

2025 Technical Oral Program

MONDAY MORNING, NOVEMBER 17

BREAKFAST LECTURE

Sponsored by ACCTA, Inc.
Monday, November 17, 7:30 AM

Career Options for Women Chemists Part 1
Dr. Kate Jackson, Colgate Palmolive Company
Dr. Monica Joshi, West Chester University of PA

All registered Full Conferees & Full-Time Student Conferees are invited to attend.
A light breakfast will be offered before the lecture.

Time	Title, Author(s)
Powerful Biopharma Separations Without the Use of A Columns <i>Sponsored by Chromatography Forum of DE Valley</i> Chair: Ray McLain, Merck & Co., Inc.	
9:00am	Demystifying AUC: A Multi-Attribute Platform Technology for Biologics, Lake Paul, BioAnalysis LLC
9:30am	AF4 Method Development for Vaccine Analysis, Troy Halseth, Merck & Co., Inc.
10:00am	Break
10:30am	A Tale of Tails: Using the Power of Capillary Electrophoresis for the Analytical Characterization of mRNA, Deanna Di Grandi, Regeneron
11:00am	RNA on the Run: Sprinting to Separation with Ion Mobility, Marcelino Varona-Ortiz, Chris Crittenden, Genentech
Multidimensional Separations for Complex Sample Analysis <i>Sponsored by ACS Division of Analytical Chemistry</i> Chair: James Grinias, Rowan University	
9:00am	<i>Understanding Olefin Content in Complex Samples via Multidimensional Separations</i> , Petr Vozka, Genesis Barzallo, Hung Gieng, Ananya Sharma, Jyotika Patel, University of California-Los Angeles
9:30am	<i>Monitoring Time Course Trends of Food Spoilage in Tomato Samples with GCxGC and ChromaTOF Sync Alignment Software</i> , Elizabeth Humston-Fulmer, Joseph Binkley, LECO Corporation
10:00am	Break
10:30am	<i>The Full Transcript: Comprehensive mRNA Profiling with an Online Multiplexed Multidimensional LC Platform</i> , Daniel Nguyen, Kelly Zhang, Peter Yehl, Alexandre Goyon, Genentech
11:00am	<i>Implementing Multivariate Statistics for Analyzing Multidimensional Kombucha Data</i> , Sarah Foster, Katelynn Perrault Uptmor, William & Mary, Ian Buhner, Laura Tipton, James Madison University
Research from our Emerging Forensic Scientists <i>Sponsored by New Jersey Association of Forensic Scientists</i> Chair: Monica Joshi, West Chester University of PA	
9:00am	<i>The Application of ATR-FTIR Spectroscopy for the Identification of Cosmetic Foundations on Cloth</i> , Jaden Force, Kelly Elkins, Towson University
9:30am	<i>Decomposition Analysis Using Differing Data Processing Methods to Identify Volatile Organic Compounds and Provide New Ways to Use Water as Evidence in Casework</i> , Virginia Weina, Katelynn Perrault Uptmor, College of William & Mary
10:00am	Break
10:30am	<i>Illicit Pill Profiling: Chemical Trends in Fentanyl Tablets from the Southwest Border</i> , Macenzie Powell, Mandi Mohr, Barry Logan, MJ Menendez, Mia Borrelli, Alexandra Kuchinos, Madison Schackmuth, The Center for Forensic Science Research & Education
11:00am	<i>Direct Analysis in Real Time- Mass Spectrometry as a Technique for Rapid Drug Analysis and Near Real-Time Surveillance of the Illicit Drug Landscape</i> , Elise Pyfrom, Edward Sisco, Meghan Appley, Elizabeth Robinson, National Institute of Standards and Technology
Advanced Chemometric Approaches for Hyperspectral Imaging <i>Sponsored by SAS Delaware Valley</i> Chairs: Caelin Celani, Helder Carneiro, University of Delaware	
9:00am	<i>Instrumentation and Algorithms for Photothermal Infrared Hyperspectral Microscopy</i> , Garth Simpson, Purdue University
9:30am	<i>Machine Learning and Hyperspectral Imaging to Accelerate Pharmaceutical Process Development</i> , Joseph Smith, Merck & Co., Inc.
10:00am	Break
10:30am	<i>Clustering Hyperspectral Spectra via Subspace Clustering</i> , David Hong, Suhas Cristy Mathey, Roxanne Radpou, University of Delaware
11:00am	<i>Mapping Strain Effects in 2D Ga2Se2 via Hyperspectral Imaging</i> , Lottie Murray, Helder Carneiro, Caelin Celani, Eric Herrmann, Karl Booksh, Xi Wang, Matthew Doty, University of Delaware

2025 Technical Oral Program

Monday Morning continued

Better Together: Solving Difficult Problems by Combining Vibrational Spectroscopy with Other Techniques Sponsored by The Coblenz Society Chair: Nancy Jestel, SABIC	
9:00am	<i>Assessing Drug Product Structure after Induced Stresses by Raman Spectroscopy and cIEF/MS</i> , Diana Novo, Colin Fitzpatrick, Riley Schaefer, Kristen Nields, Karin Balss, Johnson and Johnson
9:30am	<i>Monitoring the Imidization of Poly(amide acid) Films by TGA-IR</i> , Michael Hall, SABIC
10:00am	Break
10:30am	<i>Regenerative Electroactive Self-Assembled Layers: A Spectroscopic and Mechanistic Investigation on Reversible Non-Covalent Interactions</i> , Nico Maldonado, Caroline Hou, Anna Wuttig, University of Chicago
11:00am	<i>Capturing Transformations in Soft-Matter via Mashups of Rheology, Raman Spectroscopy and Optical Microscopy</i> , Kalman Migler, National Institute of Standards and Technology

Harnessing Imaging Mass Spectrometry for Enhanced Drug Development Chair: Ines Santos, Bristol Myers Squibb	
9:00am	<i>Mitigating Kidney Toxicity Risk and Prioritizing Drug Candidates Using MALDI Mass Spectrometry Imaging</i> , Bingming Chen, Merck & Co., Inc.
9:30am	<i>Targeted High Spatial Resolution Metabolite Imaging using DESI on Tandem Quadrupole MS</i> , Bindesh Shrestha, Waters Corporation
10:00am	Break
10:30am	<i>Implementation of DESI-MSI as a Shared Resource for Untargeted and Targeted Small Molecule Analysis</i> , Christina Ferreira, Purdue University
11:00am	<i>Investigation of Localised Tissue Immune Response to Intramuscular Drug Treatment with a Mass Spectrometry Imaging-Based Spatial Multi-Omics Approach</i> , William Hardesty, Fang Xie, Eliot McKinley, Reid Groseclose, GSK, Heath Patterson, Wanqiu Zhang, Maria Mantas, Alice Ly, Nico Verbeeck, Marc Claesen, Aspect Analytics

