



ESTABLISHED 2001

XVI SPHINGOLIPID CLUB MEETING

September 22–26, 2026

Supetar, island of Brač, Croatia



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PROGRAM

MEETING ORGANIZATION

XVI Sphingolipid Club Meeting · Supetar, Brač · 22–26 September 2026

MEETING ORGANIZERS

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SPHINGOLIPID CLUB

Riccardo Ghidoni <i>SLC President</i> info@sphingolipidclub.com

ORGANIZATION STAFF

MANAGEMENT ASSISTANT	LOCAL ORGANIZATION	MEETING SUPPORT TEAM
Sabrina Ciolfi	Ivan Cvitanić <i>SHADOWFAX</i>	Rafaela Kalanj <i>PhD Student</i> Aleksandar Blivajs <i>PhD Student</i>

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PROGRAM

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★ Invited Speaker

Tuesday, Sept. 22, 2026

From 14:00 *Welcoming and registration*

17:00 – 18:40 *Poster display*

19:00 *Welcome reception*

Wednesday, Sept. 23, 2026

9:00 – 9:05 *Welcome*

Riccardo Ghidoni (Milan, ITA)

9:05 – 9:15 *Opening remarks*

Dragana Fabris and **Ivana Karmelic** (Zagreb, CRO)

9:15 – 9:45 *Keynote Lecture*

★ **Yusuf Hannun** (Stony Brook, USA)

Bioactive Sphingolipids: Principles, Approaches, Case Studies, and Advice

SESSION 1 **The Complex Network of Sphingolipids**

*Chairs: **Liana Silva** (Lisbon, POR) and **Massimo Aureli** (Milan, ITA)*

9:45 – 10:05 ★ **José Carlos Fernández-Checa** (Barcelona, ESP)

Mitochondria and sphingolipids in metabolic liver diseases

10:05 – 10:25 ★ **Giovanni D'Angelo** (Lausanne, SUI)

Sphingolipids as molecular codes for supracellular architectures

10:25 – 10:45 ★ **Annarita Di Lorenzo** (New York, USA)

How sphingolipids shape the heart's fate

10:45 – 11:15 *Coffee break*

11:15 – 11:30 **Lauren Ashley Cowart** (Richmond, USA)

Atypical sphingolipids at the crossroads of health and disease

- 11:30 – 11:45 **Thorsten Hornemann** (Zurich, SUI)
CYP4F2-mediated ω -hydroxylation of 1-deoxysphingolipids reveals a new hepatic detoxification pathway
- 11:45 – 11:55 **Lucia Centofanti** (Milan, ITA)
Distinct canonical and atypical sphingolipid signatures differentiate type 1 and type 2 diabetes
- 11:55 – 12:15 ★ **Christian Metallo** (La Jolla, USA)
Quantifying sphingolipid fluxes that influence skin health and disease
- 12:15 – 12:25 **Camillo Morano** (Milan, ITA)
Sphingolipidomics of women with anorexia nervosa and obesity: signatures at opposite ends of energy balance
- 12:25 – 12:40 ★ **Marija Heffer** (Osijek, CRO)
Sex bias in cell membrane lipidomes

12:40 – 14:20 *Lunch break*

SESSION 2 Ceramide: At the Center of the Stage

*Chairs: **Caterina Bernacchioni** (Florence, ITA) and **Antonio Gomez-Muñoz** (Bilbao, ESP)*

- 14:20 – 14:40 ★ **Reijo Laaksonen** (Espoo, FIN)
Ceramides as cardiovascular biomarkers: from lipidomic discovery to personalized prevention and treatment
- 14:40 – 14:55 **Alexey Glukhov** (Madison, USA)
Neutral Sphingomyelinase Couples Mechanical Stress to Cardiac Excitability and Remodeling
- 14:55 – 15:10 **Eric Hajduch** (Paris, FRA)
Intracellular remodeling of LDL-derived ceramides as a key regulator of muscle insulin resistance
- 15:10 – 15:20 **Nassri Abdoush** (Erlangen, GER)
Differential effects of ceramide chain length on alcohol consumption and behavioral phenotypes in mice
- 15:20 – 15:35 **Liana Silva** (Lisbon, POR)
Ceramide Couples TNF- α Signaling to Organelle Biophysical Remodeling
- 15:35 – 15:55 ★ **Scott Summers** (Salt Lake City, USA)
The bond that breaks the heart—and the liver, and the kidney, and the...

