

18th Euro Fed Lipid Congress and Expo

18 – 21 October 2021 · Online

Hosted by
Deutsche Gesellschaft
für Fettwissenschaft e.V.



FATS, OILS AND LIPIDS

For a Healthy and
Sustainable World



BOOK OF ABSTRACTS

www.eurofedlipid.org

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COMMITTEE / ORGANISATION

The European Federation for the Science and Technology of Lipids (Euro Fed Lipid e.V.)
cordially invites you to attend its 18th International Congress:

Fats, Oil and Lipids
For a Healthy and Sustainable World
18 – 21 October 2021, On-Line Congress

SCIENTIFIC COMMITTEE

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Ingrid Undeland	Chalmers University of Technology, Sweden
Pierre Villeneuve	CIRAD, France
Ina Willenberg	Max Rubner-Institut, Germany
Christian Wolfrum	ETH Zürich, Schwerzenbach, Switzerland

ORGANISATION

Euro Fed Lipid Headquarters, Frankfurt/DE
Sevim Saritaş

PLENARY SPEAKERS / KEYNOTE SPEAKERS

PLENARY SPEAKERS

MONDAY, 18 OCTOBER 2021



EUROPEAN LIPID TECHNOLOGY AWARD

Enzyme Discovery and Engineering for Applications in the Modification of Lipids

Uwe T. Bornscheuer, Greifswald, DE

TUESDAY, 19 OCTOBER 2021



EUROPEAN LIPID SCIENCE AWARD

Omega-3 Fatty Acids for Optimal Health across the Life Course

Philip C. Calder, University of Southampton, UK

WEDNESDAY, 20 OCTOBER 2021



DGF NORMANN MEDAL AWARD

Minimizing Waste of Foods Rich in Omega-3 Fatty Acids by Preventing Lipid Oxidation

C. Jacobsen, National Food Institute, Kgs. Lyngby/DK



SCI YOUNG SCIENTIST AWARD

Adipose Tissue Inflammation in Human Obesity and Response to Chronic Marine Omega3 Fatty Acid Supplementation: The BIOCLAIMS Study at the University of Southampton

H. Fisk, Southampton/GB



EUROPEAN YOUNG LIPID SCIENTIST AWARD

Examining the role of Endogenous Factors for Lipid Oxidation in Muscle Food Systems and Development of New Cost-effective Stabilization Technologies

Haizhou Wu, Chalmers University of Technology, Gothenburg, Sweden

THURSDAY, 21 OCTOBER 2021



SFEL: CHEVREUL MEDAL AWARD

Analysis and Application of Microbial Functions Expanding Lipid Science

Jun Ogawa, University of Kyoto, Japan

KEYNOTE SPEAKERS



Bioeconomy and Green Deal

How Plant Biotechnology can help deliver a Greener Future

Johnathan Napier, Rothamsted Research, UK



Bioscience and Technology

Microbial Oil Production with the Oleaginous Yeast *Cutaneotrichosporon oleaginosus*.

A Journey from Genomics to Technical Scale Oil Production

Thomas Brück, Technical University of Munich (TUM), DE



Bioscience and Technology

Oxygenase-Based Whole-Cell Biotransformation of Fatty Acids into Industrially Relevant Chemicals

J.-B. Park, Ewha Womans University, Seoul/KR



Contaminants

Mineral Oil Contamination in Food: A Comprehensive Journey beyond the Hump

Giorgia Purcaro, University of Liège, BE



Contaminants

Mitigation of Mineral Oil Compounds in Edible Oils and Fats

Ludger Brühl, Max Rubner Insitut, DE

KEYNOTE SPEAKERS



Dairy and Animal Lipids

Refining By-products Rich in Free Fatty Acids: Are they the “ugly duckling” Among Feeding Fats for Monogastric Animals?

Alba Tres, University of Barcelona, ES



Deep Frying

Different Routes for Degradation of Fats and Oils at Room and Elevated Temperature

Christian Gertz, Maxfry GmbH, Hagen, DE



Health and Nutrition

Adipose Tissue as an Interface between our Body and the Environment

Matthias Blüher, University Hospital of Leipzig, DE



Insect Lipid

Insect Oils and Potential Applications

Geert Verheyen, RADIUS, Thomas More University of Applied Sciences, Geel, BE



Lipidomics

Shotgun Lipidomics of Tissue Biopsies

Andrej Shevchenko, MPI of Molecular Cell Biology and Genetics, DE



Lipid Oxidation

The Location, Orientation and Buoyance effects of Radical Probes in Micellar and Oil-in-Water Emulsions: The Diving Swan Analogy

Carolina Aliga, University of Santiago de Chile, CL



Marine and Algae Lipids

n-3 LC-PUFA from Microalgae: From Green Water to Health Conscious Consumer

Imogen Foubert, Katholieke Universiteit Leuven Kulak, BE



Marine and Algae Lipids

Potential Benefits of Omega-3 Fatty Acids Supplementation to Patients Infected with SARS-CoV-2

Inar Castro, Research Innovation and Dissemination Center of São Paulo Research Foundation, São Paulo, BR



Oleochemicals

Isomerizing Metathesis as a Concept for the Valorization of Renewables

Luks Goossen, University of Bochum, DE



Olive Oil and Vegetable Oils

Latest Developments in EU Marketing Standards for Olive Oil

Laura Alexandrescu, DG AGRI, European Commission, DG Agriculture and Rural Development, Brussels, BE



Olive Oil and Authenticity

Toward a Continuum of Actions from Official Approval to Commercial Implementation of Health, Nutrition and Provenance Claims. The Case of Olive Oil

Maria Tsimidou, Aristotle University of Thessaloniki, GR



Physical Chemistry

Nanostructure of Cocoa Butter in the Molten, Liquid Crystalline and Solid State

Michael Rappolt, University of Leeds, UK



Plant Lipids and Vegetable Oils

Plant Oils Volatilomics. Which Questions does it Answer?

Henryk H. Jelen, Poznan University of Life Sciences, PL



Processing and Sustainability

Ethanol mild Extraction of Dehulled Rape Seed – The long way to EthNa

Gunter Börner, B+B Engineering, Magdaburg, DE

PROGRAMME AT A GLANCE

Monday, 18 October 2021

	Meeting room 1			
09.30 a.m.	Welcome			
09.50 a.m.	European Lipid Technology Award			
10.30 a.m.	Coffee Break			
	Meeting room 1	Meeting room 2	Meeting room 3	Meeting room 4
11.00 a.m.	Processing and Sustainability – Rapeseed/Oilseed Valorisation	Exhibitor Presentations	Analytics	Marine and Algae Lipids
11.20 a.m.				
11.40 a.m.				
12.00 a.m.				
12.20 a.m.	Lunch – Table top Exhibition (Virtual Booths)			
12.40 p.m.				
01.40 p.m.	Processing and Sustainability/Bio-economy and Green Deal Joint Session – Sustainability and Bio-economy for the Lipid Industry	Bioscience and Biotechnology	Analytics	Lipid Oxidation - Factors Affecting Antioxidant Efficiency
02.00 p.m.				
02.20 p.m.				
02.40 p.m.				
03.00 p.m.	Coffee Break			
03.20 p.m.				
03.50 p.m.	Processing and Sustainability – Sustainable Oil Processing for the Future I	Bioscience and Biotechnology	Olive Oil and Authenticity – Health, Phenols and Innovative Approaches	Marine and Algae Lipids
04.10 p.m.				
04.30 p.m.				
04.50 p.m.				
05.10 p.m.	POSTER SESSION AND TABLE TOP EXHIBITION (17:30–18:30)			
05.30 p.m.				

OTHER CONGRESS EVENTS

Euro Fed Lipid General Assembly

Wednesday, 20 October 2021, 17:30

Euro Fed Lipid members are cordially invited to participate.

Poster Award

The best posters on display will receive the Euro Fed Lipid poster award - consisting of a one year free subscription to the European Journal of Lipid Science and Technology and 250 Euro in prize money.

The awards are sponsored by Wiley-VCH and Elsevier.

PROGRAMME AT A GLANCE

Tuesday, 19 October 2021

	Meeting room 1			
09.30 a.m.	European Lipid Science Award			
10.30 a.m.	Coffee Break			
	Meeting room 1	Meeting room 2	Meeting room 3	Meeting room 4
11.00 a.m.	Oleochemicals	Lipid Oxidation – Microencapsulation and Pickering Emulsions	Exhibitor Presentations	Insect Lipids
11.20 a.m.				
11.40 a.m.				
12.00 a.m.				
12.20 a.m.	Lunch – Table top Exhibition (Virtual Booths)			
01.40 p.m.	Oleochemicals – Polymer and Application	Olive Oil and Authenticity – Authenticity, Policy and Research	Plant Lipids and Vegetable Oils – Plant Lipids and Volatilomics	Processing and Sustainability – Sustainable Oil Processing for the Future II
02.00 p.m.				
02.20 p.m.				
02.40 p.m.				
03.00 p.m.	Coffee Break			
03.20 p.m.	Marine and Algae Lipids/ Lipid Oxidation Joint Session – Prevention of Marine Lipids Oxidation by Antioxidants	Olive Oil and Authenticity – OLEUM: Final Results and New Approaches	Health and Nutrition	Deep Frying
03.50 p.m.				
04.10 p.m.				
04.30 p.m.				
04.50 p.m.	POSTER SESSION AND TABLE TOP EXHIBITION (17:30–18:30)			
05.10 p.m.	POSTER SESSION AND TABLE TOP EXHIBITION (17:30–18:30)			
05.30 p.m.	POSTER SESSION AND TABLE TOP EXHIBITION (17:30–18:30)			

PROGRAMME AT A GLANCE

Wednesday, 20 October 2021

	Meeting room 1			
09.30 a.m.	SCI Young Scientist Award			
09.50 a.m.	DGF Normann Medal Lecture			
10.30 a.m.	Coffee Break			
	Meeting room 1	Meeting room 2	Meeting room 3	Meeting room 4
11.00 a.m.	Health and Nutrition	Plant Lipids and Vegetable Oils – From Analysis to Application	Lipid Oxidation: Impact of Processing on Lipid Oxidation	Physical Chemistry
11.20 a.m.				
11.40 a.m.				
12.00 a.m.				
12.20 a.m.	Lunch – Table top Exhibition (Virtual Booths)			
12.40 p.m.	Lipid Oxidation – Prevention of Oxidation by Antioxidants	Plant Lipids and Vegetable Oils – Plant Lipidomics	Olive Oil and Authenticity – Quality and Technology Aspects	Physical Chemistry
01.40 p.m.				
02.00 p.m.				
02.20 p.m.				
02.40 p.m.	Coffee Break			
03.00 p.m.	Contaminants	Exhibitor Presentations	Olive Oil and Authenticity – Spectroscopy in the Analysis of Olive Oil	FLASH POSTER PRESENTATIONS
03.20 p.m.				
03.50 p.m.				
04.10 p.m.				
04.30 p.m.	Zoom online Meeting			
04.50 p.m.	Euro Fed Lipid General Assembly (17:30-18:30)			
05.10 p.m.				