Struggles in Management Chair: Denis Swijter, ALMA	
9:00am	<i>Conflict Resolution</i> , Scott Hanton, Lab Manager Magazine
9:30am	<i>The Changing Workforce: New Facets of Old Problems</i> , Catherine Smith, ASR (Arkema)
10:00am	Break
10:30am	<i>Dealing with Difficult People</i> , Dwayne Henry, Montgomery College
11:00am	<i>Keeping Up Morale in the Lab</i> , Scott Hanton, Lab Manager Magazine

Analytical Risk Management and Regulatory Strategies for Method Development and Compliance Chair: Mariann Neverovitch, Bristol Myers Squibb	
9:00am	<i>Don't Ignore These Warning Signs of Potential Phase 3 Analytical Validation Failures</i> , Michael Spangler, Spangler Consulting LLC
9:20am	<i>Analytical Target Profile: An Introduction and its Strategic Link to Quality Target Product Profile and Analytical Life Cycle Management</i> , Partha Mukherjee, Amicus Therapeutics
9:40am	<i>Mapping Key Elements in the Current ICH and USP Guidances to an Enhanced Workflow for Analytical Procedure Development</i> , Richard Verseput, S-Matrix Corporation
10:00am	Break
10:30am	<i>Simultaneous Targeted, Non-Targeted Per- and polyfluoroalkyl Substances (PFAS) Screening as Part of Extractables Screening for Pharmaceutical Packaging, Manufacturing Components, and Medical Device by LC-HRAM-MS</i> , Rajesh Chennamshetti, SGS Pharma
10:50am	<i>Optimizing Trace Metals Analysis: Advanced Sample Preparation and Microwave Digestion Techniques for Food and Environmental Samples</i> , Alicia Stell, Elaine Hasty, Macy Harris, CEM Corporation
11:10am	<i>Batch Process Understanding (BPU) Refines a Method for Process Patent Protection (PPP) via Natural-Abundance Stable Isotopes</i> , John Jasper, Molecular Isotope Technologies, LLC, Anthony Sabatelli, Wiggin and Dana LLP, Ann Pearson, Department of Earth and Planetary Sciences

2025 EAS Technical Oral Program

Monday Afternoon continued

MONDAY AFTERNOON, NOVEMBER 17

Supercritical Fluids as Sustainable Solvents Sponsored by Chromatography Forum of DE Valley Chair: Mary Ellen McNally, FMC Corporation	
1:30pm	<i>Beyond Conventional Methods: Leveraging SFC for Faster, Greener and More Efficient Pharmaceutical Analysis</i> , Michael Hicks, Haley Herderschee, Melissa Skuriat, Sima Sakhaei, Henry Sanders, Alison McQuilken, Timothy Nowak, Merck & Co., Inc.
2:00pm	<i>Development and Validation of a Supercritical Fluid Chromatographic Method for Quantitation of the Active Enantiomer in Indoxacarb End-Use Product</i> , Xiaoyan Wang, Danielle Sasdelli, Emily Gabriele, Mary Ellen McNally, FMC Corporation
2:30pm	Break
3:00pm	<i>High Throughput Analysis Applications (using SFC/MS)</i> , William Farrell, Virscidian, LLC
3:30pm	<i>Multi-Target Surrogate Optimization for Supercritical Fluid Extraction - Supercritical Fluid Chromatography - Mass Spectrometry of Drug Compounds</i> , Kevin Schug, Niray Bhakta, Jaivardhan Sood, Yujing Yang, Chen Kan, Jay Rosenberger, Victoria Chen, University of Texas-Arlington

Providing Industry with Practical Analytical Chemistry Skills Sponsored by SAS New England Chair: Ellen Miseo, Miseo Consulting	
1:30pm	<i>Hard and Soft Skills I Rely on but Don't Remember Being Taught in School</i> , Nancy Jestel, SABIC
2:00pm	<i>The Depth of the Undergraduate Lab Experience at a Large University</i> , Zachary Rhoden, The Pennsylvania State University
2:30pm	Break
3:00pm	<i>Preparing Undergraduates for Next Steps Beyond College: What's the Same and What's Changed after 25+ Years at a Small Liberal College</i> , Mary Kate Donais, Saint Anselm College
3:30pm	<i>Education is Everyone's Responsibility, Especially the Societies</i> , Ellen Miseo, Miseo Consulting, Stephanie Shaffer, MJH Life Sciences

Small Molecule Characterization and Protein Conformational Studies by Ion-Mobility Mass Spectrometry Chair: Srinivas Chakravartula, Rutgers, The State University of New Jersey	
1:30pm	<i>Mapping your Life and Everything Else: The Promise of High Dimensional Phenomics</i> , John McLean, Vanderbilt University
2:00pm	<i>Ion Mobility-Enhanced Lipidomics Reveals the Role of Diacyl-Phosphatidylcholine in Ferroptosis</i> , Fereshteh Zandkarimi, Columbia University
2:30pm	Break
3:00pm	<i>Advancements in Ion Mobility Spectrometry Measurements for Native Protein Mass Spectrometry</i> , Rachel Buckley, Lauren Aleksunes, Brian Buckley, Rutgers University, David Clemmer, Indiana University
3:30pm	<i>Protein Charge State Confirmation Studies on LC-ESI-MS and Ion Mobility Mass Spectrometry-A Comparative Study</i> , Srinivas Chakravartula, Rutgers, The State University of New Jersey

Advanced Spectroscopic and Imaging Tools Enabling the Design of Complex Drug Products Chair: Maple Wang, Yongchao Su, Merck & Co., Inc.	
1:30pm	<i>Interfacial Phenomena in Lipid Nanoparticle (LNP) Systems</i> , Yulia Eygeris, Gaurav Sahay, Oregon State University
2:00pm	<i>Innovative Techniques to Unravel the Needle Clogging for High Concentration Formulation Delivery</i> , Guangli Hu, Merck & Co., Inc.
2:30pm	Break
3:00pm	<i>Connecting Complex Drug Product Design Space with In Vitro and In Vivo Performance through Image-based Prediction</i> , Shawn Zhang, Josh Lomeo, Phil Yawman, DigiM Solution LLC
3:30pm	<i>Quantitative Morpho-Chemical Imaging of Subvisible Particles in Biopharmaceutical Formulations</i> , Dan Fu, University of Washington

