

2018 Preliminary Technical Oral Program

Here is the preliminary list of oral invited and contributed sessions. The Poster Sessions will be announced in mid-September. It is not too late to submit an abstract for a **poster** presentation! The deadline is September 1st. Visit our submission site for more details and to submit: www.EAS.org/asubmit

MONDAY MORNING, NOVEMBER 12

Time	Title, Author(s)
EAS Award for Outstanding Achievements in Separation Sciences Honoring Christopher Pohl, Thermo Fisher Scientific Chair: Kannan Srinivasan, Thermo Fisher Scientific	
8:30	Presentation of the EAS Award for Outstanding Achievements in Separation Sciences
8:35	<i>Hyperbranched Anion-Exchange Materials, a Versatile Chemistry Platform Capable of Producing a Wide Variety of Unique Selectivities</i> , Christopher Pohl, Thermo Fisher Scientific
9:10	<i>High Performance Anion Exchange Chromatography and Pulsed Electrochemical Detection: An Ideal Couple for Carbohydrate Analysis</i> , William LaCourse, University of Maryland Baltimore County
9:50	Break
10:10	<i>Open Tubular Capillary Ion/Liquid Chromatography: The Challenges and the Rewards</i> , Purnendu K. Dasgupta, University of Texas-Arlington
10:50	<i>Recent Advances in Suppressor Technology for Ion Chromatography</i> , Kannan Srinivasan, Thermo Fisher Scientific

New York/New Jersey Sections of the Society for Applied Spectroscopy Gold Medal Award Honoring Igor Lednev, University of Albany Session Chair: Daniel Sanborn, DP Spectroscopy, Deborah Peru	
8:30	<i>Raman Spectroscopy for Forensic Purposes and Medical Diagnostics</i> , Igor Lednev, University of Albany
9:10	<i>T-Jump Resonance and Normal Raman Determination of Reaction Coordinate of Thermoresponsive Hydrogel Volume Phase Transition</i> , Sanford Asher, University of Pittsburgh
9:50	Break
10:10	<i>Applications of Vibrational Optical Activity for the Elucidation of Molecular Stereochemistry</i> , Laurence Nafie, Syracuse University
10:50	<i>Forensic Science R&D Funding at the National Institute of Justice: Opportunities for Novel Spectroscopic and Analytical Techniques Applied to Forensic Problems</i> , Mihn Nguyen, Gregory Dutton, National Institute of Justice

Finished Product Automation: Enabling the Products of the Future through Automation Chairs: Ed Mularz, Roy Helmy, Merck & Co.	
8:30	<i>Application of Computer Vision and Robotics for Lab Automation</i> , Janakiraman Gopinath, Prashant Shah, Merck & Co.
9:10	<i>Automated Design of Experiments: A Multivariate Approach to TPW Method Optimization</i> , CJ Moynihan, Sotax Corp.
9:50	Break
10:10	<i>Automated Sample Preparation Directly from Closed Sterile Finished Pharmaceutical Product Vials</i> , Orane White, William Stevens, Edward Mularz, Merck & Co.
10:50	<i>Automated Capabilities for Complex Material Handling within Analytical Testing</i> , Paul DiGregorio, Chemspeed

Challenges Solved by NMR: Diverse Problems and Technologies Chairs: Yongchao Su and Xingyu Lu, Merck & Co.	
8:30	<i>Exploring Complex Conformational Dynamics in hDM2 Inhibitor by NMR and DFT</i> , Alexei V. Buevich, Merck & Co.
8:50	<i>¹³C NMR-Based Methodologies for Solving Challenging Stereochemical Problems</i> , Ikenna E. Ndukwe, Andrew Brunskill, Donald R. Gauthier, Yong-Li Zhong, Mikhail Reibarkh, Gary E. Martin, Merck & Co., Yizhou Liu, Pfizer
9:10	<i>Boron-10 Solid-State NMR: Developments of Techniques for Rapid Spectral Acquisitions and Applications to Disordered Solids</i> , Robert W. Schurko, Lucas D.D. Foster, Adam R. Altenhof, Stanislav L. Veinberg, University of Windsor
9:30	<i>Characterization of Formulated Pharmaceuticals Using Fast MAS 1H Solid-State NMR Spectroscopy</i> , David A. Hirsh, Anuradha V. Wijesekara, Scott L. Carnahan, Aaron J. Rossini, Iowa State University, Joseph W. Lubach, Karthik Nagapudi, Genentech
9:50	Break
10:10	<i>High-Resolution Proton-Detected and Multidimensional Solid-State NMR of Pharmaceuticals Utilizing Ultrafast Magic Angle Spinning of 60-111 kHz</i> , Xingyu Lu, Karen C. Thompson, Haichen Nie, Gary E. Martin, Robert T. Williamson, Wei Xu, Yongchao Su, Merck & Co., Yu Tsutsumi, Jean-Paul Amoureux, Bruker Biospin

2018 Preliminary Technical Oral Program

Monday Morning continued

The Role of Forensic Analysis in Combating the Opioid Epidemic, sponsored by New Jersey Association of Forensic Scientists Chair: Kimberly Gorel, NJSP Office of Forensic Sciences	
8:30	<i>Opioid Analytical Challenges</i> , <u>Mark Filandro</u> , United States Drug Enforcement Administration
9:10	<i>Analytical Challenges of Novel Opioids in Toxicological Samples</i> , <u>Michael Lamb</u> , NMS Labs
9:50	Break
10:10	<i>Analysis of Novel Opioids by DART-MS</i> , <u>Brian Musselman</u> , ionSense
10:50	<i>The Growing Phenomenon of the Epidemic of Synthetic Opioids and Forensic Science: Impact and Response</i> , <u>Erin Worrell</u> , Cuyahoga County Medical Examiner

Stability Indicating Method Development and Forced Degradation Experimental Approaches Chair: David Schenk, Merck & Co.	
8:30	<i>The Foundational Role of Forced Degradation in Stability-Indicating Method Development: Potential Pitfalls</i> , <u>Steven W. Baertschi</u> , Baertschi Consulting
9:10	<i>Accelerated Degradation of Pharmaceuticals in Leidenfrost Droplets and its Potential</i> , <u>Yangjie Li</u> , R. Graham Cooks, Purdue University, <u>Yong Liu</u> , Hong Gao, Roy Helmy, W. Peter Wuelfing, Merck & Co., <u>Christopher J. Welch</u> , Welch Innovation, LLC
9:50	Break
10:10	<i>Method Specificity: Forced Degradation Study Justifications from an Established Products Perspective</i> , <u>Neal Adams</u> , Pfizer
10:50	<i>Perspectives on ANVISA's RDC 53 Forced Degradation Requirements</i> , <u>Leonardo Allain</u> , Merck & Co.

