**WEDNESDAY, NOVEMBER 17, 12:00 – 1:30 PM EASTERN**

**Remote Posters: Interactive Session**

**Install the latest version of Zoom on your device.** You need the latest version of Zoom installed on your laptop in order to utilize the self-select breakout room feature. You do **not** need a paid Zoom account, a free account is fine.

- **JOIN THE ZOOM MEETING** and enter the main room. Please share your video and audio to foster interactions!
- Breakout rooms will be labeled with poster code (e.g. FP 009 or FP 310). Presenters will be in their breakout room with their screen shared and ready to ‘present’ to you or answer questions.
- Using the table of contents below identify the breakout room you wish to visit.

- You may enter and exit breakout rooms as you wish. Note that each time you exit a breakout you will land back in the main meeting where you can choose a new breakout from the list.

*Detail of poster titles and authors are provided on the next pages. If you wish to read an abstract, please consult the online planner or mobile app. Simply enter the poster code in the ‘Search’ to quickly locate corresponding abstract.*

**Table of Contents**

- Art, Archaeology & Paleontology .......... FP 040; FP 041
- Artificial Intelligence in MS Instrumentation and Applications .......................... FP 047
- Biomarkers: Discovery ............................ FP 056
- Biomolecular Structure Analysis: Chemical Crosslinking and Covalent Labeling .... FP 077
- Cannabis ........................................... FP 082; FP 083.5
- Clinical Analysis ..................................... FP 096
- Data-Independent Acquisition ............. FP 107.5; FP 110; FP 113
- Environmental: General ......................... FP 157
- Environmental: Pharmaceuticals and Pesticides ........................................... FP 171
- Epigenetic Modifications ....................... FP 176
- Food Safety & Chemistry: Foodomics, Allergens, Bacteria, Foods, and Supplements ...... FP 193
- Food Safety: General .............................. FP 208; FP 210
- Forensics ............................................. FP 222
- Fundamentals: Ion Structure/Energetics .......... FP 236
- Glycoproteins ................................. FP 267; FP 272; FP 276
- Imaging MS: Disease Markers ............ FP 301; FP 302; FP 303
- Imaging MS: Instrumentation .............. FP 305
- Imaging MS: Pharmaceuticals, Metabolites, and Lipids .................................. FP 334
- Imaging MS: Sample Preparation ............ FP 344
- Informatics: Algorithms and Statistical Advances ........................................... FP 350
- Informatics: Metabolomics ...................... FP 360
- Informatics: Peptide ID and Quantification .... FP 369
- Instrumentation: General ...................... FP 388
- Instrumentation: New Developments in Mass Analyzers .................................. FP 414
- Ion Mobility: Applications ..................... FP 432
- Ion Mobility: Fundamentals ................... FP 446
- Ion Mobility: General ............................ FP 449
- LC/MS: Chromatography and Software ........... FP 461.5

*Table of Contents continues on next page.*
Table of Contents, continued

LC/MS: Sample Preparation ....................................... FP 480
Metabolomics: Targeted and Quantitative Analysis ........................................... FP 542
Metabolomics: Untargeted Metabolite Profiling ................................ FP 553; FP 554; FP 556; FP 557
Natural Products ....................................................... FP 567
Nucleic Acids and Oligonucleotides ........................................... FP 572; FP 590; FP 591; FP 592

Peptidomics .......................................................... FP 607.5; FP 609
Polymers ................................................................. FP 626
Proteins: PTMs ........................................................ FP 660
Proteomics: Clinical Applications ........................................... FP 672
Proteomics: Top Down Analysis ........................................ FP 721.5
Single Cell MS .......................................................... FP 733

Art, Archaeology & Paleontology (REMOTE POSTERS)