PROGRAMME AT A GLANCE

Thursday, 21 October 2021

	Meeting room 1			
09.30 a.m.	SFEL Chevreur Medal Lecture			
10.30 a.m.	Coffee Break			
	Meeting room 1	Meeting room 2	Meeting room 3	Meeting room 4
11.00 a.m.	Health and Nutrition	Dairy and Animal Lipids	Lipidomics	Contaminants
11.20 a.m.				
11.40 a.m.				
12.00 a.m.				
12.20 a.m.				
12.40 p.m.	Lunch – Table top Exhibition (Virtual Booths)			
01.40 p.m.	Exhibitor Presentations	Dairy and Animal Lipids	Lipidomics	FLASH POSTER PRESENTATIONS
02.00 p.m.				
02.20 p.m.				
02.40 p.m.				
03.00 p.m.				
03.20 p.m.	Closing and Announcement of the 19th Euro Fed Lipid Congress and Expo			
03.50 p.m.	Coffee Break			

European Lipid Technology Award

Meeting room 1

09.30 a.m. **Welcome**
Karin Schwarz, Markus Dierker, Bertrand Matthäus
Chair: Carl Arevang

09.50 a.m. **EUROPEAN LIPID TECHNOLOGY AWARD LECTURE**
Enzyme Discovery and Engineering for Applications in the Modification of Lipids
Uwe T. Bornscheuer, Greifswald, DE

10.30 a.m. Coffee Break

Processing and Sustainability:
Rapeseed/Oilseed Valorisation

Meeting room 1

Chairs: Wim de Greyt, Jeannette Hollien

11.00 a.m. **For a New Theoretical Approach of Mechanical Extraction through the Example of Dehulled Sunflower**
P. Carré, Pessac/FR

11.20 a.m. **An Innovative Approach to Rapeseed/Canola Processing**
M. Kaválek, Česká Skalice/CZ

11.40 a.m. **Pilot Plant for a Continuous Dehulling, Drying and Conditioning of Rapeseed in a Fluidized Bed Application**
F. Sajontz, Magdeburg/DE, A. Pior, Magdeburg/DE, F. Steffler, Leuna/DE, M. Henneberg, G. Börner, Magdeburg/DE

12.00 p.m. **Requirements for Rapeseed Proteins for Use in Food and Feed**
J. Palomino, Magdeburg/DE, M-C. Baune, K. Heinzelmann, Quakenbruck/DE, C. Hald, C. Dawid, München/DE

12.20 p.m. **Impact of Filter Screens on Bleaching Earth Consumption**
S. Neufeld, Rosenberg/DE

12.40 p.m. Table Top Exhibition – Lunch Break

Processing and Sustainability: Sustainability and Bio-economy
for the Lipid Industry (joint session)

Meeting room 1

Chairs: Wim de Greyt, Jeannette Hollien, Christine Lang

01.40 p.m. **KEYNOTE LECTURE**
How Plant Biotechnology can help Deliver a Greener Future
J. Napier, Hertfordshire/GB

02.20 p.m. **Climate Change. What is it and What can the Oil Seed Industry do about it?**
A.R. Paine, Horncastle/GB

02.40 p.m. **Development and Future Prospects of Enzymatic Biodiesel**
A.R. Madsen, Lyngby/DK, T. Balle, R. Lindström, Lyngby/DK

03.00 p.m. **Helping Renewable Diesel become an Achievable Goal**
V. Ribeiro Celinski, Moosburg/DE, C. Rodriguez Gaia, Yuncos/ES

03.20 p.m. Coffee Break

Processing and Sustainability:
Sustainable Oil Processing for the Future I

Meeting room 1

Chairs: Wim de Greyt, Jeannette Hollien

03.50 p.m. **KEYNOTE LECTURE**
Ethanol Mild Extraction of Dehulled Rape-/Canola-Seeds - The Long Way to EthaN_a
G. Börner, Magdeburg/DE, A. Pior, Magdeburg/DE, F. Steffler, Leuna/DE

04.30 p.m. **Simultaneous Production of Oil and Proteins from Oilseeds using 2-methyloxolane as an Alternative Bio-based Solvent to Hexane**
O. Claux, Avignon/FR, V. Rapinel, P. Goupy, Avignon/FR, N. Patouillard, Dunkerque/FR, M. Abert-Vian, Avignon/FR, L. Jacques, Dunkerque/FR, F. Chemat, Avignon/FR

04.50 p.m. **Has the Time Finally come for Production of High Quality Oleochemicals by use of Enzyme Technologies**
H.C. Holm, Hellerup/DK

05.10 p.m. **Applications of New Thin Film-short Path Evaporation Technologies in the Purification of Edible Oils**
E. Hernandez, Tomball, TX/US, P. Alasti, Stoughton, MA/US

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5:30 p.m. – 6:30 p.m.)**

European Lipid Technology Award

Meeting room 1

09.30 a.m. **Welcome**
Karin Schwarz, Markus Dierker, Bertrand Matthäus
Chair: Carl Arevang

09.50 a.m. **EUROPEAN LIPID TECHNOLOGY AWARD LECTURE**
Enzyme Discovery and Engineering for Applications in the Modification of Lipids
Uwe T. Bornscheuer, Greifswald, DE

10.30 a.m. Coffee Break

Exhibitor Presentations

Meeting room 2

Chairs: Carl Arevang

11.00 a.m. **Clariant Produkt (Deutschland) GmbH**, Frankfurt/DE

11.20 a.m. **Laix Technologies UG**, Eschweiler/DE

11.40 a.m. **J. Rettenmaier & Söhne**, Rosenberg/D

12.00 p.m. **Milestones srl**, Sorisole/IT

12.20 p.m. TBA

12.40 p.m. Table Top Exhibition – Lunch Break

Bioscience and Biotechnology

Meeting room 2

Chairs: Robert Kourist, Pierre Villeneuve

01.40 p.m. **KEYNOTE LECTURE**
Oxygenase-Based Whole-Cell Biotransformation of Fatty Acids into Industrially Relevant Chemicals
J.-B. Park, Seoul/KR, F. Hollmann, Delft/NL, U.T. Bornscheuer, Greifswald/DE

02.20 p.m. **Bile Salt-stimulated Catalytic Versatility and Structural Traits of sn-1 Stereoselective Lipase from *Cordyceps militaris***
J.O. Lee, Seoul/KR, J.Y. Park, Y.S. Choi, E.H. Yang, H.N. Park, P.S. Chang, Seoul/KR

02.40 p.m. **Discovery of a Novel Stereoselective Lipase from Agricultural Products: A Case Study of sn-1 lipase from Peanut (*Arachis hypogaea*)**
H.N. Park, Seoul/KR, J.Y. Park, E.H. Yang, Y.S. Choi, J.O. Lee, P.S. Chang, Seoul/KR

03.00 p.m. **Enzymatic Interesterification of Palm-based Oil Blend: Physicochemical Properties, Crystallization Behaviors and Oxidative Stabilities**
Y. Wang, Guangzhou/CN, W.J. Lee, J. Ye, Guangzhou/CN, C.C. Akoh, Athens/US, Z. Zhang, Guangzhou/CN

03.20 p.m. Coffee Break

Bioscience and Biotechnology

Meeting room 2

Chairs: Robert Kourist, Pierre Villeneuve

03.50 p.m. **KEYNOTE LECTURE**
Microbial Oil Production with the Oleaginous Yeast *Cutaneotrichosporon oleaginosus*. A Journey from Genomics to Technical Scale Oil Production
T.B. Brück, Garching/DE

04.30 p.m. **Sterol Modified Yeast**
A. Emmerstorfer-Augustin, Graz/AT, A. Radkohl, L. Bernauer, H. Pichler, Graz/AT

04.50 p.m. **Exploring the Diversity of Nature in the Discovery of New Lipases**
S. Landvik, Lyngby/DK

05.10 p.m. **Lipase Catalyzed Acidolysis of Sunflower Phosphatidylcholine towards Phospholipids Rich in Cctanoic Acid: Optimization using Response Surface Methodology**
F. Hubert, Laval/FR, M. Côme, C. Loiseau, L. Poisson, F. Ergan, Laval/FR

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5:30 p.m. – 6:30 p.m.)**

European Lipid Technology Award

Meeting room 1

09.30 a.m. **Welcome**
Karin Schwarz, Markus Dierker, Bertrand Matthäus
Chair. Carl Arevang

09.50 a.m. **EUROPEAN LIPID TECHNOLOGY AWARD LECTURE**
Enzyme Discovery and Engineering for Applications in the Modification of Lipids
Uwe T. Bornscheuer, Greifswald, DE

10.30 a.m. Coffee Break

Analytics

Meeting room 3

Chairs. Torben Kuchler, Florence Lacoste

11.00 a.m. **Detection of Adulteration of Sunflower Oil with Safflower Oil Using Some Triacylglycerol Components and Tocopherol Compounds**
N. Basaran, Istanbul/TR, O. Anuk, F. Altuner, Istanbul/TR, M. Tasan, Tekirdag/TR, A. Tekin, Ankara/TR, O. Ozdikicierler, Izmir/TR

11.20 a.m. **A Practical Approach to Validate Quantitative NIR Methods for the Analysis of Fats and Oils**
C. Gertz, Hagen/DE, A. Gertz, Hagen/DE

11.40 a.m. **The Development of a Universal Analyser for Fats and Oil Refining and Processing**
J.D. Speed, Oxford/GB, S. Wood, Oxford/GB

12.00 p.m. **Lipid Epoxide Quantification in Food Emulsions by ¹H-¹³C HSQC NMR Spectroscopy**
V.J.P. Boerkamp, Wageningen/NL, D.W.H. Merckx, J. Wang, J.P. Vincken, M. Hennebelle, J.P.M. Duynhoven, Wageningen/NL

12.20 p.m. **Development of a GC-FID Method for the Quantitative Determination of Polyglycerol Polyricinoleate (PGPR) in Foods**
C. Su, Ghent/BE, P. Van der Meeren, B. De Meulenaer, Ghent/BE

12.40 p.m. Table Top Exhibition – Lunch Break

Analytics

Meeting room 3

Chairs. Torben Kuchler, Florence Lacoste

01.40 p.m. **Investigation of Integral Stereoselectivity of Lipase using Chiral-phase HPLC and Computational Modeling of the Kinetics**
Y.S. Choi, Seoul/KR, J.Y. Park, E.H. Yang, H.N. Park, J.O. Lee, P.S. Chang, Seoul/KR

02.00 p.m. **UHPLC-ESI-MS/MS Analysis of Phospholipid Regioisomers**
M. Fabritius, Turku/FI, B. Yang, Turku/FI

02.20 p.m. **Determination of Geometric Isomers of Disaturated Triacylglycerols by GC/MS and their Possible Applications**
J.J. Salas, Sevilla/ES, E. Martínez-Force, M. Venegas-Calderón, R. Garcés, Sevilla/ES

02.40 p.m. **Monitoring the Fate of Different Lipid Classes upon Oxidation using Two-dimensional Liquid Chromatography**
E. Lazaridi, Wageningen/NL, M. Hennebelle, H.-G. Janssen, J.-P. Vincken, Wageningen /NL

03.00 p.m. **An *in-situ* Technique to Conduct DSC Measurements**
L Morris, Leeds/GB, L. Metilli, E. Simone, Leeds/GB, P. Hugh, S. Marty-Terrade, York/GB, M. Povey, Leeds/GB

03.20 p.m. Coffee Break

**Olive Oil and Authenticity –
Health, Phenols and Innovative Approaches**

Meeting room 3

Chairs. Diego Luis Garcia Gonzalez, Ina Willenberg

03.50 p.m. **KEYNOTE LECTURE**
Toward a Continuum of Actions from Official Approval to Commercial Implementation of Health, Nutrition and Provenance Claims. The Case of Olive Oil
M. Tsimidou, Thessaloniki/GR

04.30 p.m. **Extraction and Characterization of Phenolic Compounds in California Olive Pomace and Evaluation of the Antioxidant Activities**
H. Zhao, Davis/US, S. Wang, Davis/US

04.50 p.m. **Virgin Olive Oil Shelf-life from the Phenolic Composition**
E. Diaz-Montaña, Seville/ES, M. Barbero-Lopez, R. Aparicio-Ruiz, M.T. Morales, Seville/ES

