



# 2019 AOCS Annual Meeting & Expo

May 5–8 America's Center Convention Complex | St. Louis, Missouri, USA

## Live Stream Information

As of 5/02/2019

*This information is subject to change.*

### Live Stream Channels

- <https://www.facebook.com/AOCSFan>
- <https://www.youtube.com/user/AOCS1909>

### Program Guide

- <http://annualmeeting.aocs.org/Documents/Meetings/AM19/AM19-PROGRAM-GUIDE-spcl.pdf>

### Live Stream Schedule

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Saturday, May 4th

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#### Olive Oil Workshop and Tasting Luncheon

8 a.m.–4 p.m. CST | Livestream <https://www.facebook.com/AOCSFan>

Learn about all things olive oil and connect with professionals in the industry during this full-day workshop. Presenters from across the spectrum of international companies involved in olive oil testing will present on health and nutrition, analysis and methods, and authenticity and quality. The day will conclude with a 60-minute olive oil tasting.

8 a.m.            Opening Remarks  
Tullia Gallina Toschi, Università di Bologna, Italy.

8:15 a.m.        Nutritional Aspects of EVOO.  
Natalia Ruiz, Modern Olives, USA.

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- 8:35 a.m. Polyphenols in Olive Oil from Orchard to Bottle.  
Liliana Scarafia, Agbio Lab, USA.
- 9 a.m. Panel Discussion, Q&A
- 9:20 a.m. Networking Break.
- 9:40 a.m. Method for Determination of Geographical Origin of Olive Oil by NMR.  
Torben Kuechler, Eurofins, Germany.
- 10 a.m. Putting a Gate Around High Quality EVOO by 1 H NMR Profiling Databases.  
Francesco Paolo Fanizzi, Inorganic Chemical Division, Italian Chemical Society, University of Salento, Italy.
- 10:20 a.m. Rapid, Targeted NIR Procedure for Assessing EVOO Authenticity.  
Magdi Mossoba, FDA, USA.
- 10:40 a.m. New Developments in Polyphenol Analysis.  
John Reuther, Eurofins, USA.
- 11 a.m. NIR Bench Top Analysis for Olive Oil Pomace Paste and Oil.  
Kangming Ma, Eurofins, USA.
- 11:30 a.m. Panel Discussion, Q & A.
- 1 p.m. EVOO on the Store Shelf — What Does the Consumer See?  
David Neumann, EVOOGuy, USA.
- 1:30 p.m. FCC Identity Standard on Olive Oil Refined.  
Gina Clapper, US Pharmacopeia, USA.
- 1:50 p.m. Combating Fraud in Olive Oil.  
Rod Mailer, Consultant, AU
- 2:10 p.m. Electron Spin Resonance (ESR) for Oxidative Monitoring and Shelf Life Determination of Olive Oil.  
David Barr, Bruker, USA.
- 2:30 p.m. Panel Discussion, Q & A.
- 3 p.m. Sensory Experience.  
Sue Langstaff, Applied Sensory, USA.

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Sunday, May 5<sup>th</sup>

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### 2019 AOCS Lipids School on Lipids and Skin Health

1–4 p.m. CST | Livestream <https://www.facebook.com/AOCSFan>

### Opening Celebration: The Gateway to the Future of Our Industry

4–5:30 p.m. CST | Livestream <https://www.facebook.com/AOCSFan>

Attend this must-see opening session to recognize the achievements of our members. AOCS President Len Sidisky and AOCS President-elect Eric Decker will recognize Society and Scientific Award winners.

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Monday, May 6<sup>th</sup>

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### Ingredient Transparency

10:20 a.m.–12:25 p.m. CST | Livestream <https://www.facebook.com/AOCSFan>

Organizers: Michael Williams, Alkoxylation Technology, Evonik Corporation, USA and Kathleen Stanton, Technical & Regulatory Affairs, American Cleaning Institute, USA.

Transparency is one of the current key issues surrounding new material development for formulated products, and complex due to the necessary balance of companies protecting their intellectual property and the consumers' right to know about what they are using as part of their daily routines. There are government and non-government activities surrounding this work, and currently there are two US states with regulations related to cleaning product transparency; other states may soon follow suit. Not only are the consumers becoming more concerned with product ingredients — spurring voluntary certification programs including USEPA Safer Choice, Green Seal and Ecologo — but retailers are demanding more transparency. How are we going to meet these needs?