FP 040 Oil paints: identification of siccative oil and cross-links from museum size sample by chemical
depolymerization and ultra-high resolution mass spectrometry; Caterina Bordi1; Ziad Mahmoud4; Anais
Genty-Vincent2, 3; Fabrice Bray1; Marie-Amélie Senot4; Michel Menu4, 3, Christian Rolando1, 5; 1Miniaturization
for Synthesis, Analysis & Proteomics, USR 3290, CNRS, University of Lille, Villeneuve d’Ascq, France; 2Centre
de Recherche et de Restauration des Musées de France (C2RMF), Paris, France; 3Chimie-ParisTech, PSL,
Institut de Recherche de Chimie-Paris (IRCP), Paris, France; 4LaM, Lille Métropole Musée d’art moderne, d’art
contemporain et d’art brut, Villeneuve d’Ascq, France; 5Shrieking Sixties, 1-3 Allée Lavoisier, Villeneuve
d’Ascq, France

FP 041 Non-destructive proteomics of archaeological and palaeontological bones based on tape strip sampling;
Fabrice Bray1; Stéphanie Flament1; Tarek Oueslati2; Christian Rolando1; 1MSAP USR 3290, villeneuve d’ascq,
France; 2HALMA - UMR 8164, VILLENEUVE D ASCQ, France

Artificial Intelligence in MS Instrumentation and Applications (REMOTE POSTERS)

FP 047 MAGPIE: A machine learning approach for confidence assessment of protein-protein interactions in human
plasma; Emily Hashimoto-Roth1; Diane Forget1; Vanessa Gaspar2; Steffany A. L. Bennett1; Marie-Soleil
Gauthier3, 3; Benoit Coulombe2, 3; Mathieu Lavallée-Adam1; 1University of Ottawa, Ottawa, ON; 2Institut de
recherches cliniques de Montréal, Montreal, QC; 3Université de Montréal, Montréal, QC

Biomarkers: Discovery (REMOTE POSTERS)

FP 056 Nanoparticle-based method identifies 2200 proteins in a cardiovascular disease study covering known
biomarkers among other differentially expressed proteins; Michael Burgess1; Hasmik Keshishian1; Michelle
Dubuke2; Juan Cruz Cuevas2; Laurie Farrell3; Debby Ngo3; Karsten Krug1; Dr Mani1; Robert Gerszten3; Steven
A Carr1; 1Broad Institute of MIT and Harvard, Cambridge, MA; 2Seer Inc., Redwood City, CA; 3Beth Israel
Deaconess Medical Center, Harvard Medical School, Boston, MA

Biomolecular Structure Analysis: Chemical Crosslinking and Covalent Labeling (REMOTE POSTERS)

FP 077 Can Overlabeling with DEPC Give Correct Protein Structural Information?; Zachary J Kirsch1; Richard W.
Vachet1; 1University of Massachusetts Amherst, Amherst, MA

Cannabis (REMOTE POSTERS)

FP 082 Analysis of Cannabinoids in Milk from Cows Consuming Spent Hemp using Ultra High-Performance Liquid
Chromatography-Tandem Mass Spectrometry; Daniel G Nosal1, 2; Massimo Bionaz3; Ruth N. Muchiri2;
Richard B van Breemen1, 2; 1Voinich Biosciences, Corvallis, OR; 2Oregon State University, Corvallis; 3Oregon
State University, Corvallis, OR

FP 083.5 ICP-MS Analysis of Cannabis Sativa Containing Food Products Using a Novel CRM Heavy Metal Mix (As, Cd,
Hg and Pb); Stephan Altmaier; Merck KGaA, Darmstadt, Germany
Clinical Analysis (REMOTE POSTERS)

FP 096 Reducing the False Positive of Isovaleric Acidemia in Newborn Screening using Flow Injection Analysis-Tandem Mass Spectrometry; Takanari Hattori; Misa Tanaka; Yoshitomo Notsu; Miki Matsui; Tetsuo Iida; Jun Watanabe; Hironori Kobayashi; Shimizu, Kyoto, Japan; Shimane University Hospital, Izumo, Japan