Analytical Techniques for Elemental Analysis of Solids Chair: Lydia Breckenridge, Bristol-Myers Squibb	
8:30	<i>Laser-Ablation Laser-Induced Fluorescence Spectroscopy in a Difficult Matrix</i> , <u>Jonathan Merten</u> , <u>Chris P. Jones</u> , <u>Patrick D. Tribbett</u> , <u>Anna G. Anders</u> , Arkansas State University Jonesboro
9:10	<i>Overcoming Matrix Challenges in XRF</i> , <u>Sharla Wood</u> , Bristol-Myers Squibb
9:50	Break
10:10	<i>Laser-Induced Breakdown Spectroscopy as a Tool for Rapid Elemental Bioanalysis</i> , <u>Steven J. Rehse</u> , <u>Alexandra Paulick</u> , <u>Christopher Heath</u> , <u>Robert Valente</u> , <u>Paul Dubovan</u> , <u>Kevin Beaugrand</u> , <u>Mark Armstrong</u> , <u>Doris Rusu</u> , University of Windsor
10:50	<i>Leveraging Laser Ablation-ICP-MS for Pharmaceutical Analysis</i> , <u>Lydia Breckenridge</u> , Bristol-Myers Squibb

Unique Innovations with Mass Spectral Detection Chair: Mary Lynn Grayeski, Marywood University	
8:30	<i>Capture of Electrochemically-Generated Fleeting Carbazolium Radical Cations and Elucidation of Carbazole Dimerization Mechanism by Mass Spectrometry</i> , <u>Hao Chen</u> , Ohio University
8:50	<i>Identification of Ortho-Substituted Benzoic Acid/Ester Derivatives via the Gas-Phase Neighboring Group Participation Effect in (+)-ESI High Resolution Mass Spectrometry</i> , <u>Huaming Sheng</u> , Merck
9:10	<i>High-Throughput Analysis: Where Mass Spectrometry Fits</i> , <u>Jessica Lin</u> , <u>Colin Masui</u> , <u>Kelly Zhang</u> , Genentech
9:30	<i>Opportunities for Method Development by Using Various Mass Spectrometric Ionization Techniques</i> , <u>Norman H. Chiu</u> , University of North Carolina-Greensboro
9:50	Break
10:10	<i>High-Throughput Ion Mobility Mass Spectrometry Sequencing of Cyclic Peptides Mediated Through Oxazolidinone Ring Opening</i> , <u>Ryan D. Cohen</u> , Merck & Co., <u>Hader E. Elashal</u> , <u>Heidi E. Elashal</u> , Seton Hall University, <u>Monika Raj</u> , Auburn University
10:30	<i>Glass or Plastic? The Challenges and Solutions of Analyzing Mercury by ICP</i> , <u>James A. King Jr.</u> , Inorganic Ventures

2018 Preliminary Technical Oral Program

MONDAY AFTERNOON, NOVEMBER 12

Time	Title, Author(s)
EAS Young Investigator Award <i>Sponsored by The Dow Chemical Company</i> Honoring Kerri Pratt, University of Michigan Chair: Kimberly Prather, University of CA-San Diego	
1:00	<i>New Insights into Marine Aerosols by Mass Spectrometry</i> , Kimberly Prather, University of CA-San Diego
1:40	<i>Nanoparticles in the Air We Breathe: Pristine or Polluted?</i> , Murray Johnston, University of Delaware
2:20	Break
2:40	<i>Widening the Window for Environmental Analysis: On-Line HPLC Monitored by 21 Tesla Fourier Transform Ion Cyclotron Resonance Mass Spectrometry</i> , Allan Marshall, Florida State University
3:20	Presentation of the EAS Young Investigator Award
3:25	<i>Advances in Atmospheric Halogen Chemistry by Chemical Ionization Mass Spectrometry</i> , Kerri Pratt, University of Michigan

Recent Advances in Green Analytical Chemistry Chair: Joe P. Foley, Drexel University	
1:00	<i>Introduction to and Overview of Green Analytical Chemistry</i> , Joe Foley, Drexel University
1:40	<i>Recent Developments on Solid Phase Microextraction, a Green Sample Preparation Tool for On-Site, In-Vivo, and Complex Matrices Analysis</i> , Nathaly Reyes Garcés, University of Waterloo
2:20	Break
2:40	<i>Greenness through Modernized Separation Methods: Introduction of the Analytical Method Greenness Score (AMGS) Calculator for Greener Methods</i> , Michael B. Hicks, Lauren Weisel, Merck & Co., William Farrell, Christine Aurigemma, Pfizer, Laurent Lehman, Bristol-Myers Squibb, Kelly Nadeau, Amgen, Heewon Lee, Boehringer-Ingelheim, Carol Moraff-Gingsburg, Novartis, Mengling Wong, Genentech, Paul Ferguson, AstraZeneca
3:20	<i>Greener Process Characterization of Biotherapeutics Using the Multi-Attribute Method</i> , Bhumit Patel, Merck & Co.

The Role of Chirality in the Pharmaceutical Industry Chair: Nelu Grinberg, Grinberg Consulting	
1:00	<i>Ultra-Fast Chiral Separation for High-Throughput Enantiopurity Analysis</i> , Erik Regalado, Merck & Co.
1:40	<i>Circular Dichroism Spectroscopy as a Tool to Solve Complex Stereochemical Problems in the Pharmaceutical Industry</i> , Leo A. Joyce, Merck & Co.
2:20	Break
2:40	<i>Insights on Chiral Recognition for Enantiomeric Separation on Teicoplanin Columns</i> , Ling Wu, Nina Gonella, Heewon Lee, Boehringer Ingelheim Pharmaceuticals, Nelu Grinberg, Grinberg Consulting, Shengli Ma, Genentech, Sherry Shen, United States Food & Drug Administration, David Bell, Restek Corporation
3:20	<i>Mechanistic Aspects of Chiral Discrimination with Sulfated beta Cyclodextrin</i> , Nelu Grinberg, Grinberg Consulting, Ling Wu, Nizar Haddad, Boehringer Ingelheim Pharmaceuticals

New Tools in Solution NMR Spectroscopy Chair: Alexander Marchione, Chemours Fluoroproducts Analytical	
1:00	<i>New Frontiers in 19F NMR: Methods for Small Molecules and Biomolecules</i> , Haribabu Arthanari, Harvard Medical School
1:40	<i>Nonuniform Sampling for Sensitivity Enhancement in Multidimensional NMR</i> , Jeffrey C. Hoch, University of Connecticut Health
2:20	Break
2:40	<i>Fast NMR Techniques for Structure Elucidation of Small Molecules</i> , Eriks Kupce, Bruker BioSpin
3:20	<i>Advanced NMR Techniques for Challenging Structural Assignment Problems</i> , Gary Martin, Merck & Co.

Managing Your Lab Resources, Internal and External Chairs: Dennis Swijter, ALMA	
1:00	<i>Perspectives in Managing Analytical Activities in an all Outsourced and Global Pharma Model</i> , Shirley Rodriguez, Shire
1:40	<i>Lessons Learned from Managing Outsourcing of Analytical Development and Testing</i> , Qiaoching Li, Celgene
2:20	Break
2:40	<i>Maximizing Effectiveness when Working with an External Contract Laboratory</i> , Jonathan Chun, Alliance Technologies
3:20	<i>Teach, Learn, and Practice Science Safely</i> , James Kaufman, Laboratory Safety Institute

2018 Preliminary Technical Oral Program

Monday Afternoon continued

Impact of New Regulatory Expectations to Drug Development in Pharmaceutical Industry Chairs: Kim Huynh-Ba, Pharmalytik and Karen Lucas, J&J Janssen	
1:00	<i>The Evolving Global Regulatory Environment - Strategic Considerations</i> , <u>Kimberly Belsky</u> , Mallinkrodt Pharmaceutical
1:40	<i>Stability Compliance for Combi-Products - A Medical Device Perspective</i> , <u>Laure Larkin</u> , Ethicon, Inc.
2:20	Break
2:40	<i>Key Updates of New US Regulatory Expectations</i> , <u>Gayle Lawson</u> , United States FDA
3:20	<i>Control Strategies of API Development</i> , <u>Yan Wu</u> , Merck & Co.