Advances in Forensic Chemistry: Solving Practical Challenges in the Crime Lab Chair: Tom Brettell, Cedar Crest College	
1:30pm	<i>Polydrug Case Examples Containing Novel Psychoactive Substances (NPS) in the United States Drug Supply</i> , Mia Borrelli, Amanda Mohr, Barry Logan, The Center for Forensic Science Research & Education
2:00pm	<i>Applications of Chemometrics to NPS Drug Analysis</i> , Jennifer Bonetti, Virginia Department of Forensic Sciences, Arian van Asten, Saer Samanipour, University of Amsterdam
2:30pm	Break
3:00pm	<i>Advancing Nontargeted Analysis with GCxGC Using a Sustainable Approach</i> , Kira Fisher, Katelynn Perrault Uptmor, College of William & Mary
3:30pm	<i>Forensic Applications Using GC/FTIR with Light Pipe Technology to Acquire Infrared Vapor Phase Spectra</i> , Lewis Smith, County of Cape May Prosecutor's Office Forensic Laboratory

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Monday Afternoon continued

Analytical Strategies for Nitrosamines and Impurity Control in Pharmaceuticals Chair: Leonel Santos	
1:30pm	<i>Nitrosamines: Explaining Why Ranitidine HCl Degrades in the Solid State</i> , Eric Munson, Jianchao Xu, Purdue University
1:50pm	<i>Establishing a Robust Analytical Technique for Ultralow Nitrite Detection and Quantification in Pharmaceutical Excipients</i> , Syamantak Roy, Kelly Blundin, Edward Mularz, Junyong Jo, Merck & Co., Inc.
2:10pm	<i>LC-MS Screening of Nitrosamines using Superficially Porous Particle Columns</i> , Stephanie Schuster, Joshua McBee, Conner McHale, Peter Pellegrinelli, Advanced Materials Technology, Inc.
2:30pm	Break
3:00pm	<i>A Holistic Approach to Life Cycle Management of Nitrosamine Drug Substance Related Impurity in Pharmaceutical Products: Guidance and Case Study</i> , Partha Mukherjee, Xin Yao, Sheela Sitaraman, Jon Brudvig, Jeff Castelli, Saroj Ramdas, Amicus Therapeutics
3:20pm	<i>Using High pH LCMS Conditions for Impurity Characterization of GLP-1 Therapeutics</i> , Joshua McBee, Barry Boyes, Advanced Materials Technology
3:40pm	<i>Reliable Analysis of Genotoxic Impurities Using Ultrahigh-Resolution MRR</i> , Alexander Mikhonin, Dreka Burgess, Voislav Blagojevic, Ann Adele Byers, Reilly Sonstrom, Steven Shipman, Justin Neill, BrightSpec, Inc.

Innovation Meets Regulation: How to Make our Life Better and Safer Sponsored by Amgen Chair: Jason Shen, Insmed Inc.	
1:30pm	<i>Pharmaceutical Regulations: An Overview for the Analytical Chemist</i> , Leon Doneski, Arcutis Biotherapeutics
2:00pm	<i>Analytical Testing to Support the Development of Novel Combination Products</i> , Keith Faucher, Aura Bioscience
2:30pm	Break
3:00pm	<i>Elevating Quality and Compliance with Transformative Software Solutions</i> , Tracy Hibbs, Waters Corporation
3:30pm	<i>Navigating the Future - Some Regulatory Considerations for Implementing Innovative Analytical Technologies in Pharmaceutical Manufacturing</i> , Ting Wang, Nina Cauchon, Paul Kirwan, Marisa Joubert, Marquerita Algorri, Brian Bell, Robert Soto, David Semin, Amgen

Spectroscopy and Sensors for Complex Materials and Environmental Systems Chair: Shirley Fischer-Drowos, Widener University	
1:30pm	<i>Lego Blocks and Raman Spectroscopy: Evaluation of Advanced Data Collection Techniques</i> , Richard Crocombe, Crocombe Spectroscopic Consulting, Peter Larkin, Syensqo, Pauline Leary, Noble, Inc., Noble, Inc., Mary Kate Donais, St. Anselm's College
1:50pm	<i>Analytical and NMR Studies on the Photodegradation of Plant Chromophores</i> , Kamrun Nahar, Serah Essang, Akshaya Iyer, Alexander Greer, Brooklyn College
2:10pm	<i>Composition and Structure of Fluorinated Polymers in the Molten State by High Temperature Static NMR</i> , Alexander Marchione, Michael Davis, Chemours
2:30pm	Break
3:00pm	<i>Nondestructive Measurement of Doping Profile and Transition Layers by T-Ray Pump-Probe Spectroscopy</i> , Anis Rahman, Applied Research & Photonics, Inc.
3:20pm	<i>Sorption and Desorption of 17alpha-ethinylestradiol and beta-estradiol on Montmorillonite Clay and Nylon Microparticles Using Fluorescence Detection</i> , Christian Manuelli, Shouwei Cai, University of Massachusetts-Dartmouth
3:40pm	<i>Facile Synthesis of Layered Superparamagnetic Fe₃O₄-MoS₂ Nanosheets on Chitosan for Efficient Removal of Chromium and Ciprofloxacin from Aqueous Solutions</i> , Amjad Mumtaz Tahir Khan, Aligarh Muslim University

KEYNOTE LECTURE

Sponsored by Fred and David Bickford, Sue Evans Norris
In Honor of Dr. Fred A. Bickford and Monroe H. Evans
Monday, November 17, 4:15pm

Exploring New Frontiers in Neurochemical Detection Along the Gut-Brain-Immune Axis
Dr. Ashley Ross, University of Cincinnati

All registered Conferees, Attendees and Exhibitors are invited to attend.
A reception will be held immediately following the lecture.

2025 Technical Oral Program

TUESDAY MORNING, NOVEMBER 18

BREAKFAST LECTURE

Sponsored by American Chemical Society – North Jersey Section

Tuesday, November 18, 7:30 AM

Career Options for Women Chemists Part 2

Dr. Erin Ennis, FMC Corporation

Dr. Anastasia Andrianova, Agilent

All registered Full Conferees & Full-Time Student Conferees are invited to attend.

A light breakfast will be offered before the lecture.