- 10:20 a.m.      Opening Remarks
  
- 10:25 a.m.      SmartLabel® Transparency Initiative.  
Julie Savoie, Grocery Manufacturers Association, USA. Julie Savoie, Grocery Manufacturers Association, USA.
  
- 10:45 a.m.      Cleaning Product Ingredient Communication Initiatives.  
Jacob Cassady, American Cleaning Institute, USA.

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11:15 a.m. US EPA's Safer Choice Program.  
Clive Davies, United States Environmental Protection Agency, USA.

11:35 a.m. Panel Discussion, Q&A.

## ANA 1a: Proposed Updates to AOCS Official Methods, including Green Chemistry

1:55–3 p.m. CST | Livestream <https://www.facebook.com/AOCSFan>

1:55 Introduction

2:00 Update of AOCS Ce 6-86 Antioxidants Method and an Overview of the Need for Methods Updates. Mark W. Collison\*, Archer Daniels Midland Co., USA

2:20 Simultaneous GC-FID and MS Analysis of trans-Fatty Acids in Human Plasma. Heather C. Kuiper\*, Emily J. Mueller, and Hubert W. Vesper, CDC, USA

2:40 The Certo Fatty Acid Extraction Method. Adam H. Methereel\*, University of Toronto, Canada

3:00 Oxidation and Its Challenges: Peroxide Value Determination in Solid Non-oil Matrices. B.J. Bench\*, Tyson Foods, USA

## ANA 1b: Selected Analytical Presentations by the Dutton Award Winner

3:40–5:05 p.m. CST | Livestream <https://www.facebook.com/AOCSFan>

3:40 Introduction

3:45 Evolution of Comprehensive Two-Dimensional Gas Chromatography for Non-Target Analysis Applications. John Dimandja, Georgia Institute of Technology, USA-

4:05 Fast GC and GCxGC Approaches to Detailed Fatty Acid Fingerprinting in Natural Fats and Oils. Luigi Mondello\*, University of Messina, Italy (Herbert J. Dutton Award Winner)

4:25 Unexpected Reduced Peak Widths of Partly Transferred Peaks after Heartcut Two-Dimensional Countercurrent Chromatography. Walter Vetter\*, Marco Müller, Medisa Muric, and Lisa Glanz, University of Hohenheim, Germany

4:45 Studies in Multidimensional Gas Chromatographic Separations for Triglyceride and Fatty Acid Analysis. Philip Marriott\*, Monash University, Australia

5:05 NMR Analysis as a Tool to Ensure Authenticity of Lipids. Torben Kuchler\*, Eurofins Analytik GmbH, Germany

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Tuesday, May 7<sup>th</sup>

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## PCP 2a: Emerging Sources of Protein

7:55.–9:40 a.m. CST | Livestream <https://www.facebook.com/AOCSFan>

- 7:55 Introduction
- 8:00 Value-added Applications of Spent Hen as Nutraceuticals and Functional Food Ingredients.  
Hongbing Fan\* (AOCS Honored Student Award Winner) and Jianping Wu, University of Alberta, Canada
- 8:20 Recovering Amino Acids and Peptides in an Integrated Algal Biomass Refinery.  
Tao Dong\*, Nick Nagle, Eric P. Knoshaug, Philip Pienkos, and Lieve Laurens, National Renewable Energy Laboratory, USA
- 8:40 Improvement of Functional and Bioactive Properties with Microwave-Assisted Hydrolysis of Chia Seed (*Salvia hispanica*) Protein.  
Uriel C. Urbizo\*, M. Fernanda San Martín-Gonzalez, Jose G.Bravo, and Andrea M. Liceaga, Purdue University, USA
- 9:00 Introducing Hairless Canaryseeds: An Emerging Source of High-Quality Protein.  
Emily Mason\*, and Lamia L’Hocine, McGill University, Canada; Agriculture and Agri-Food Canada, Canada
- 9:20 Effect of Enzymatic Hydrolysis and Microwave Energy on Allergenicity of Edible Cricket (*Gryllobates sigillatus*) Protein Hydrolysates.  
Andrea M. Liceaga, Philip E. Johnson, and Felicia G. Hall\*, Purdue University, USA; University of Nebraska-Lincoln, USA
- 9:40 Optimization of Process for the Production of a Light-Coloured and Highly Soluble Sunflower Protein Isolate.  
Sara Albe Slabi\*, Christelle Mathé, Melody Basselin, Xavier Framboisier, Arnaud Aymes, Olivier Galet, and Romain Kapel, Reaction and Process Engineering Laboratory UMR-7274, Avril Group, France; Reaction and Process Engineering Laboratory, France; 3LRGP - UMR 7274, France; Reaction and Process Engineering Laboratory UMR-7274, France; Avril Group, France