60th Anniversary of SAS: Advancing Spectroscopy from Foundation to Future, organized by NY/NJ SAS Chair: John Wasylyk, Bristol-Myers Squibb	
1:00	<i>Another Diamond Anniversary – Diamond Optics for Infrared Spectroscopy Applications</i> , <u>David Schiering</u> , Czitek
1:40	<i>Fifty Years of NMR Spectroscopy and Forty Years of SAS</i> , <u>Cecil Dybowski</u> , University of Delaware
2:20	Break
2:40	<i>Applying Vibration Spectroscopy in Usual and Unusual Ways in the Pharmaceutical Industry</i> , <u>John Wasylyk</u> , Bristol-Myers Squibb

Advanced Solutions in the Analysis of Forensic Samples Chair: Pauline Leary, Smiths Detection	
1:00	<i>Forensic Application of Attenuated Total Reflection Fourier Transform-Infrared (ATR FT-IR) Spectroscopy for Bloodstain Analysis</i> , <u>Ewelina M. Mistek</u> , <u>Igor K. Lednev</u> , University at Albany, SUNY
1:20	<i>The Detection of Organic Gunshot Residue Using Raman Spectroscopy and Fluorescence</i> , <u>Shelby R. Khandasamy</u> , <u>Igor K. Lednev</u> , University at Albany, SUNY, <u>Alex Rzhevskii</u> , Thermo Fisher Scientific
1:40	<i>Raman Spectroscopy for Forensic Bloodstain Identification: Method Validation vs. Environmental Interferences</i> , <u>Robert B. Rosenblatt</u> , University at Albany
2:00	<i>Universal Detection of Body Fluid Traces In-Situ with Raman Hyperspectroscopy for Forensic Purposes</i> , <u>Marisia Fikiet</u> , <u>Gregory Mclaughlin</u> , <u>Igor Lednev</u> , University at Albany, <u>Masahiro Ando</u> , <u>Hiro-o Hamaguchi</u> , Spectroscopic Science Laboratory
2:20	Break
2:40	<i>Blood Alcohol and Inhalant Analysis by Gas Chromatography - Vacuum Ultraviolet Spectroscopy</i> , <u>James A Diekmann III</u> , <u>Jack Cochran</u> , VUV Analytics
3:00	<i>Solid Phase Microextraction-DART-MS Screening for Controlled Dangerous Substances in Complex Matrices</i> , <u>Eileen Eubank</u> , <u>Janelle Newman</u> , <u>Jeremy Zehr</u> , <u>Joseph Trimboli</u> , MRIGlobal
3:20	<i>Evaluating Practical Uses of Molecular Isotopic Engineering (MIE): Authenticity, Security, and Intellectual Property Considerations</i> , <u>John P. Jasper</u> , Molecular Isotope Technologies LLC, <u>Peter Farina</u> , Canaan Partners, <u>Ann Pearson</u> , Harvard University, <u>Peter S. Mezes</u> , Mezes Consulting, <u>Anthony D. Sabatelli</u> , Dilworth IP, LLC

Bioanalysis: Proteins, Peptides and Lipid Bilayers Chair: Nathan Wittenberg, Lehigh University	
1:00	<i>Kinetic-Equilibrium Modeling Strategies for Lab-on-a-Molecule Probes</i> , <u>Fereshteh Emami</u> , Southeastern Louisiana University
1:20	<i>Immunoaffinity Capillary Electrophoresis for the Determination of Protein Biomarkers of Disease in Biological Fluids. Maximizing Benefits and Minimizing Harm</i> , <u>Norberto A. Guzman</u> , Princeton Biochemicals
1:40	<i>Optimizing HPLC Separation Performance for Peptides and Other Mid-Size Molecules</i> , <u>Richard A. Henry</u> , Independent Consultant, <u>Justin M. Godinho</u> , <u>Joseph J. DeStefano</u> , Advanced Materials Technology
2:00	<i>Effects of Photosensitized Lipid Oxidation on Supported Lipid Bilayer Formation and Structure</i> , <u>Nathan Wittenberg</u> , <u>Ashley Baxter</u> , <u>Michael Farley</u> , <u>Joseph Saba</u> , Lehigh University

Innovative Approaches to Antibody Analysis Chair: Nathan Wittenberg, Lehigh University	
2:40	<i>A Generic mAb Subunit LC-MS Assay for In-Vivo Drug-to-Antibody Ratio and ADC Concentration Determination in Pre-Clinical Studies</i> , <u>John F. Kellie</u> , GlaxoSmithKline
3:00	<i>Electro-Flow Asymmetric Field Flow Fractionation Characterization of the NIST Monoclonal Antibody Standard RM 8671</i> , <u>Robert Reed</u> , <u>Soheyil Tadjiki</u> , <u>Thorsten Klein</u> , Postnova Analytics Inc.
3:20	<i>Bead-Extraction and Heat-Dissociation (BEHD): A Novel Way to Overcome Drug and Matrix Interference for Small Biotherapeutic Modality such as Domain Antibody</i> , <u>Weifeng Xu</u> , <u>Michael Sank</u> , <u>Renuka Pillutla</u> , Bristol-Myers Squibb
3:40	<i>Multiplexed Residual Process Impurity Monitoring in Antibody-Drug Conjugates by Charged Aerosol Detection</i> , <u>Steven Chin</u> , <u>Tao Chen</u> , Genentech

2018 Preliminary Technical Oral Program

TUESDAY MORNING, NOVEMBER 14

Time	Title, Author(s)
EAS Award for Outstanding Achievements in Mass Spectrometry <i>Sponsored by Agilent Technologies</i> Honoring Yinsheng Wang, University of California-Riverside Chair: Qibin Zhang, University of North Carolina-Greensboro	
8:30	<i>Quantification of Post-Translational Modification Using Stable Isotope Labeled Internal Standard and Mass Spectrometry - An Industry Perspective</i> , Jiang Xinzhao, Amgen Inc.
9:10	<i>Applications of Mass Spectrometry in Biologics Drug Discovery and Development</i> , Xiao Yongsheng, Shire Pharmaceuticals
9:50	Break
10:10	<i>Novel Approaches toward Analysis of Glycolipids</i> , Qibin Zhang, University of North Carolina-Greensboro
10:50	Presentation of the EAS Award for Outstanding Achievements in Mass Spectrometry
10:55	<i>Quantitative Proteomic Approaches for Interrogating Nucleic Acid- and Nucleotide-Binding Proteins</i> , Yinsheng Wang, University of California-Riverside

EAS Award for Outstanding Achievements in Vibrational Spectroscopy Honoring Stephen P. Cramer, University of California-Davis Chair: Bruce Hudson, Syracuse University	
8:30	<i>Biomedical Applications of SERS: Diagnostics, Metabolomics, Forensics</i> , Lawrence Ziegler, Boston University
9:10	<i>Real-Time and Nanoscale Infrared Imaging in the Biosciences</i> , Lisa Miller, Brookhaven National Laboratory
9:50	Break
10:10	<i>Vibrational Inelastic Neutron Scattering</i> , Bruce Hudson, Syracuse University
10:50	Presentation of the EAS Award for Outstanding Achievements in Vibrational Spectroscopy
10:55	<i>Vibrational Spectroscopy of Hydrogen-Processing Enzymes Using Mössbauer Photons - Why the Fuss About Little Bumps and Squiggles?</i> , Stephen P. Cramer, University of California-Davis

American Microchemical Society Benedetti-Pichler Award Honoring Ryan C. Bailey, University of Michigan Session Chair: Robert Vetrecin	
8:30	<i>Microscale Tools for Precision Medicine</i> , Ryan Bailey, University of Michigan
9:10	<i>Miniaturized Devices for the Analysis of Biomolecules Linked to Diseases</i> , Adam T. Woolley, Brigham Young University
9:50	Break
10:10	<i>Plasmonic Nanobiosensors: From Therapeutic Drug and Environmental Monitoring to Optophysiology of Living Cells</i> , Jean-Francois Masson, University of Montreal
10:50	<i>Rapid Dialysis-Based Binding Measurements with 3D-Printed Integrated Membranes</i> , Dana Spence, Michigan State University

