

20th GERLI International Lipid Meeting

“Lipids in Cell Structures and Metabolism”

Strasbourg, France – November 3-5, 2025



Final program

Monday, November 3, 2025

09:00 – 10:00 Registration – Welcome coffee

Registration desk, Sevim Saritas (EFL DFG) & Pauline Debié (IBMP Strasbourg, GERLI)

10:00 – 10:10 Welcome addresses

Session 1 – Opening Lecture and GERLI PhD Awards session

Chairpersons, Hubert Schaller & Nicolas Vitale

10:10 – 11:00 **Opening lecture:** Russell DeBose-Boyd, UT Southwestern Medical Center, Houston, USA: *The Vitamin K₂ Synthetic Enzyme UBIAD1 Moonlights as a Regulator of Cholesterol Synthesis*

11:00 – 11:30 **GERLI PhD Awards**

11:00 – 11:15 Anouk Charlot, GERLI-SFN PhD Award: *Characterization of the deleterious role of carbohydrates in the pathophysiology of obesity and breast cancer, and the beneficial effects of the ketogenic diet*

11:15 – 11:30 Pierre-Louis Batrow, GERLI PhD Award: *Beyond Thermogenesis: PPAR α Control of Lipogenesis in Brown Adipose Tissue*

11:30 – 12:15 Poster session – Flash-Talks 1min 1slide

Chairperson, Frédéric Domergue

12:15 – 13:45 **Lunch and poster session (13:00-13:45 poster presentation with the poster jury)**

Session 2 – Advanced approaches for lipid research

Chairpersons, Cécile Gladine & Thierry Durand

13:45 – 14:15 Stefano Vanni, University of Fribourg, CH: *Discovering new membrane proteins' functions with multi-scale molecular simulations*

14:15 – 15:30 Short-talks selected from abstracts (12min + 3min Q/A)

14:15–14:30 Chu-Huang (Mendel) Chen, Texas Heart Institute, Houston, USA : *Electronegative Lipoproteins and Apo(a): Independent Actors or Synergistic Villains in Vascular Pathology?*

14:30–14:45 Heather Chassaing, SCIEX UK : *Advancing Untargeted Lipidomics: Enhanced Sensitivity and Coverage with the ZenoTOF 8600 and ZT Scan DIA*

14:45 – 15:00 Yehia Mechref, Texas Tech University, LUBBOCK, USA : *Rapid Profiling of Gangliosides and Glycolipids Reveals Lipid Dysregulation in Cancer and Alzheimer's Disease*

15:00 – 15:15 Jacqueline Ji, IGBMC, Université de Strasbourg, FR: *Muscle fusogen-derived peptide enhances skeletal muscle tropism and reduces liver transduction of lipid nanoparticles for gene delivery*

15:15–15:30 Elisa Rek, Le Mans Université, Laval, FR : *Epigenetics: Fostering and understanding epigenetic regulations in lipid production in the marine diatom *Phaeodactylum tricornutum**

15: 30 – 16:15 coffee break / poster viewing

Session 3 – Lipid cellular functions

Chairpersons, Ofelia Maniti & Zoubir Amri

16:15 – 16:45 Delphine Muriaux, Institut de Recherche en Infectiologie, Montpellier, FR: *Lipids and membrane host factors in HIV-1 assembly*

16:45 – 17:15 Alexandre Martinière, Institute for Plant Sciences, Montpellier, FR: *Plasma membrane organization and cell signaling in Arabidopsis*

17:15 – 18:30 Short-talks selected from abstracts (12min + 3min Q/A)

17:15 – 17:30 Nurit Argov-Argaman, The Hebrew University of Jerusalem, Rehovot, IL : *Mammary-specific lipogenic regulation facilitates dairy fats composition*

17:30 – 17:45 Pauline Denis, Université Clermont Auvergne, Saint-Genès-Champanelle, FR : *Milk-derived small extracellular vesicle lipidome to characterize early lactation physiological changes in dairy cows*