**New York/New Jersey Section of the Society of Applied Spectroscopy Gold Medal Award
Honoring Geraldine Richmond, University of Oregon
Chairs: Deborah Peru, DP Spectroscopy and Training, LLC, Gabrielle Davis, Camfil USA Inc.**

9:00am	<i>Living the Light</i> , Geraldine Richmond, University of Oregon
9:30am	<i>When is it Good Enough? Rethinking Spectrometers as Fit for Purpose Analyzers and Meters</i> , Adam J. Hopkins, Metrohm
10:00am	Break
10:30am	<i>Under Pressure. Unraveling Liquid Monopropellant Combustion Mechanisms with Optical Emission Spectroscopy</i> , Rob Walker, Montana State University
11:00am	<i>Structured Water and Surface Potential at Aqueous Interfaces: A New Angle on an Old Problem</i> , Dennis Hore, University of Victoria

**Sustainable Separations and Sensors
Sponsored by Seton Hall University
Chair: Nicholas Snow, Seton Hall University**

9:00am	Taming Odor: Investigating Odor Measurement and Control, Kevin Schug, Han Le, Hala Muhiar, The University of Texas at Arlington, Michael Pecore, Emmanuel Varona-Torres, Weaver Consultants Group
9:30am	Applications of Nanocarbons in Chromatography, Sample Preparation, and Membrane Separation, Somenath Mitra, Karwa Mahesh, Chutarat Saridara, Ornthida SaeKhow, New Jersey Institute of Technology
10:00am	Break
10:30am	Good Taste: Field-Deployable Methods and Devices for Determination of Smoke Taint in Wine Grapes, Vincent Remcho, Erin Kalbaugh, Oregon State University
11:00am	Fast Direct MS Screening with Chromatography/MS Confirmation with a Single SPME Device, Janusz Pawliszyn, Wei Zhou, University of Waterloo

**Pharmaceutical Companies & Compound Pharmacies – A Comparison Between the Analytical Testing Practices for Each Industry
Chair: Michael McGinley - Sohve/Pharma Consulting**

9:00am	Analytical Science and Quality at the intersection of Pharma and Compounding Pharmacies, Michael McGinley, Sohve/Pharma Consulting
9:30am	The Future of Quality Microbial Testing: Advanced Imaging and Robotics for High-Throughput Analysis, Partha Chandrakesan, Core Environmental Monitoring Lab
10:00am	Break
10:30am	Analyzing Analytical Compendial Testing Requirements: A Comparison Across Regulatory Categories for Compounded Medications, Stephen Hoag, University of Maryland, Baltimore, School of Pharmacy
11:00am	Harmonizing Analytical and Regulatory Considerations between Pharma and Compound Pharmacies, Teresa Spann, Fagron

**From Green Chemistry to Field Detection: New Solutions in Applied Analytical Science
Chair: Shelby Zangari**

9:00am	<i>Multiplatform Approach for Lithium-Ion Battery Electrolyte Compositional Analysis; Decoding Volatile, Organic, and Elemental Composition of Unknown Electrolyte Sample</i> , Christine Rivera, Aimei Zou, Yu-Feng Zhang, Olivier Chevallier, Agilent Technologies
9:20am	<i>LUMA Real-World Examples of Solving Pharmaceutical Challenges</i> , Rafael Acosta, VUV Analytics
9:40am	<i>Incorporating Ultrashort-Chain Compounds into the Comprehensive Analysis of PFAS in Potable and Non-Potable Waters</i> , Justin Steimling, Shun-Hsin Liang, Restek Corporation
10:00am	Break
10:30am	<i>Developing an Electrochemiluminescence Biosensor in an Inexpensive Microfluidic Device</i> , Kira Rahn, Jasper Pearcy-Kahn, Athena Antippas, Kieran Cross, Edith Mauch, Middlebury College
10:50am	<i>Low Concentration Narcotic Detection Utilizing SERS Handheld Devices in Conjunction with Raman Microscopy</i> , Ari Darlow, Alexander Rzhetskii, ThermoFisher
11:10am	<i>DOZN™3.0 - A Quantitative Green Chemistry Evaluator for Sustainable Future</i> , Ettigounder (Samy) Ponnusamy, MilliporeSigma