Research from our Emerging Forensic Scientists, sponsored by New Jersey Association of Forensic Scientists Chair: Peter Diaczuk, Pennsylvania State University	
8:30	<i>Mass Spectrometry Study of Organic Gunshot Residue</i> , Jillian Mizak, West Chester University
9:10	<i>The Prevalence of Male DNA Under a Female's Fingernails</i> , Alexis Baxter, Cedar Crest College
9:50	Break
10:10	<i>Cathinone Stability</i> , Lexus Rutter, Arcadia University
10:50	<i>Role of Insects in Human Identity</i> , Shayna L. Gray, Scott Lindner, Reena Roy, Pennsylvania State University

Solid State NMR Studies of Disordered Systems Chair: Dewey Barich, GlaxoSmithKline	
8:30	<i>Dynamic Disorder in Regulation of HIV-1 Maturation by Integrating Solid State NMR, cryo-EM, and MD</i> , Caitlin Quinn, University of Delaware
9:10	<i>Solid-State NMR Investigations of Amorphous Pharmaceutical Solids</i> , Joe Lubach, Genentech
9:50	Break
10:10	<i>High-Field Solid-State NMR of Disordered Solids</i> , Dinu Iuga, University of Warwick
10:50	<i>Structural Details from Quadrupolar Solid-State NMR (27Al) of Solution-Processed Thin Films of Aluminum Oxide and Their Group 13 (27Al and 71Ga) Oxide Molecular Precursors</i> , Sophia E. Hayes, Yvonne Afriyie, He Sun, Washington University, Cory Perkins, Douglas A. Keszler, Oregon State University, Kristin Persson, University of California-Berkeley

2018 Preliminary Technical Oral Program

Tuesday Morning continued

Analytical Solutions to Challenges in Impurity Testing Chair: Isabelle Vu Trieu, Waters Corp.	
8:30	<i>Analytical Solutions to Challenges in Headspace-GC/MS Analysis of Volatile Extractable and Leachable Compounds</i> , <u>Xiaoteng Gong</u> , Dajuan Lu, Danny Hower, SGS North America Inc.
8:50	<i>Application of ICP-MS in the Analysis of Residual Genotoxic Impurities</i> , <u>Ila Patel</u> , CJ Venkatramani, Genentech, Inc.
9:10	<i>An In-Depth Look at Osmium Characterization and Impurity Determination by ICP</i> , <u>Thomas J. Kozikowski</u> , Inorganic Ventures
9:30	<i>Characterization of Non-Compendial Reference Standards for Impurities: How Good is Good Enough?</i> , <u>Bernard A. Olsen</u> , Olsen Pharmaceutical Consulting, Christian Zeine, Jens Boertz, LGC Standards
9:50	Break
10:10	<i>External Reference Standards or Relative Response Factors: Considerations for Quantitation of Impurities in Pharmaceuticals</i> , <u>Bernard A. Olsen</u> , Olsen Pharmaceutical Consulting, Christian Zeine, Jens Boertz, LGC Standards
10:30	<i>Using Wavelength-Dispersive X-Ray Fluorescence (WD-XRF) as a Walkup, High-throughput Alternative to Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) for R&D Pharmaceutical Elemental Impurity Applications</i> , <u>Tiffany M. Brucker</u> , Eric J. Borsje, Henrik T, Rasmussen, Vertex Pharmaceuticals

New Developments and Applications of Multidimensional Chromatography Chair: Xiaohua Zhang, Merck & Co.	
8:30	<i>Recent Advances of Multidimensional HPLC: Beyond Peak Capacity and Orthogonality</i> , <u>Kelly Zhang</u> , Genentech
9:10	<i>Applications and Method Development of 2D-LC for Small Molecule Pharmaceutical Analysis</i> , <u>Pankaj Aggarwal</u> , Pfizer
9:50	Break
10:10	<i>Toward Better Detection Sensitivity in 2D-LC: Recent Developments in Theory and Practice</i> , <u>Dwight Stoll</u> , Gustavus Adolphus College
10:50	<i>Adding Mass Detection to a USP Method Using Heart-Cutting Multi-Dimensional Liquid Chromatography</i> , <u>Margaret Maziarz</u> , Claude Mallet, Paul Rainville, Mark Wrona, Waters Corp.

Better Raman Spectroscopy through Chemometrics Chair: Jim Rydzak, Specere Consulting	
8:30	<i>Understanding the Depth Response Profile of Transmission Raman Spectroscopy of Diffusely Scattering Media</i> , <u>Jun Zhao</u> , B&W Tek
8:50	<i>Raman Hyperspectroscopy and Advanced Statistical Analysis: A Novel Universal Method for Disease Diagnostics</i> , <u>Nicole M. Rabovsky</u> , Lenka Halamkova, Igor K. Lednev, University at Albany, SUNY
9:10	<i>Machine Learning Algorithms Applied to Raman Spectroscopic Data</i> , <u>Lenka Halamkova</u> , Igor K. Lednev, University at Albany, SUNY
9:30	<i>Iterative Target Detection for Detection and Classification with an Application in Hyperspectral Imaging</i> , <u>Neal B. Gallagher</u> , Eigenvector Research
9:50	Break

PAT: Having Eyes in the Process Chair: Jim Rydzak, Specere Consulting	
10:10	<i>Near Infrared Solutions for Biopharmaceutical Development and Manufacturing</i> , <u>Adam Hopkins</u> , Mackenzie Speer, Metrohm USA
10:30	<i>Drug Polymorphous Analysis Using Raman and NIR Spectroscopic Techniques: an Application in HME Process Optimization and Real-Time Monitoring</i> , <u>Herman He</u> , Mohammed Ibrahim, Rui Chen, Thermo Fisher Scientific, Jiaxiang Zhang, Michael Repka, University of Mississippi
10:50	<i>NIR Spectroscopy for Endpoint Analysis in Blending Operations</i> , <u>Edward Gooding</u> , Viavi Solutions, Brad Swarbrick, Quality by Design Consultancy
11:10	<i>Autonomous Spectroscopy for Process Monitoring</i> , <u>Brian G. Rohrback</u> , Infometrix, Inc.

2018 Preliminary Technical Oral Program

Tuesday Morning continued

New Developments in GC Analysis Capabilities	
Chair: Brooke Kammrath, University of New Haven & Michelle Gallagher, Dow Chemical Company	
8:30	<i>Ghost Peaks and Artfactually Increased Impurity Peaks in Both Direct Injection and Headspace GC Analyses due to Thermo Lability of Analytes and/or a Common Sample Diluent</i> , <u>Min Li</u> , Huahai US Inc.
8:50	<i>Improvements in Analyses of Volatile Organic Compounds in Complex Matrices</i> , <u>Adam Ahern</u> , Denise Bell, Susan Campbell, PPG
9:10	<i>Development of New Products and Odor Problem Solving Using Gas Chromatography-Mass Spectrometry-Olfactometry Analysis</i> , <u>Michelle Gallagher</u> , Elizabeth Snow, Jim DeFelippis, Jim Bohling, Paul Doll, Melissa Leach, Dow Chemical Company
9:30	<i>GC Inlet Liner Selection for Split and Splitless Analyses</i> , <u>Linx K. Waclaski</u> , Restek Corp.
9:50	Break

Nano Infrared Development	
Chair: Brooke Kammrath, University of New Haven & Andrew Koutrakos, Thor Specialties	
10:10	<i>Non-Contact Submicron Spatial Resolution IR Spectroscopy and Imaging of Pharmaceutical Samples</i> , <u>Curtis Marcott</u> , Light Light Solutions, Eoghan Dillon, Debra Cook, Craig Prater, Photothermal Spectroscopy Corp, Neil Lewis, Independent Consultant
10:30	<i>Non-Contact Sub-Micron Infrared Spectroscopy Using Visible Probe Detection</i> , <u>Eoghan Dillon</u> , Craig Prater, Photothermal Spectroscopy Corp., Curtis Marcott, Light Light Solutions
10:50	<i>Examining Performance of Confocal Raman Microscope Using Nanocarbon Materials</i> , <u>Alexander Rzhetskii</u> , Thermo Fisher Scientific
11:10	<i>Dynamic Fluorescence Measurements of Rose Bengal Photooxidation</i> , <u>Yinan Zhang</u> , Sharon L. Neal, University of Delaware

