



“51st International Conference on the Bioscience of Lipids (ICBL)”
and 7th International Conference on Lipid Binding Proteins

CONFERENCE PROGRAM

PL Plenary lecture by invited speaker: 25 min + 5 min discussion

SO Short oral presentation: 15 min + 5 min discussion

All scientific sessions and the *Gintonic* concert will take place at Alhondiga Conference Center.

Lunch (Sept. 8-11) and dinner (Sept. 7,8,10) will be served at Hotel Ercilla for all registered participants.

Tuesday, September 7

15:00 - 18:00 Registration (Alhondiga Conference Center).

18:00 - 18:15 Welcome address and opening remarks by the ICBL President G. Daum, J.F.C. Glatz from the LBP Conference, and the Chair of the Organizing Committee F. M. Goñi

Chair: D. E. Vance (Edmonton, Canada)

18:15 - 19:15 (PL1) W. Dowhan (Houston, TX, USA) “**14th Laurens van Deenen Lecture**”
Lipid-Protein Interactions as Determinants of Membrane Protein Structure

19:30 -20.30 A light concert with the *Gintonic* ensemble.

21:00 *Welcome dinner (Hotel Ercilla)*

Wednesday, September 8

Session 1: Physical chemistry of lipids.

Chair: J. P. Slotte (Turku, Finland)

09:00 - 09:30 (PL2) D. Marsh (Göttingen, Germany): Biophysics of Lipidomics

09:30 - 10:00 (PL3) H. Heerklotz (Toronto, Canada): Complex lipid-surfactant mixtures: A waste of good physical chemistry on a dirty system?

10:00 - 10:30 (PL4) V. A. Frolov (Bilbao, Spain): Non-bilayer intermediates and pathways of membrane remodeling.

10:30 -11:00 (PL5) M. Prieto (Lisbon, Portugal): Rafts and ceramides: Biophysical perspective of biologically-relevant membrane domains

11:00 -11:30 *Coffee break*

Chair: J. L. Nieva (Bilbao, Spain)

- 11:30 - 11:50 (SO1) T. Maula (Turku, Finland): The effect of ceramide *N*-acyl chain methyl-branching on sphingomyelin-enriched domains - thermal stability and sterol displacement
- 11:50 - 12:10 (SO2) L. D'Auria (Louvain-la-Neuve, Belgium): Coexistence of three structurally and kinetically distinct lipid micrometric domains at the plasma membrane
- 12:10 - 12:30 (SO3) A. Veloso (Bilbao, Spain): Anatomical distribution of lipids in human brain by imaging mass spectrometry
- 12:30 - 12:50 (SO4) U. Loizides-Mangold (Lausanne, Switzerland): Lipidomic profile of mutants in GPI anchor biosynthesis

13:00 *Lunch (Hotel Ercilla)*

14:00 - 16:00 **Poster sessions 1 & 2** (Alhondiga Conference Center)

Session 2: Lipids and biomembranes.

Chair: G. Schmitz (Regensburg, Germany)

- 16:00 - 16:30 (PL6) B. Maggio (Cordoba, Argentina): Lateral domain segregation and phosphohydrolytic activity. What do the enzymes really do?
- 16:30 - 17:00 (PL7) Y. Igarashi (Sapporo, Japan): Studies of SMS2 or CerK deficiency mice and their relations to diet-induced obesity and mast cell activation
- 17:00 - 17:30 (PL8) B. Larijani (London, UK): Regulation of nuclear envelope assembly: phosphoinositide signals in membrane dynamics
- 17:30 - 18:00 (PL9) D. E. Vance (Edmonton, Canada): Phospholipid metabolism and disease

18:00 - 18:30 *Coffee break*

Chair: M. Lagarde (Lyon, France)

- 18:30 - 18:50 (SO5) J. Bernardino de la Serna (Odense, Denmark): Lipid composition can predict Mice Native Pulmonary Surfactant Membranes 2 fluid phase coexistence in bilayers and monolayers.
- 18:50 - 19:10 (SO6) G. Daum (Graz, Austria): Channeling of fatty acids from depots to biomembranes in the yeast
- 19:10 - 19:30 (SO7) E.B. Babiyshuk (Bern, Switzerland): The targeting of plasmalemmal ceramide to mitochondria during apoptosis
- 19:30 - 19:50 (SO8) J. Vance (Edmonton, Canada): Genetic reduction of mitochondrial phosphatidylethanolamine in mammalian cells impairs mitochondrial function

20:00 - 21:00 **Poster sessions 1 & 2 (Continued)**

21:00 *Dinner (Hotel Ercilla)*

Thursday, September 9

Session 3: Bioactive lipids and lipidomics.