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Tuesday Morning continued

Advances in Field-Ready Analytical Tools for Forensic Drug and Trace Evidence Analysis Chair: Lydia Breckenridge, Bristol Myers Squibb	
9:00am	<i>Illicit Drug Analysis in the Field with a Portable Instrument "Toolkit,"</i> Desmond Brown, Brooke Kammrath, Ella Galvan, Mei Yuan, Ashlyn Evans, Samuel Friday, Drew Kuroda, Alexander Klein, Jessica Persechino, Jessica Behn, University of New Haven, John Naples, Connecticut State Police, Debbie Fuller, Refana, Isabelle Radgen-Morvant, NIRLAB, Richard Crocombe, Crocombe Spectroscopic Consulting, Pauline Leary, NOBLE
9:20am	<i>GCMS Analysis of Street Drugs Utilizing Hydrogen Carrier Gas in Combination with a HydroInert EI Source,</i> Kirk Lokits, Agilent Technologies
9:40am	<i>Analysis of New and Aged Bones by X-Ray Fluorescence Spectroscopy for Potential Estimation of Post-Mortem Interval,</i> Michael Brown, Jacob Pate, Trinity Green, The University of Memphis
10:00am	Break
10:30am	<i>Differentiation and Identification of Fentanyl Analogues Using Portable Mass Spectrometry,</i> Richard Crocombe, Crocombe Spectroscopic Consulting, Mei Yuan, Marisia Fikiet, Brooke Kammrath, University of New Haven, Jeff Johnson, Seth Fisher, Astrotech Technologies, Inc., Don Ostrowski, Pauline Leary, NOBLE
10:50am	<i>GC-MS Analysis of Medetomidine Using S-TPC Derivatization,</i> Harshitha Gajula, Ioan Marginean, University of Baltimore
11:10am	<i>Developing a Holistic Approach to the Analysis of Green Gunshot Residues Using Scanning Electron Microscopy with Energy-Dispersive X-Ray Spectroscopy and Comprehensive Two-Dimensional Gas Chromatography,</i> Barbara Grace Saunders, Katelynn Perrault Uptmor, William & Mary
Modern HPLC Approaches: Method Optimization, Sustainability, and Selectivity Chair: Mariann Neverovitch, Bristol Myers Squibb	
9:00am	<i>Improving Sustainability through Modernization of LC Methods,</i> Geoff Faden, MAC-MOD Analytical, Inc., Matt James, Gemma Lo, David Dunthorne, Arianne Soliven, Avantor Sciences, Tony Edge, University of Liverpool
9:20am	<i>Employing Multidimensional Design Space Modeling Across Frequent Chromatographic Challenges—Use Cases from Recently Published Results,</i> Arnold Zoeldhegyi, Imre Molnar, Molnar-Institute, Krisztian Horvath, University of Pannonia, Robert Kormany, Egis Pharmaceuticals Plc
9:40am	<i>Greener Routine HPLC Analysis: Translation of USP Monographs to the Capillary Scale,</i> Samuel Foster, Matthew Morse, Elisabeth Gates, Garrett Hellinghausen, Cary Simpson, John Stimus, Greg Ward, Axcend
10:00am	Break
10:30am	<i>Design of High Performance of Ultrawide Pore SEC Stationary Particles,</i> Kristine Camacho, Szabolcs Fekete, Matthew Lauber, Waters Corporation
10:50am	<i>Recent Developments in Inert Columns for HPLC Separations of Small Molecules,</i> Thomas Walter, Kenneth Berthelette, Melissa Aiello, Jo-Ann Jablonski, Waters Corporation
11:10am	<i>Chromatographic Separation and Photodiode Array (PDA) Detector Identification of Synthetic Industrial Dyes in Foods, OTC Drugs, and Cosmetics,</i> Catharine E. Layton, Paul D. Rainville, Amy Woodsmall, Waters Corporation
Mass Spectrometry and Chromatographic Techniques for Biomarkers, Drug Monitoring, and Environmental Contaminants Chair: Costel Darie, Clarkson University	
9:00am	<i>Proteomic Analysis of Breast Milk for Early Detection of Breast Cancer: In-Gel Digestion Mass Spectrometry Approach,</i> Aneeta Arshad, Brian T. Pentecost, Costel C. Darie, Clarkson University, Kathleen F. Arcaro, University of Massachusetts-Amherst
9:20am	<i>¹⁸O-Water Labelling Enables Protein Turnover Measurements in Embryogenesis,</i> Martin Wühr, Edward Cruz, Argit Marishta, Alex Johnson, Michael Neinast, Joseph Crapse, Joshua Rabinowitz, Eric Wieschaus, Princeton University
9:40am	<i>Mass Spectrometric Based Approach for Lysosomal Storage Diseases Diagnostic in Newborns,</i> Brindusa-Alina Petre, Costel C. Darie, Clarkson University, Laura Darie-Ion, Alexandru Ioan Cuza University of Iasi
10:00am	Break
10:30am	<i>GCMS Low Energy Ionization to Differentiate Fentanyl and Nitazene Analogs,</i> Kirk Lokits, Agilent Technologies
10:50am	<i>Current LC/MS Approaches for PFAS Analysis with Ultrashort and Long Chain Mixtures,</i> Conner McHale, Barry Boyes, Josh McBee, Advanced Materials Technology
11:20am	<i>Assessing the Long-Term Stability of Synthetic Cannabinoids in Human Blood by LC-QQQ-MS,</i> Katya Beltran, Thomas Jefferson University, Grace Cieri, Melissa Fogarty, Alex Krotulsk, Barry Logan, The Center for Forensic Science Research and Education

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Tuesday Morning continued

Environmental Aspects and Analyses of PFAS and Microplastics Chairs: James Stuart, Anthony Provatas, University of Connecticut	
9:00am	<i>Environmentally Relevant PFAS and Nanoplastics Disrupt Adult Female Ovarian Function in Mice</i> , Genoa Warner, New Jersey Institute of Technology
9:30am	<i>Efficient Strategies for Selective Preconcentration of Per- and Polyfluoroalkyl Substances in Aqueous and Gas Phase</i> , Emanuela Gionfriddo, University of Buffalo SUNY
10:00am	Break
10:30am	<i>There may be ALOT of Barbie in All of Us; Could it be Nanoplastics?</i> , Phoebe Stapleton, Rutgers University
11:00am	<i>Capture and Ingestion of Nanoparticles and Microplastics by Bivalve Molluscs: Implication for Bioaccumulation and Toxicity</i> , Abhishek Naik, J. Evan Ward, University of Connecticut

Student Speed Session Chair: Fernanda Delgado, University of Delaware	
9:00am	NanoLC-MS-Based Proteomic Analysis of the Human Cytomegalovirus Virus Microenvironment (VME) Enabled by a Novel Fluorescence Labelling Platform, Isabel Matthews, James C. Kostas, Ileana M. Cristea, Princeton University
9:12am	Forensic Analysis of a Wounded Book Held in WCU Special Collections, Madelyne Salgado, Zachary Voras, Ron McColl, West Chester University
9:24am	Investigation the Effects of Overexpression and Downexpression of Human Jumping Translocation Breakpoint Protein (hJTB) in Using in Solution and Ingel Digestion Based Proteomics in MCF7 Cells, Peter Biggers, Taniya Jayaweera, Madhuri Jayathirtha, Costel C. Darie, Clarkson University
9:36am	Optimizing a Point-of-Care Fluidic Electrochemical Assay for Cancer Biomarker Quantification, Athena Antippas, Edith Mauch, Middlebury College
9:48am	Enhanced Ignitable Liquid Residue Differentiation Using Chemometrics and GC×GC-TOFMS, Madison O'Brien, Katelynn Perrault Uptmor, College of William and Mary
10:00am	Break
10:30am	Should We Use Splitless or Split Injection? Analyzing Active Pharmaceutical Ingredients with GC-MS, Alexander Bulsiewicz, Nicholas Snow, Seton Hall University
10:42am	Detecting the Presence of PFAS in Household Aerosols and Cleaning Products: Assessing Hidden Contamination Using UPLC-MS/MS Technology, Marisa Vatteroni, Angelica Velasquez, Christopher Perkins, Anthony Provatas, Austin Pelletier, University of Connecticut
10:54am	Method Development for the Determination of Fentanyl and Its Cutting Agents in Whole Blood Using GC-MS, Paige Ickes, Sarah Heinrichs, Constantinos Pistos, West Chester University of Pennsylvania, Lisa Mundy, Philadelphia Medical Examiner's Office
11:06am	Targeted Quantitative Serum Proteomics Analysis in Donors with Breast Cancer (BC) and Matched Controls, Victor T. Njoku, Brian Pentecost, Kaya R Johnson, Sumona Mondal, Costel Darie, Clarkson University, Claudia Gaithe, Adeline Shanker, Robert Popp, MRM Proteomics Inc., Christoph H. Borchers, Segal Cancer Proteomics Centre
11:18am	Early Development of a Novel Electrochemical Biosensor: Leveraging Bipolar Electrochemiluminescence for inexpensive Point of Care Biosensing, Jasper Pearcy-Kahn, Kira Rahn, Middlebury College
11:30am	Understanding the Synthesis-Structure-Activity Relationship of Copper-Based Catalysts for CO ₂ Electrochemical Reduction with Machine Learning Toward More Sustainable Catalysis, Nhat Minh Dang, Caelin Celani, Adil Sheikh, Rachel Davidson, University of Delaware

2025 Technical Oral Program

TUESDAY AFTERNOON, NOVEMBER 18

EAS is honoring ALL 6 of our awardees in a special award session 1:15pm – 4:30pm in the Amphitheatre. All registered attendees and exhibitors are invited to attend. A complimentary Mixer will be held in the Exposition Rooms immediately following the Award Session.