Data-Independent Acquisition (REMOTE POSTERS)

FP 107.5 Rapid proteome analysis using DIA and super-resolution Orbitrap mass spectrometry; Sophia Steigerwald; Lili Niu; Kyle Fort; Arne Kreutzmann; Daniel Marc Mourad; Konstantin Aizikov; Dmitry Grinfeld; Alexander Makarov; Florian Meier; Matthias Mann; Max-Planck Institute of Biochemistry, Planegg, Germany; Novo Nordisk Foundation Center for Protein Research – University of Copenhagen, Copenhagen, Denmark; Thermo Fisher Scientific (Bremen) GmbH, Bremen, Germany; University Hospital Jena, Jena, Germany

FP 110 Leveraging a Higher Duty Cycle DIA Acquisition On a Novel QTOF for Enhanced Proteomics Analysis; Ihor Batruch; Yves Leblanc; Jason Causon; Naomi Diaz; Tatjana Talamantes; Anjali Chelur; Nic G. Bloomfield; Stephen Tate; Jose Castro-Perez; SCIEX, Concord, ON; SCIEX, Framingham, MA

FP 113 Staggered windows TOF-DIA: a new approach to the high-throughput proteome analysis of hepatic insulin resistance; Mauro Galli; Arkadiusz Zbikowski; Agnieszka U. Blachnio-Zabiełska; Hady Razak Hady; Piotr Zabiełski; Department of Medical Biology, Medical University of Białystok, Białystok, Poland; Department of Hygiene, Epidemiology and Metabolic Disorders, Medical University of Białystok, Białystok, Poland; 1st Clinical Department of General and Endocrine Surgery, Medical University of Białystok, Białystok, Poland

Environmental: General (REMOTE POSTERS)

FP 157 Trace Analysis of Per- and Polyfluoroalkyl Substances (PFAS) using LC-MS/MS and Automated Solid Phase Extraction (SPE) in Aqueous Matrices; Renee N.G Huang; Stephen Tersigni; Surjit Saini; Santa Clara Valley Water District, San Jose, CA

Environmental: Pharmaceuticals and Pesticides (REMOTE POSTERS)

FP 171 Water analysis platform: LC/MS/MS screening of 325 PPCP contaminants in tap and surface water; Aurore Jaffuel; Watanabe Jun; SHIMADZU Corporation, MS Business Unit, Kyoto, Japan,

Epigenetic Modifications (REMOTE POSTERS)

FP 176 Combining histone PTM analysis with chromatin immunoprecipitation and next-generation sequencing to gain insight into the biological function of histone propionylation; Michael Nshanian; Benjamin Geller; Joshua Gruber; Jeannie Marie Camarillo; Jaison Arivalagan; Young Ah Goo; Juliette Andria Morris; Neil L Kelleher; Michael P Snyder; Department of Genetics, Stanford University, School of Medicine, Stanford, CA; Department of Chemistry, Molecular Biosciences and Proteomics Center of Excellence, Northwestern University, Evanston, IL; Department of Biochemistry and Molecular Genetics, Feinberg School of Medicine, Northwestern University, Chicago, IL; Center for Genomics and Personalized Medicine, Stanford University School of Medicine, Stanford, CA

Food Safety & Chemistry: Foodomics, Allergens, Bacteria, Foods, and Supplements (REMOTE POSTERS)

FP 193 A multidisciplinary approach of non-targeted screening, proteomics, and genome skimming to discover the cause of foodborne illness; Ann M Knolhoff; Melinda A McFarland; Sara M Handy; John B Mangrum; Jennifer L Fong Sam; Timothy R Croley; John H Callahan; FDA, College Park, MD

Food Safety: General (REMOTE POSTERS)

FP 208 Dilute & Shoot Analysis of Aflatoxins in Dried Fruits; Li Sheng; Haiying Wu; Janice Yanlan Chan; Burton Tsang; Derek Wong; Simon Cowell; Canadian Food Inspection Agency (CFIA), BURNABY, BC

