

POSTER LIST

All posters will be displayed Monday and Tuesday.
Each day: even-numbered posters present 1:30-2:15 pm; odd-numbered posters present 2:15-3:00 pm.

Poster Board	Topic	Poster Board	Topic
01-02	Biomarkers and Targeted MS Assays	38-45	New Technologies
03-08	Cancer Proteomics	46	Pathogen Proteomics
09	Cardiovascular Disease	47-51	Post-Translational Modifications
10	Chromatin Dynamics	52	Protein Quality Control
11-13	Clinical Proteomics	53-61	Proteomics in Ageing and Age-Related Diseases
14-24	Computation, Informatics and Big Data	62-64	Proteomics in Drug Development
25-26	Data-Independent Acquisition Proteomics (DIA)	65	Single-Cell Proteomics
27-28	Glycoproteomics and Glycomics	66-68	Structural Proteomics
29	High Resolution Mass Spectrometry	69-72	Top-Down Proteomics
30	Imaging	73	Protein Complexes and Interactomics
31-35	Metabolomics	74	Immunopeptidomics
36-37	Neuroproteomics / Neurological Diseases	75-79	Multi-omics
		80-92	Quantitative Proteomics

- Poster 01 **Abundant Protein Depletion and Multiplexed Protein Quantitation of Human Plasma Samples – A Reproducibility and Scaling Study;** Sergei Snovida; Katherine Herting; Ramesh Ganapathy; Ryan Bomgardner; Barbara Kaboord; Chris Etienne; Monica O'Hara; John Rogers; *Thermo Fisher Scientific, Rockford, IL. Featured in Wednesday's plenary on Tips & Tricks.*
- Poster 02 **The Power of Multiplexing- Combining TMT Discovery and Targeted Label Free Quantitation for Biomarker Analysis;** Xiaoyue Jiang¹; Sergei Snovida²; Julian Saba³; David Horn¹; Vic Spicer⁴; Oleg Krokhin⁴; Rosa Viner¹; Andreas Huhmer¹; *¹Thermo Fisher Scientific, San Jose, CA; ²Thermo Fisher Scientific, Rockford, IL; ³Thermo Fisher Scientific, Mississauga, Canada; ⁴University of Manitoba, Winnipeg, MB, Canada*
- Poster 03 **Connecting the Dots Between Metabolic Reprogramming and Protein Function in Cancer;** Emily Canon; Monique Pare Speirs; Max Jones; John Price; *Brigham Young University, Provo, UT. Featured as a Lightning Talk on Mon or Tues.*
- Poster 04 **PTM Knowledge Networks and LINCS Multi-Omics Data for Kinase Inhibitor Drug-Analytics in Lung Cancer;** Xu Zhang¹; Karen Ross²; Jake Jaffe³; Michele Forlin⁴; Cathy Wu⁵; Udayan Guha¹; *¹CCR, NCI, NIH, Bethesda, MD; ²Georgetown University Med. Ctr., Washington DC, Washington DC; ³Broad Institute of Harvard and MIT, Cambridge, MA; ⁴University of Miami, Coral Gables, FL; ⁵University of Delaware, Newark, DE. Featured as a Lightning Talk on Mon or Tues.*
- Poster 05 **Stroma Liquid Biopsy – Pan-Cancer Dysregulation of the Serum Proteome;** Matthew Kuruc¹; Haiyan Zheng²; Amenah Soherwardy²; Swapan Roy¹; *¹Biotech Support Group LLC, Monmouth Junction, NJ; ²Rutgers Center for Proteomics, Piscataway, NJ. Featured in Wednesday's plenary on Tips & Tricks.*
- Poster 06 **A Novel Approach for Isolating Exosomes From Clinical Sample;** Blake Ebert, MS; Alex J Rai, PhD; *Columbia University Medical Center, New York, NY. Featured as a Lightning Talk on Mon or Tues.*
- Poster 07 **Applying Proteomics and Metabolomics to Understand the Role Sphingolipid Signaling in Pancreatic Cancer and Drug Sensitivity;** Max Jones; Monique Speirs; Connor Holman; John Price; *Brigham Young University, Provo, UT. Featured as a Lightning Talk on Mon or Tues.*
- Poster 08 **Using Isotope-Labeled Peptides to Investigate the Impact of Kinase Inhibitors in CML;** Monica Johnson; Tzu-Yi Yang; Candace Guerrero; Laurie L. Parker; *University of Minnesota, Minneapolis, MN*
- Poster 09 **New Protocols to Monitor Proteome Dynamics in the Developing Chordate Heart;** Burcu Vitrinel; Lionel Christiaen; Christine Vogel; *New York University, New York, NY. Featured as a Lightning Talk on Mon or Tues.*
- Poster 10 **Inhibition of KDM4C Leads to Histone Tail Clipping in a Triple Negative Breast Cancer Context;** Shawn Egri¹; Guillermo Peluffo^{2, 3}; Malvina Papanastasiou¹; Kornelia Polyak^{2, 3}; Jacob Jaffe¹; *¹The Broad Institute, Cambridge, Massachusetts; ²Dana Farber Cancer Institute, Boston, MA; ³Harvard Medical School, Boston, MA. Featured as a Lightning Talk on Mon or Tues.*
- Poster 11 **Proteogenomics Approach to Measuring Minimal Residual Disease in Multiple Myeloma;** Bob Bergen; Angela Dispenzieri; David Murray; *Mayo Clinic, Rochester, MN*