15:55 – 16:20 *Picture time*

16:20 – 16:50 *Coffee break*

- 16:50 – 17:10 ★ **Pilar Martínez-Martínez and Beatriz Gonçalves Arede** (Maastricht, NED)
Identifying and validating ceramide transfer protein binding partners
- 17:10 – 17:20 **Arianna Dall'Ara** (Zurich, SUI)
Disease associated SPT variants drive distinct sphingolipid remodeling states
- 17:20 – 17:30 **Federico Fiorani** (Perugia, ITA)
The potential role of nuclear sphingomyelin in non-canonical exosome biogenesis

- 17:30 – 17:40 **Xian-Cheng Jiang** (Brooklyn, USA)
Total sphingomyelin synthesis deficiency promotes lipodystrophy and prevents adipogenesis
- 17:40 – 18:00 ★ **Besim Ogretmen** (Charleston, USA)
Targeting sphingolipid metabolism regulates tumor growth, metastasis, and anti-cancer therapy
- 18:00 – 18:15 **Miroslav Machala** (Brno, CZE)
Multiple mechanisms converge on deregulation of sphingolipid and glycosphingolipid metabolism in colorectal carcinoma
- 18:15 – 18:25 **Charlotte Dandine** (Toulouse, FRA)
Targeting ELOVL1 impacts sphingolipid metabolism, reduces the aggressiveness of Triple-Negative Breast Cancer and enhances the efficacy of immunotherapy
- 18:25 *Free evening time*

Thursday, Sept. 24, 2026

SESSION 3 Sphingosine-1-Phosphate: The Most Bioactive Sphingolipid

*Chairs: **Marco Presta** (Brescia, ITA) and **Miroslav Machala** (Brno, CZE)*

- 9:00 – 9:20 ★ **Chiara Donati** (Florence, ITA)
Sphingosine-1-phosphate orchestrates inflammation and fibrosis in benign uterine disorders
- 9:20 – 9:35 **Nadja Engel** (Rostock, GER)
Resolving the expression–function paradox of sphingosine-1-phosphate lyase reveals a key regulator of metastasis in head and neck squamous cell carcinoma
- 9:35 – 9:45 **Aimie Fauré** (Toulouse, FRA)
S1P-induced $\beta 8$ integrin: a driver of primary melanoma progression?
- 9:45 – 10:00 **Zoltán Benyó** (Budapest, HUN)
Sphingosine-1-phosphate-induced relaxation of human coronary arteries and its impairment in ischemic heart disease
- 10:00 – 10:20 ★ **Markus H. Gräler** (Jena, GER)
The adaptive role of sphingosine 1-phosphate in red blood cells to hypoxic conditions in respiratory diseases
- 10:20 – 10:50 *Coffee break*
- 10:50 – 11:05 **Timothy Hla** (Boston, USA)
Sphingosine 1-phosphate bound to HDL promotes of cerebrovascular health and cognitive functions
- 11:05 – 11:20 **Webster Santos** (Blacksburg, USA)
Molecular pharmacology of blocking sphingosine-1-phosphate transport
- 11:20 – 11:35 **Dagmar Meyer zu Heringdorf** (Frankfurt, GER)
Photoactivatable sphingosine reveals distinct target profiles in SphK1/2-overexpressing cells and uncovers HN1 and HN1L as regulators of sphingosine-induced Ca^{2+} signaling

- 11:35 – 11:45 **Matteo Prisinzano** (Florence, ITA)
Beyond the brain: sphingosine 1-phosphate dysregulation and skeletal muscle impairment in Huntington's disease
- 11:45 – 12:05 ★ **Michele Vittorio Dei Cas** (Milan, ITA)
Modelling genetic defects in sphingolipid biosynthesis using CRISPR-Cas9-edited HEK-293T cells

12.10 – 13.40 *Lunch break*

SESSION 4 When Sphingolipids Become Complex: Glycosphingolipids and Gangliosides

*Chairs: **Thorsten Hornemann** (Zurich, SUI) and **Marcelo Einicker-Lamas** (Rio de Janeiro, BRA)*