Chair: M. Wakelam (Cambridge, UK)

- 9:00 - 9:30 (PL10) J. Balsinde (Valladolid, Spain): Control of free arachidonic acid levels within immunoinflammatory cells by phospholipases A₂ and acyltransferases
- 9:30 -10:00 (PL11) T. Levade (Toulouse, France): Diverting sphingolipid metabolism as a strategy to fight cancer
- 10:00 -10:30 (PL12) A. H. Merrill (Atlanta, GA, USA): Rafts and ceramides: Regulation of sphingolipid biosynthesis de novo by novel mechanisms of substrate supply and membrane trafficking
- 10:30 -11:00 (PL13) M. Wakelam (Cambridge, UK): Investigation of lipid signalling pathways by mass spectrometry
- 11:00 -11:30 *Coffee break*

Chair: D. N. Brindley (Edmonton, Canada)

- 11:30 - 11:50 (SO9) D. N. Brindley (Edmonton, Canada): Autotaxin and lysophosphatidate produce chemoresistance by releasing breast cancer cells from Taxol-induced mitotic arrest
- 11:50 - 12:10 (SO10) P. V. Escribá (Balearic Islands, Spain): Lipids as clinical drugs, lipids as drug targets
- 12:10 - 12:30 (SO11) T. Zor (Tel-Aviv, Israel): A ceramide analog directly inhibits cPLA₂ activity and consequent PGE₂ formation in LPS-stimulated macrophages
- 12:30 - 12:50 (SO12) H. Tojo (Osaka, Japan): Overview of lipidomics of Schnyder crystalline corneal dystrophy. Global effects of UbiA prenyltransferase domain containing 1 deficiency on lipid metabolism
- 12:50 - 13:10 (SO13) L. Halasiddappa (Graz, Austria): Ceramide signalling in oxidized phospholipid (oxPL)-induced Raw 267.4 macrophage cell death

13:15 – 14:15 *Lunch (Hotel Ercilla)*

14:15 – 16:00 Poster sessions 3 & 4

Session 4: Lipid-protein interactions and lipid trafficking.

Chair: J. Vance (Edmonton, Canada)

- 16:00 - 16:30 (PL14) T. Futerman (Rehovot, Israel): Mammalian ceramide synthases
- 16:30 - 17:00 (PL15) J. C. Gómez-Fernández (Murcia, Spain): Protein Kinases C are versatile decoders of lipid signals
- 17:00 - 17:30 (PL16) K. Simons (Dresden, Germany): Lipid–protein interactions governing raft partitioning in membranes
- 17:30 - 18:00 *Coffee break*

Chair: K. Simons (Dresden, Germany)

- 18:00 - 18:20 (SO14) G. Basañez (Bilbao, Spain): Role of mitochondrial lipids in proapoptotic BAK function: mechanistic insights from *in vitro* reconstituted systems.

- 18:20 - 18:40 (SO15) U. Stemmer (Graz, Austria): Oxidized Phospholipids: Uptake and targeting in RAW 264.7 macrophages
- 18:40 - 19:00 (SO16) J.F.C. Glatz (Maastricht, The Netherlands): Differential regulation of cardiac GLUT4-mediated glucose and CD36-mediated fatty acid uptake by endosomal pH and actin filaments

19:30 - 20:30 Poster sessions 3 & 4 (continued)

Friday, September 10

Session 5: A special session of the 7th Lipid Binding proteins Conference.

Chair: J.F.C. Glatz (Maastricht, The Netherlands)

- 9:00 - 9:30 (PL17) N. Noy (Cleveland, OH, USA): Retinoic acid receptors and binding proteins in regulation of gene expression
- 9:30 - 10:00 (PL18) W. Prinz (Bethesda, MD, USA): Lipid-regulated sterol transfer between closely apposed membranes by oxysterol-binding protein homologues.
- 10:00 - 10:30 (PL19) R. Ehehalt (Heidelberg, Germany): CD36, ACSLs and lipid rafts, determinants for cellular fatty acid uptake

10:30 - 11:00 *Coffee break*

Chair: B. Caputto (Córdoba, Argentina)

- 11:00 - 11:20 (SO17) J. M. Ruyschaert (Brussels, Belgium): Lipid-dependent orientation of transmembrane helices
- 11:20 - 11:40 (SO18) B. Corsico (La Plata, Argentina): Structural and biophysical analysis of novel lipid binding proteins from parasitic helminths
- 11:40 - 12:00 (SO19) V. M. Olkkonen (Helsinki, Finland): Sterol binding by OSBP-related protein 1L (ORP1L) regulates late endosome motility and function
- 12:00 - 12:20 (SO20) M. E. Guerin (Bilbao, Spain): A model of action for peripheral membrane-associated GT-B glycosyltransferases, an essential family of enzymes involved in glycolipid biosynthesis

13:00 - 14:00 *Lunch (Hotel Ercilla)*

14:00 - 16:00 Poster sessions 5, 6 & 7

Session 6: Lipids in health and disease.