## EAT 2a/PCP 2b: Plant Protein Utilization in Food Products

7:55.–9:40 a.m. CST | Livestream <https://www.facebook.com/AOCSFan>

- 7:55 Introduction
- 8:00 Globally Harmonized System (GHS) Trend for I&I Cleaners: Surfactants to Help Minimize GHS Pictograms and Classification.  
Ron A. Masters\*, Lela Jovanovich, Tracy Strilich, Luke Jancich, and Sangeeta Ganguly-Mink, Stepan Company, USA

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- 8:20 Shiny and Spotless Dishes with Phosphate-free Formulations.  
Yves Kensicher\* and Alexandra L. Foguth, Coatex SAS, France; Arkema, USA
- 8:40 C20+ Alkoxylates in Industrial Applications.  
Ollie James\* and George A. Smith, Sasol Performance Chemicals, USA; Sasol North America, USA
- 9:00 Ability of Terpene-Based Microemulsions to Remove Asphaltene Residue from Solid Surfaces.  
Eleazar Mendoza, Alyssa Perrard, Helen W. Hernandez\*, Wesley Ehlert, and Siwar Trabelsi, Texas A&M University, USA; Flotek Chemistry, USA
- 9:20 Effect of Reservoir Parameters and Surfactant Structures on Surfactant – Rock Adsorption in Various Rock Types.  
Daniel F. Wilson\*, Laurie A. Poindexter, Carla Morgan, and Thu Nguyen, Sasol North America, USA; Sasol Performance Chemicals, USA
- 9:40 Rapid Identification of Surfactants to Improve Rheological Compatibility and Cleaning of Oil-Based Drilling Muds.  
Carol Mohler\*, Thiago Alonso, Robert Sammler, Valeriy Ginzburg, Stephanie Hughes, Brian Nickless, Anatoly Medvedev, and Yan Gao, Dow Chemical Company, USA; Schlumberger, USA

### EAT 3: Implication of Lipids Structuring in Food Application

1:55.–5:05 P.m. CST | Livestream <https://www.facebook.com/AOCSEan>

- 1:55 Introduction
- 2:00 A Novel Strategy for Increasing Solid Fat Content of Oils without Addition of Saturated or trans Fats or Oil Gelling Compounds.  
Alejandro G. Marangoni\* and Reed A. Nicholson, University of Guelph, Canada
- 2:20 Effect of Various Concentrations of Two Stabilizer Series on Peanut Butter’s Physical and Functional Attributes.  
Rachel E. Mertz, and Donald D. Gifford\*, Stratas Foods, USA
- 2:40 Controlling the Texture of Oil-continuous Systems by Filler Particles.  
Auke de Vries\* and D errick Rousseau, Ryerson University, Canada
- 3:00 Development of Solids in Palm Oil at Varying Cooling Temperatures.  
Neil R. Widlak\*, Consultant, USA
- 3:20 Networking Break
- 3:40 Welcome Back
- 3:45 Structuring Lipids Through Enzymatic Glycerolysis.  
Reed A. Nicholson\* and Alejandro G. Marangoni, University of Guelph, Canada
- 4:05 Effect of Storage Time on Physical Properties of Sonocrystallized All-purpose Shortening.  
Juhee Lee\*, Melissa Marsh, and Silvana Martini, Utah State University, USA

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- 4:25 Application of Spray-dried Oil Powder in Oil-in-Fat Dispersions.  
Iris Tavernier, Bart Heyman, Tony Ruysen, Paul Van Der Meeren, Filip Van Bockstaele\*, and Koen Dewettinck, Ghent University, Belgium; Vandemoortele Lipids R&D, Belgium; University of Gent, Belgium
- 4:45 Sensory Evaluation and Physical Properties of Wax-Stabilized Peanut Butter.  
Jill Moser\*, Julie Anderson, Hong-Sik Hwang, Jeffrey A. Byars, and Mukti Singh, USDA, ARS, NCAUR, USA
- 5:05 Practical Experiences on Fat Crystallization in Food and Nonfood Industry.  
Jose Trujillo\*, Chemtech, Peru