05.10 p.m. **Factors Affecting the Presence of Phenolics in Extra Virgin Olive Oil, Efforts to Increase their Conservation and their Functional Activity on Oxidative Stress, Telomere's Length and Aging**
A. Kiritakis, Thessaloniki/GR, T. Keceli, Adana/TR, E. Iorio, Salerno/IT, C. Anousakis, Chania/GR, S. Selli, H. Kelebek, Adana/TR, D. Gerasopoulos, Thessaloniki/GR

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5.30 p.m. – 6.30 p.m.)**

European Lipid Technology Award

Meeting room 1

09.30 a.m. **Welcome**
Karin Schwarz, Markus Dierker, Bertrand Matthäus
Chair: Carl Arevang

09.50 a.m. **EUROPEAN LIPID TECHNOLOGY AWARD LECTURE**
Enzyme Discovery and Engineering for Applications in the Modification of Lipids
Uwe T. Bornscheuer, Greifswald, DE

10.30 a.m. Coffee Break

Marine and Algae Lipids

Meeting room 4

Chairs: Charlotte Jacobsen, Ingrid Undeland

11.00 a.m. **KEYNOTE LECTURE**
Potential Benefits of Omega-3 Fatty Acids Supplementation to Patients Infected with SARS-CoV-2
I. Castro, São Paulo/BR

11.40 a.m. **Relevance of Codium Tomentosum Lipidome Plasticity for Biotechnological Applications**
F. Rey, Aveiro/PT, P. Cartaxana, T. Melo, R. Calado, Aveiro/PT, R. Pereira, H. Abreu, Ílhavo/PT, P. Domingues, S. Cruz, M.R. Domingues, Aveiro/PT

12.00 p.m. **Polar Lipid Profiling and Antioxidant Activity of *Chrysolita pseudoroscoffensis* Lipid Extracts**
A. Moreira, Aveiro/PT, J. Gonçalves, T. Conde, D. Couto, T. Melo, Aveiro/PT, I. Maia, H. Pereira, Faro/PT, J. Silva, Pataias/PT, R. Domingues, C. Nunes, Aveiro/PT

12.20 p.m. **Macroalgae Species-specific Lipidomic Signature: Advantages and Challenges in Sea Vegetables Valorisation of for a Sustainable Development**
R. Domingues, Aveiro/Portugal/PT, D. Lopes, T. Melo, F. Rey, Aveiro/PT

12.40 p.m. Table Top Exhibition – Lunch Break

Lipid Oxidation: Factors Affecting Antioxidant Efficiency

Meeting room 4

Chairs: Fatima Paiva Martins, Karin Schwarz

01.40 p.m. **KEYNOTE LECTURE**
The Location, Orientation and Buoyance effects of Radical Probes in Micellar and Oil-in-Water Emulsions: The Diving Swan Analogy
C. Aliaga, Santiago/CL

02.20 p.m. **Transport of Lipid Oxidation Intermediates and its Impact on the Lipid Oxidation Rate in a Model Food Emulsion**
S. ten Klooster, Wageningen/NL, J. Buijs, K. Schroën, Wageningen/NL, C. Berton-Carabin, Nantes/FR

02.40 p.m. **Relationships between the Rate of Initiation of Lipid Peroxidation and the Effective Interfacial Concentration of Antioxidants in Olive Oil-in-Water Nanoemulsions**
C. Bravo-Díaz, Vigo/ES, M. Costa, Porto/PT, J. Freiría-Gándara, S. Losada-Barreiro, Vigo/ES, F. Paiva-Martins, Porto/PT

03.00 p.m. **Plant Protein-stabilized Emulsions: Implications of Protein and Non-protein Components on Lipid Oxidation**
K. Münch, Wageningen/NL, K. Schroën, S. Stoyanov, Wageningen/NL, C. Berton-Carabin, Nantes/FR

03.20 p.m. Coffee Break

Marine and Algae Lipids

Meeting room 4

Chairs: Charlotte Jacobsen, Ingrid Undeland

03.50 p.m. **KEYNOTE LECTURE**
n-3 LC-PUFA from Microalgae: From Green Water to Health Conscious Consumer
I. Fourbet, Kortrijk/BE, E. Mienis, R. Demets, C. Dejonghe, L. Gheysen, Kortrijk/BE

04.30 p.m. **Impact of Extraction Methods on Lipid Composition and Oxidative Status of *Nannochloropsis oceanica* Oil**
W. Sun, Wageningen/NL, J.-P. Vincken, M. Hennebelle, Wageningen/NL

04.50 p.m. **NEO-PUFAs (Isoprostanooids) in Algae and Edible Oils from Marine Species: Biomarkers and Bioactive Lipids**
T. Durand, Montpellier/FR, C. Vigor, C. Oger, V. Bultel-Poncé, G. Reversat, J.-M. Galano, Montpellier/FR

05.10 p.m. **Green Extraction of Eicosapentaenoic Acid (EPA) from *Nannochloropsis oculata* Through High Hydrostatic Pressure (HHP) and Moderate Electric Fields (MEF)**
S.C. Sousa, Porto/PT, A.P. Carvalho, Porto/PT, C.A. Pinto, R.A. Amaral, J.A. Saraiva, Aveiro/PT, R.N. Pereira, A.A. Vicente, Braga/PT, A.C. Freitas, A.M. Gomes, Porto/PT

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5:30 p.m. – 6:30 p.m.)**

European Lipid Science Award

Meeting room 1

09.30 a.m. **Welcome**
Karin Schwarz, Markus Dierker, Bertrand Matthäus
Chair: Karel Hrnčirik

09.50 a.m. **EUROPEAN LIPID SCIENCE AWARD**
Omega-3 Fatty Acids for Optimal Health across the Life Course
Philip C. Calder, University of Southampton, UK

10.30 a.m. Coffee Break

Oleochemicals

Meeting room 1

Chair: Markus Dierker

11.00 a.m. **KEYNOTE LECTURE**
Isomerizing Metathesis as a Concept for the Valorization of Renewables
L. Goossen, Bochum/DE, J. Pollini, Bochum/DE

11.40 a.m. **Branched Fatty Acids: Advancements in Synthesis and Analysis**
D. Kerstens, Leuven/BE, S. Van Praet, N. Vermeulen, B. Wambacq, B. Sels, Leuven/BE

12.00 p.m. **Biobased Aldehydes from Fatty Epoxides through Thermal Cleavage of β -hydroxy Hydroperoxides**
N. Duguet, Villeurbanne/FR, T. De Dios Miguel, N.D. Vu, M. Lemaire, Villeurbanne/FR

12.20 p.m. **Aromatic Biobased Latex: From Natural Cashew and Clove Oil to Radical Emulsion Polymerization**
S. Caillol, Montpellier/FR, V. Ladmiral, P. Lacroix-Desmazes, Montpellier/FR

12.40 p.m. Table Top Exhibition – Lunch Break

Oleochemicals: Polymers and Application

Meeting room 1

Chair: Sylvain Caillol

01.40 p.m. **"Solutions" for the Recycling of Homogeneous Catalysts in the Functionalization of Unsaturated Oleo Chemicals**
T. Seidensticker, Dortmund/DE

02.00 p.m. **Styrene-free Thermosetting Resins from Vegetable Oils**
D. Cavuoto, Milan/IT, F. Bertini, A. Vignali, N. Ravasio, F. Zaccheria, Milan/IT

02.20 p.m. **Aerobic Oxidation of Fatty Acids and their Esters for Production of Industrial Chemicals**
A. Cherepanova, Moscow/RU, E. Savel'ev, V. Sapunov, Moscow/RU

02.40 p.m. **Nano-Structured Organogel Lipid Carrier System; Effect of Gamma Oryzanol & Beta Sitosterol Self-Assembling Ability on Oxidative Stability**
K. Sislioglu, Elazig/TR, D.J. McClements, Amherst/US, İ. Karabulut, Malatya/TR

03.00 p.m. **The Antimicrobial Properties of Quaternary Esters and Quaternary Hydroxyamides**
K. Sasínová, Prague/CZ, J. Šmidrkal, M. Berčíková, K. Alishevich, Prague/CZ

03.20 p.m. Coffee Break

Marine and Algae Lipids/Lipid Oxidation Joint Session:
Prevention of Marine Lipids Oxidation by Antioxidants

Meeting room 1

Chairs: Charlotte Jacobsen, Ingrid Undeland, Fatima Paiva Martins, Karin Schwarz

03.50 p.m. **Oxidative Stability of Side-streams from Cod Filleting Preserved by Antioxidant Dipping and Low Temperature Storage**
A.-D.M. Sørensen, Kgs Lyngby/DK, H. Wu, Gothenburg/SE, O. Mejlholm, N. Bøknæs, Svenstrup/DK, I. Undeland, Gothenburg/SE, C. Jacobsen, G. Hyldig, Kgs Lyngby/DK

04.10 p.m. **CROSS – A Clean Label Concept for Preventing Lipid Oxidation of Protein Isolates Recovered from Fish Co-products**
J. Zhang, Gothenburg/SE, X. Lei, M. Abdollahi, M. Alminger, I. Undeland, Gothenburg/SE

04.30 p.m. **Influence of Nordic *F. vesiculosus* Extracts on Oxidative and Physical Stability of Fish-Oil-Enriched Mayonnaise**
A. Getachew, Kgs. Lyngby/DK, W. Liu, D.B. Hermund, S.Lø. Holdt, C. Jacobsen, Kgs. Lyngby/DK

04.50 p.m. **Development and Optimization of Methods to Quantify Lipid Oxidation in Complex Fish Matrices**
C. Oroy, Elven/FR

05.10 p.m. **Comparison between the Photo- and Auto-oxidative Stability of Aqueous Model Systems Enriched with Photoautotrophic and Heterotrophic n-3 LC-PUFA Rich Microalgae**
R. Demets, Kortrijk/BE, L. Bonneux, Antwerpen/BE, C. Dejonghe, L. Gheysen, Kortrijk/BE, A. Van Loey, Leuven/BE, I. Foubert, Kortrijk/BE

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5:30 p.m. – 6:30 p.m.)**

European Lipid Science Award

Meeting room 1

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09.50 a.m. **EUROPEAN LIPID SCIENCE AWARD**
Omega-3 Fatty Acids for Optimal Health across the Life Course
Philip C. Calder, University of Southampton, UK

10.30 a.m. Coffee Break

Lipid Oxidation: Microencapsulation and Pickering Emulsions

Meeting room 2

Chairs: Fatima Paiva Martins, Karin Schwarz

11.00 a.m. **Lipid Oxidation in the Pickering Emulsion Era**
C. Berton-Carabin, Nantes/FR, A. Schröder, K. Schroën, Wageningen/NL, M. Laguerre, Avignon/FR

11.20 a.m. **Natural Particles can Armor Emulsions against Lipid Oxidation and Coalescence**
Anja Schröder, Wageningen/NL

11.40 a.m. **Utilization of Potato Proteins and Peptides as Emulsifiers in the Micro Encapsulation of Fish Oil**
M.E. Bjørlie, Kgs. Lyngby/DK, B. Yesiltas, Kgs. Lyngby/DK, P. J. García-Moreno, F. J. Espejo-Carpio, E.M. Guadix, Granada/ES, A. Jafarpour, E.B. Hansen, P. Marcatili, C. Jacobsen, Kgs. Lyngby/DK, S. Gregersen, Aalborg/DK

12.00 p.m. **Does Wall Material Composition Influence Lipid Oxidation in Freeze-dried Pumpkin Seed Oil Microcapsules?**
Z. Aksoylu Özbek, Manisa/TR, P. Günç Ergönül, Manisa/TR