Chair: J.M. Ruyschaert (Bruxelles, Belgium)

- 16:00 - 16:30 (PL20) J. C. Fernández-Checa (Barcelona, Spain): The janus faces of mitochondrial cholesterol in cell death.
- 16:30 - 17:00 (PL21) U. P. Steinbrecher (Vancouver, Canada): Activation of growth and survival pathways in macrophages by oxidized LDL
- 17:00 - 17:30 (PL22) I. Niot (Dijon, France): Intestinal absorption of long-chain fatty acids. Evidences and uncertainties on the role of lipid binding proteins (a special lecture of the 7th Lipid Binding Conference).

17:30 - 18:00 *Coffee break*

Chair: A. H. Merrill (Atlanta, GA, USA)

- 18:00 - 18:20 (SO21) E. Lombardo (Groningen, The Netherlands): Improvement of hyperlipidemia and atherosclerosis with lipophilic iminosugars

- 18:20 - 18:40 (SO22) M. Rabionet (Heidelberg, Germany): Ceramide synthase 3 is really a longevity assurance gene
- 18:40 - 19:00 (SO23) T. Hornemann (Zürich, Switzerland): The role of deoxy-sphingoid bases in diabetes mellitus and the diabetic sensory neuropathy
- 19:00 - 19:20 (SO24) A. Apraiz (Bilbao, Spain): Sphingolipids on acquired resistance to 4-HPR
- 19:20 - 19:40 (SO25) G. Schmitz (Regensburg, Germany): ATP10D as a ceramide translocase involved in ER to Golgi ceramide processing and regulation of obesity.

19:40 - 21:00 Poster sessions 5, 6 & 7 (Continued)

21: 15 *ICBL Dinner and Award Ceremony (Hotel Ercilla)*

Saturday, September 11

Session 7 – Microbial and Plant lipids.

Chair: B.J. Nikolau (Ames, IA, USA)

- 9:00 - 9:30 (PL23) C. Benning (Michigan, USA): Membrane lipid metabolism and trafficking during chloroplast development and maintenance
- 9:30 -10:00 (PL24) I. Feussner (Göttingen, Germany): Prokaryotic FAD-containing oxidoreductases are novel players in fatty acid metabolism.
- 10:00 -10:30 (PL25) B. J. Nikolau (Ames, IA, USA): An integrated strategy for generating lipid-based biorenewable chemicals: Diversifying fatty acid synthesis with polyketide synthesis biocatalysts

10:30 -11:00 *Coffee break*

Chair: D. de Mendoza (Rosario, Argentina)

- 11:00 - 11:20 (SO26) J.D. Faure (Versailles, France): Very long chain fatty acids are required for cell polarity and organogenesis during plant development
- 11:20 - 11:40 (SO27) N. Ruiz-López (Herts, UK): The production of omega-3 very long-chain polyunsaturated fatty acids in transgenic plants: a sustainable source of omega-3 fish oils.
- 11:40 - 12:00 (SO28) K. Katayama (Tokyo, Japan): Cardiolipin plays important roles in plant mitochondria and development

Chair: G. Daum (Graz, Austria)

- 12:00 - 12:30 (PL26) **Closing Lecture**
D. de Mendoza (Rosario, Argentina): Thermal regulation of unsaturated fatty acid biosynthesis in bacteria
- 12:30 - 13:00 Closing remarks and presentation of the 52nd ICBL
- 13:15 *Farewell lunch.*

IMPORTANT INFORMATION TO POSTER PRESENTERS

Posters should be up by 10:30 am and down by 9:30 pm on the same day

Poster sessions will run according to the following schedule:

Poster sessions 1 & 2: from 14:00 to 16:00 h and from 20:00 to 21:00 h

Poster sessions 3 & 4: from 14:15 to 16:00 h and from 19:30 to 20:30 h
Poster sessions 5, 6 & 7 from 14:00 to 16:00 h and from 19:45 to 20:45 h

Presenters of posters with even numbers will have to be present at their poster sites from 14:00 to 15:00 h, and presenters of posters with odd numbers will have to be at their poster sites from 15:00 to 16:00 h. All poster presenters are requested to be present at their poster sites during the evening presentation, according to the above schedule.

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