EAS AWARD SESSION

Chaired by Tom Brettell, Cedar Crest College

1:15pm; EAS YOUNG INVESTIGATOR AWARD

I Spy with My Chromatographic Eye: Seeing More in Every Sample

Honoring **Katelynn Perrault Uptmor**, William and Mary

Sponsored by GSK

1:45pm; EAS AWARD FOR OUTSTANDING ACHIEVEMENTS IN MAGNETIC RESONANCE

The Essentiality of Solution NMR Spectroscopy in the Post-AlphaFold Era

Honoring **Lewis E. Kay**, University of Toronto

Sponsored by Bruker BioSpin & New Era Enterprises

2:15pm; EAS AWARD FOR OUTSTANDING ACHIEVEMENTS IN THE FIELDS OF ANALYTICAL CHEMISTRY

Nature-Inspired Chemical and Biochemical Analysis: New Frontiers in Affinity Separations

Honoring **David S. Hage**, University of Nebraska-Lincoln

Sponsored by Bristol Myers Squibb

Break 2:45pm – 3:00pm

3:00pm; EAS AWARD FOR OUTSTANDING ACHIEVEMENTS IN SEPARATION SCIENCE

Good 'Ole GC: Are We Teaching an Old Dog New Tricks?

Honoring **Nicholas H. Snow**, Seton Hall University

Sponsored by Restek Corporation

3:30pm; EAS AWARD FOR OUTSTANDING ACHIEVEMENTS IN MASS SPECTROMETRY

Advancements in Mass Spectrometry for Spatial Omics and Systems Biology

Honoring **Ljiljana Paša-Tolić**, Pacific Northwest National Laboratory

Sponsored by American Microchemical Society

4:00pm; EAS AWARD FOR OUTSTANDING ACHIEVEMENTS IN CHEMOMETRICS

Rethinking Confidence Intervals in Multivariate Classification

Honoring **Karl Booksh**, University of Delaware

Sponsored by Eigenvector Research

WEDNESDAY MORNING, NOVEMBER 19

Time	Title, Author(s)
Use of Novel Chromatography to Advance Pharmaceutical Research for Drug Discovery and Development Sponsored by the Chinese American Chromatography Association Chair: Yi He, John Jay College of Criminal Justice	
9:00am	<i>Achieving Paramount Selectivity: Bioanalytical Method Design for LC-MS/MS Interference Elimination and Recent Case Studies</i> , Kasie Fang, GSK
9:30am	<i>Enabling Separation of Large Nucleic Acids by a Novel Slalom Chromatographic Technique</i> , Jamuna Vaishnav, Kennedy Sawyer, Fabrice Gritti, Mandana Fasth, Christian Reidy, MingCheng Xu, Kevin Wyndham, Matthew Lauber, Balasubrahmanyam Addepalli, Waters Corporation
10:00am	Break
10:30am	<i>Quantifying Electrostatic Effect in Hydrophilic Interaction Chromatography (HILIC)</i> , Yong Guo, Fairleigh Dickinson University
11:00am	<i>Advanced Chromatographic Method Development to Enable Comprehensive Control Strategies for Complex Drug Modalities</i> , Howard Hongyue Guo, GSK

2025 Technical Oral Program

Wednesday Morning continued

Characterization of Cultural Heritage Objects Chair: John Scott, Kenescott Fdn, N Y Conservation Fdn and Zachary Voras, West Chester University of Pennsylvania	
9:00am	<i>Authentication of a 'Wounded' Book Aboard the USS Enterprise in the War of 1812</i> , Zachary Voras, Madelyne Salgado, Ron McColl, West Chester University of Pennsylvania
9:30am	<i>Curly Crinoid: Characterization of Natural and Treatment-Induced Deterioration of a Jurassic Fossil Slab</i> , Mariana Di Giacomo, Yale Peabody Museum, Anikó Bezur, Richard Hark, Yale Institute for the Preservation of Cultural Heritage
10:00am	Break
10:30am	<i>Noninvasive Examination of Old Master Paintings</i> , Erich Uffelman, Washington and Lee University, Jessica Roeders, Mireille te Marvelde, Frans Hals Museum
11:00am	<i>The Forgotten Yellow: Rediscovering Patent Yellow Pigment</i> , Kirsten T. Moffitt, Colonial Williamsburg Foundation, Jocelyn Alcantara-Garcia, University of Delaware, Gabriela Farfan, Smithsonian National Museum of Natural History

Predictive Sciences for Chromatographic Method Development Sponsored by Amgen Chairs: Pankaj Aggarwal, Merck & Co., Inc., Imad Haidar Ahmad, Amgen	
9:00am	<i>Analytical Method Development and Transfer Enabled by In Silico Chromatography Modeling</i> , Imad Haidar Ahmad, Troy Handlovic, Muhammad Qamar Farooq, Daipayan Roy, Amgen
9:30am	<i>Extending Machine Learning Based Retention Time Prediction by Modeling Multiple Chromatography Conditions</i> , Armen Beck, Andrew Singh, Gwenyth Jones, Jonathan Fine, Rojan Sresthra, Edward Sherer, Katharine Williams, Erik Regalado, Pankaj Aggarwal, Merck & Co., Inc.
10:00am	Break
10:30am	<i>Molecular Dynamics Prediction of Analyte Retention in Reversed-Phase and Mixed-Mode Liquid Chromatography: Can Artificial Intelligence Rise to the Task?</i> , Fabrice Gritti, Waters Corporation
11:00am	<i>Deep Transfer Learning for Elution Time Prediction in Liquid Chromatography</i> , Haixu Tang, Yuhui Hong, Indiana University