17:45 – 18:00 Pauline Debié, IBMP, Université de Strasbourg, FR : *Phytosterol Homeostasis in Plants: A Perspective on HMGR Regulation and Tissue-Specific Metabolism*

18:00–18:15 Ilaria Dorigatti, Medical University of Innsbruck, Innsbruck, AU: *Unravelling the role of PEDS1: from ether lipid metabolism to immunology*

18:15–18:30 Flore Wouters, University of Hasselt, Diepenbeek, B: *The Therapeutic Potential of Fatty Acids in Familial Mediterranean Fever*

18:45 – 19:30 GERLI General Assembly

Tuesday, November 4, 2025

Session 4 – Lipids in metabolism and cancer

Chairpersons, Catherine Tomasetto & Vincent Rioux

08:30 – 09:00 Vincent Hyenne, Centre de recherche en Biomédecine, Strasbourg, FR: *Tracking tumor extracellular vesicles from birth to pre-metastatic niches*

09:00 – 09:30 Arnaud Blomme, GIGA-Research Institute, University of Liège, B: *Targeting mTORC2-dependent reprogramming of lipid metabolism in lung cancer*

09:30 – 10:30 Short-talks selected from abstracts (12min + 3min Q/A)

09:30 – 09:45 Catherine Mounier, Université du Québec, Montréal, Québec, CAN : *Oleate Activates PLD2 Lipase and GEF Activity by Modulating Membrane Microdomain Dynamics via S-acylation*

09:45 – 10:00 Anthony Bringolf, University of Strasbourg, Strasbourg, FR: *A high-fat low-carbohydrates diet delays the progression of castration-resistant prostate cancer by targeting tumor metabolic inflexibility*

10:00 – 10:15 Giulia De Simone, Istituto di Chimica Biomolecolare (ICB), Pozzuoli, IT: *Differential lipidomic signature in Familial Hypercholesterolemia with and without pathogenic variants*

10:15 – 10:30 Céline Knorr, IGBMC, University of Strasbourg, Illkirch, FR : *The ER-anchored Protein MOSPD2 acts through Membrane Contact Sites to Regulate Late Endosomes/Lysosomes and Cholesterol Homeostasis*

10:30 – 11:00 coffee break

Session 5 – Membrane biophysics

Chairpersons, Andrey Klymchenko & Frédéric Carrière

11:00 – 11:30 Erdinc Sezgin, Karolinska Institute, Stockholm, SE: *Biophysical properties of cells and nanoscale bioparticles as new biomarkers of health and disease*

11:30 – 12:00 Bianca Schrul, Saarland University, Homburg, DE: *Molecular mechanisms underlying protein targeting to lipid droplets*

12:00 – 13:00 Short-talks selected from abstracts (12min + 3min Q/A)

12:00–12:15 Sébastien Mongrand, CNRS-Université de Bordeaux, Villenave d'Ornon, FR: *News insights on plant plasma membrane lipid asymmetry to understand regulation of homeoviscosity during temperature fluctuation*

12:15–12:30 Julia Quiring, Centre de Recherche en Biomédecine, University of Strasbourg, FR: *In immune-mediated necrotising myopathy, anti-hmgcr antibodies inhibit hmgcr activity and lead to myopathic lipid droplets accumulation in myofibers*

12:30–12:45 Anton de Kroon, Bijvoet Center for Biomolecular Research, Utrecht University, Utrecht, NL: *The regulation of membrane lipid acyl chain length in S. cerevisiae*

12:45–13:00 Takahashi Kohta, Faculté de Pharmacie, Université de Strasbourg, Illkirch, FR : *The transport of lysosomal enzymes and the fusion of autophagosomes and lysosomes are accompanied by lipid scrambling*

13:00 – 14:15 Lunch and poster session (13:30-14:15 poster presentation with the poster jury)

SFEL-GERLI joint Session 6 – Lipids and brain

Chairpersons, Silva Katušić & Nicolas Vitale

14:15 – 14:45 Sophie Layé, Bordeaux Neurocampus, Bordeaux, FR : *Role of omega-3 in brain development and cognitive trajectory*