FP 210 A practical lock-mass calibrant introduction method for the Q-Exactive to achieve improved identifications in non-targeted analyses; Christine M Fisher; Shannon E Murphy; Ann M Knolhoff; FDA Center for Food Safety, College Park, MD
**Forensics (REMOTE POSTERS)**

| FP 222 | MARLOWE: An Untargeted Proteomics, Statistical Approach to Classification for Forensics; Sarah C. Jenson¹; Fanny Chu¹; Natalie C. Heller¹; Dustin L. Crockett¹; Eric D. Merkley¹; Kristin H. Jarman¹; Pacific Northwest National Laboratory, Richland, WA |

**Fundamentals: Ion Structure/Energetics (REMOTE POSTERS)**

| FP 236 | Fimsbactin and Analogos: Bonding of Felll to Form Complexes to Scavenge Iron; Daryl Giblin¹; Luting Fang¹; Tabbetha Bohac¹; Victoria S. Banas¹; Michael Gross¹; Timothy Wenczek¹; Washington University, St Louis, MO |

**Glycoproteins (REMOTE POSTERS)**

| FP 267 | Virus-Receptor Interactions of Glycosylated SARS-CoV-2 Spike and Human ACE2 Receptor; Peng Zhao¹; Jeremy L Praissmann¹; Oliver Grant¹; Yongfei Cai²; Tianshu Xiao²; Katelyn E Rosenbaum¹; Kazuhiro Aoki¹; Benjamin P Kellman³; Dan H Barouch⁴; Nathan E Lewis³; Michael Tiemeyer¹; Bing Chen¹; Robert J Woods¹; Lance Wells¹; Complex Carbohydrate Research Center, University of Georgia, Athens, GA; Division of Molecular Medicine, Children’s Hospital and Department of Pediatrics, Harvard Medical School, Boston, MA; Departments of Pediatrics and Bioengineering, University of California, San Diego, La Jolla, CA; Center for Virology and Vaccine Research, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA; Novo Nordisk Foundation Center for Biosustainability at University of California, San Diego, La Jolla, CA |

| FP 272 | Automatic MS-based N-linked and O-linked Glycopeptide Characterization with PEAKS GlycanFinder; Weiping Sun¹; Xiaodong Wei¹; Xiyue Zhang¹; Hui Li¹; Baozhen Shan¹; Bioinformatics Solutions Inc, Waterloo, ON |

| FP 276 | N-glycosylation of EpCAM in breast cancer metastasis; Nicole M Jenkinson¹; Caitlin Tressler¹; Elizabeth Gordon¹; Zheqiong Tan¹; Xinyi Elaine Shen¹; Kristine Glunde¹; Russell H. Morgan Department of Radiology and Radiological Science, Division of Cancer Imaging Research, Johns Hopkins University School of Medicine, Baltimore, Maryland; Bruker Daltonics, Billerica, Massachusetts; Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, Maryland; Department of Biological Chemistry, The Johns Hopkins School of Medicine, Baltimore, MD |

**Imaging MS: Disease Markers (REMOTE POSTERS)**

| FP 301 | Parasite-host interactions of unicellular and multicellular organisms, visualized by high-resolution AP-SMALDI MSI; Katja R Wiedermann¹; Alejandra Peter Ventura¹; Stefanie Gerbig¹; Martin Roderfeld⁴; Elke Roeber³; Thomas Quack³; Christoph G Greveling³; Liliana M R Silva³; Carlos R Hermosilla³; Anja Taubert³; Kerstin Strupat³; Bernhard Spengler³; Institute of Inorganic and Analytical Chemistry, Justus Liebig University, Giessen, Germany; Gastroenterology, Justus Liebig University, Giessen, Germany; Institute of Parasitology, Justus Liebig University, Giessen, Germany; Thermo Fisher Scientific (Bremen) GmbH, Bremen, Germany |