The Use of Innovative Atomic Spectrometry Strategies to Solve Challenging Chemical Problems Chair: Steven Ray, State University of New York at Buffalo	
9:00am	<i>New Instrumental Strategies in Analytical Atomic Spectrometry</i> , Steven Ray, State University of NY at Buffalo
9:30am	<i>New Advances Using LA-ICP-MS and LIBS on Environmental Medicine</i> , Mauro Martinez, Icahn School of Medicine at Mount Sinai
10:00am	Break
10:30am	<i>Understanding Ionization and Fragmentation Processes in Solution-Cathode Glow Discharge Mass Spectrometry</i> , Jacob Shelley, Jared Viggers, Courtney Walton, Rensselaer Polytechnic Institute, Josefin Hufgard, Humboldt University of Berlin
11:00am	<i>A Public Health Laboratory Approach to Arsenic Speciation Analysis of Food Matrices Using Isocratic Elution LC-ICP-MS/MS</i> , Patrick Parsons, Austin Roberts, Christopher Palmer, NY State Department of Public Health

Demystifying Machine Learning: A Tutorial on Multivariate Analysis Chair: Caelin Celani, University of Delaware <i>Curious about data science but not sure where to start? This session introduces the core concepts of chemometrics—from preprocessing and exploration to building powerful models for regression and classification—designed for beginners ready to unlock the patterns in their data.</i>	
9:00am	<i>Foundations of Chemometric Modelling: A Practical Guide to Preprocessing, Validation, and Feature Selection</i> , Caelin Celani, University of Delaware
9:30am	<i>Exploratory Data Analysis: Standard Tools & Modern Alternatives</i> , Steve Driscoll, Repligen Corporation
10:00am	Break
10:30am	<i>Modelling: Calibration & Regression</i> , Cannon Giglio, Oak Ridge National Laboratory
11:00am	<i>Modelling: Cluster Analysis & Classification</i> , Alexis Weber, PerkinElmer

PAT, It's What you Don't See that Counts! Chair: James Rydzak, Specere Consulting	
9:00am	<i>Real-Time, Multi-Attribute PAT Integration for Rapid mRNA Manufacturing</i> , Hossein Hamed, Edita Botonjic-Sehic, Recipharm Advanced Bio
9:30am	Elena Hagemann, Metrohm USA
10:00am	Break
10:30am	<i>Using BlazeMetrics Imaging and Particle Size to Understand Suspension Formulation Behavior</i> , Gregory Lane, Georgios Pyrgiotakis, Gary McGeorge, Elaine Pu, Barton Dear, Nicole Taylor, Freddy Arce, Umesh Kestur, Yue Schuman, Bristol Myers Squibb
11:00am	<i>The Perfect Match: Coupling PAT, Sustainability and QbD in the Pharma/BioPharma Environment</i> , John Wasylyk, Robert Wethman, Bristol Myers Squibb

2025 Technical Oral Program

Wednesday Morning continued

Translational Proteomics and Bioanalysis: From Biomarkers to Biotherapeutics Chair: Suzanne Schreyer, Rigaku Analytical Devices	
9:00am	<i>Uncovering the Tear Fluid Glycoproteome in Dry Eye Disease</i> , Vincent Chang, Isaac Lian, Keira Mahoney, Stacy Malaker, Yale University, Niclas Karlsson, Oslo Metropolitan University
9:20am	<i>Evaluating the Role of Glycosylation in Preserving Antibody Structure and Stability Under Stress Conditions</i> , Arabella Garcia, Rowan Matney, Varun Gadkari, University of Minnesota
9:40am	<i>Peptidomic In-Gel and In-Solution Comparative Study of Serum Samples from Women with Invasive Ductal Carcinoma Breast Cancer</i> , Pathea S. Bruno, Kaya R. Johnson, Lilian G. Corrice, Brian T. Pentecost, Costel C. Darie, Clarkson University
10:00am	<i>Investigation of the effects of Human Jumping Translocation Breakpoint (hJTB) Protein Using Two-Dimensional-PAGE Coupled with nLC-MS/MS-Based Proteomics</i> , Taniya Jayaweera, Krishan Weraduwege, Madhuri Jayathirtha, Costel Darie, Biochemistry & Proteomics Group, Clarkson University
10:20am	Break

Analytical Innovation for Complex Materials and Emerging Contaminants Chair: Anthony Provatas, University of Connecticut	
9:00am	<i>Accelerating Fit-for-Purpose Development of Analytical Methods, and Adaptation of Existing Platform Methods and Monograph Methods to New Substances and Products, using Modern AQbD Tools and Approaches</i> , Richard Verseput, S-Matrix Corporation
9:20am	<i>Comparing C18-Type Stationary Phases to Biphenyl Using an LC Virtual Method Development Tool</i> , Melinda Ulrich, Restek Corporation
9:40am	<i>Evaluation of Hybrid Silica C18 End-Capped with Bidentate Silylating Reagent for HPLC</i> , Scott Silver, Pyvot, Norikazu Nagae, Tomoyasu Tsukamoto, Ryuji Koyama, ChromaNik Technologies Inc.
10:00am	Break
10:30am	<i>The Importance of Refractive Index Accuracy in Determining Drug Payload Using Measured Particle Size for Lipid Nanoparticles</i> , Beverly Barnum, Sean Race, Bettersize, Inc.
10:50am	<i>Rapid Detection of Microplastics and Nanoplastics in Seconds Bypass Spectrometry</i> , Hao Chen, New Jersey Institute of Technology
11:10am	<i>Nanocellulose from NOP and Applications</i> , Priyanka Sharma, Western Michigan University, Sunil Sharma, Stony Brook University

WEDNESDAY AFTERNOON, NOVEMBER 19

Green Technology for Heritage Conservation Chair: John Scott, Kenescott Fdn, NY Conservation Fdn and Rosie Grayburn, Winterthur	
1:00pm	<i>Developments in Safer Solvent Selections for the Removal and Application of Synthetic Resins</i> , Rosie Grayburn, University Delaware Winterthur
1:30pm	<i>Solvent Use in Conservation: Global Trends and the Path Toward Greener Practices</i> , Ka Yee (Christy) Ching, University of Delaware, Rosie Grayburn, Winterthur
2:00pm	<i>Varnish, Vanish, Regs, Needs - Solvents in Fine Art</i> , Ulysses Jackson, Golden Artist Colors, Inc.
2:30pm	<i>Heritage Sector and Life Cycle Assessment for Sustainable Choices</i> , Sarah Nunberg, The Objects Conservation Studio, LLC