Surface Analyses for Cultural Heritage I, organized by the New York Conservation Foundation	
Chair: Bart J. C. Devolder, Princeton University	
8:30	<i>Old Museum Collections as a Source for New Chemical Analyses</i> , <u>Jennifer A. Loughmiller-Cardinal</u> , Igor Lednev, University at Albany
9:10	<i>Investigation of Painted Decorations and Soluble Nylon Coating on Japanese Sugito at the Philadelphia Museum of Art</i> , <u>Georgia A. Arbuckle-Keil</u> , Rutgers University, Beth A. Price, Kate Duffy, Matthew Dustin, Peggy Olley, Katie Shulman, Wei Kao, Felice Fischer, Philadelphia Museum of Art
9:50	Break
10:10	<i>Spectroscopic and Diffraction Analysis of Verdigris Pigment & Alteration Products on Organic Substrates (Paper and Gum Arabic)</i> , <u>Marcie B. Wiggins</u> , Emma Heath, Karl S. Booksh, Jocelyn Alcantara-Garcia, University of Delaware
10:50	<i>Egg as a Medium in Ancient Mycenaean, Greek and Roman Painting</i> , <u>Norman Muller</u> , retired Princeton University Art Museum

TUESDAY AFTERNOON, NOVEMBER 13

Time	Title, Author(s)
EAS Award for Outstanding Achievements in Magnetic Resonance	
Sponsored by Bruker BioSpin and New Era Enterprises	
Honoring Clare P. Grey, University of Cambridge	
Chair: Sophia E. Hayes, Washington University	
1:00	<i>A Rewarding Journey into the Disordered World of Ion Conductors</i> , <u>Yan-Yan Hu</u> , Po-Hsiu Chien, Xuyong Feng, Jin Zheng, Florida State University
1:40	<i>Atomistic View of Structure and Functional Dynamics of HIV-1 Virus Assemblies - an Integrated NMR, MD, and QM/MM Approach</i> , <u>Tatyana Polenova</u> , University of Delaware
2:20	Break
2:40	<i>NMR Studies of Paramagnetic Materials: Structure-Activity Relationships in High Energy Li-Ion Cathodes</i> , <u>Fulya Dogan</u> , Argonne National Laboratory
3:20	Presentation of the EAS Award for Outstanding Achievements in Magnetic Resonance
3:25	<i>Developing and Applying New Tools to Understand How Materials for Li and "Beyond-Li" Battery Technologies Function</i> , <u>Clare P. Grey</u> , University of Cambridge

2018 Preliminary Technical Oral Program

Tuesday Afternoon continued

The Current and Future Role of HILIC in the Separation World Chair: Fabrice Gritti, Waters Corp.	
1:00	<i>Hydration of Counterions Plays a Major Role in Retention and Selectivity in Hydrophilic Interaction Chromatography</i> , <u>Andrew J. Alpert</u> , PolyLC Inc.
1:40	<i>Hydrophilic Interaction Chromatography: What are Its Advantages and Limitations?</i> , <u>David V. McCalley</u> , University of the West of England- Bristol
2:20	Break
2:40	<i>Surface Chemistry Considerations in HILIC: Their Impact on Solvent Dynamics and Retention Mechanisms</i> , <u>David Bell</u> , Restek Corp.
3:20	<i>Evaluation of New HILIC Columns for Pharmaceutical Analysis: Successes and Challenges</i> , <u>Zachary Breitbach</u> , AbbeVie

Forensic Microscopy "What is it? Who does it?," sponsored by the New York American Chemical Society Chair: Thomas Kubic, John Jay College	
1:00	<i>Exploiting Nanoparticles as Trace Evidence: Benefits and Considerations</i> , <u>Christopher Palenik</u> , Microtrace LLC
1:40	<i>The Analysis of Dyed Beaver Furs Using Microspectrophotometry and Fluorescence</i> , <u>Frani Kammerman</u> , <u>Aslex Comanescu</u> , <u>Tiffany Millet</u> , John Jay College
2:20	Break
2:40	<i>Microscopy as a Tool in Environmental, Health, and Safety Investigations</i> , <u>Andrew Havics</u> , pH2, LLC
3:20	<i>Screenshot</i> , <u>Peter Diaczuk</u> , Pennsylvania State University

Analytical Solutions to the Worlds Problems Chair: Brian Eitzer, The Connecticut Agricultural Experiment Station	
1:00	<i>Wastewater-Based Monitoring of Community Health and Behavior</i> , <u>Kevin Bisceglia</u> , Hofstra University
1:40	<i>Analytical Solutions to Regulatory and Other Monitoring Problems</i> , <u>Steven Lehotay</u> , United States Department of Agriculture
2:20	Break
2:40	<i>Air Quality Monitoring in Nairobi</i> , <u>Priyanka de Souza</u> , Senseable City Lab
3:20	<i>Analytical Challenges in Studies of Pesticides and Pollinators</i> , <u>Brian Eitzer</u> , <u>Kimberly Stoner</u> , <u>Richard Cowles</u> , The Connecticut Agricultural Experiment Station

Modern Advances in Gas Chromatography, sponsored by the Chromatography Forum of the Delaware Valley Chair: Marcelo Filgueira, Dow Chemical Company	
1:00	<i>Bridging the Gaps between Comprehensive Multidimensional Separation Techniques</i> , <u>Tadeusz Gorecki</u> , University of Waterloo
1:40	<i>Analysis of Stem Cells by Comprehensive Two-Dimensional Gas Chromatography/Time-of-Flight Mass Spectrometry</i> , <u>John Dimandja</u> , Georgia Institute of Technology
2:20	Break
2:40	<i>Adsorption Chromatography with New Intuvo GC Platform</i> , <u>Peilin Yang</u> , <u>Ronda Gras</u> , <u>Yujuan Hua</u> , <u>Jim Luong</u> , Dow Chemical Company
3:20	<i>Improving Accuracy and Repeatability with Single Injection MS/Polyarc Split for E/L and VOC Analyses</i> , <u>Andrew Jones</u> , Activated Research Company

Pharmaceutical Drug Product Quality Chair: Leonel Santos, United States Pharmacopeia	
1:00	<i>Public Standards for Radioactive Drugs</i> , <u>Steve Zigler</u> , PETNET Solutions, <u>Ravi Ravichandran</u> , United States Pharmacopeial Convention
1:40	<i>Impact of a Packaging System on Drug Quality and USP's Effort to Revise its Packaging Standards</i> , <u>Desmond Hunt</u> , United States Pharmacopeia
2:20	Break
2:40	<i>Over-the-Counter Drug Product Standard – USP Initiatives</i> , <u>Sujatha Ramakrishna</u> , United States Pharmacopeia
3:20	<i>Over-the-Counter Drug Product Standard – Industry Initiatives</i> , <u>Kylen Whitaker</u> , One Health, <u>Procter and Gamble</u>

