

SFC 2023 Schedule

Sunday, May 14 Hotel Victoria, Basel

9:30-10:00 SFC Short Course Registration

10:00-5:30 SFC Short Course

Monday, May 15, Novartis Pavilion, Basel

8:00 Registration

8:30 **Welcome and Opening Remarks.** Larry Miller¹, Rene Wyler², ¹Green Chemistry Group-
²Novartis

8:40 **Supercritical Fluids and Green Foodomics: The Perfect Match.** Elena Ibanez¹, G. Dominguez-Rodriguez¹, R. Gallego¹, A. Valdies¹, M. Herrero¹, J.A. Mendiola¹, F. Parada-Alfonso², A. Cifuentes¹, ¹Laboratory of Foodomics, Institute of Food Science Research, CIAL, CSIC, Madrid, Spain, ²Universidad Nacional de Columbia

9:05 **From Temperature Controlled Chip-HPLC to SFC on Chip.** Detlev Belder, Leipzig University

9:30 **Column Head Loading With Small Volume Multiple Injections– A Unique Sample Injection Technique for Polar Heterocycles in SFC.** Deviprasad Rendedula, Muralidharan Kaliyeperumal, Aragen Life Sciences

9:50 **Exhibition/Coffee Break**

10:30 **UHPSFC/MS in High-throughput Lipidomic Quantitation of Clinical Samples.** Michal Holcapek, University of Pardubice, Czech Republic

10:55 **SFC As a Highly Efficient Tool for Development and Production of Highly Pure Lipid Nanoparticle (LNP) Building Blocks.** Markus Juza¹, Nicolas Spinner¹, Sebastien Thomas², ¹Corden Pharma Switzerland LLC, ²Corden Pharma France

11:15 **Suitability of Supercritical Fluid Chromatography for Impurity Profiling of Oligonucleotide.** Momoka Hayashida¹, Risa Suzuki², Shinnosuke Horie³, Junichi Masuda², Takao Yamaguchi¹, Satoshi Obika¹, ¹Osaka University, ²Shimadzu Corporation, ³Shimadzu Europa GmbH

11:35 **Vendor Workshop/Lunch**

12:35 **Exhibition**

13:30 **Green Chemistry, The Sustainability Pendulum, and the Circular Economy.** John Warner, Warner Babcock Institute for Green Chemistry

14:10 **SFC: An Eco-Sustainable Technique to Produce High-Quality APIs and Hemp Ingredients.** Gerard Rosse, PIC Solution, Inc.

14:30 **Separation of Natural (non-polar) Compounds by Reverse-Phase Supercritical Fluid Chromatography.** Eric Lesellier, Sirine Atwi-Ghaddar, Emilie Destandau, ICOA

14:50 **Method development and Identification of Triacylglycerol species in Palm Oil with Supercritical Fluid Chromatography.** Horie Shinnosuke¹, Kosuke Nakajima², Gesa Schad, ¹Shimadzu Europa GmbH, ²Shimadzu (Asia Pacific) Pte. Ltd.

15:10 **Poster Session/Coffee Break**

- 16:10 **SFC for Pharmaceutical Quality Control: Opportunities, Challenges, and Fears.** Amandine Dispas¹, Hugues Jambo¹, Adrian Clarke², Jean-Luc Veuthey¹, Davy Guillarme³, Philippe Hubert¹, ¹University of Liege, ²Novartis, ³University of Geneva
- 16:30 **Achiral Chemical Derivatization in Combination with Supercritical Fluid Chromatography Improves Resolution of Stereoisomers.** Hermes Licea Perez, GlaxoSmithKline
- 16:50 **Dual-Gradient Unified Chromatography: An Advance SFC-based Framework for Versatility in Simultaneous Multicomponent Analysis.** Erik Regalado¹, Gioacchino Luca Losacco², Raffael Bennett¹, Imad Haidar Ahmad¹, Rodell C. Barrientos¹, ¹Merck, ²Abbvie
- 17:10 **Small molecule purification using achiral-chiral tandem columns by supercritical fluid chromatography for drug discovery.** Lizeth Elkins, Neurocrine Biosciences,
- 18:00 **Cocktail Reception**, Hotel Victoria, Basel