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- Poster 12 **Mapping the Pathways of Progressive Pulmonary Sarcoidosis;** Maneesh Bhargava¹; Caleb Easterly¹; Kevin Viken¹; Anna Levin¹; Pratik Jagtap¹; Timothy Griffin¹; Lisa Maier²; ¹University of Minnesota, Minneapolis, MN; ²National Jewish Health, Denver, CO
- Poster 13 **Development of a Multi-Protein Classifier for Ovarian Cancer Detection by the Simultaneous Measurement of 92 Serum Proteins;** Amy Skubitz¹; Kristin Boylan¹; Kate Geschwind¹; Qing Cao¹; Timothy Starr¹; Melissa Geller¹; Robert Bast²; Karen Lu²; Joseph Celestino²; Joseph Koopmeiners¹; ¹University of Minnesota, Minneapolis, MN; ²University of Texas, Houston, TX
- Poster 14 **A Quantitative Evaluation of Algorithms for Isotopic Trace Extraction via Ion Chromatogram Clustering;** Mathew Gutierrez; Amber Yascavage; Rob Smith; University of Montana, Missoula, MT. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 15 **The Human Proteome as of 2018, from the HUPO Human Proteome Project;** Gilbert Omenn¹; Lydie lane²; Emma Lundberg³; Christopher Overall⁴; Young-Ki Paik⁵; Jennifer van Eyk⁶; Tadashi Yamamoto⁷; Eric Deutsch⁸; ¹University of Michigan, Ann Arbor, MI; ²Swiss institute of Bioinformatics, Geneva, Switzerland; ³Scilifelab, Karolinska, Stockholm, Sweden; ⁴University of British Columbia, Vancouver, BC, Canada; ⁵Yonsei Research Center, Seoul, Korea; ⁶Cedar-Sinai Hospital Center, Los Angeles, US; ⁷Niigata University, Niigata, Japan; ⁸Institute for Systems Biology, Seattle, WA, USA
- Poster 16 **Progress Towards Development of an Open Source Human Kinetic Proteomics Software Tool;** Bradley Naylor; Marcus Hadfield; David Parkinson; Austin Hannemann; Paul Hafen; John Dallon; Rob Hyldahl; John Price; Brigham Young University, Provo, UT
- Poster 17 **Spritz: An RNA-Seq Analysis Engine that Enables Proteogenomics on Windows;** Anthony Cesnik; Michael Shortreed; Brian Frey; Lloyd Smith; UW-Madison, Madison, WI. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 18 **A Portable Pathway for Processing Peptide Array Data in KNIME with an Interest in Protein-Protein Interactions;** Lee Parsons; Univ of Minnesota, Plymouth, MN. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 19 **Optimizing Collision Energy in Collision-Induced Dissociation for Peptide Sequencing;** Nandhini Sokkalingam; Luke Schneider; William Wright; Siamak Ashrafi; Adam Tenderholt; Jeffrey Peterson; Veritomyx Inc., Palo Alto, CA. **Featured in Wednesday's plenary on Tips & Tricks.**
- Poster 20 **Increased Accuracy of Peptide de novo Sequencing Using Complementary AI-ETD and HCD Fragmentation;** Kevin Schauer¹; Dan Maloney²; Nicholas Riley¹; Michael Westphall¹; Baozhen Shan²; Joshua Coon¹; ¹University of Wisconsin, Madison, WI; ²Bioinformatics Solutions Inc, Waterloo, Canada
- Poster 21 **timsTOF Pro PASEF Data Processing with an Evolution of PEAKS™ Software;** Baozhen Shan²; Gary Kruppa¹; Heiner Koch³; Markus Lubeck³; Scarlet Koch³; ¹Bruker Daltonics Inc., Billerica, MA; ²Bioinformatics Solutions Inc, Waterloo, Ontario; ³Bruker Daltonik GmbH, Bremen, Germany
- Poster 22 **iOmicsPASS: Integrative-Omics Approach for Predictive Analysis with Subnetwork Signatures in Breast and Colorectal Cancer Subtypes;** Hiroimi Wai Ling Koh^{1,2}; Hyungwon Choi^{1,2}; ¹National University of Singapore, Singapore; ²Institute of Molecular Cell and Biology, A*STAR, Singapore. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 23 **PTMscape: an Open Source Tool to Predict Generic Post-Translational Modifications and Map Hotspots of Modification Crosstalk;** Ginny Li¹; Christine Vogel²; Hyungwon Choi¹; ¹National University of Singapore, Singapore; ²New York University, New York, NY
- Poster 24 **Predicting Cell-Line Specific Protein and Phospho-protein Abundances in Cancers;** Hongyang Li; Gilbert Omenn; Yuanfang Guan; University of Michigan, Ann Arbor, MI. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 25 **Evolution of SWATH® Acquisition Provides Large Gains in Quantified Proteins;** Christie Hunter¹; Nick Morrice²; Joerg Dojahn³; Arianna Jones⁴; ¹SCIEX, Redwood City, CA; ²SCIEX, Warrington, UK; ³SCIEX, Darmstadt, Germany; ⁴SCIEX, Framingham, MA
- Poster 26 **Identification of Putative Fibrous Plaque Marker Proteins by Unsupervised Deconvolution of Heterogeneous Vascular Proteomes;** Sarah Parker¹; LuLu Chen⁴; Georgia Saylor³; Chunhong Mao²; Vidya Venkatraman¹; Mitra Mastali¹; Weston Spivia¹; Rakhi Pandey¹; Yue Wang⁴; David Herrington³; Jennifer Van Eyk¹; ¹Cedars Sinai Medical Center, Los Angeles, CA; ²Virginia Tech, Biocomplexity Institute, Blacksburg, VA; ³Wake Forest University, Wake Forest, NC; ⁴Virginia Tech, Arlington, VA
- Poster 27 **Glycopeptide Analysis to Examine the Role of Chlamydial Protease-Like Activity Factor. ;** Julian Saba¹; Christa Feasley²; Fred Zinnel³; Stuart McCorrister⁴; Garrett Westmacott⁴; Grant McClarty⁴; Chris