14:45 – 15:15 Serge Luquet, Functional and Adaptative Biology Laboratory, Paris, FR: *Brain lipid sensing and adaptive response to modern food environment*

15:15 – 16:15 Short-talks selected from abstracts (12min + 3min Q/A)

15:15–15:30 Elmira Arab-Tehrany, Université de Lorraine, Nancy, FR: *Targeted nanoliposome as active vector for the drug delivery of curcumin used for neuroprotective activity*

15:30–15:45 Stéphane Gasman, INCI, University of Strasbourg, Strasbourg, FR : *Transbilayer phospholipid scrambling is essential for efficient synaptic vesicle endocytosis*

15:45–16:00 Candice Dulong, CNRS-INSA MECALIPS Lyon, Villeurbanne, FR: *Air pollution and health: Effects of Particulate Matter from air sampling on neuroblastoma cells*

16:15–16:30 Xiaojing Yue, Laboratory of Biology and Modelling of the Cell, Ecole Normale Supérieure of Lyon, CNRS, UMR 5239, INSERM U1293, 69364 Lyon, France: *Understanding the Role of Lipid Droplets and α -Synuclein in Parkinson's Disease*

Social Events

- 17:30 Visit of the Historic Wine Cellar of Strasbourg Hospices
- 20:00 **Gala Dinner** – The Drunky Stork Social Club, Strasbourg

Wednesday, November 5, 2025

Session 7 – Membrane contact sites

Chairpersons, Sylvie Friant & Toshihide Kobayashi

- 08:30 – 09:00 Tim Levine, University College of London, UK : *Finding lipid transfer proteins*
- 09:00 – 09:30 Manuela Dezi, Institut Curie, Paris, FR : *Cryo-ET characterization of Vap contact sites*
- 09:30 – 10:15 Short-talks selected from abstracts (12min + 3min Q/A)
- 09:30 – 09:45 Sophie Huver, IGBMC, University of Strasbourg, Illkirch, FR: *Live cell imaging of inter-organelle contacts using an integrated dimerization-dependent Fluorescent Protein reporter*
- 09:45 – 10:00 Helin Elhan, Université PSL, CNRS, Paris, FR : *Fueling fat for storage: The role of ATG2A in lipid droplet homeostasis*
- 10:00 – 10:15 Morgane Michaud, CNRS, CEA, INRAE, Université Grenoble Alpes, Grenoble, FR: *Characterization of a plant VPS13 lipid transporter and its role in membrane remodeling in response to nutrient stress*
- 10:15 – 10:45 coffee break**

Session 8 – Lipids in autophagy and stress

Chairpersons, Katrin Watschinger & Andréa Hemmerlin

- 10:45 – 11:15 Sabrina Büttner, University of Münster, DE: *Lipophagy in yeast: from lipid droplet tethering to vacuolar hydrolysis*

11:15 – 11:45 Amélie Bernard, Laboratory of Membrane Biology, Bordeaux, FR:
Lipid/protein interplay in membrane formation and remodeling during plant autophagy

11:45 – 12:45 Short-talks selected from abstracts (12min + 3min Q/A)

11:45 – 12:00 Patricio Aguirre Pineda, CRBS University of Strasbourg, Strasbourg, FR:
Role of the PI3K complex subunit Vps15 in LD metabolism

12:00 – 12:15 Juliette Graff, University of Fribourg, Fribourg, CH : *Juggling ER stress and PC metabolism*

12:15 – 12:30 Jeroen Guns, Hasselt University, Biomedical Research Institute, Diepenbeek, BE : *zDHHC5-driven FABP5 S-palmitoylation impairs brain repair by disrupting foam cell physiology*

12:30 – 12:45 Mikhail Golovko, Department of Biomedical Sciences, University of North Dakota, Grand Forks, ND, USA : *Astrocytic fatty acid synthase is critical for maintaining reductive potential and lactate levels in the hypoxic brain*

12:45 – 13:00 Short-talks Awards and closing

13:00 – 14:00 Farewell lunch