12.20 p.m. **Interfacial Properties, Oxidative Stability and Bioaccessibility of Fish Oil-loaded Microcapsules Stabilized with Whey Protein Hydrolysate**
P.J. Garcia-Moreno, Granada/ES, E.M. Guadix, N.E. Rahmani-Manglano, M. Tirado-Delgado, J.M. Ruiz-Álvarez, T. del Castillo-Santaella, J. Maldonado-Valderrama, Granada/ES, N.C. Jones, S.V. Hoffmann, Aarhus/DK, C. Jacobsen, Kgs. Lyngby/DK, R. Pérez-Gálvez, A. Guadix, Granada/ES

12.40 p.m. Table Top Exhibition – Lunch Break

Olive Oil and Authenticity – Authenticity, Policy and Research

Meeting room 2

Chairs: Diego Luis Garcia Gonzalez, Ina Willenberg

01.40 p.m. **KEYNOTE LECTURE**
Latest Developments in EU Marketing Standards for Olive Oil
L. Alexandrescu, DG-AGRI, Brussels/BE

02.20 p.m. **MS-based Lipidomic Analysis of Polar Lipids from Olives and Olive Oil at the University of Aveiro: How far have we come and where should we go?**
E. Alves, Aveiro/PT, T. Jardim, A. Simoes, T. Melo, F. Rey, Aveiro/PT, M.P. Barros, Nelas/PT, M.R.M. Domingues, P. Domingues, Aveiro/PT

02.40 p.m. **Varietal and Geographical Authentication of Virgin Olive Oil: Proving the Efficiency of Sesquiterpene Fingerprinting**
B. Torres-Cobos, Barcelona/ES, B. Quintanilla-Casas, Barcelona/ES, A. Romero, A. Ninot, Constantí/ES, R. M. Alonso-Salces, Mar del Plata/AR, T. Gallina Toschi, A. Bendini, Bologna/IT, F. Guardiola, A. Tres, S. Vichi, Barcelona/ES

03.00 p.m. **Authentication of Varietal Origin (cultivar) of Monovarietal Virgin Olive Oils According to their Volatile Profile by HS-SPME-GC-MS and Chemometrics**
L. Cecchi, Florence/IT, M. Migliorini, E. Giambanelli, A. Cane, B. Zanoni, N. Mulinacci, F. Melani, Florence/IT

03.20 p.m. Coffee Break

Olive Oil and Authenticity – OLEUM:
Final Results and New Approaches

Meeting room 2

Chairs: Diego Luis Garcia Gonzalez, Ina Willenberg

03.50 p.m. **A View on the Olive Oil Global Scenario through the results of the EU OLEUM Project**
T. Gallina Toschi, Bologna/IT, D.L. Garcia-Gonzalez, Seville/ES, A. Bendini, Bologna/IT, A. Maquet, Geel/BE, P. Brereton, Belfast/GB, J. Kanieswska, Brussels/BE

04.10 p.m. **SPME-GC-MS Analysis of Volatile Compounds of Virgin Olive Oil. An Inter-Laboratory Study for Method Development, Performance Evaluation and Application Prospects**
D.L. Garcia-Gonzalez, Seville/ES, P.A. Golay, Lausaane/CH, P. Lucci, E. Moret, Udine/IT, A. Bendini, T. Gallina-Toschi, E. Casadei, E. Valli, Bologna/IT, R. Aparicio-Ruiz, C. Ortiz-Romero, Seville/ES, M. Servili, R. Selvaggini, Perugia/IT, F. Lacoste, J. Escobessa, Pessac/FR, S. Vichi, B. Quintanilla-Casas, Barcelona/ES

04.30 p.m. **A Harmonized SPME-GC-FID Method for the Analysis of Selected Volatile Markers in Virgin Olive Oils: Some Evidence from the Cooperative Inter-Laboratory Study**
E. Casadei, Bologna/IT, E. Valli, Bologna/IT, D.L. Garci-Gonzalez, C. Ortiz-Romero, Seville/ES, S. Vichi, B. Quintanilla-Casas, A. Tres, Santa Coloma de Gramenet/ES, T. Bendini, T. Gallina Toschi, Bologna/IT

04.50 p.m. **SPE-GC-FID Method for the Detection of Free and Esterified Hydroxylated Minor Compounds in Virgin Olive Oils**
P. Lucci, Udine/IT, E. Valli, Bologna/IT, A. Milani, A. Srbinovska, E. Moret, S. Moret, Udine/IT, A. Bendini, Bologna/IT, W. Moreda, Sevilla/ES, T. Gallina Toschi, Bologna/IT

05.10 p.m. **Determination of Freshness in Virgin Olive Oils. The Current Possibilities and the Future Developments**
M. Servili, Perugia/IT, R. Selvaggini, A. Taticchi, S. Esposto, S. Urbani, G. Veneziani, B. Sordini, L. Daidone, Perugia/IT, D.L. García-González, Sevilla/ES, T. Gallina Toschi, Bologna/IT

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5:30 p.m. – 6:30 p.m.)**

European Lipid Science Award

Meeting room 1

09.30 a.m. **Welcome**
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Chair: Karel Hrnčirik

09.50 a.m. **EUROPEAN LIPID SCIENCE AWARD**
Omega-3 Fatty Acids for Optimal Health across the Life Course
Philip C. Calder, University of Southampton, UK

10.30 a.m. Coffee Break

Exhibitor Presentations

Meeting room 3

Chairs: Carl Arevang

11.00 a.m. **Maxfry GmbH**, Hagen/DE

11.20 a.m. **Bruker Optik GmbH**, Ettlingen/DE

11.40 a.m. **Gerstel GmbH & Co.KG**, Mülheim an der Ruhr/DE

12.00 p.m. **Merck KGaA**, Darmstadt/DE

12.20 p.m. TBA

12.40 p.m. Table Top Exhibition - Lunch Break

Plant Lipids and Vegetable Oils: Plant Lipids and Volatilomics

Meeting room 3

Chair: Ludger Brühl

01.40 p.m. **KEYNOTE LECTURE**
Plant Oils Volatilomics. Which Questions does it Answer?
H.H. Jelen, Poznan/PL

02.20 p.m. **Carotenoid, Tocopherol, and Volatile Aroma Compounds in Eight Sacha Inchi Seed (*Plukenetia volubilis* L.) Oil Ecotypes**
A. Valencia, Lima/PE, S. Casimiro-Gonzales, K. Cancino Chávez, F. Ramos-Escudero, Lima/PE

02.40 p.m. **Characteristics of Post-Fermentation Corn Oil**
J. Susik, Tychy/PL

03.00 p.m. **Advances in Lipid Research of Apricot**
D. Zhang, Yangling/CN, Z. Zhao, Yangling/CN

03.20 p.m. Coffee Break

Health and Nutrition

Meeting room 3

Chairs: Michel Lagarde, Christian Wolfrum

03.50 p.m. **A High-fat Diet Enriched in Medium Chain Triglycerides Triggers Hepatic Thermogenesis and Improves Metabolic Health in Lean and Obese Mice**
C. Mounier, Montréal/CA, S.A. Rial, A. Jutras-Carignan, K.F. Bergeron, Montréal/CA

04.10 p.m. **Fermentation, Polar Lipids, and Thrombosis**
I. Zabetakis, Limerick/IE, R. Lordan, A. Tsoupras, Limerick/IE

04.30 p.m. **New Insights into Short Chain Fatty Acids from the Gut Microbiome may contribute to Impaired Brain Health**
R. Thomas, Corner Brook/CA, S. Cheema, St Johns/CA, K. Doody, Corner Brook/CA, S. Shah, St Johns/CA, T. Pham, J. Blundell, Corner Brook/CA

04.50 p.m. **Pro-resolving Potency of SPM-Enriched Oils**
E. Venegas-Venegas, Zaragoza/ES, C. López-Vicario, Barcelona/ES, B. Angulo, R. Gracia, Zaragoza/ES, X. de la Rosa, Boston/US

05.10 p.m. **Omega-3 Glycerides in Weaned Piglet Diet: Improvements in Production, Mortality and Morbidity**
B. Angulo, Zaragoza/ES, E. Venegas-Venegas, L. Gil, S. Diago, J. Letosa, M. Fondevila, Zaragoza/ES

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5:30 p.m. – 6:30 p.m.)**

European Lipid Science Award

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Chair. Karel Hrnčirik

09.50 a.m. **EUROPEAN LIPID SCIENCE AWARD**
Omega-3 Fatty Acids for Optimal Health across the Life Course
Philip C. Calder, University of Southampton, UK

10.30 a.m. Coffee Break

Insect Lipids

Meeting room 4

Chair Thomas Piofczyk

11.00 a.m. **KEYNOTE LECTURE**
Insect Oils and Potential Applications
G.R. Verheyen, Geel/BE, F. Meersman, Heist-Op-Den-Berg/BE, S. Van Miert, Geel/BE

11.40 a.m. **The Effect of the Diet and Killing Methods on Insect Lipids. The Case Study of Black Soldier Fly**
V. Lolli, Parma/IT, A. Fuso, A.V. Luparelli, F. Bonzanini, G. Leni, S. Sforza, A. Caligiani, Parma/IT

12.00 p.m. **Replacing Vegetable Oil by Insect Oil in Food Products. Effect of Deodorization on the Sensory Evaluation**
D.A. Tzompa-Sosa, Ghent/BE, K. Dewettinck, X. Gellynck, J.J. Schouteten, Ghent/BE

12.20 p.m. **Modulation of Nutritional Value of *Hermetia illucens* Larvae by Feeding Microalgae-enriched Coffee Silverskin. Amino Acids, Fatty Acids and Carotenoids**
A. Nartea, Ancona/IT, P. Riolo, S. Ruschioni, S. Ratti, M. Cattalani, L. Corsi, I. Olivotto, E. Foppa Pedretti, N. Frega, D. Pacetti, Ancona/IT

12.40 p.m. Table Top Exhibition – Lunch Break

Processing and Sustainability.
Sustainable Oil Processing for the Future II

Meeting room 4

Chairs. Wim de Greyt, Jeannette Hollien

01.40 p.m. **On the Feasibility of Continuous Fat Fractionation by Combination of Scraped Surface Heat Exchangers and Decanter Centrifuge**
M. Kirimlidou, Berlin/DE, E. Floeter, Berlin/DE

02.00 p.m. **Soap Carbonate Technology - Sustainable Soapstock Splitting with CO₂**
A. Brandner, Frankfurt/DE, A. Lecca, Frankfurt/DE

02.20 p.m. **Demonstrating the Viability of Implementing Phospholipases in Alkaline Refining of Rapeseed Oil**
C. Bhatt, Lyngby/DK

02.40 p.m. **'SAFE' Ice Condensing System. The Ammonia Free Alternative**
B. Schols, Zaventem/BE, J. De Kock, Zaventem/BE

03.00 p.m. **Natural Bleaching Earths Reloaded**
G. Kacandes, Athens/GR, M. Drossos, Athens/GR

03.20 p.m. Coffee Break

Deep Frying

Meeting room 4

Chair. Bertrand Matthäus

03.50 p.m. **KEYNOTE LECTURE**
Different Routes for Degradation of Fats and Oils at Room and Elevated Temperatures
C. Gertz, Hagen/DE

04.30 p.m. **Rapeseed Oil Based Oleogels as a Promising New Alternative to Conventional Deep-frying Media**
S. Nikolay, Detmold/DE, N. Erlenbusch, I. Smit, L. Weber, M. Schubert, B. Matthäus, Detmold/DE

04.50 p.m. **The Impact of Type of Oil and Fat on the Formation of Acrylamide in Fried Foods**
C. Gertz, Hagen/DE, S. Seifer, Hagen/DE

05.10 p.m. **Effect of Intermittent Frying of French Fries on Quality of Low Diglycerides Palm Oil**
N.A. Ab Karim, Selangor/MY

