

TECHNICAL PRESENTATIONS – THURSDAY, MAY 9, 2019

8:30
9:00

Introduction / Undergraduate Award / Palmer Award
Keynote Address: Professor William Arnold
 Dept. of Civil, Environmental & Geo-Engineering, University of Minnesota
**“From Identifying Reaction Products to Suspect Screening,
 Chromatography Enables Environmental Analytical Chemistry”**

10:00

Morning Break - EXHIBITS AND POSTERS - CARRIAGE HALL

Time	Captain's Room	Tack A (lower level)	Tack B (lower level)
	HPLC: Reproducibility		
10:40	2019 L.S. Palmer Awardee:		
11:00	Dr. Paul R. Mahaffy Director, Solar System Exploration Division, NASA <i>Discovery of Organics on Mars with the SAM Experiment on the Curiosity Rover</i> 1		
11:20	Question and Answer Session		
11:40	LUNCH (11:40-1:00)		
	Clinical & Drug Testing	Environmental Testing	MCF Undergraduate Research Awardees
1:00	Clinical Applications of Mass Spectrometry	Perfluoroalkyl Substances (PFAS) by Ion Mobility Spectrometry-Mass Spectrometry (IMS-MS) James N. Dodds 4	Analysis of Dimethyl Trisulfide, in Whole Blood by Dynamic Headspace GC-MS Subrata Bhadra 8
1:20	Ravinder Jit Singh Mayo Clinic 2	Performing Targeted PFAS Using the Latest QQQ Technology in Increasingly Complex Matrices. John Sausen 5	Indirect Photolytic Degradation of Contaminants in the St. Louis River as Quantified by HPLC Joseph Herri 9
1:40	A Haze of Confusion; Unrolling the Challenges of CBD in the Drug Testing Laboratory	Characterization of Complexity of Polycyclic Musk Galaxolide using HPLC-UV and HPLC-MS Amy Crawford 6	Synthesis of Standards for the LC-MS Quantitation of Methylenedianiline Jennifer Luhman 10
2:00	Gregory C. Janis MedTox Laboratories 3	Nitrosodipropylamine In Drinking Water: Extractive Stirrer (ICECLES) and Low-Resolution GC-MS Joseph K. Dzisam 7	LCMS Determination of Cellular DNA Oxidative Damage from UV Stress Jack Queenan 11
2:20	Question and Answer Session		Metabolic Profiling of Fragaria Vesca with UHPLC and SPE Sam Gentle 12
2:40	AFTERNOON BREAK (2:40-3:00)		
	USP Impurity Testing	2D-LC	
3:00	Modernization of Organic Impurities Testing in USP Monographs	Multidimensional Chromatographic Approaches for Analysis of Biopharmaceuticals Gabriel M. Leme 14	Developing LC-MS/GC-MS Workflows to Study Dysregulated Lipid Metabolism Christian Toonstra 17
3:20	Antonio Hernandez-Cardoso USP 13	Is HILIC Viable as a Second Dimension Separation in Two-Dimension Liquid Chromatography? Claudia Seidl 15	GC Analysis of Formaldehyde and Acetaldehyde with Post-Column Catalytic Hydrogenation and FID Tommy Saunders 18
3:40	Question and Answer Session	Effect of Buffer Preparation on Reproducibility of Retention in RP-HPLC Devin Makey 16	
4:00	LATE-AFTERNOON BREAK & PRIZE DRAWING		

***** 2019 MCF Spring Symposium - Posters *****

Poster #1

**COMPREHENSIVE CHARACTERIZATION OF EXTRACTABLE LIGNIN
WITH THERMAL DESORPTION-PYROLYSIS METHODS**

LACY LILLEBOE (1), JESSICA EMOND (1), BIN YAO (1), ERIN TIEDE (1), AUDREY
LAVALLIE (1),
SUROJIT GUPTA(2), EVGUENII KOZLIAK (1), ALENA KUBÁTOVÁ (1)

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(2) Department of Mechanical Engineering, University of North Dakota, Grand Forks, ND

Poster #2

**DEVELOPMENT OF A LC-MS/MS METHOD
FOR SIMULTANEOUS DETECTION AND ANALYSIS OF THREE
ANTIEPILEPTIC DRUGS**

USHA MISHRA

Center for Orphan Drug Research
College of Pharmacy, University of Minnesota