Tuesday, May 16, Novartis Pavilion, Basel

- 8:00 **Registration**
- 8:30 **SFC, A Well-Established Technique In Our Separation Lab in Basel.** Marie-Anne Lozach, Novartis
- 8:55 **Supercritical Fluid Chromatography as a Sustainable Tool for Large Scale Purifications.** Kristina Ohlen, Astrid Buica, Hanna Leek, AstraZeneca
- 9:15 **Separation Science Point - SSP. A Service for Medicinal Chemistry at Roche Innovation Center, Basel.** David Wechsler, Hoffman LaRoche
- 9:35 **Poster Session/Coffee Break**
- 10:35 **Carotenoid and Apocarotenoid Analysis by SFE-SFC-QqQ/MS.** Luigi Mondello, Mariosimone Zoccali, University of Messina
- 11:00 **Applications of Supercritical Fluid Simulated Moving Bed in Natural Products and Its Scaleup for Fish Oil Production.** Xiaoqing Bao, JOPE Technology Co.
- 11:20 **Development of Selective Supercritical Fluid Extraction (SSFE) on Natural Plant Compounds for Cosmetic Applications.** Sirine Atwi-Ghaddar, Emilie Destandau, Eric Lesselier, ICOA
- 11:40 **Advancing Stereoisomeric Separation by Using Sub-2 μ m Chiral Columns in Supercritical Fluid Chromatography and Performance Comparison between Sub-2 μ m and Conventional Polysaccharide-Based Chiral Columns.** Brian He¹, Ling Zhang¹, Nicole G. Kleinsorge², ¹Bristol Myers Squibb, ²University of Michigan
- 12:00 **Vendor Workshop/Lunch**
- 12:45 **Exhibition**
- 13:40 **Insights in the Effective Diffusion in Supercritical Fluid Chromatography.** Ken Broeckhoven, T. Januarius, S. Deridder, G. Desmet, Vrije Universiteit Brussel, Novel
- 14:00 **Identification of Glycerophospholipid Species in Food and Biological Matrices by Supercritical Fluid Chromatography Coupled with High-Resolution Mass Spectrometry.** Francesca Giuffrida, Isabelle Tavazzi, Nestle Research

- 14:25 **Applicability of SFC-MS in Routine Doping Control.** Ivana Gavrilovic¹, Bernhard Wust², Jonathan Danaceau³, Emmanuelle Braidman⁴, Xavier de la Torre⁵, Francesco Botre^{5,6}, Maria Kristina Parr⁷, David A. Cowan⁸, ¹Drug Control Centre, King's College London, ²Agilent Technologies GmbH, ³Waters Corporation, ⁴Shimadzu UK Limited, ⁵Laboratorio Antidoping FMSI, ⁶REDS, ISSUL, ⁷Freie Universitat Berlin, ⁸Kings College London
- 14:45 **Advantages of Life Cycle Management for SFC-MS/MS Based Methods for Doping Control Analysis.** Maria Kristina Parr¹, Bernhard Wust², Ivana Gavrilovic³, Edgar Nagele², Alexander Schmidt⁴, Xavier de la Torre⁵, Francesco M. Botre⁵, David Cowan⁶, ¹Freie Universitat Berlin, ²Agilent Technologies GmbH, ³Drug Control Centre, King's College London, ⁴Chromicent GmbH, ⁵Laboratorio Antidoping FMSI, ⁶Kings College London
- 15:05 **Coffee Break**
- 15:35 **Advantages of SFC-MS in the Analysis of Agrochemicals and Performance Assessment using Derringer Desirability Functions.** Rebecca Baker¹, John Langley¹, Rachel Greenhill¹, Chris Howson², Lorraine Ezra², ¹University of Southampton, ²Syngenta,
- 15:55 **SFC-FTICR and On-line RPLC x SFC-qTOF as Complementary Techniques for Bio-oils Characterization.** Jason Devaux¹, Melanie Mignot¹, Florent Rouviere², Isabelle Francois³, Sabine Heinisch², Carlos Afonso¹, ¹COBRA, Universite de Rouen-Normandie, ²Institut des Sciences Analytiques, Universite de Lyon, ³Chromisa Scientific
- 16:15 **Tackling the Complexity of Polymer Analysis by SFC-MS.** John Langley, University of Southampton
- 16:35 **Development of UHPSFC-MS Assays to Analyse Potential Biomarkers in Sweat.** Julie Herniman, Peter Worsley, Rachel Greenhill, University of Southampton
- 16:55 **Closing Remarks.** David Pinkston¹, ¹Green Chemistry Group