2018 Preliminary Technical Oral Program

Tuesday Afternoon continued

Spectroscopy Hits the Clinic, organized by The Coblenz Society Chair: Brandye Smith-Goettler, Merck & Co.	
1:00	<i>Surgical Engineering Enables Intravital Imaging of Mechanisms of Metastasis in Primary and Secondary Sites</i> , <u>David Entenberg</u> , Einstein College of Medicine
1:40	<i>Chemical Imaging with a Quantum Cascade Laser for Rapid Cancer Assessment</i> , <u>Rohit Bhargava</u> , Kevin Yeh, Shachi Mittal, University of Illinois at Urbana-Champaign
2:20	Break
2:40	<i>Diagnostic Optics</i> , <u>Rohith Reddy</u> , University of Houston

Advances in Mass Spectrometric Analysis, organized by the NJ Mass Spectrometry Discussion Group Chair: Long Yuan, Bristol-Myers Squibb	
1:00	<i>Proteomics-Metabolomics of Single Cells Using Capillary Electrophoresis Mass Spectrometry</i> , <u>Peter Nemes</u> , University of Maryland
1:40	<i>A Brief History of Microflow Chromatography Mass Spectrometry</i> , <u>Michael Lassman</u> , Merck & Co.
2:20	Break
2:40	<i>High Resolution Mass Spectrometry Bioanalysis</i> , <u>Qin Ji</u> , Bristol-Myers Squibb
3:20	<i>Elucidation of Large Molecules for Higher Order Structures: API</i> , <u>Alex Makarov</u> , Merck & Co.

Enabling Real Time Release Testing with PAT, organized by The Coblenz Society Chair: Brandye Smith-Goettler, Merck & Co.	
1:00	<i>Process Analytics for Real-Time Release Testing</i> , <u>Justin Pritchard</u> , Vertex
1:40	<i>Real-Time Release Testing</i> , <u>Gary McGeorge</u> , Bristol-Myers Squibb
2:20	Break
2:40	<i>PAT Tools Critical for Real-Time Release Testing</i> , <u>Carl Anderson</u> , Duquesne University
3:20	<i>Enabling Real Time Release of Solid Oral Dose Products: A Case Study</i> , <u>Sarah Nielsen</u> , Janssen

Surface Analyses for Cultural Heritage II, organized by the New York Conservation Foundation Chair: John Scott, New York Conservation Foundation	
1:00	<u>Bart J. C. Devolder</u> , Princeton University
1:40	<u>Ted Stanley</u> , Collections Conservation Unit Rare Books & Special Collections
2:20	Break
2:40	<i>An ESR Mobile Universal Surface Explorer</i> , <u>Joseph P. Hornak</u> , Lauren E. Switala, Baron E. Black, Celia A. Mercovich, Anjana Seshadri, RIT Magnetic Resonance Laboratory
3:20	<i>Mobile Analysis in Conservation of Outdoor Surfaces</i> , <u>John Scott</u> , New York Conservation Foundation

WEDNESDAY MORNING, NOVEMBER 14

Time	Title, Author(s)
EAS Award for Outstanding Achievements in the Fields of Analytical Chemistry Sponsored by Bristol-Myers Squibb Honoring Linda McGown, Rensselaer Polytechnic Institute Chair: Isiah M. Warner, Louisiana State University	
8:30	<i>Organic Salts: Tunable Materials for Analytical Applications</i> , <u>Isiah M. Warner</u> , Louisiana State University
9:10	<i>Designer Separations with Smart Nanomaterials</i> , <u>Lisa Holland</u> , West Virginia University
9:50	Break
10:10	<i>Spectroscopy through the Microscope: Probing What's Happening Inside Chromatographic Silica Particles</i> , <u>Joel Harris</u> , <u>David A. Bryce</u> , <u>Jay P. Kitt</u> , University of Utah
10:50	<i>Looks Can be Deceiving: Spectrochemical Analysis Applied to Ocular Surface Phenomena</i> , <u>Frank Bright</u> , State University of New York – Buffalo
11:30	Break
11:45	Presentation of the EAS Award for Outstanding Achievements in the Fields of Analytical Chemistry
11:45	Plenary Lecture: Aptamers: A Case Study in Chemical vs. Biological Evolution , <u>Linda McGown</u> , Rensselaer Polytechnic Institute

2018 Preliminary Technical Oral Program

Wednesday Morning continued

New York Microscopical Society Ernst Abbe Award	
Honoring: Peter R. De Forest, John Jay College of Criminal Justice	
Chairs: John Reffner, John Jay College of Criminal Justice, Brooke Kammrath, University of New Haven	
8:30	<i>Learning about the Small Things that Have Big Impacts on Individual's Lives</i> , <u>Charles Morton</u> , retired, Forensic Analytical Sciences
9:10	<i>The Mystery of the Lost World Trade Center 9/11 Flag: A Trace Evidence Case for the Ages</i> , <u>Nicholas Petraco</u> , Nicholas D. Petraco, John Jay College of Criminal Justice
9:50	Break
10:10	<i>Investigating Potential Mechanisms of Postmortem Hair Root Band (PMRB) Formation</i> , <u>JoAnn Buscaglia</u> , Jack Hietpas, Adam Richard, United States Federal Bureau of Investigation
10:50	<i>Inspiring Microscopy</i> , <u>Peter R. De Forest</u> , John Jay College of Criminal Justice

Averting Drinking Water Disasters with Analytical Chemistry	
Chairs: James Stuart, University of Connecticut, Satinder Ahuja, Ahuja Consulting	
8:30	<i>GenX - Analytical Environmental Chemistry Illustrates the Failures of our Regulatory System</i> , <u>Lawrence B. Cahoon</u> , University of North Carolina-Wilmington
9:10	<i>Green Chemistry Solutions to Water Pollution</i> , <u>Rakesh K. Sharma</u> , University of Delhi, Satinder Ahuja, Ahuja Consulting
9:50	Break
10:10	<i>Challenges to Mitigating the Risks Posed by Cyanobacterial Toxins in the 21st Century</i> , <u>James Metcalf</u> , Institute of Ethnomedicine
10:50	<i>Distribution of Microplastics in Waters Around the New York Metropolitan Area and Assessment of their Role as Potential Vectors of Toxic Compounds</i> , <u>Beizhan Yan</u> , Lamont-Doherty Earth Observatory of Columbia University

Novel Approaches to Analysis of Extreme Eco-Toxicological Contaminants	
Chair: Martin Hackman, New Jersey Department of Environmental Protection	
8:30	<i>Determination of Polycyclic Aromatic Compounds in SRM 1597a via Normal-phase Liquid Chromatography and Gas Chromatography/Mass Spectrometry</i> , <u>Hugh V. Hayes</u> , Andres D. Campiglia, University of Central Florida, Walter B. Wilson, Lane C. Sander, Stephen A. Wise, National Institute of Science and Technology
8:50	<i>Investigation of Photodegradation Products of High-Molecular Weight Polycyclic Aromatic Hydrocarbons in Seawater</i> , <u>Anthony F. T. Moore</u> , Sadia Arif, Andres D. Campiglia, University of Central Florida
9:10	<i>Determination of High Molecular Weight Polycyclic Aromatic Hydrocarbons via Fluorescence Wavelength-Time Matrices and Time-Resolved Excitation Emission Matrices in Environmental Extracts</i> , <u>Khang D. Trieu</u> , Stacy M. Wise, Anthony Santana, Andres Campiglia, University of Central Florida
9:30	<i>New Simultaneous Optical Technique for Monitoring Organic Pollutants in Source Water</i> , <u>Linxi Chen</u> , Adam Gilmore, Reiji Kojima, Karoly Csatorday, HORIBA Scientific
9:50	Break
10:10	<i>Application of Electrochemistry in Extreme Environments</i> , <u>Donald B. Nuzzio</u> , Analytical Instrument Systems
10:30	<i>High Performance Silica Based Organic-Inorganic Hybrid Catalytic Materials for Industrially Significant Organic Transformations & Degradation of Toxic Pollutants Present in Wastewater</i> , <u>Sriparna Dutta</u> , Rakesh K. Sharma, University of Delhi
10:50	<i>Design and Synthesis of Functionalized Magnetic Nanoadsorbents for the Selective Removal of Metal Ions</i> , <u>Kanika Solanki</u> , Rakesh K. Sharma, University of Delhi