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Wednesday, May 8<sup>th</sup>

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### ANA 4a: Trace Contaminants

7:55–9:40 a.m. CST | Livestream <https://www.facebook.com/AOCSFan>

- 7:55 Introduction
- 8:00 Managing Chemical Contaminants in Foods: A Review of Selected Chemicals and Mitigation Strategies.  
Richard Stadler\*, Nestlé Research, Switzerland
- 8:20 Estimated Exposures to 3-MCPD Esters and Glycidyl Esters from U.S. Consumption of Infant Formula.  
Judith Spungen\*, FDA, USA
- 8:40 MCPD and Glycidyl Esters - Present and Future EU Legislation, Implementation in German Risk Management.  
Martin Kaminski\*, Federal Office of Consumer Protection and Food Safety, Germany
- 9:00 Opportunities and Drawbacks in the Mitigation of 3-MCPD- and Glycidylesters.  
Nils Hinrichsen\*, Archer Daniels Midland, Co., USA
- 9:20 Quantification of MCPDE and GE in Edible Oils and Fats: A High Throughput Method for QC Purposes.  
Ralph P. Zwagerman\* and Pierre Overman, Bunge Loders Croklaan, The Netherlands
- 9:40 Stability of Food Contaminants 3-MCPD-, 2-MCPD- and Glycidyl Fatty Acid Esters in Foods During Long-Term Storage.  
Jan Kuhlmann\*, SGS Germany GmbH, Germany

### ANA 4b: Authentication of High Value Oils, including Olive Oil, Sensory Evaluation and Correlation with Analytical Results

10:20 a.m.–12:45 a.m. CST | Livestream <https://www.facebook.com/AOCSFan>

- 10:20 Introduction

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- 10:25 Assessment of Authenticity of Blended Oil by Triacylglycerols and Chemometrics Tools.  
Hong Yang\*, Wen Ming Cao, and Yuan Rong Jiang, Wilmar Biotechnology Research & Development Center (Shanghai) Co., Ltd., China
- 10:45 Flash Gas-Chromatography in Tandem with Chemometrics: A Screening Tool to Discriminate the Olive Oil Quality.  
Alessandra Bendini\*, Chiara Cevoli<sup>1</sup>, Sara Barbieri, Diego L. García González, and Tullia GT Gallina Toschi, DISTAL University of Bologna, Italy; Instituto de la Grasa (CSIC), Spain; Alma Mater Studiorum -University of Bologna, Italy
- 11:05 Putting a Gate Around High Quality EVOOs from Specific Origins by 1H NMR Profiling Databases.  
Chiara Roberta Girelli, Laura Del Coco, Federica Angilè<sup>2</sup>, Francesca Calò, Paride Papadia, Andrea Biagianti<sup>4</sup>, Daniele Barbini, and Francesco Paolo Fanizzi\*, Dept. of Biological and Environmental Sciences and Technologies (Di.S.Te.B.A.), University of Salento,, Italy; Dipartimento di Scienze e Tecnologie Biologiche ed Ambientali Università del Salento, Italy; Dipartimento di Scienze e Tecnologie Biologiche ed Ambientali Università del Salento Italy; Certified Origins Italia Srl Loc. Madonnino, Italy
- 11:25 A New Identity Standard for Olive Oil Refined.  
Gina M. Clapper\*, Kristie Laurvick, and Richard C. Cantrill, USP, USA; Independent Consultant, Canada
- 11:45 Olive Oil Authentication Using Raman Spectroscopy Combined with Pattern Recognition Analysis.  
Didem P. Aykas\* and Luis E. Rodriguez-Saona, Ohio State University, USA
- 12:05 Near-Infrared Spectroscopy as a Rapid Screening Technique to Determine Authenticity and Adulteration of Avocado Oil.  
Kathryn J. Lawson-Wood\*, Hannah Rance, and Ariel Bohman, PerkinElmer, UK; PerkinElmer, USA