05.30 p.m. **POSTER SESSION AND TABLE TOP EXHIBITION (5.30 p.m. – 6.30 p.m.)**

SCI Young Scientist Award / DGF Normann Medal Award

Meeting room 1

Chairs: Markus Dierker, Bertrand Matthäus, Kevin W. Smith

09.30 a.m. **SCI YOUNG SCIENTIST AWARD**
Adipose Tissue Inflammation in Human Obesity and Response to Chronic Marine Omega3 Fatty Acid Supplementation: The BIOCLAIMS Study at the University of Southampton
H. Fisk, Southampton/GB, R. Ayres, C. Childs, Southampton/GB, O. Kuda, J. Kopecky, Prague/CZ, E. Antoun, K. Lillycrop, P.C. Calder, Southampton/GB

09.50 a.m. **DGF NORMANN MEDAL LECTURE**
Minimizing Waste of Foods Rich in Omega-3 Fatty Acids by Preventing Lipid Oxidation
 C. Jacobsen, National Food Institute, Kgs. Lyngby/DK

10.30 a.m. Coffee Break

Health and Nutrition

Meeting room 1

Chair: Michel Lagarde, Christian Wolfrum

11.00 a.m. **Effects of Dietary CLA on n-3 HUFA Score and N-acyl ethanolamides Biosynthesis in the Liver of Obese Zucker Rats**
P.A. Lopes, Lisboa/PT, G. Carta, E. Murru, A. Piras, Cagliari/IT, J. A. M. Prates, Lisboa/PT, S. Banni, Cagliari/IT

11.20 a.m. **Potential Anti-inflammatory and Neuroprotective effect of Docosahexaenoic Acid and Bioactive Lipid Mediators in SARS-CoV-2 Neuroinvasion**
 M. Hachem, Abu Dhabi/AE

11.40 a.m. **Exogenous Fatty Acids Modulate ER Lipid Composition and Metabolism in Breast Cancer Cells**
P.A. Corsetto, Milan/IT, G. Montorfano, S. Zava, S. Borghi, I. Colombo, A.M. Rizzo, Milan/IT

12.00 p.m. **Targeting Oxidative Stress in Brain Aging. Effects of Increasing DHA Intake**
E. Moreno, Vigo/ES, L. Mendez, M.J. Gonzalez, S. Lois, Vigo/ES, B. Miralles, M. Romeu, R. Nogues, Reus/ES, S. Ramos-Romero, J.L. Torres, Barcelona/ES, I. Medina, Vigo/ES

12.20 p.m. **Changes in Free Fatty Acid Profile and Antioxidation Activity in the Liver and Brain of Mice receiving Nanolipid Complexes**
N. Palmina, Moscow/RU, T.A. Misharina, N.I. Krikunova, N.N. Sazhina, A.S. Antipova, E.I. Martirosova, M.G. Semenova, Moscow/RU

12.40 p.m. Table Top Exhibition – Lunch Break

Lipid Oxidation: Prevention of Oxidation by Antioxidants

Meeting room 1

Chairs: Fatima Paiva Martins, Karin Schwarz

01.40 p.m. **Caffeic Acid Phenolipids in the Protection of Cell Membranes from Oxidative Injuries**
F. Paiva-Martins, Porto/PT, M. Costa, R. Lopes, M. Ferreira, P. Gameiro, S. Fernandes, C. Catarino, A Santos-Silva, Porto/PT

02.00 p.m. **Bioinformatically Predicted Antioxidant Peptides Derived from Plant, Microbial, and Marine Protein Sources: Effects on the Oxidative Stability of Low Fat Emulsion at pH 4 and Mayonnaise**
B. Yesiltas, Kgs. Lyngby/DK, E. Varona Sánchez, Barcelona/ES, P. García-Moreno, Granada/ES, T. Hegelund Olsen, P. Marcatili, Kgs. Lyngby/DK, S. Gregersen, Aalborg/DK, E. Bech Hansen, C. Jacobsen, Kgs. Lyngby/DK

02.20 p.m. **New Method for Investigating the Influence of Antioxidants on Food Products**
 C. Edinger, Blankenfelde-Mahlow/DE

02.40 p.m. **Savoury Snacks: How to Minimize Lipid Oxidation and Extend their Shelf Life with Naturally Derived Food Additives?**
 H. Lu, Suffolk/GB

03.00 p.m. **Effects of Heating and *in vitro* Digestion Phases on the Oxidative Stability and Antioxidant Activity of Olive Oil**
Y. Bao, Vienna/AT, M. Strauss, M. Pignitter, Vienna/AT

03.20 p.m. Coffee Break

Contaminants

Meeting room 1

Chairs: Karel Hrnčirik, Klaus Schurz

03.50 p.m. **KEYNOTE LECTURE**
Mitigation of Mineral Oil Compounds in Edible Oils and Fats
L. Brühl, Detmold/DE, Ch. Albert, Detmold/DE, G. Rühl, Braunschweig/DE, D. Koltermann, M. Kießling, Quakenbrück/DE

04.30 p.m. **Software Approach to Improve Tracing and Evaluation of MOSH and MOAH Contaminations in Food Supply Chains based on LC-GC-FID**
A. Klingberg, Teldau/DE, C. Albert, C. Läubrich, Bad Schwartau/DE, L. Richter, Fellbach/DE, L. Brühl, Detmold/DE

04.50 p.m. **Analysis of MCPD and Glycidyl Esters in Processed Foods: Current Research at the U.S. Food and Drug Administration**
J. Beekman, College Park/US, S. Popol, S. MacMahon, College Park/US

05.10 p.m. **Monitoring of Chlorinated Paraffin in Oils and the first Explanation for their Degradation**
J. Scholl, Berlin/DE, W. Vetter, Stuttgart/DE, J. Biewald, A. Mattulat, Berlin/DE

05.30 p.m. **Euro Fed Lipid General Assembly** – All Euro Fed Lipid Members are cordially invited to attend.

SCI Young Scientist Award / DGF Normann Medal Award

Meeting room 1

Chairs: Markus Dierker, Bertrand Matthäus, Kevin W. Smith

09.30 a.m. **SCI YOUNG SCIENTIST AWARD**
Adipose Tissue Inflammation in Human Obesity and Response to Chronic Marine Omega3 Fatty Acid Supplementation: The BIOCLAIMS Study at the University of Southampton
 H. Fisk, Southampton/GB, R. Ayres, C. Childs, Southampton/GB, O. Kuda, J. Kopecky, Prague/CZ, E. Antoun, K. Lillycrop, P.C. Calder, Southampton/GB

09.50 a.m. **DGF NORMANN MEDAL LECTURE**
Minimizing Waste of Foods Rich in Omega-3 Fatty Acids by Preventing Lipid Oxidation
 C. Jacobsen, National Food Institute, Kgs. Lyngby/DK

10.30 a.m. Coffee Break

**Plant Lipids and Vegetable Oils:
 Plants Lipids – From Analysis to Application**

Meeting room 2

Chair: Yonghau Li

11.00 a.m. **Lipid Metabolism in Microalgae in Response to a changing Environment**
 Y. Li-Beisson, St Paul lez Durance/FR

11.20 a.m. **Investigation of a High-oleic-acid Mutant in Brassica napus based on the whole-genome Resequencing and Transcriptome Sequencing**
 Y. Shan, Zhen Jiang/CN, R. Geng, X.-N. He, W.J. Chen, X.L. Tan, Zhen Jiang/CN

11.40 a.m. **Extraction of Oils Seeds and Production the Bio-soaps of the *Carthamus tinctorius L* from different Origins (Algerian, Moroccan, Yemeni)**
 F. Tissouras, Mostaganem/DZ, F. Belarbi –Chibani, A. Rebouhi, M. Kaced, Tiaret/DZ, L. Zahaf, H. Meftah, A. Bouzide, S. Bouhamri, Mostaganem/DZ

12.00 p.m. **Efficacy of Bioactive Components of Bottle Gourd Oilseed Extracts on the Antimicrobial Activity and Toxigenic Fungi**
 A.G. Abdel-Razek, Cairo/EG, Ahmed N. Badr, Cairo/EG

12.20 p.m. **The Effect of Microwave Roasting on Compositional Characteristics of Cold-Pressed Fig Seed Oil**
 A. Yıldırım Vardin, Aydın/TR, D. Deniz Şirinyıldız, A. Yorulmaz, Aydın/TR

12.40 p.m. Table Top Exhibition – Lunch Break

**Plant Lipids and Vegetable Oils:
 Plant Lipids – Plant Lipidomics**

Meeting room 2

Chair: Ludger Brühl

01.40 p.m. **Fatty Acid Profile Discriminated Varieties of Triticum Turgidum Subspecies (dicoccon, turanicum and durum)**
 R. Foligni, Ancona/IT, M. Mozzon, M. Pasquini, A. Merletti, C. Mannozi, S. Tavoletti, Ancona/IT

02.00 p.m. **Plant Lipid Metabolism in Response to Phytophthora sojae Infection and Colonization in Soybean (Glycine max) Cultivars**
 Q. Adigun, St. John's/CA, T. Pham, Corner Brook/CA, D. Grapov, Colfax/US, M. Nadeem, Corner Brook/CA, L. Jewell, St. John's/CA, M. Cheema, R. Thomas, Corner Brook/CA

02.20 p.m. **Oxidative Stress Biomarkers from Date Palm Fruit and By-products: Five different Varieties Grown in Two different Locations as Potential Sources**
 Q. Ahmed, Montpellier/FR, C. Vigor, Montpellier/FR, S. Sedraoui, Sousse/TN, B. Zhou, G. Reversat, A. Rocher, V. Bultel-Poncé, A. Guy, Montpellier/FR, S. Selim, Al-Jouf/SA, J-M. Galano, T. Durand, C. Oger, Montpellier/FR

02.40 p.m. **Genes Involved in the Sunflower Seed Wax Ester Synthesis**
 C. De Andrés-Gil, Sevilla/ES, M. Venegas-Calerón, A.J. Moreno-Pérez, E. Martínez-Force, J.J. Salas, Sevilla/ES

03.00 p.m. **Investigation of High Alpha-linolenic Acid Mutant in Brassica napus**
 L. Li, Zhen Jiang/CN, Y. Shan, Zhen Jiang/CN, W. Chen, Yangling/CN, X. Tan, Zhen Jiang/CN

03.20 p.m. Coffee Break

Exhibitor Presentations

Meeting room 2

Chair: Carl Arevang

03.50 p.m. **Oil Dri**, Chicago/USA

04.10 p.m. **Wiley-VCH**, Weinheim/DE

04.30 p.m. **Desmet Ballestra**, Zaventem/BE

04.50 p.m. TBA

05.10 p.m. TBA

05.30 p.m. **Euro Fed Lipid General Assembly** – All Euro Fed Lipid Members are cordially invited to attend.