| FP 302 | An integrated MS strategy using high-resolution AP-MALDI-MSI and UHPLC-MRM to investigate brain cholesterol metabolism in Huntington’s Disease mouse model; Alice Passoni¹; Angela Marika Siciliano¹; Alessia Lanno¹; Laura Colombo¹; Monica Favagrossa¹; Mario Salmona¹; Renzo Bagnati¹; Enrico Davoli¹; Istituto di Ricerche Farmacologiche Mario Negri IRCCS, Milan, Italy |

| FP 303 | Highly-Multiplexed and Multiomic Mass Spectrometric Imaging with Photocleavable Mass-Tags; Gargey B. Yagnik¹; Ziyung Liu¹; Kenneth J. Rothschild¹; Mark J. Lim¹; AmberGen, Inc., Watertown, MA; Boston University, Boston, MA |

**Imaging MS: Instrumentation (REMOTE POSTERS)**

| FP 305 | Benefits of high resolution ion mobility separation on the Cyclic IMS for DESI mass spectrometry imaging; Susan E Slade¹; Ludovic Muller²; Nivedita Hegdekar³; Chinmoy Sarkar³; Marta M Lipinski³; Maureen Kane²; Emmanuelle Claude¹; Waters Corporation, Wilmslow, United Kingdom; Department of Pharmaceutical Sciences, University of Maryland School of Pharmacy, Baltimore, MD; Department of Anaesthesiology, Shock, Trauma and Anaesthesiology Research (STAR) Center, University of Maryland School of Medicine, Baltimore, MD |
**Imaging MS: Pharmaceuticals, Metabolites, and Lipids (REMOTE POSTERS)**

FP 334  
Zebrafish larvae as toxicity model for drug development using imaging mass spectrometry; Junhai Yang, James Sawicki, Nari Talaty, Steven Cassar, Wayne Buck, David Wagner, AbbVie Inc, Waukegan, IL

**Imaging MS: Sample Preparation (REMOTE POSTERS)**

FP 344  
Quantitative Investigation of Matrix Spraying Parameters for MALDI Mass Spectrometry Imaging Using Factorial Design and Automated Measurements of Delocalization; Nathaniel C Riemann, Caitlin Tressler, Sloane Tilley, Christopher Donohue, Eric Barton, Jason Fan, Ethan Yang, Alain Creissen, Kristine Glunde, Johns Hopkins University School of Medicine, Baltimore, MD; HTX Technologies, LLC, Chapel Hill, NC; Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, Maryland; Department of Biological Chemistry, Johns Hopkins University School of Medicine, Baltimore, Maryland

**Informatics: Algorithms and Statistical Advances (REMOTE POSTERS)**

FP 350  
MS1Connect: a mass spectrometry run similarity measure; Andy Lin, Janine Hutchison, Brooke Deatherage Kaiser, Jeffrey Bilmes, William Noble, Pacific Northwest National Laboratory, Richland, WA; University of Washington, Seattle, WA

**Informatics: Metabolomics (REMOTE POSTERS)**

FP 360  
Automated GC-MS Chromatogram Alignment for Metabolomic Compound Identification; Anastasiya V. Prymolenna, Yuri E. Corilo, Robert E. Danczak, Chaevien S. Clendinen, Lee Ann Mccue, Environmental Molecular Sciences Division, Pacific Northwest National Laboratory, Richland, WA; Biological Sciences Division, Pacific Northwest National Laboratory, Richland, WA

**Informatics: Peptide ID and Quantification (REMOTE POSTERS)**

FP 369  
Next-generation library searching for DDA experiments using Scribe; Brian C. Searle, Damien Beau Wilburn, The Ohio State University, Columbus, OH; Proteome Software, Portland, OR