Modern Applications of Supercritical Fluid Chromatography, sponsored by the Chromatography Forum of the Delaware Valley	
Chair: Ray McClain, Merck & Co.	
8:30	<i>Innovative Techniques and Applications of Supercritical Fluid Chromatography for Drug Discovery Support</i> , <u>Yingru Zhang</u> , Bristol-Myers Squibb
9:10	<i>Supercritical Fluid Chromatography-Mass Spectrometry for Use in PK/PD Studies</i> , <u>Fangbiao Li</u> , Merck & Co.
9:50	Break
10:10	<i>Advantageous Use of SFC for Separations of Novel Therapeutic Peptides and Peptide Libraries</i> , <u>Manuel Ventura</u> , Chempartner
10:50	<i>Revolutionizing Pharmaceutical Compound Analysis by Implementation of 2D-LC-SFC-MS</i> , <u>Mohammad Al-Sayah</u> , Meenakshi Goel, CJ Venkatramani, Genentech, Eli Larson, Gustavus Adolphus College

2018 Preliminary Technical Oral Program

Wednesday Morning continued

Advances in Spectroscopy for Food Safety and Quality Chair: Suzanne Schreyer, Rigaku Analytical Devices	
8:30	<i>Photonic Devices - Do We have Everything We Need to Put these in the Hands of Consumers?</i> , <u>Ellen Miseo</u> , TeakOrigin
9:10	<i>Lies, Damned Lies and Statistics - How Metrics Make the Model</i> , <u>Suzanne Schreyer</u> , Rigaku Analytical Devices
9:50	Break
10:10	<i>Detecting Herb and Spice Adulteration Using Near-Infrared Spectroscopy</i> , <u>Ariel Bohman</u> , PerkinElmer
10:50	<i>Testing the Next Generation of Quality Assurance Devices for High Commodity Products</i> , <u>Mei-Ling Shotts</u> , Ohio State University

Optimizing HPLC Analysis through Column Selection and Modeling Chairs: Mariann Neverovitch & Elizabeth Moroney, Bristol-Myers Squibb	
8:30	<i>New Reversed-Phase SPP Columns with Alternate Selectivity for Small Molecules</i> , <u>Richard A. Henry</u> , Independent Consultant, <u>Stephanie A. Schuster</u> , <u>Conner McHale</u> , <u>William Johnson</u> , <u>Joseph J. DeStefano</u> , Advanced Materials Technology, Inc.
8:50	<i>Streamlined Reversed Phase HPLC and UHPLC Method Development Using a Combined Column Screening and Software Modeling Approach</i> , <u>Geoffrey M. Faden</u> , MAC-MOD Analytical, <u>Alan P. Mckeown</u> , Advanced Chromatography Technologies
9:10	<i>A Bio-Inert, Durable, and Reliable Surface for HPLC and UHPLC Columns and Components Used in the Analysis of Proteins and Other Difficult Molecules</i> , <u>Jesse Bischof</u> , <u>David Smith</u> , <u>Gary Barone</u> , <u>Luke Patterson</u> , SilcoTek Corp.
9:30	<i>Retention Modeling and In Silico Optimization: An Integral Component of Reverse Phase Liquid Chromatography Method Development</i> , <u>Karthik Jayaraman</u> , <u>Ashok Kumar Rajendran</u> , <u>Saravanan Natarajan</u> , <u>Santosh Gandhi</u> , <u>Mallikarjun Narayanam</u> , <u>Hemant Bhutani</u> , Bristol-Myers Squibb - Biocon Research Center
9:50	Break

Challenges in Pharmaceutical Analysis: Formulations and Method Transfer Chairs: Mariann Neverovitch & Elizabeth Moroney, Bristol-Myers Squibb	
10:10	<i>A Multicompartment Transfer System: Understanding a Non-Linear In-Vivo Behavior of Compound A Amorphous Solid Dispersion</i> , <u>Sanjaykumar Patel</u> , <u>Andre Hermans</u> , <u>Hanmi XI</u> , <u>James Ormes</u> , <u>Wei Zhu</u> , <u>Binfeng Xia</u> , <u>Filippos Kesisoglou</u> , <u>Wei Xu</u> , <u>Justin Pennington</u> , Merck & Co.
10:30	<i>All You Wanted to Know about HPLC Method Development and Transfer, but were Afraid to Ask</i> , <u>Stephanie A. Schuster</u> , <u>Conner W. McHale</u> , Advanced Materials Technology, Inc., <u>Thomas J. Waeghe</u> , Mac-Mod Analytical
10:50	<i>The Effect of Alkaline Earth Cations on Amlodipine Besylate and Croscarmellose Sodium Drug-Excipient Interaction in a Sample Solution</i> , <u>Prasad Panzade</u> , <u>Yuliya Yarkho</u> , Apotex Inc.
11:10	<i>Correlated Chemical and Morphology Imaging to Investigate Formulation Dissolution</i> , <u>Kenneth J. Smith</u> , <u>Tim Prusnick</u> , <u>George Butcher</u> , <u>Hazel Garvery-Cook</u> , Renishaw

Sensitive Electrochemical Methods from Sensors to Catalysis Chairs: Michael B. Hicks & Brittany Kassim, Merck & Co.	
8:30	<i>Neurotransmitter-Metabolite Detection with Fast Scan Cyclic Voltammetry</i> , <u>Alexander G. Zestos</u> , <u>Alexander Mendoza</u> , American University
8:50	<i>Naked-Eye Electrochemical E.coli. Detection</i> , <u>Kwok-Fan Chow</u> , <u>Sachintha Wijesinghe</u> , <u>Jungmin Oh</u> , University of Massachusetts-Lowell
9:10	<i>Performance of Electrochemical Sensor of Nitrite, a Biomarker of Oxidative Stress, in Exhaled Breath Condensate</i> , <u>Ashley Cole</u> , <u>Azam Gholizadeh</u> , <u>Clifford Weisel</u> , <u>Mehdi Javanmard</u> , <u>Vladimir Mishin</u> , Rutgers University
9:30	<i>Zirconium-Iridium Mixed Oxide Electrocatalysts for the Oxygen Evolution Reaction</i> , <u>Edward Y. Zhang</u> , <u>Xiaofang Yang</u> , <u>Bruce E. Koel</u> , Princeton University
9:50	Break

Raman Material Identification Chairs: Michael B. Hicks & Brittany Kassim, Merck & Co.	
10:10	<i>Application of 2D COS Raman Spectra to Structural Elucidation of Polymers</i> , <u>Fran Adar</u> , HORIBA Scientific
10:30	<i>Counterfeit Tablet Analysis Using a Handheld Raman Spectroscopy</i> , <u>Stephen W. Hoag</u> , University of Maryland-Baltimore, <u>Adam J. Hopkins</u> , Metrohm USA
10:50	<i>Improving RMID Results with Handheld Raman Instrument Control Parameters</i> , <u>Adam Hopkins</u> , <u>Mackenzie Speer</u> , Metrohm USA