SCI Young Scientist Award / DGF Normann Medal Award

Meeting room 1

Chairs: Markus Dierker, Bertrand Matthäus, Kevin W. Smith

09.30 a.m. **SCI YOUNG SCIENTIST AWARD**
Adipose Tissue Inflammation in Human Obesity and Response to Chronic Marine Omega3 Fatty Acid Supplementation: The BIOCLAIMS Study at the University of Southampton
H. Fisk, Southampton/GB, R. Ayres, C. Childs, Southampton/GB, O. Kuda, J. Kopecky, Prague/CZ, E. Antoun, K. Lillycrop, P.C. Calder, Southampton/GB

09.50 a.m. **DGF NORMANN MEDAL LECTURE**
Minimizing Waste of Foods Rich in Omega-3 Fatty Acids by Preventing Lipid Oxidation
 C. Jacobsen, National Food Institute, Kgs. Lyngby/DK

10.30 a.m. Coffee Break

Lipid Oxidation: Impact of Processing on Lipid Oxidation

Meeting room 3

Chairs: Fatima Paiva Martins, Karin Schwarz

11.00 a.m. **EUROPEAN YOUNG LIPID SCIENTIST AWARD LECTURE**
Examining the role of Endogenous Factors for Lipid Oxidation in Muscle Food Systems and Development of New Cost-effective Stabilization Technologies
 H. Wu, Göteborg/SE

11.20 a.m. **Examining the Impact of Non-thermal Plasma on Lipid Model Systems**
D. Liu, Gent/BE, A. Nikiforov, N. De Geyter, B. De Meulenaer, Gent/BE

11.40 a.m. **Lipid Oxidation in Protein Enriched Products from Cod- Salmon and Herring Backbones during Ice and Frozen Storage**
H. Wu, Göteborg/SE, M. Abdollahi, Göteborg/SE, I. Undeland, Göteborg/SE

12.00 p.m. **Assessment of Lipid Oxidation in Sardine (*sardina pilchardus*) Treated by Plasma-Activated Water (paw)**
M. Mozzon, Ancona/IT, L. Ismaiel, A. Nartea, C. Mannozi, R. Foligni, Ancona/IT

12.20 p.m. **Enzymatic Degradation of *Chlorella vulgaris* Cell Wall Improved Protein Bioaccessibility while Preserving Lipid Oxidative Stability**
G. Canelli, Zurich/CH, I. Kuster, B. Maude Hauser, Zurich/CH, P. Murciano Martínez, Z. Rohfritsch, F. Dionisi, Lausanne/CH, C.J. Bolten, Singen/DE, L. Neutsch, Wädenswil/CH, A. Mathys, Zurich/CH

12.40 p.m. Table Top Exhibition – Lunch Break

Olive Oil and Authenticity – Quality and Technology Aspects

Meeting room 3

Chairs: Diego Luis Garcia Gonzalez, Ina Willenberg

01.40 p.m. **Data Validity within the Sensory Evaluation of Extra Virgin Olive Oil - Do different test locations have a relevant impact?**
A. Bongartz, Waedenswil/CH, M. Popp, Waedenswil/CH, R. Retsch, Nuremberg/DE

02.00 p.m. **Turbidity of Extra Virgin Olive Oil: Characterization and its Effect on Product Quality and During Processing and Distribution**
C Breschi, Florence/IT, L. Guerrini, L. Calamai, P. Masella, A. Parenti, B. Zaroni, Florence/IT

02.20 p.m. **Impact of Coadjuvants on Enzymes Activity during VOO Extraction**
G. Squeo, Bari/IT, R. Silletti, G. Difonzo, C. Summo, C. Crecchio, F. Caponio, Bari/IT

02.40 p.m. **Effect of Ripening on Quality Attributes and Volatile Profile of Extra Virgin Olive Oils from 'Megaritiki' and Chondrolia Chalkidikis' Greek Cultivars**
V. Papoti, Thessaloniki/GR, K. Moustaka, D. Marlis, T. Adamidis, K. Zinoviadou, Thessaloniki/GR

03.00 p.m. **Effect of Olive Leaf Incorporation during the Industrial Extraction of cv. Arbequina Olive Oils on their Quality and Bioactive Composition**
I. Marx, Bragança/PT, N. Rodrigues, J. Pereira, A. Peres, Bragança/PT, A. Veloso, Coimbra/PT, R. Cruz, S. Casal, Porto/PT

03.20 p.m. Coffee Break

Olive Oil and Authenticity – Spectroscopy in the Analysis of Olive Oil *Meeting room 3*

Chairs: Diego Luis Garcia Gonzalez, Ina Willenberg

03.50 p.m. **Green and Fast Determination of Ethyl Ester Content in Olive Oil by IR Spectroscopy**
C. Alamprese, Milan/IT, S. Grassi, Milan/IT, G. Squeo, F. Caponio, Bari/IT

04.10 p.m. **Fourier-Transform near Infrared Spectroscopy (FT-NIR) with Multivariate Techniques for Virgin Olive Oil Analysis**
T.M. Keceli, Adana/TR, A.A. Mecit, Adana/TR, A. Kiritsakis, Thessaloniki/GR

04.30 p.m. **Detection of Adulterated Olive Oil by Near Infrared Spectroscopy Coupled to Multivariate Statistics**
C. Gertz, Hagen/DE, I. Willenberg, Detmold/DE

04.50 p.m. **Stability Assessment of Virgin Olive Oils by Mesh Cell-FTIR Spectroscopy: Spectral changes in a Real-time Storage Experiment**
A. Lobo-Prieto, Seville/ES, N. Tena, R. Aparicio-Ruiz, M.T. Morales, D.L. García-González, Seville/ES

05.10 p.m. **¹H-NMR Spectral Fingerprints of Extra Virgin Olive Oils: Confirmation of the Identity and Homogeneity within Commercial Lots**
O. Winkelmann, Hamburg/DE, T. Kuechler, Hamburg/DE

05.30 p.m. **Euro Fed Lipid General Assembly** – All Euro Fed Lipid Members are cordially invited to attend.

SCI Young Scientist Award / DGF Normann Medal Award

Meeting room 1

Chairs: Markus Dierker, Bertrand Matthäus, Kevin W. Smith

09.30 a.m. **SCI YOUNG SCIENTIST AWARD**
Adipose Tissue Inflammation in Human Obesity and Response to Chronic Marine Omega3 Fatty Acid Supplementation: The BIOCLAIMS Study at the University of Southampton
 H. Fisk, Southampton/GB, R. Ayres, C. Childs, Southampton/GB, O. Kuda, J. Kopecky, Prague/CZ, E. Antoun, K. Lillycrop, P.C. Calder, Southampton/GB

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 C. Jacobsen, National Food Institute, Kgs. Lyngby/DK

10.30 a.m. Coffee Break

Physical Chemistry

Meeting room 4

Chairs: Eckhard Flöter, Imogen Foubert

11.00 a.m. **KEYNOTE LECTURE**
Nanostructure of Cocoa Butter in the Molten, Liquid Crystalline and Solid State
 M. Rappolt, Leeds/GB

11.40 a.m. **Modeling Triglyceride Pure Component Properties by a Configurational Approach**
 J. Seilert, Berlin/DE, E. Flöter, Berlin/DE

12.00 p.m. **Mixing Phase Behavior of Trilaurin and oleic-rich Triacylglycerols Forming Molecular Compound**
 J. Macridachis, Barcelona/ES, L. Bayés-García, T. Calvet, Barcelona/E

12.20 p.m. **Monitoring the Crystallization of Trans-free Cocoa Butter Replacers in the Cooling Tunnel by differential Scanning Calorimetry**
 M. Bootello, Wormerveer/NL, J. Werleman, P. Garcia-Macias, Wormerveer/NL

12.40 p.m. Table Top Exhibition – Lunch Break

Physical Chemistry

Meeting room 4

Chairs: Eckhard Flöter, Imogen Foubert

01.40 p.m. **The Influence of Minor Oil Components on Wax Oleogels**
 M. Scharfe, Berlin/DE, E. Flöter, Berlin/DE

02.00 p.m. **On the Effect of Oil Type and Wax Composition on Oleogel Properties**
 T. Wettlaufer, Berlin/DE, E. Flöter, Berlin/DE

02.20 p.m. **Multicomponents Oleogels and Emulgels Formation using High-Intensity Ultrasound**
 T.L.T. da Silva, Gembloux/BE, S. Danthine, Gembloux/BE

02.40 p.m. **Unravelling the Contribution of Wax Esters to Wax-based Oleogels**
 H. Brykczynski, Berlin/DE, E. Flöter, Berlin/DE

03.00 p.m. **Characterization of Physical Properties and Stability of Edible Oleogel as a Substitute for Solid Fat Crystal Network**
 E. Matsuda, Hiroshima/JP, H. Koizumi, S. Ueno, Hiroshima/JP

03.20 p.m. Coffee Break

Chairs: Markus Dierker, Bertrand Matthäus

03.50 p.m. **Flash Poster Presentations**

Meeting room 4

05.30 p.m.

05.30 p.m. **Euro Fed Lipid General Assembly** – All Euro Fed Lipid Members are cordially invited to attend.

SFEL Chevreur Medal Award

Meeting room 1

Chair: Philippe Guesnet

09.30 a.m. **SFEL CHEVREUL MEDAL LECTURE**
Analysis and Application of Microbial Functions Expanding Lipid Science
 J. Ogawa, Kyoto/JP

10.30 a.m. Coffee Break

Health and Nutrition

Meeting room 1

Chairs: Michel Lagarde, Christian Wolfrum

11.00 a.m. **KEYNOTE LECTURE**
Adipose Tissue as an Interface between our Body and the Environment
 M. Blueher, Leipzig/DE

11.40 a.m. **Novel Very-Long-Chain Polyunsaturated Fatty Acids Uptake and Tissue Distribution by Dietary Supplementation**
M. Torrissen, Oslo/NO, H. Svensen, I. Stoknes, Ålesund/NO, A. Nilsson, T.-K. Østbye, G. Berge, E. Ytteborg, B. Ruyter, Oslo/NO

12.00 p.m. **Post-prandial Triglyceride-rich Lipoproteins from Type 2 Diabetic Patients Activate Platelets Regardless of the Fat Source in the Meal**
C. Calzada, Pierre-Bénite/FR, M.M. Boulet, Pierre-Bénite/FR, M. Di Filippo, P. Moulin, D. Cheillan, Bron/FR, M.-C. Michalski, Pierre-Bénite/FR

12.20 p.m. **The Effect of Omega-3 Dosage on Interventional Trials with Cardiovascular Outcomes**
 A. Bernasconi, Salt Lake City/US

12.40 p.m. Table Top Exhibition – Lunch Break

Exhibitor Presentations

Meeting room 1

Chair: Carl Arevang

01.40 p.m. **Novozymes**, Kgs. Lyngby/DK

02.00 p.m. **Axel Semrau GmbH & Co. KG**, Sprockhövel/DE

02.20 p.m. **Leco Instrumente GmbH**, Kirchheim/DE

02.40 p.m. **Solex Thermal Science Inc.**, Prague/CZ

03.10 p.m. TBA

03.20 p.m. **Closing and Announcement of the 19th Euro Fed Lipid Congress and Expo**
 Markus Dierker, Bertrand Matthäus, Karin Schwarz

SFEL Chevreur Medal Award

Meeting room 1

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- 10.30 a.m. Coffee Break

Dairy and Animal Lipids

Meeting room 2

Chair: Noelia Aldai

- 11.00 a.m. **KEYNOTE LECTURE**
Refining By-products Rich in Free Fatty Acids: Are they the “ugly duckling” Among Feeding Fats for Monogastric Animals?
A. Tres, Barcelona/ES, E. Varona, P. Albendea, S. Vichi, M. Rafecas, Barcelona/ES, R. Sala, A.C. Barroeta, Bellaterra/ES, F. Guardiola, Barcelona/ES
- 11.40 a.m. **Dietary Supplementation with EPA-rich Microalgae: Lamb Muscle and Subcutaneous Fat Lipidome**
S.P. Alves, Lisboa/PT, B. Fuchs, Dummerstorf/DE, A.C.M. Vitor, Lisboa/PT, A. Francisco, J. Santos-Silva, Santarem/PT, R.J.B. Bessa, Lisboa/PT, D. Dannenberger, Dummerstorf/DE
- 12.00 p.m. **Dietary Hazelnut Skin Improves Lipid Oxidative Stability of Lamb Meat**
A. Natalello, Catania/IT, A. Priolo, Catania/IT, B. Valenti, Perugia/IT, R. Menci, Catania/IT, M. Pauselli, Perugia/IT, G. Luciano, Catania/IT
- 12.20 p.m. **Influence of Rosemary, Clove and Propolis on the Oxidation Stability of Lard Measured by an Accelerated Oxidation Test**
H. Stoffers, Bern/CH, M. Freivogel, Zollikofen/CH, R. Blase, Bern/CH, B. Früh, Frick/CH
- 12.40 p.m. Table Top Exhibition – Lunch Break

