

4th International Lipidomics Society Conference

MADRID Spain, 28-31 Oct **2025**
Hospital Universitario Ramón y Cajal-IRYCIS



PROGRAMME



Tuesday, 28th October

Aula Magna Universidad San Pablo CEU	
18:00	CONFERENCE OPENING Coral Barbas Professor Group Leader. Centro de Metabolómica y Bioanálisis. Universidad San Pablo CEU Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. Kim Ekross PhD. Founder & CEO. President International Lipidomics Society. Lipidomics Consulting
18:10	OPENING LECTURE - ORGANELLAR LIPID CODES <i>Moderate</i> Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. Organellar lipid codes <i>Speaker</i> Joost Holthuis Molecular Cell Biology Division, Department of Biology/Chemistry, Center for Cellular Nanoanalytics Osnabrueck Osnabrueck University
19:00	ILS EARLY CAREER TRAVEL AWARDS <i>Moderate</i> Kim Ekross PhD. Founder & CEO. President International Lipidomics Society. Lipidomics Consulting Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. <i>Speakers</i> Carlos R. Canez Lipid CAT: An Open-Access, User-friendly Contaminant Annotation Tool for MS-Based Lipidomics Workflows Johanna Schubarth Detection Limits of Oxidized Bulk Phospholipids in Biological Samples Using Conventional Matrices and 1-Pyrenebutyric Hydrazide in MALDI-TOF MS Yasmin Kadyrbekova Quantitative Analysis of Monohydroxy Sterols and Vitamin E in Human Plasma Combining Derivatization and RP-UHPLC/MS/MS in Negative Ion Mode
19:40	WELCOME MIXER

Wednesday, 29th October

Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal	
09:00	WELCOME AT HOSPITAL RAMÓN Y CAJAL Carlos Mingo Rodríguez General Manager, Hospital Universitario Ramón y Cajal Laura García Bermejo Scientific Director, Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS). Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. Kim Ekross PhD. Founder & CEO. President International Lipidomics Society. Lipidomics Consulting
09:20	PHOTO CONGRESS

Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal	
09:30	ORAL SESSION 1 - SPHINGOLIPIDOMICS <i>Moderate</i> Gerhard Liebisch Professor Team Leader Institute of Clinical Chemistry, University Hospital Regensburg Challenges involved in sphingolipid analysis: from free bases to complex gangliosides <i>Speaker</i> Roger Sandhoff Professor Group Leader of Lipid Pathobiochemistry German Cancer Research Center, Heidelberg
10:30	COFFEE BREAK - POSTER AREA - TRADE EXHIBITION
11:00	SHORT-TALK 1 Towards global glycosphingolipidomics using advanced high-resolution mass spectrometry and automated annotation workflows <i>Speaker</i> Evelyn Rampler
11:20	SHORT-TALK 2 ω- Hydroxylation - a yet undescribed novel hepatic pathway for the detoxification of 1-deoxysphingolipids <i>Speaker</i> Thorsten Hornemann Clinical Chemistry Universtiy Zurich
11:40	SHORT-TALK 3 Synthesis and Biological Evaluation of a New Dihydroceramide Desaturase Inhibitor for the Treatment of MASLD <i>Speaker</i> Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares.
12:10	VENDOR TALK (WATERS) From Cell to Spectrum: New Perspectives in Single Cell Lipidomics, Throughput and Sensitivity with the Xevo MRT <i>Speaker</i> Christopher Titman Business Development Manager Waters Corporation
12:40	LUNCH - POSTER AREA - TRADE EXHIBITION
14:00	Oral Session 2 - Possitional Isomers <i>Moderate</i> Kim Ekross PhD. Founder & CEO. President International Lipidomics Society. Lipidomics Consulting New Strategies for Multiplexed Quantitation of Lipids and Lipid Isomers <i>Speaker</i> Yu Xia Prof. Department of Chemistry Tsinghua University
14:30	SHORT-TALK 4 Quantitative tracing of fatty acid metabolism in primary hepatocytes <i>Speaker</i> Theja Sajeevan
14:50	SHORT-TALK 5 Dynamic Remodeling of Anti-Inflammatory Palmitoleic Acid and Its Isomers in Activated Monocytes and Macrophages <i>Speaker</i> Miguel Ángel Bermúdez Arias

Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal	
15:10	SHORT-TALK 6 Enhancing Lipid Annotation Confidence in NIST® SRM® 1950 with C=C Double Bond Position Determination via EIEIO-MS <i>Speaker</i> Sara Martínez López
15:30	COFFEE BREAK - POSTER AREA - TRADE EXHIBITION
16:00	ORAL SESSION 3 - LIPID IMAGING <i>Moderate</i> Gwendolyn Barceló-Coblijn Professor Group Leader Instituto de Investigación Sanitaria Illes Balears (IdISBa) MALDI imaging mass spectrometry for the in situ analysis of lipids at cellular and sub-cellular resolving power <i>Speaker</i> Jens Soltwisch Prof. Group Leader Institute of Hygiene, University of Münster
16:30	SHORT-TALK 7 Brain-Region-Specific Lipid Dysregulation in L-DOPA-Induced Dyskinesia in a Primate Model of Parkinson's Disease <i>Speaker</i> Ibrahim Kaya Department of Pharmaceutical Biosciences Uppsala University
16:50	SHORT-TALK 8 Enabling the spatial visualization of brain endocannabinoidome by MALDI-2 Mass Spectrometry Imaging <i>Speaker</i> Eduardo Maria Sommella
17:10	SHORT-TALK 9 Integrated DESI-MS Imaging and SFC-QTOF Analysis for Spatial Lipid Characterization in Drosophila melanogaster Larvae <i>Speaker</i> Pauline Le Faouder
17:30	WINE/BEER & POSTER SESSION

Thursday, 30th October

Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal	
09:00	ORAL SESSION 4 - CLINICAL LIPIDOMICS (I): RING TRIALS, PREANALYTICS <i>Moderate</i> Coral Barbas Professor Group Leader. Centro de Metabolómica y Bioanálisis, Universidad San Pablo CEU Harmonization of Lipidomic Analysis of Human Plasma: Insights from CLIG Interlaboratory Ring Trial <i>Speaker</i> Michal Holčapek Professor Group Leader University of Pardubiche
09:30	SHORT-TALK 10 Untargeted Metabolomics and Lipidomics Using Blood Microsamples: Insights from Stability, Exercise, and Dietary Intervention Studies <i>Speaker</i> Dennisse Julieth Avella Estupiñan

	Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal
09:50	SHORT-TALK 11 Shotgun mass spectrometry-based lipid profiling of early atherosclerosis: The AWHs Study <i>Speaker</i> Alessia Ferrarini
10:10	SHORT-TALK 12 Screening Method for Pancreatic Cancer Using Lipidomic Profiling of Plasma or Serum: A Pilot Study <i>Speaker</i> Ondrej Peterka
10:30	COFFEE BREAK - POSTER AREA - TRADE EXHIBITION
11:00	ORAL SESSION 5 - CLINICAL LIPIDOMICS (II): STUDIES <i>Moderate</i> Michal Holčapek Professor Group Leader University of Pardubice Unleashing the Potential of Lipidomics for Population Health Research <i>Speaker</i> Julijana Ivanisevic Professor Group Leader University of Lausanne (UNIL)
11:30	SHORT-TALK 13 Cerebrotendinous Xanthomatosis: 13-Year Follow-Up of LDL-Apheresis Therapy with Plasma 7α-Hydroxy-4-cholesten-3-one Monitoring <i>Speaker</i> Silke Matysik
11:50	SHORT-TALK 14 Development of a Serum-Based lipid-protein Diagnostic Assay for the Early Detection of Ovarian Cancer <i>Speaker</i> Kim Ekroos Founder & CEO Lipidomics Consulting Ltd
12:10	VENDOR TALK - SCIEX Quantitative and qualitative analysis of oxylipins using high-resolution mass spectrometry <i>Speaker</i> Paul Baker SCIEX
12:40	LUNCH - POSTER AREA - TRADE EXHIBITION
14:00	ORAL SESSION 6 - MICROBIAL LIPIDS <i>Moderate</i> Yu Xia Prof. Department of Chemistry Tsinghua University Mycobacterial derived lipids as diagnostic marker <i>Speaker</i> Dominik Schwudke PD. Dr. Principal Investigator, Group Leader Research Center Borstel, Leibniz Lung Center
14:30	SHORT-TALK 15 ECOLIPID DH5: a highly curated lipidome characterization of Escherichia coli DH5α strain generated by multiplatform deep lipidomic profiling <i>Speaker</i> Miguel Fernández García Center for metabolomics and bioanalysis (CEMBIO) CEU San Pablo University
14:50	SHORT-TALK 16 Lipidomic Profiling of SARS-CoV-2-Infected Mice: Viral Dose-Dependent and Organ-Specific Alterations <i>Speaker</i> Myeong Hee Moon

Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal	
15:10	SHORT-TALK 17 Characterization of lipid biomass derived from (precision) fermentation through high-resolution mass spectrometry <i>Speaker</i> Francesca Giuffrida Societes des Produits Nestlé
15:30	COFFEE BREAK - POSTER AREA - TRADE EXHIBITION
16:00	ORAL SESSION 7 - PLANT LIPIDOMICS & NUTRITIONAL LIPIDS <i>Moderate</i> Baoru Yang Towards comprehensive lipid quantification in plants: a community ring trial <i>Speaker</i> Katharina Gutbrod Plant Lipidomics Institute of Molecular Physiology and Biotechnology of Plants (IMBIO) University of Bonn
16:30	SHORT-TALK 18 Lipidomic Analysis Reveals Suaeda maritima as a Sustainable Source of Food Lipids through Aqua-ponic Cultivation <i>Speaker</i> Rosário Domingues Departemnt of Chemistry University of Aveiro
16:50	SHORT-TALK 19 Human Milk Extracellular Vesicles: a lipid shuttle to the preterm infant's gut? <i>Speaker</i> Julia Kuligowski
17:10	SHORT-TALK 20 Oxylipin Profiles in Aggressive versus Suppressed Neuroblastoma: Effects of Highly Unsaturated Fatty Acids in a Mouse Model <i>Speaker</i> Tom Brenna
20:00	GALA DINNER - HOTEL VP PLAZA ESPAÑA DESIGN (Plaza de España 5, 28008 Madrid)

Friday, 31st October

Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal	
09:00	ORAL SESSION 8 - LIPIDOMICS TOOLS AND STANDARDIZATION <i>Moderate</i> Harald Köfeler Professor Director Core Facility Mass Spectrometry University of Graz Extending gene ontology (GO) term analyses for lipidomics-centered multi-omics applications <i>Speaker</i> Dominik Kopczynski PhD Senior Scientist University of Vienna
09:30	SHORT-TALK 21 Instrument QC for shotgun lipidomics <i>Speaker</i> Silvia Radrezza
09:50	SHORT-TALK 22 A Mammalian Tissue Standard Reference Material for Improved Lipidomic and Metabolomic Interoperability <i>Speaker</i> Justine Bertrand-Michel

	Salón de Actos - Main Hall Hospital Universitario Ramón y Cajal
10:10	SHORT-TALK 23 Investigating the analytical response of triglycerides by flow-injection-analysis high-resolution mass spectrometry <i>Speaker</i> Gerhard Liebisch Professor Team Leader Institute of Clinical Chemistry, University Hospital Regensburg
10:30	COFFEE BREAK - POSTER AREA - TRADE EXHIBITION
11:00	ORAL SESSION 9 - QUO VADIS LIPIDOMICS? <i>Moderate</i> Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. Michal Holčápek Professor Group Leader University of Pardubice <i>Speakers</i> Group Discussion Session
11:45	SHORT-TALK 24 Towards a Next-Generation Comprehensive Lipid Analysis Platform and the Standardization of Lipidomics in Japan <i>Speaker</i> Takeshi Bamba
12:10	SHORT-TALK 25 Integrative Lipidomics and Transcriptomics Identify Distinct Tumor Cell Subtypes in Human Colon Cancer <i>Speaker</i> Gwendolyn Barceló-Coblijn Professor Group Leader Instituto de Investigación Sanitaria Illes Balears (IdISBa)
12:30	SHORT-TALK 26 FAMetA: a mass-isotopologue-based tool for the comprehensive analysis of fatty acid metabolism <i>Speaker</i> Juan Carlos Garcia Cañaveras Unidad de Biomarcadores y Medicina de Precision IIS-La Fe
13:00	CLOSURE LECTURE - DECIPHERING LIPID CODES IN CARDIOMETABOLIC DISEASE <i>Moderate</i> Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. The crosstalk between lipid metabolism and inflammation in cardiometabolic disease. <i>Speaker</i> Carlos Fernández-Hernando Professor of Comparative Medicine and of Pathology Director of Vascular Biology & Therapeutics Program Yale University School of Medicine
13:45	5th Lipidomics Conference 2026 + Award Ceremony + closing remarks participan María Luisa Palacios Romero Associate Medical Director, Ramón y Cajal University Hospital Óscar Pastor Prof. Conference Chair, Clinical Biochemistry Department. Hospital Universitario Ramón y Cajal-IRYCIS. Universidad de Alcalá de Henares. Kim Ekross PhD. Founder & CEO. President International Lipidomics Society. Lipidomics Consulting
14:15	LUNCH (TAKE AWAY)

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