- 13:40 – 14:00 ★ **Ronald L. Schnaar** (Baltimore, USA)
Probing the ganglioside interactome using synthetic bifunctional gangliosides
- 14:00 – 14:15 **Kristina Mlinac Jerković** (Zagreb, CRO)
Glycosphingolipid engineering in pursuit of ganglioside-protein interactions
- 14:15 – 14:30 **Svjetlana Kalanj Bognar** (Zagreb, CRO)
Multimodal MRI reveals structural and microstructural brain alterations in GD3 synthase-deficient mice
- 14:30 – 14:50 ★ **Simonetta Sipione** (Edmonton, CAN)
Role of gangliosides in extracellular vesicle secretion and fate: Implications for misfolded protein diseases
- 14:50 – 15:05 **Tsaffrir Zor** (Tel-Aviv, ISR)
The endogenous sphingolipid sulfatide affects inflammation via multiple receptors – TLR4/MD-2, TLR2 and the Inflammasome
- 15:05 – 15:15 **Luca Mignani** (Brescia, ITA)
The sphingolipid-metabolizing enzyme β -galactosylceramidase promotes melanoma growth by activation of a tumor cell pro-inflammatory signalling
- 15:15 – 15:25 **Henrik Nurmi** (Turku, FIN)
The glycolipid transfer protein GLTP as a modulator of COPII vesicle export from the ER and of cellular GSL homeostasis
- 15:25 – 15:55 *Coffee break*
- 15:55 – 16:05 **Laurane Payet** (Toulouse, FRA)
Selective impact of glycosphingolipids on melanoma progression and response to immune checkpoint inhibitors
- 16:05 – 16:15 **Sara Penati** (Milan, ITA)
From enzyme dysfunction to altered sialylation: defining the biochemical signature of ST3GAL3-CDG
- 16:15 – 16:25 **Maria Fazzari** (Milan, ITA)
The crucial role of sphingolipid glycan code: the GM1 oligosaccharide
- 16:25 – 16:45 ★ **Alina-Diana Zamfir** (Arad, ROU)
Ion mobility mass spectrometry: A new dimension in brain ganglioside research

16:45 – 18:00 Flash Poster Presentations (2 slides in 2 minutes)

*Chairs: **Michele Vittorio Dei Cas** (Milan, ITA) and **Laurane Payet** (Toulouse, FRA)*

1 – **Vedrana Ivić** (Osijek, CRO)

Chronic psychotropic drug exposure and lipid remodelling in metabolic tissues of middle-aged female rats

2 – **Ondrej Kováč** (Brno, CZE)

Complex HPLC/MS methodologies for the broad profiling of sphingolipids and glycosphingolipids

3 – **Francesca Lozzi** (Rome, ITA)

Sphingolipid remodelling induced by α -synuclein in human epidermal equivalents: exploring novel peripheral biomarkers for Parkinson's disease

4 – **Lukas Opalka** (Hradec Kralove, CZE)

Quantitative analysis of skin sphingolipids in childhood cancer survivors

5 – **Veronika Ondrejčková** (Hradec Králové, CZE)

Improved synthesis and quantification of ultralong ω -O-acylceramides for targeted delivery in a psoriasis mouse model

6 – **Viktoria Čurila** (Osijek, CRO)

Sex-related differences in the lipidome of young, old and gonadectomized rats revealed by MALDI-TOF imaging mass spectrometry

7 – **Alix Pierron** (Toulouse, FRA)

Brain crosstalk sphingolipids and oxylipins in chickens fed with fumonisins

8 – **Luka Žeželj** (Ljubljana, SLO)

Proteins from the edible oyster mushroom as selective tools for the detection and targeted destruction of urothelial cancer cells

9 – **Mia Jurilj Sajko** (Zagreb, CRO)

Ceramide- and sphingoid base-centered metabolic reprogramming in high- and low-grade gliomas

10 – **Yuri Ogiso** (Osaka, JPN)

Regulation of necroptosis specific to ceramide species

11 – **Antonio Gómez-Muñoz** (Bilbao, ESP)

Ceramide 1-phosphate suppresses cigarette smoke-induced MCP-1 release and migration in human eosinophils

12 – **Gloria Grelle** (Rio de Janeiro, BRA)

Characterization of ceramide kinase from basolateral membranes of kidney proximal tubules: Kinetics, physicochemical requirements, and physiological relevance

13 – **Rachele Tarpinelli** (Maastricht, NED)

Identifying and validating ceramide transfer protein binding partners "with a focus in the methodology"

14 – **Hiroaki Ehara** (Yonago, JPN)

YM-07, a novel ceramide mimetic, induces MLKL-dependent necroptosis and overcomes cisplatin resistance in head and neck cancer

15 – **Philippe Guerre** (Toulouse, FRA)

Comparative interest of different biomarkers of fumonisins in feed

16 – **Elodie Lassalette** (Toulouse, FRA)

Investigation of new biomarkers of fumonisins effects in chickens and pigs

17 – **Kristina Mlinac Jerković** (Zagreb, CRO)

Deficiency of Toll-like receptor 2 is associated with compositional and structural changes of membrane lipids

18 – **Jiaxin Fu** (Jena, GER)

Off-target sphingosine 1-phosphate receptor 1-3 antagonism by sphingosine kinase 1 inhibitors and its impact on endothelial barrier function

19 - **Caterina Bernacchioni** (Florence, ITA)

Sphingosine 1-phosphate-driven interplay between neutrophils and endometriotic cells sustains endometriotic pathophysiologic traits: a role for neutrophil extracellular traps

20 - **Senka Blažetić** (Osijek, CRO)

Assessing phospholipase pretreatment for enhanced immunohistochemical visualization of major gangliosides and lipid raft markers

21 - **Harshita Singh** (Berlin, GER)