Dairy and Animal Lipids

Meeting room 2

Chair: Noelia Aldai

- 01.40 p.m. **Effect of Feeding Olive Pomace Oil and Olive Pomace Acid Oil on Lipid Composition and Oxidative Stability of Pork**
P. Albendea, Santa Coloma de Gramenet (Barcelona)/ES, A. Tres, E. Varona, Santa Coloma de Gramenet/ES, G. Verge-Merida, D. Solà-Oriol, Bellaterra/ES, M. Verdú, M. Balart, Guissona/ES, S. Vichi, Santa Coloma de Gramenet/ES, M. Rafecas, Barcelona/ES, F. Guardiola, Santa Coloma de Gramenet/ES
- 02.00 p.m. **Implications of Feeding Hydrogenated Palm Oil to Dairy Cows on Milk Triacylglycerol Composition and Structure, and its Effect on Milk Solid Fat Content**
S. Pacheco-Pappenheim, Wageningen/NL, S. Yener, K. Nichols, J. Dijkstra, K. Hettinga, H.J.F Valenberg, Wageningen/NL
- 02.20 p.m. **Intensively Finishing Cattle Supplemented with Extruded Linseeds Presents an Increased Variability of the Biohydrogenation Intermediates in Meat**
R.J.B. Bessa, Lisboa/PT, C.M. Alfaia, J.A.M. Prates, S.P. Alves, Lisboa/PT
- 02.40 p.m. **Correlation between Milk Fat Components and Polymorphism**
N. Arita-Merino, Wageningen/NL, H. van Valenberg, E. Scholten, Wageningen/NL
- 03.00 p.m. **Towards Tailored Crystallization of Buffalo Milk Fat**
Y. Pratama, Leeds/GB, E. Simone, M. Rappolt, Leeds/GB
- 03.20 p.m. **Closing and Announcement of the 19th Euro Fed Lipid Congress and Expo**
 Markus Dierker, Bertrand Matthäus, Karin Schwarz

SFEL Chevreur Medal Award

Meeting room 1

Chair: Philippe Guesnet

- 09.30 a.m. **SFEL CHEVREUL MEDAL LECTURE**
Analysis and Application of Microbial Functions Expanding Lipid Science
 J. Ogawa, Kyoto/JP

10.30 a.m. Coffee Break

Lipidomics

Meeting room 3

Chairs: Ruth Birner-Grünberger, Anna Nicolaou

- 11.00 a.m. **KEYNOTE LECTURE**
Shotgun Lipidomics of Tissue Biopsies
 A. Shevchenko, MPI of Molecular Cell Biology and Genetics, DE
- 11.40 a.m. **Lipidomics View on Human Obesity**
 M. Fedorova, Leipzig/DE
- 12.00 p.m. **Lipid Molecular Timeline Profiling Reveals Diurnal Crosstalk between the Liver and Circulation**
 C. Ejsing, Odense/DK
- 12.20 p.m. **Acyl Editing of Phosphatidic Acid and Phosphatidylethanolamine via Acyl-CoA:lysophospholipid acyltransferases**
S. Klińska, Gdańsk/PL, K. Jasieniecka-Gazarkiewicz, K. Demski, A. Banaś, Gdańsk/PL

12.40 p.m. Table Top Exhibition – Lunch Break

Lipidomics

Meeting room 3

Chairs: Ruth Birner-Grünberger, Anna Nicolaou

- 01.40 p.m. **Application of Lipidomics to Better Understand Plant Acclimation to Environmental Stress in Boreal Ecosystems or Northern Climates**
T. Raymond, St Johns/CA, A. Sey, M. Cheema, L. Galagedara, M. Nadeem, Corner Brook/CA
- 02.00 p.m. **LC-MSn Based Glycolipidomics to Monitor Gangliosides and their Potential as Cell Differentiation Markers in Human Mesenchymal Stem Cells**
E. Rampler, Vienna/AT, K. Hohewallner, T. Nina, P. Lisa, Vienna/AT, N. Thomas, Munich/DE, K. Cornelia, K. Gunda, Vienna/AT, H. Jürgen, Graz/AT, Egger Dominik, Vienna/AT
- 02.20 p.m. **Lipid Profile of Erythrocyte Membranes as a Novel Inflammatory Biomarker to Distinguish Metabolically Healthy Obesity in Children for more Precise Nutritional Recommendations**
S. Arranz, Derio/ES, J. Jauregibeitia, K. Portune, Derio/ES, I. Rica, Barakaldo/ES, I. Tueros, Derio/ES, O. Velasco, G. Grau, L. Castaño, Barakaldo/ES, F. Di Nolfo, C. Ferreri, Bologna/IT
- 02.40 p.m. **Hepatic Response to Fatty Acid Treatment: A Study of Lipotoxicity, rescue and Trans Fatty Acids**
J. Gindlhuber, Graz/AT, L. Liesinger, M. Schinagl, Graz/AT, M. Schittmayer, R. Birner-Gruenberger, Wien/AT
- 03.00 p.m. **The Phospholipid Profile of Melanoma-derived Exosomes does not Appear to Influence Cell Osteotropic Propensity**
P. Lopalco, Bari/IT, P. Tanzarella, F. Mannavola, M. Tucci, F. Silvestris, A. Corcelli, S. Lobasso, Bari/IT
- 03.20 p.m. **Closing and Announcement of the 19th Euro Fed Lipid Congress and Expo**
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 J. Ogawa, Kyoto/JP

10.30 a.m. Coffee Break

Contaminants

Meeting room 4

Chairs: Karel Hrnčirik, Klaus Schurz

11.00 a.m. **KEYNOTE LECTURE**
Mineral Oil Contamination in Food: A Comprehensive Journey beyond the Hump
 G. Purcaro, Gembloux/BE

11.40 a.m. **Current Advances in Automated Analysis of MOSH/MOAH for Vegetable Oils and Fats**
 M. Nestola, Sprockhövel/DE

12.00 p.m. **Rapid and High-Sensitivity Determination of Mineral Oil Aromatic Hydrocarbons (MOAH) in Extra Virgin Olive Oil (EVOO): Method Validation and First Results**
 L. Menegoz Ursol, Udine/IT, C. Conchione, A. Srbinovska, S. Moret, Udine/IT

12.20 p.m. **Quantification and Characterization of Mineral Oil in Fish Feed by LC-GC-FID and LC-GC×GC-TOFMS/FID**
 G. Bauwens, Gembloux/BE, G. Purcaro, Gembloux/BE, S. Moret, C. Conchione, Udine/IT

12.40 p.m. Table Top Exhibition – Lunch Break

Chairs: Markus Dierker, Bertrand Matthäus

01.40 p.m. **Flash Poster Presentations**

Meeting room 4

03.20 p.m.

03.20 p.m. **Closing and Announcement of the 19th Euro Fed Lipid Congress and Expo**
 Markus Dierker, Bertrand Matthäus, Karin Schwarz

OTHER CONGRESS EVENTS

Monday, 18 October 2021

12:45 p.m.

Euro Fed Lipid Board Meeting

by invitation only, (zoom meeting)

Wednesday, 20 October 2021

5:30 p.m.

Euro Fed Lipid General Assembly

Euro Fed Lipid members are cordially invited to participate. (zoom meeting)

Friday, 22 October 2021

9:00 a.m. – 6:00 p.m.



9th Virtual Panhellenic Conference of the Greek Lipid Forum

“Current Trends in the Field of Lipids”

We are pleased to announce that the 9th Panhellenic Conference of Greek Lipid Forum “current Trends in Lipids Field” will take place virtually on 22 of October 2021 in parallel with the 18th EuroFed Lipid Congress and Expo.

The aim of the Conference is to bring together researchers from the Academia, Research Institutions and the Food Industry in a forum of sharing knowledge in the field of lipids. The language of the conference is English.

Registration is complimentary.

“Attendants of the 18th EFL Congress can attend the Greek Lipid Forum Conference by using the same connection credentials as for the EFL Congress.

Poster Award

The best posters on display will receive the Euro Fed Lipid poster award - consisting of a one year free subscription to the European Journal of Lipid Science and Technology and 250 Euro in prize money.

The awards are sponsored by Wiley-VCH and Elsevier.

**AOCS**

Contact:

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For more than 100 years, AOCS has promoted the science and technology of lipids in the fats and oils industry through analytical methods, proficiency testing, peer-reviewed technical publishing, and in providing venues for technical discussions and educational opportunities. Learn more at aocs.org.

**Axel Semrau GmbH & Co. KG**

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For almost 40 years, the medium-sized and owner-managed company Axel Semrau has been active in sales and support of special solutions for sample preparation and chromatography as well as application-optimized workstations. The focus is on efficient automation in the laboratory. Axel Semrau integrates hardware of well-known manufacturers or own hard- and software into complete solutions. Especially for food analysis, reliable systems for routine analysis have been developed, for example to determine the content of MOSH/MOAH, MCPD, FAMES or glyphosate in food.

New instrument components and applications are developed by experienced employees in cooperation with leading manufacturers and customers and are therefore strongly application-oriented. Therefore, we can proudly say: "We sense good chemistry!"

**Bruker Optik,**

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 76275 Ettlingen
 Tel. 07243-5042000
 Info.bopt.de@bruker.com

Bruker Optics provides FT-NIR solutions for edible oil producers as well as for processors. To optimize the oil pressing process, the oil seeds as well as the intermediate products, like expellers or extracts can be analyzed for oil and moisture content. Oilseed breeders can obtain valuable additional information like Fatty Acid Profiles, Erucic acid as well as the Glucosinolate content.

In the edible oils and fats a wide number of quality parameters can be analyzed with only one measurement, e.g. Iodine Value, Free Fatty Acids, Trans Fatty Acids and Fatty Acid profiles as well as physical parameters like color parameters. Also, for the olive oil, frying oil and marine oil industry, dedicated application sets are available.

Bruker Optics offers ready-to-use calibrations for edible fats and oils as well as for oil seeds to enable a quick and efficient start.




Clariant

www.clariant.com/OilPurification

1,000+ needs, shaped up into a single solution: Bentonite.

Clariant's Functional Minerals business unit is a world-leading provider of bentonite and synthetic material-based specialty products and solutions. The tailored products are designed to enhance processes in various industries. From mining the raw materials to processing them to tailoring them into customer-specific solutions, we provide you with 360° of service across the entire value chain.

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We at Clariant pride ourselves of having ranges of product solutions in the industry today and our continued investment in developing new solutions to purify edible oils or biofuels for the future.



Desmet Ballestra Oils & Fats Division

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Oils & Fats, Oleochemicals Based on Belgium's De Smet know-how as the world specialist in oilseed and edible oil processing plants, Desmet Ballestra Oils & Fats Division delivers tailor-made engineering and procurement services covering each step of the industry, from oilseed, preparation and extraction to oil processing plants including refining and fat modification processes, as well as oleochemicals and biodiesel technologies. Desmet Ballestra Oils & Fats masters the processing of 40 raw materials, of which soybeans, sunflower seed, rapeseed, groundnuts, cottonseed and palm oil are probably the most popular. The Division has supplied small and large plants to some 1,700 oil millers in 150 countries, covering over 6.000 process sections. Leading edge Research & Development and privileged customer relationship are the key assets of Desmet Ballestra Oils & Fats, which is able to provide to the customers the best technologies through an international network of companies. With its headquarters in Brussels, Desmet Ballestra Oils & Fats is present in all major oils and fats market areas of the world through its integrated business units in Northern and Central America (USA, Mexico), South America (Argentina, Brazil, Colombia), Asia & Far East (PR China, Singapore, Malaysia), India and Europe (Belgium, Turkey, Russia, Spain). Desmet Ballestra Oils & Fats is held in high repute all over the world, and its name stands for experience, innovation, first class project management, customer service and environmental protection policy.



