweden
9:40- 10:00	Pre-analytical and analytical considerations for the use of extracellular vesicles lipids in clinical diagnosis Alicia Llorente , Oslo University Hospital, Norway
10:00 – 10:20	Microsampling for lipidomics Margrét Þorsteinsdóttir , University of Iceland, Iceland
10:20 – 10:50	Coffee break & poster session
10:50 – 11:10	EpiLipidNet microsampling study – an update Alex Dickens , University of Turku and Åbo Akademi University, Finland
11:10 – 11:30	Analytical workflows for clinical lipidomics: A focus on cholesterol related disorders William Griffith , Swansea University, UK
Young Researcher and Innovators (YRI)- Innovative project proposals award Chair: Michele Wölk , TU Dresden, Germany	
11:30 – 11:50	Introduction to YRI Innovative Project Awards
11:50 – 12:10	Oxylipidomics as a tool for identification of defence mechanisms neutralizing oxidized phospholipids Philipp Jokesch , University of Graz, Austria
12:10 – 12:30	Lipidomic analysis of endothelial plasma membrane Lorena Diaz-Sanchez , Aston University, UK
12:30 – 13:30	Lunch break
Industrial committee round table discussion Chairs: Maria Fedorova , TU Dresden, Germany and Daniel Torocsik , University of Debrecen, Hungary	
13:30 – 14:30	Panellists: Miguel Gijón , Cayman Chemical Christine Hinz , Shimadzu Ansgar Korf , Bruker

	<p>Stefan Schäbler, Agilent Judith Seidel, Dermatological Skin Care Research, Beiersdorf AG</p>
<p>Session 4: Endothelial lipid biology – Solving a science problem with the help of EpiLipidNET Chair: Florian Gruber, Medical University of Vienna, Austria and Martina Kutmon, University of Maastricht, The Netherlands</p>	
14:30 – 14:35	Introduction by the Chairs
14:35 – 14:50	Towards endothelial lipidomics - challenges and opportunities Ana Reis , University of Porto, Portugal
14:50 – 15:10	Alkyl-amide scaffold as a tool for functional analysis of epiphospholipids Olga Oskolkova , University of Graz, Austria
15:10 – 15:25	Towards endothelial lipidomics- from datasets to results Irundika Dias , Aston University, UK
15:25 – 15:40	An all-in-one online solution to curate and annotate metabolic networks in a collaborative research environment Fabien Jourdan , MetaboHUB-Metatoul, University of Toulouse, France
15:40 – 15:55	Curation of lipid pathways: WikiPathways' data and curation tools Martina Kutmon , University of Maastricht, The Netherlands
15:55 – 16:05	Which lipid signaling parameters to integrate into pathways? Valery Bochkov , University of Graz, Austria Sonia Benitez Gonzalez , Institut de Investigacions Biomèdiques IIB-Sant Pau, Spain
16:05 – 16:30	Discussion: Open questions on the endothelial lipid signalling workflow
16:30 – 17:00	Coffee break & poster session
<p>Session 5: Share your EpiLipidNET research - hands-on, interactive session on outreach and public engagement (* Rooms 7.2.218 and 7.3.318) Chairs: Corinne M. Spickett, Aston University, UK and Sara Tortorella, Molecular Horizon, Italy</p>	
17:00 – 18:00	Disseminate EpiLipidNET via social media David Pereira , University of Porto, Portugal Video Activity: design a short clip about EpiLipidNET Helena Ferreira , University of Aveiro, Portugal Design of a flyer about lipids for the general public and non-specialists Morana Jaganjac , Ruđer Bošković Institute, Croatia
18:00 – 18:20	Summary, plans, poster award and closing
20:00	Dinner (Restaurante do Lago, Hotel Melia, Cais da Fonte Nova 5, Aveiro)



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