**Instrumentation: General (REMOTE POSTERS)**

FP 388  
New high voltage power supplies for triple quadrupole MS polarity switching in under 5 ms; Oleg Silivra, Harald Oser, Michael Ugarov, David Minkler, Claudia Martins, Neloni Wijeratne, Thermo Fisher Scientific, San Jose, CA

**Instrumentation: New Developments in Mass Analyzers (REMOTE POSTERS)**

FP 414  
Teaching an old geometry new tricks: Poschenrieder for Charge Detection Mass Spectrometry (CDMS); John B Hoyes, Gavin Wray, TrueMass, Rowarth, United Kingdom

**Ion Mobility: Applications (REMOTE POSTERS)**

FP 432  
Comparison of small agrochemical isobars across various ion mobility spectrometry mass spectrometry (IMS-MS) systems; Chris J Brown, Sarah Dowd, Dale Cooper-Shepherd, Nick Wang, Yelena Adelfinskaya, David Mccaskill, Chelsea Plummer, Jesse L Balcer, Erin Gemperline, Jeffrey R Gilbert, Corteva Agriscience, Indianapolis, IN; Waters Corp, Milford, MA; Waters, Wilmslow, United Kingdom

**Ion Mobility: Fundamentals (REMOTE POSTERS)**

FP 446  
Collision cross sections of polyoxometalate anions and determination of Lennard-Jones interaction parameters of Mo and W in He and N2; Sébastien Hupin, Vincent Tognetti, Séverine Renaudineau, Anna Proust, Guillaume Izzet, Frederic Rosu, Valérie Gabelica, Carlos Afonso, Helene Lavanant, Normandie Univ, UNIROUEN, INSA Rouen, CNRS, COBRA, 76000 Rouen, France, Mont St Aignan, France; Sorbonne Université, CNRS, UMR 8232, Institut Parisien de Chimie Moléculaire, PARIS, France; CNRS, University of Bordeaux and INSERM, Institut Européen de Chimie et Biologie (IECB, UMS3033, US001), Pessac, France; University of Bordeaux, INSERM and CNRS, Laboratoire Acides Nucléiques: Régulations Naturelle et Artificielle (ARNA, U1212, UMRS320), Pessac, France
Ion Mobility: General (REMOTE POSTERS)

FP 449 High-precision, high-resolution ion mobility: how standardizing relative mobilities can push the frontiers of isomer-specific assays; Alice Martynova1; Addison E. Roush1; Benjamin Zercher1; Emily L. Pruitt1; Tatjana Talamantes2; Jessica Perez2; Daniel Debord3; Nathan Roehr2; Grego Van Aken2; Gordon A. Anderson3; Miklos Gutman3; Libin Xu1; Matthew F. Bush1; 1University of Washington, Seattle, WA; 2MOBILion Systems, Chadds Ford; 3GAA Custom Electronics, LLC, Kennewick, WA

LC/MS: Chromatography and Software (REMOTE POSTERS)

FP 461.5 A Hybrid Stationary Phase of Ion-Exchange and Hydrophilic Interaction Chromatography for the LC/MS of Polar Compounds; Xiaoning Lu1; Shun-Hsin Liang2; 1Restek Corporation, Bellefonte, PA; 2Restek, Bellefonte, PA

LC/MS: Sample Preparation (REMOTE POSTERS)

FP 480 The utility of nanoparticle protein coronas for studying the plasma glycoproteome; Gary Wilson1; Sangtae Kim2; Shadi Ferdozi2; Marshall W Bern3; 1Protein Metrics, Inc., Cupertino, CA; 2Seer, Redwood City, California

Metabolomics: Targeted and Quantitative Analysis (REMOTE POSTERS)

FP 542 Fast diagnosis of methylmalonic academia based on DMS-MS; Chiraz El Saddik1; Eskander Alhajji1; Fathi Moussa1; Jean-François Benoist2, 3; Philippe Maître4; 1Université Paris-Saclay, CNRS, Institut de Chimie Physique, UMR8000, ORSAY, France; 2Université Paris-Saclay, Faculté de Pharmacie, Châtenay-Malabry, France; 3Hôpital Necker Enfants Malades, Paris, France

