

Inserm Workshop 287

Lipidomique : principes et application en santé
Lipidomics: principles and applications in health

1-3 décembre 2025 / **December 1-3, 2025** ■ Bordeaux, France

Lundi 1^{er} décembre 2025 ■ **Monday December, 1st 2025**

14:15 - 14:45	Reception of participants
14:45 - 15:00	Welcome and presentation by the organizers
SESSION I	EMBARKING ON THE LIPIDOMICS ROAD
15:00 - 15:45	Lipids families and lipidomic workflow (sample preparation, analytical tools.....) Justine Bertrand-Michel (MetaToul,I2MC, Toulouse, France)
15:45 - 16:30	Mass spectrometry methodologies Sophie Ayciriex (CNRS UMR 5280, Villeurbanne, France)
16:30 - 17:00	Coffee break
17:00 - 17:45	Basis and principles of data processing in targeted and untargeted lipidomic Laura Goracci (University of Perugia, Italy)
17:45 - 18:30	Structural characterization of lipids: pinpointing C=C locations and beyond Yu Xia (Department of Chemistry, Tsinghua University, Beijing, China)
18:30 - 19:30	ROUND TABLE "How to choose the good workflow?"
19:30	Dinner

Mardi 2 décembre 2025 ■ **Tuesday December, 2nd 2025**

06:30 - 08:30	Breakfast
SESSION II	MOLECULAR NETWORK
08:30 - 09:15	Learning about the diversity of lipids from billions of MS/MS files at once - insights from molecular networking, query language and global fast search engines Pieter Dorrestein (University of California, Skaggs School of Pharmacy and Pharmaceutical Sciences, San Diego, USA)
SESSION III	INFLAMMATION AND METABOLIC DISEASES
09:15 - 10:00	Application: Oxydized phospholipids Valerie O'Donnell (Cardiff University, United Kingdom)
10:00 - 10:30	Coffee break
10:30 - 11:15	Application: Workflows for profiling of complex tissue lipidomes Maria Fedorova (Center for Membrane Biochemistry and Lipid Research (ZML), Dresden, Germany)
SESSION IV	BIOMARKERS
11:15 - 12:00	Theory lecture/Application: High-throughput lipidomic quantitation in large clinical cohorts Michal Holčápek (University of Pardubice, Czech Republic)

12:00 - 13:30	Lunch
13:30 - 14:15	Theory lecture/Application: ultra high resolution shotgun, set up and applications Andrej Shevchenko (Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany)
14:15 - 15:00	Application: clinical applications for lipidomics Martin Giera (Leiden University, Germany)
SESSION V	LIPIDOMICS AND FLUXOMICS
15:00 - 15:45	Theory lecture : basis and principle of fluxomic Jean-Charles Portais (RESTORE - Université Paul Sabatier, Toulouse, France)
15:45 - 16:15	Coffee Break
16:15 - 17:00	Complex lipid metabolic flux analysis in mice Ondrej Kuda (IPHYS, Prague, Czech Republic)
SESSION VI	TOOLS FOR LIPIDOMICS RESULTS MEANING
17:00 - 17:45	Theory lecture: Using metabolic networks for the interpretation of lipidomics data : mapping and modelling Nathalie Poupin (INRAE, Toulouse, France)
17:45 - 18:45	ROUND TABLES (2-3 differents topics)
19:00 - 20:00	Cocktail
20:00	Dinner

Mercredi 3 décembre 2025 ▣ **Wednesday December, 3rd 2025**

06:30 - 08:30	Breakfast
SESSION VII	SPATIAL LIPIDOMICS
08:30 - 09:15	Theory lecture: basis and principle of spatial lipidomics by mass spectrometry Maxence Wisztorski (Inserm U1192, Lille, France)
09:15 - 10:00	Example of application of spatial lipidomics by mass spectrometry Martina Marchetti (TU Wien, Institute of Chemical Technologies and Analytics, Vienne, Austria)
10:00 - 10:30	Coffee Break
SESSION VIII	LIPIDS DISCOVERY
10:30 - 11:15	Looking for new immunomodulatory lipids of Mycobacterium tuberculosis Emilie Layre (CNRS UMR 5089, Toulouse, France)
11:15 - 12:00	Discovery and quantification of lipoamino acids in bacteria: new partners in microbiote studies? Nicolas Cénac (IRSD, Toulouse, France)
12:00 - 12:30	Concluding remarks - Feedbacks
12:30 - 14:00	Lunch
14:00	Departure