2018 Preliminary Technical Oral Program

Wednesday Morning continued

Analytical Chemistry on the Go: Handheld Spectroscopy Applications, organized by The Coblenz Society Chair: Brandye Smith-Goettler, Merck & Co.	
8:30	<i>Use of Handheld Spectrometers as Screening Tools for Detection of Substandard and Falsified Medicines, Perceptions and Reality, <u>Mustapha Hajjou</u>, United States Pharmacopeia</i>
9:10	<i>Food Safety Screening with Surface Enhanced Raman Spectroscopy: Ensuring Safe Food Reaches Consumers, <u>Katherine A. Bakeev</u>, Chris Ye, Kevin Hu, Philip Zhou, Jack Zhou, B&W Tek, Qizhen Chen, Xiamen Perser-Tech Ltd. Co.</i>
9:50	Break
10:10	<i>Use of Handheld Raman and Near-Infrared Spectroscopic Techniques for Identifying Counterfeit Lifestyle and Life-Saving Medicines, <u>Sulaf Assi</u>, Thomas Coombs, Jacob McEachran, Bournemouth University</i>

WEDNESDAY AFTERNOON, NOVEMBER 14

Memorial Session Honoring Richard Saferstein, sponsored by New Jersey Association of Forensic Scientists Chair: Thomas Brettell, Cedar Crest College	
1:30	<i>Dr. Richard Saferstein's Contributions to Forensic Science in New Jersey, <u>Thomas Brettell</u>, Cedar Crest College</i>
2:10	<i>Forensic Mass Spectrometry: A Discussion Honoring the Immeasurable Contributions of Dr. Richard Saferstein to the Field of Forensic Science, <u>Adam Hall</u>, Northeastern University</i>
2:50	<i>Leader, Mentor, Friend, <u>Neil Jespersen</u>, St. John's University</i>
3:30	<i>Remembering Dick Saferstein: The Man Who Saved EAS from Extinction, <u>Steve Scypinski</u>, Daiichi Sankyo, Inc.</i>

Enhancement Strategies in Raman and Infrared Spectroscopy, organized by The Coblenz Society Chair: Brandye Smith-Goettler, Merck & Co.	
1:30	<i>Directional Raman Scattering: A Tool for Measuring Adsorption and Chemical Content at Smooth Interfaces, <u>Emily A. Smith</u>, Charles K.A. Nyamekye, Iowa State University, Stephen C. Weibel, Surface Photonics Inc.</i>
2:10	<i>Surface Enhanced Raman Spectroscopy for Food Safety Applications, <u>Lili He</u>, University of Massachusetts - Amherst</i>
2:50	<i>Pharmaceutical Case Studies Using Transmission Raman, <u>Julia Griffen</u>, Agilent Technologies</i>
3:30	<i>What are the Physical Limits to Field Amplification and Intensity Enhancement in Surface Enhanced Raman Spectroscopy?, <u>Stefan Franzen</u>, North Carolina State University</i>

Testing of Active Compounds and Contaminants in Food & Cannabis Products Chair: Oscar Liu, BeyondSpring Pharmaceuticals	
1:30	<i>Determination of Polyphenols, Glycoalkaloids and Saponins in Solanum scabrum Fruits Using LC/UV/MS, <u>Bo Yuan</u>, James Simon, Qingli Wu, Rutgers University</i>
1:50	<i>Functional Cannabis: Pharmacological Foundations of Cannabis Chemovars, <u>Mark Lewis</u>, Napro Research</i>
2:10	<i>Terpenes and Residual Solvents in Cannabis by Headspace GCMS, <u>Thomas Mancuso</u>, David Scott, Lee Marotta PerkinElmer Inc.</i>
2:30	<i>Cannabinoid Monitoring in Dried Cannabis Flower and Edibles by HPLC-PDA, <u>Jamie Foss</u>, PerkinElmer</i>

Ensuring Quality of Pharmaceutical Products Chairs: Leonel Santos and Sujatha Ramakrishna, United States Pharmacopeia	
1:30	<i>USP-FDA Collaboration: Development of a Documentary Public Standard Diphenhydramine and Phenylephrine Hydrochlorides Oral Solution, <u>Clydewyn M. Anthony</u>, Leonel M. Santos, United States Pharmacopeial Convention, Douglas Kirkpatrick, Jan Yang, Margaret Fein, Federal Drug Administration</i>
1:50	<i>USP Monograph Modernization - Ion Chromatography Applications, <u>Harihara Subramanian Narayanan</u>, Metrohm USA</i>
2:10	<i>Strategy and Troubleshooting for Analytical Method Transfers to Global Manufacturing Sites in Support of a Small Molecule Multistep Synthesis, <u>Peter I. Tattersall</u>, Xuejun Xu, Xin Bu, Lydia Breckenridge, Mohan Kanthasamy, Adrian Doggett, Diarmuid Scanlon, Morgan O'Sullivan, Bristol Myers Squibb</i>
2:30	<i>Multiple Techniques for Determination of Amorphous Content of Crystalline Pharmaceutical Materials, <u>Charles Potter</u>, TA Instruments</i>
2:50	<i>The Karl Fischer Titration Process, <u>Bruce C. Herzig</u>, MilliporeSigma</i>
3:10	<i>Accurate Moisture Determination in Lyophilized Products, <u>Kerri-Ann Blake</u>, Metrohm USA</i>

2018 Preliminary Technical Oral Program

Wednesday Afternoon continued

Proteomics and Protein Bioanalysis Chair: Wenyng Jian, Janssen R&D	
1:30	<i>Wide Pore Superficially Porous Particles with Various Bonded Phases for High Resolution Protein Chromatography</i> , <u>William Miles</u> , Barry Boyes, Benjamin Libert, Stephanie Schuster, Brian Wagner, Conner McHale, Advanced Materials Technology
1:50	<i>Application of Time-Resolved Fluorescence Spectroscopy to Monitor Protein Higher Order Structure Changes</i> , <u>Sergey Arzhantsev</u> , United States Food and Drug Administration
2:10	<i>Proteomic Analysis of the Lake Trout (<i>Salvelinus Namaycush</i>)</i> , <u>Emmalyn J. Dupree</u> , Bernard Crimmins, Thomas Holsen, Costel C. Darie, Clarkson University, James Pagano, SUNY Oswego
2:30	<i>Mass Spectrometry Based Proteomics Investigation of Induced Obstructive Sleep Apnea (OSA) in Rat Atria</i> , <u>Costel C. Darie</u> , Devika Channaveerappa, Jacob Lux, Kelly L. Wormwood, Clarkson University, Brian Panama, Meredith McLerie, Masonic Labs
2:50	<i>Preventing Separation Anxiety: Strategies and Techniques for Improved Biomacromolecule Separations</i> , <u>Cory E. Muraco</u> , Gary Oden Jr., Michael Ye, MilliporeSigma

Optimization of Laboratory Practices Chair: Penny Moore	
1:30	<i>A New Route to Automation of Experimentation</i> , <u>Scot Abbott</u> , Phoenix
1:50	<i>Reviving and Repurposing Laboratory Equipment</i> , <u>Scot Abbott</u> , Phoenix

It's Not Too Late to be Part of the 2018 Program!

We invite you to contribute a paper for consideration for a **poster presentation**. EAS seeks contributions from scientists in all areas of analysis, which make its program uniquely strong. This year's theme is "**Analytical Solutions to the World's Problems**" we encourage papers on green techniques. New for 2018 – EAS will be using E-Posters!



The poster features a circular logo on the left with the text "EASTERN ANALYTICAL SYMPOSIUM & EXPOSITION" and "EAS" in the center. Below the logo is a stylized green illustration of a globe surrounded by icons representing various aspects of sustainability and industry, including a wind turbine, a factory, a house, a bicycle, and a person. The main text is arranged in a vertical stack on the right side of the poster.

2018 EASTERN ANALYTICAL SYMPOSIUM & EXPOSITION

ANALYTICAL SOLUTIONS
TO THE WORLD'S PROBLEMS

November 12-14, 2018
Crowne Plaza Princeton Conference Center
Plainsboro, NJ

**CALL FOR
E-PAPERS**

Poster Presentations: March 1–September 1
Online Submission at eas.org