Discovery of first-in-class small-molecule inhibitors of ceramide-1-phosphate transfer protein through an integrated biophysical, cellular, functional, and in silico drug discovery pipeline

22 - **Silvia Bellini Baldelli** (Perugia, ITA)

Lactoferrin modulates acid sphingomyelinase expression in THP-1 monocytes

23 - **Paola Signorelli** (Milan, ITA)

Uncovering Metabolic Vulnerability in Cardiac Remodeling

24 - **Onorina Laura Manzo** (New York, USA)

Ceramide-driven Mitochondrial Stress in Macrophages Activates the NLRP3 Inflammasome in Coronary Atherosclerosis

19:30 *Gala dinner*

Friday, Sept. 25, 2026

ESN Session **Sphingolipid Signalling and Metabolism in the Nervous System**

*Chairs: **Dagmar Meyer zu Heringdorf** (Frankfurt, GER) and **Svjetlana Kalanj Bognar** (Zagreb, CRO)*

9:00 – 9:10 **Mia Jurilj Sajko** (Zagreb, CRO)

Presentation of the ESN and acknowledgements

9:10 – 9:30 ★ **Floriana Della Ragione** (Naples, ITA)

Sphingolipid imbalance as a novel therapeutic target in Rett syndrome: a drug repositioning approach

9:30 – 9:50 ★ **Christian Müller** (Erlangen, GER)

Sphingolipid control of brain serotonergic signaling and its consequences for behaviour and mental disorders

9:50 – 10:00 **Sara Grassi** (Milan, ITA)

Role of sphingolipids in fractalkine mediated myelin repair

10:00 – 10:15 **Massimo Aureli** (Milan, ITA)

The two faces of glucosylceramide catabolism in neuronal life

10:15 – 10:35 ★ **Vladimir Parpura** (Hangzhou, CHN)

Glutamate release by regulated exocytosis in human glioblastomas

10:35 – 11:05 *Coffee break*

11:05 – 11:20 **Hervé Le Stunff** (Saclay, FRA)

Role of hypothalamic de novo ceramides synthesis in resistin-induced hypothalamic inflammation and insulin resistance: impact on glucose homeostasis

11:20 – 11:30 **Linda Montavoci** (Oxford, GBR)

Glycosphingolipid dysregulation in Parkinson's disease

- 11:30 – 11:45 **Giuseppe Pepe** (Pozzilli, ITA)
Targeting sphingolipid metabolism rescues cognitive deficits and hippocampal integrity in Huntington's disease mouse models
- 11:45 – 12:00 **Daan Van Kruining** (Maastricht, NED)
Sphingolipid dysregulation across neurodegenerative disease: genotype-dependent lipid alterations in Alzheimer's disease mice and GBA-associated Parkinson's disease
- 12:00 – 12:10 **Giulia Lunghi** (Milan, ITA)
Lysosomal dysfunction in GCase-deficient dopaminergic neurons induces plasma membrane alterations and metabolic rewiring
- 12:10 – 12:20 **Adriana Lipovčić** (Zagreb, CRO)
Glycosphingolipid mapping reveals a unique ganglioside signature of murine cortical mitochondria

12:30 – 13:00 ESN Flash Poster Presentations (5 slides in 5 minutes)

*Chairs: **Mia Jurilj Sajko** (Zagreb, CRO) and **Aleksandar Blivajs** (Zagreb, CRO)*

- 25 – **Mirela Sarbu** (Timișoara, ROU)
High-resolution mass spectrometry screening and fragmentation analysis of serum gangliosides for biomarker discovery in frontotemporal dementia
- 26 – **Teresa Esposito** (Pozzilli, ITA)
Parkinson's disease-derived dopaminergic neurons carrying new rare genetic variants revealed altered sphingolipid pathway
- 27 – **Salvatore Fioriniello** (Naples, ITA)
A drug repositioning strategy targeting S1P-mediated signaling to counteract neuroinflammation in Rett syndrome
- 28 – **David Schöndorf** (Ludwigshafen, GER)
Proteomic and lipidomic signatures of synaptic dysfunction in Alzheimer's disease
- 29 – **Mónica Castro Mosquera** (Santiago de Compostela, ESP)
Region-specific dysregulation of sphingolipid metabolism during disease progression in PS19 mice
- 30 – **Michelle Koster** (Maastricht, NED)
Microglial ceramide transport shapes cognition: characterization of a microglial CERT knock-out model

13:00 – 14:30 *Lunch break*

14:30 *Island excursion*

20:30 *Dinner*

Saturday, Sept. 26, 2026

- 9:30 *General Meeting of the Sphingolipid Club – Report, evaluation and comments*
- 10:30 **Riccardo Ghidoni**
Appointment to the XVII Sphingolipid Club Meeting and conclusions

PARTICIPANTS

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