Gas Chromatography and Mass Spectrometry for Environmental, Regulatory, and Multicomponent Sample Analysis Chair: Kate Jackson, Colgate Palmolive Company	
1:00pm	<i>Revealing the Hidden Impact of Signal Filtering on Peak Resolution in Gas Chromatography: A New Metric for Evaluating Analytical Integrity</i> , Salar Azizi, UnitGC LLC
1:20pm	<i>Identification of Key Sensory-Active Compounds in Cannabis by Aroma Dilution Analysis</i> , Nicole Kfoury, Megan Harper-Kerr, GERSTEL, Inc.
1:40pm	<i>Fast Analysis of 140 Pesticides, PAHs, and PCBs by GC/MS/MS</i> , Erinn O'Neill, Alexis Willey, Agilent Technologies
2:00pm	<i>Optimizing Analytical Workflow of EPA Method 525 While Enhancing Speed and Sensitivity</i> , Tyler Roberts, Shimadzu Scientific Instruments
2:20pm	<i>Octahydroacridine Artifact Generated in Gas Chromatography Injector during Extractable & Leachable Study of a Medical Device</i> , Yunyun Yuan, Ying Jiang, Yijun Lu, Johnson & Johnson MedTech

2025 Technical Oral Program

Wednesday Afternoon continued

Prepared for Anything: Infrared Sampling Tools and Techniques for Unusual (and Usual) Samples Sponsored by the Coblenz Society Chair: Richard Crocombe, Crocombe Crocombe Spectroscopic Consulting	
1:00pm	<i>Understanding and Navigating Sampling Challenges in FT-IR Spectroscopy</i> , Peter Larkin, Syensqo
1:30pm	<i>"Just Stick it in the Instrument and Scan it!" - Guiding Engineers (and others) Through the Art of Analytical Spectroscopy</i> , Jay Powell, Analytical Answers
2:00pm	<i>Method Optimization and Data Processing for Thermogravimetric Analysis Coupled with Fourier Transform Infrared Spectroscopy (TGA-FTIR)</i> , Justin Lang, Justin Linehan, PerkinElmer
2:30pm	<i>Diamond ATR: The Good, the Bad and the Ugly</i> , Ellen Miseo, Miseo Consulting, Peter Larkin, Syensqo, Technology Solutions

Imaging and Vibrational Techniques for Spatial and Chemical Profiling Chair: Fernanda Delgado, University of Delaware	
1:00pm	<i>Automated Iterative Targeted Detection in Hyperspectral Imaging – Fast, Accurate Detection of Minor Target Signal in a Swamp</i> , Neal Gallagher, Eigenvector Research, Inc.
1:20pm	<i>Identifying and Quantifying Elemental Impurities Using X-Ray Fluorescence</i> , Dylan Lundgren, Malvern Panalytical
1:40pm	<i>Understanding Regional Molecular Alterations in Scn2a Mutated Mouse Brains using Nanospray Desorption Electrospray Ionization Mass Spectrometry Imaging</i> , Alyssa Moore, Xiaoling Chen, Emerson Hernly, Jingliang Zhang, Yang Yang, Julia Laskin, Purdue University
2:00pm	<i>High-Speed IR Microplastic Analysis with <300 nm Spatial Resolution</i> , Jay Anderson, Eoghan Dillon, Mustafa Kansiz, Photothermal Spectroscopy Corp.
2:20pm	<i>THz-TDS Evaluation of Water Content in Flax-Based Naturally Derived Composites for Aircraft Applications</i> , Eric Tucker, Nour Hakim, Matthew Webster, Luke Post, Karina Hafeez, Samantha Johnson, NASA Langley Research Center
2:40pm	<i>Sub-Micron Multimodal IR (O-PTIR) Micro-Spectroscopy to Improve Pharmaceutical Product Knowledge and Process Understanding</i> , Mustafa Kansiz, Photothermal Spectroscopy Corp., Kevin Dahl, Particlease

Industrial Microscopy Chair: Peter Diaczuk, New York Microscopical Society	
1:00pm	<i>A Scientific Inquiry into Jean-Michel Basquiat's Lost Subway Portfolio</i> , Nicholas Petraco,
1:30pm	<i>A Series of Case Studies: Microscopy in Material Analysis</i> , Tony Havics, pH2. LLC
2:00pm	<i>Overcoming Challenging Sampling: How Stereomicroscopy Improved GC/MS Analysis</i> , Heather Harris, Arcadia University
2:30pm	<i>Illuminating the Invisible: Microscopy at the Intersection of Science and Art</i> , Danielle Parsons, Wonder Science

Next-Generation Analytical Strategies for Emerging Biopharmaceutical Modalities Chair: Eric Munson, Purdue University	
1:00pm	<i>Advanced Analytical Workflows for Accelerating the Pace of Drug Development</i> , Mohamed Hemida, Rodell Barrientos, Gioacchino Luca Losacco, Heather Wang, Ophelia Ukaegbu, Andrew Singh, Caleb Kinsey, Eli Larson, Emmanuel Appiah-Amponsah, Erik L. Regalado, Merck & Co., Inc., Davy Guillaume, Institute of Pharmaceutical Sciences of Western Switzerland
1:20pm	<i>Analytical Characterization of Solid Oral Protein Therapeutics</i> , Lulu Dai, Genentech
1:40pm	<i>Extensive Characterization of Circular RNA Impurities: Analytical Characterization</i> , Yvonne Shieh, Ravikiran Yerabolu, William Cantara, Zhongfeng (Frank) Zuo, Matthew Schombs, Merck & Co., Inc.
2:00pm	<i>Challenges on Process Equipment Related Leachables Analysis for Biologics Manufacturing</i> , Bin Sun, Cytiva
2:20pm	<i>Advancing Nucleic Acid Analysis: Large-Pore Superficially Porous Particles for Enhanced Separations</i> , Peter Pellegrielli, Barry Boyes, Brian Wagner, Joshua McBee, Stephanie Schuster, AMT
2:40pm	<i>Stability Impact from a Titanium Dioxide-Free Film-Coated Tablet: An Analytical Investigation into Photo-, Physical, and Chemical Stability of Compressed Tablets Made with Alternative Film-coating Materials</i> , Matthew Gunsch, Sara Koynov, Devan McCoy, Mario Gutierrez, Trent Eastman, Yun Chen, Jiaying Liu, Plamen Grigorov, Pankaj Aggarwal, Jonathan Fine, Leonardo Allain, Pavithra Sundararajan, Sanjaykumar Patel, Andre Hermans, Merck & Co., Inc.



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