Farmet a.s.

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Farmet a.s., Czech company founded in 1992 is one of the world-wide leading specialist in turnkey projection of pressing shops and feed extrusion technology.

We are strong partner in the field of oilseeds pressing, vegetable oil filtration & refining, feed extrusion and feed milling.

Our product portfolio ranges from individual machines, small plants to large-capacity plants using different presses, extruders with different capacities.

Our hexane free technologies are based on own R&D, production and provide the customers the best cost-effective, economic and environmentally friendly solution.

EXHIBITORS GUIDE



French Oil Mill Machinery Company

www.frenchoil.com

French custom designs, manufactures and supports preparation equipment and mechanical screw presses for the extraction of vegetable oil for food and industrial uses, including biodiesel and other fuels. Our heavy duty and durable equipment has an average life span of over 50 years and operates with maximum productivity and lower processing cost per ton. For 120 years our customers have been satisfied with French's process solutions that meet and exceed industry standards of high quality crude oil and meal and oil extraction efficiencies.

In addition to machinery, French's Innovation Center development laboratory offers a wide variety of testing services utilizing pilot scale and semi-works mechanical screw presses on all types of oil bearing seeds or nuts, and other liquid-bearing solid materials. During the performance trials, French's team of experienced engineers can experiment with a variety of conditioning and shaft temperatures and moistures, press shaft arrangement configurations and more to produce higher quality oil and meal. French can apply the information obtained in the trials to design and supply custom screw presses and other processing equipment that suits each customer's specific processing needs.



Gerstel GmbH & KG

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Since 1967 GERSTEL develops and produces customer focused solutions for automated sample preparation and sample introduction accessories for GC, GC/MS, LC, and LC/MS. GERSTEL technology enhances productivity and significantly improves detection limits; e.g. automated Thermal Desorption and Pyrolysis techniques for the determination of origin and authenticity of products. GERSTEL features full applications support laboratory at headquarters and partner applications laboratories world-wide. The applications team enables GERSTEL to assist customers in automating and applying GC/MS and LC/MS analysis techniques to the solution of real-world challenges.



J. Rettenmaier & Söhne GmbH

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JRS is the global leader in Cellulose Filter Aids and Cellulose based Adsorbents for processing modern oils, fats, and biodiesel.

JRS Cellulose Adsorbents are functionalized Cellulose fibers engineered for the removal of polar contaminants such as soaps, metals, and phospholipids/gums.

Cellulose Adsorbents combine the unsurpassed filterability of Cellulose Filter Aids with superior adsorption properties in just one single product.

Conventional mineral adsorbents (Silica Gel and other Silicates) could be replaced with Cellulose Adsorbents at one third dose. In addition, filter cycle times are tripled.

Used in conjunction with Bleaching Earth, Cellulose Adsorbents improve filter performance significantly while optimizing Bleaching Earth dosing to an absolute minimum.

But there is more:

With the help of Cellulose Adsorbents and more suitable filter screens, Double Pass Bleaching can be optimized for even more effective Filter Cake Bleaching and therefore even lower Bleaching Earth dosing. This lowers the total adsorbent dosing and produces clean, quality oils and fats to meet the most demanding specifications.

Improved Double Pass Bleaching with Cellulose Adsorbents minimizes the formation of 3-MCPD in Palm Oil and maximizes the HVO pretreatment objectives.

EXHIBITORS GUIDE



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LAIX Technologies is a German producer of special laboratory equipment, in particular of automation for the oils and fats industry and of devices for parallel synthesis in the chemical/pharmaceutical industry. Our goal is to make daily routines in the lab more easy and efficient.

From standard instruments to fully customized solutions, we offer complete systems including hardware, software and accessories. In all cases, our solutions blend experience with the most up-to-date technology to create an easy-to-use system that will be an asset to your research, development, QA or production. Our customers operate in various industrial sectors including food, pharmaceuticals, chemicals and biofuels.

We offer a complete service from planning to operation. Our expertise allows us to support you with consulting, design, production, software and service.

We are specialized on auto samplers and temperature dry baths. Highlights of our portfolio are the established SFC-Automation and our automated FatLab. All products comply with international standard methods by AOCS and IUPAC.



Larodan AB

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Larodan makes a comprehensive range of research grade lipids for use as analytical standards with customers all over the world. Our products include all sorts of lipids, from simple fatty acids and methyl esters to complex acylglycerols, sphingolipids and phospholipids. Our customers are involved in academic research or industrial processes in a number of fields including agro, food, nutrition, cosmetics, biofuels, biotechnology, pharmaceuticals. Our facilities are located at the Karolinska Institute in Stockholm, Sweden.

"Larodan is a subsidiary to ABITEC Corporation."



LECO INSTRUMENTE GMBH

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Keit enables better monitoring & control of oil refining with advanced in-line technology - the IRmadillo. The IRmadillo is a robust, mid-infrared liquid process analyser integrated directly into a manufacturing line. The IRmadillo simultaneously measures the concentration of multiple components such as FFA, FAME, water, phosphorus, soaps, glycerol & IV. Because the IRmadillo provides real-time process analysis, Keit helps oil refiners realise better process monitoring resulting in optimisation and more control when other technologies struggle.

EXHIBITORS GUIDE



Maxfry GmbH

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Since 2002, the family-owned company Maxfry® GmbH from Hagen (NRW) has been active in the market as an added value specialist for vegetable oils and fats. Maxfry develops, manufactures and distributes performance-enhancing ingredients for vegetable oils and fats used for deep frying operations in industry and gastronomy. The focus of the improvements on oils and fats is on the one hand the thermal-oxidative stability in the production process and on the other hand the general performance, e.g. in terms of energy/heat transfer.

The philosophy of Maxfry is the exclusive use of plant-based raw materials and the renunciation of genetically modified or synthetic antioxidant ingredients. In addition, Maxfry GmbH also offers analysis services using NIR spectrometry. The offer ranges from the determination of important key parameters for deep-frying fats and oils to more sophisticated and complex tasks like the identification, authentication and comprehensive evaluation of olive oils.



Merck KGaA

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Merck, a leading science and technology company, operates across healthcare, life science and performance materials. Around 56,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From advancing gene-editing technologies and discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices – Merck is everywhere. Scientific exploration and responsible entrepreneurship have been key to Merck's technological and scientific advances.

Merck is the exclusive multinational distributor of the Avanti® Polar Lipids research lipids portfolio for all countries outside the United States, where Avanti continues to support customers locally. These highest purity lipids broaden Merck's comprehensive portfolio of products and solutions for scientific discovery. The collaboration offers customers increased on-demand access worldwide to Avanti® lipidomics, adjuvants, and equipment via Merck's e-commerce platform and expert product support with local sales representatives.

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MILESTONE
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C H E M I S T S

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At Milestone, We Help Chemists 30 Years of experience. 50 Patents. 20,000 Global Users.

At Milestone we help chemists providing the most innovative technology for sample preparation for trace metal analysis and direct mercury analysis. Milestone has been active since 1988 in the field of advanced sample preparation. We are the acknowledged industry leader in microwave instrumentation technology with over thirty patents and more than 20.000 sample preparation instruments installed worldwide covering large and small research institutions, elemental analysis labs as well as universities and industrial laboratories. Our industry-leading technology on sample preparation, in combination with fast, responsive service and applications support, allows Milestone to provide you the highest return on investment possible. Our commitment is to consistently provide scientific and industrial communities with the most effective, safe and productive instruments for Microwave Digestion for ICP analysis, Microwave Extraction, Direct Mercury Analysis, Microwave-Assisted Synthesis and Microwave Ashing.



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Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future.

We call it Rethink Tomorrow. www.novozymes.com



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Oil-Dri's adsorbent products have produced quality edible oils in refineries for over 30 years. Around the world, edible oil processors trust the company's Pure-Flo®, Supreme™ and Perform® bleaching clays for chlorophyll, color bodies and trace metals removal. With Select® adsorbent technology for soaps, metals and phospholipid removal, Oil-Dri offers a full array of sorbent products to oil producers for consistently and optimally meeting specification on a wide variety of oils. All bleaching clay products are backed by world-class technical services at the company's global R&D center and supported by technical sales experts in the field.

EXHIBITORS GUIDE



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Solex provides a robust suite of indirect heat transfer solutions for the oilseeds industry that maximizes production while improving efficiencies in all stages, including:

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OFI International

Contact:

www.oilsandfatsinternational.com

Oils & Fats International (OFI) covers all issues related to vegetable oils and animal fats including feedstocks; commodity trading; renewables; biotechnology, technology & processing; and transport & logistics.

The OFI portfolio offers publishing, events, online exposure and social media connections to the global oils and fats industry.

OFI magazine is published eight times a year and each issue has a total worldwide print circulation of 6,300. Our digital edition and weekly newsletter reaches over 13,000 recipients.

WILEY-VCH

European Journal of
Lipid Science
and Technology

Wiley

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Wiley-VCH, founded in 1921 as Verlag Chemie, is celebrating its 100th anniversary this year. The publishing program covers many areas of the natural sciences - such as chemistry, materials and life sciences, physics, medicine and technology - as well as the field of business. For 25 years now, we have been part of the global publishing group John Wiley & Sons, Inc. based in Hoboken, New Jersey, USA. Founded in 1807, Wiley has served as a key communicator of information and knowledge for more than 200 years.

Cold-pressed Camelina Cake as a Source of Essential Fatty Acids in Animal Nutrition

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The demand for alternative sources of energy and protein in animal nutrition has notably increased in recent decades. Camelina seed and its by-products from oil manufacturing have gained much attention due to the high nutritional value. Therefore, the present paper focuses on determination of fatty acid content in the cold-pressed camelina cake and thus evaluation of its potential as a valuable source of essential fatty acids in animal feeding. For that purpose, camelina cakes were obtained as a by-product from the cold-pressed oil production. Two genotypes of camelina seed (*Camelina sativa*) (NS Zlatka and NS Slatka) were used in this study. The obtained results showed that both cakes had high content of lipids, while NS Zlatka demonstrated higher lipid content (16.1%) than NS Slatka (14.8%). Both camelina cakes had similar content of saturated (SFA), monounsaturated (MUFA) and polyunsaturated fatty acids (PUFA). Among SFA, the most dominant was palmitic acid, followed by stearic, arachidic and myristic acid. Oleic acid and eicosenoic were predominant in MUFA. Eruca acid was found in camelina cakes at the amount of 3.0 and 3.3% for NS Slatka and NS Zlatka, respectively. Over half of the total fatty acids in camelina cakes were constituted of PUFA, of which the highest share were linoleic (n-6) and α -linolenic acid (n-3). The content of linoleic acid was 19.3 and 19.4% while the content of α -linolenic was 35.0 and 34.9% for NS Zlatka and NS Slatka, respectively. n-3 and n-6 fatty acids have beneficial effects on health, and therefore, the inclusion of camelina cake into animal diet is a successful approach to fortify animal lipids with health promoting fatty acids. In conclusion, cold-pressed camelina cake has a huge potential to be included regularly as a feed ingredient rich in nutritionally essential n-3 and n-6 fatty acids.

Acknowledgement: This research was financially supported by Provincial Secretariat for Higher Education and Scientific Research of APV Vojvodina (Project no. 142-451-2297/2021-01/02), as well as by Ministry of Education, Science and Technological Development, Republic of Serbia (Project no. 451-03-9/2021-14/200222).