FP 553 LCMS based spatial metabolomics identifies metabolites altered by Influenza Virus (IAV) infection in plasma and lung tissue; Danya A Dean1; London Klechka1; Myron Hinsdale2; Krystin Eaton2; Adwaita Parab1; Ekram Hossain1; Laura-Isobel Mccall1; 1University of Oklahoma, NORMAN, Oklahoma; 2Oklahoma State University, Stillwater, Oklahoma

FP 554 The Core Human Fecal Metabolome; Jacob J Haffner1, 2; Mitchelle Katemauswa1, 2, 3; Thérèse S Kagone4, 5; Ekram Hossain6, 7; David Jacobson1, 2; Karina Flores4, 6; Adwaita Parab1, 2, 7; Alexandra J Obregon-Tito1, 2; Raul Y Tito1, 2; Luis Marin Reyes1; Luzmila Troncoso-Corzo8; Emilio Guija-Poma9; Nicolas Meda10; Hélène Carabin11, 12, 13, 14; Tanvi P Honap1, 2; Krithivasan Sankaranarayanan2, 7; Cecil M Lewis Jr1, 2; Laura-Isobel Mccall2, 3, 7; 1Department of Anthropology, University of Oklahoma, Norman, OK; 2Laboratories of Molecular Anthropology and Microbiome Research (LMAMR), University of Oklahoma, Norman, OK; 3Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK; 4Burkina Faso Ministry of Health, Ouagadougou, Burkina Faso; 5Centre MURAZ Research Institute, Bobo-Dioulasso, Burkina Faso; 6Department of Biology, University of Oklahoma, Norman, OK; 7Department of Microbiology and Plant Biology, University of Oklahoma, Norman, OK; 8Instituto Nacional de Salud, Lima, Peru; 9Facultad de Medicina, Universidad Nacional Mayor de San Marcos, Lima, Peru; 10Centro de Investigación de Bioquímica y Nutrición, Facultad de Medicina Humana, Universidad de San Martín de Porres, Lima, Peru; 11Department of Biostatistics and Epidemiology, College of Public Health, University of Oklahoma Health Sciences Center, Oklahoma City, OK; 12Département de Pathologie et Microbiologie, Faculté de médecine vétérinaire, Université de Montréal, Saint-Hyacinthe, QC; 13Département de médecine sociale et préventive, École de santé publique de l’université de Montréal, Montréal, Quebec, Canada; 14Centre de Recherche en Santé Publique de l’université de Montréal et du CIUSS du Centre Sud de Montréal, Montréal, QC

FP 556 Visceral leishmaniasis impact on local; Mahbobeh Lesani1; Andrea Paun2; Michael Lewis3; Laura-Isobel Mccall1; 1University of Oklahoma, Norman, OK; 2National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD; 3London School of Hygiene and Tropical Medicine, London, United Kingdom; 4University of Oklahoma, Norman, OK

FP 557 How the urinary metabolome of hospitalized COVID-19 patients with and without acute kidney injury led to improved metabolomics analysis; Stephen Barnes1; Landon S. Wilson1; Taylor F. Berryhill1; Jeffrey C. Edberg1; Nathaniel H. Raines2; Samir Parikh3; 1University of Alabama at Birmingham, Birmingham, AL; 2Harvard Medical School, Boston, MA; 3Harvard Medical School, Boston, Massachusetts
## Natural Products (REMOTE POSTERS)

**FP 567** Investigation of the antibacterial activity against foodborne pathogens and chemical composition of Psidium guajava extract and partitions; Angela I Calderon; Audrey M Hall; Swati Baskiyar; Michelle D Hayden; Emefa Monu; 1Auburn University, Auburn, AL

## Nucleic Acids and Oligonucleotides (REMOTE POSTERS)


**FP 590** Rapid Screening of Megadalton Native mRNA and dsDNA using Charge-Reduced Ion Mobility Spectrometry; Ananya Dubey Kelsoe; W. Henry Benner; JaredClark; 1IonDX Inc., Monterey, CA

**FP 591** Development of Ex Vivo Stress Models to Predict In Vivo Stability of Oligonucleotides and Associated Delivery Strategies; Phillip Chu; Neelie Zacharias; Sumit Mahajan; Chun-wan Yen; Hao Cai; Craig Blanchette; Baris Bingol; Cong Wu; 1Janssen Research & Development, The Janssen Pharmaceutical Companies of Johnson & Johnson, South San Francisco, CA

**FP 592** Development and Validation of a Paired-Ion Gradient UHPLC Triple Quadrupole Method for a Synthetic Oligonucleotide in Human Plasma and Feces; Alan M Dzerk; Patrick S Miller; Sarajlic Emina; Chris J Kafonek; Nachi Ridha; 1Celerion, Inc, Lincoln, NE

## Peptidomics (REMOTE POSTERS)

**FP 607.5** Validation of Mild Acid Elution of MHC Class II Immunopeptides from Antigen Presenting Cells for Vaccine Development; Teesha C. Luehr; Leonard J. Foster; 1University of British Columbia, Vancouver, BC; 2Michael Smith Laboratories, Vancouver, BC

**FP 609** MHC Associated Peptide Proteomics (MAPPs) using an automated tip-based workflow on the Agilent AssayMAP Bravo; Jason Lamar; Violet Lee; Sylvia Wong; Lynn Kamen; Peter Tran; Ben Ordonez; Shan Chung; Surinder Kaur; Ola M Saad; 1Genentech, So. San Francisco, CA

## Polymers (REMOTE POSTERS)

**FP 626** Solvent-less thermal extraction to detect volatile extractables from medical device materials; Milani R Wijeweera Patabandige; Keaton S Nahian; Berk Oktem; Eric M Sussman; Byeonghwa Yun; Samantha Wickramasekara; 1FDA, College Park, MD

## Proteins: PTMs (REMOTE POSTERS)

**FP 660** Histone Analysis using LC-TIMS-PASEF-MS/MS; Cassandra N. Fuller; Khoa N. Pham; Mario E. Gomez Hernandez; Natarajan V. Bhanu; Benjamin A. Garcia; Francisco A. Fernandez-Lima; 1Department of Chemistry and Biochemistry, Florida International University, Miami, FL; 2Epigenetics Program, Department of Biochemistry and Biophysics, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA

## Proteomics: Clinical Applications (REMOTE POSTERS)

**FP 672** Developing the Mass Spectrometry-Based Multi-omics Technologies for Exploring the Energy Metabolism Pathways of Renal Cancer and Clinical Applications; Yi-Ting Chen; Wei-Ju Tu; Chien-Lun Chen; 1Chang Gung University, Taoyuan, Taiwan; 2Chang Gung Memorial Hospital, Taoyuan, Taiwan

## Proteomics: Top Down Analysis (REMOTE POSTERS)

**FP 721.5** Characterization of hemoglobin variants by chimeric ion-loaded top-down mass spectrometry and R scripts based on diagnostic ions; Yuan Lin; Lissa C. Anderson; Archana M. Agarwal; Alan G. Marshall; 1Department of Chemistry and Biochemistry, Florida State University, Tallahassee, FL; 2ion cyclotron resonance program, National High Magnetic Field Laboratory, Tallahassee, FL; 3University of Utah, Salt Lake City, UT; 4ARUP Institute for Clinical and Experimental Pathology, Salt Lake City, Utah
Single cell mass spectrometry metabolomic studies of primary and metastatic cancer cells; Tra D Nguyen¹; Zhibo Yang¹; ¹University of Oklahoma, Norman, OK