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Grant⁴; ¹*Thermo Fisher Scientific, Mississauga, Canada*; ²*Thermo Fisher Scientific, West Palm Beach, FL*; ³*Thermo Fisher Scientific, Somerset, NJ*; ⁴*Public Health Agency of Canada, Winnipeg, Manitoba*

- Poster 28 **High Pressure-Accelerated PNGase F Deglycosylation of Native Proteins**; Vera Gross; Nicole Cutri; Alexander Lazarev; *Pressure BioSciences, Inc., South Easton, MA*
- Poster 29 **Develop of a Robust and Reproducible Global Plasma Proteome Profiling Workflow**; Scott M. Peterman¹; David Sarracino²; Amol Prakash³; Kerry Hassell⁴; ¹*Thermo Fisher Scientific, Cambridge, MA*; ²*ThermoFisher, Cambridge, MA*; ³*Optys Tech Corporation, SHREWSBURY, MA*; ⁴*Thermo Fisher Scientific, Somerset, NJ*
- Poster 30 **Approach to the Confident Determination of Elemental Compositions in Mass Spectrometry Imaging Using IR-MALDESI**; Sitora Khodjanizayova¹; Milad Nazari¹; Kenneth Garrard¹; Mayara Matos²; Glen Jackson²; David Muddiman¹; ¹*North Carolina State University, Raleigh, NC*; ²*West Virginia University, Morgantown, WV. Featured as a Lightning Talk on Mon or Tues.*
- Poster 31 **Development of a Novel Strategy for Measurement of the Neurotoxin Beta-N-Methylamino-L-Alanine in Environmental Samples**; Kaylie Kirkwood; Joshua Beri; Michael Bereman; David Muddiman; *North Carolina State University, Raleigh, NC. Featured as a Lightning Talk on Mon or Tues.*
- Poster 32 **Identification of Natural Products as Inhibitors of Bacterial Histidine Kinases**; Joseph Mckillip; Erin Carlson; *Department of Chemistry, University of Minnesota, Minneapolis, MN*
- Poster 33 **Developing New Tools to Enhance the Galaxy-Based Metabolomics Workbench**; Arthur Eschenlauer; Adrian Hegeman; Timothy Griffin; *University of Minnesota, Saint Paul, MN*
- Poster 34 **Novel High-Throughput Metabolomic Techniques and Mainstream Tools for the Discovery of Drug Mechanism of Action**; Akos Vertes¹; Albert-Baskar Arul¹; Andrew R. Korte¹; Hang Li¹; Peter Avar¹; Peter Nemes¹; Lida Parvin¹; Sylwia Stopka¹; Sunil Hwang¹; Ziad J. Sahab¹; Deborah I. Bunin²; Merrill Knapp²; Andrew Poggio²; Carolyn L. Talcott²; Brian M. Davis³; Christine A. Morton³; Christopher J. Sevinsky³; Maria I. Zavodszky³; ¹*Dept. of Chem., The George Washington University, Washington, DC*; ²*SRI International, Menlo Park, CA*; ³*GE Global Research, Niskayuna, NY. Featured as a Lightning Talk on Mon or Tues.*
- Poster 35 **vkmz: Visualizing Metabolomics on a Van Krevelen Diagram through Galaxy**; Mark Esler; *University of Minnesota, Minneapolis, MN*
- Poster 36 **Traumatic Brain Injury Proteomics Guides Novel KCC2-Targeted Therapy**; Pavel N. Lizhnyak; Demisha D.L. Porter; John T. Povloshock; Andrew K. Ottens; *Anatomy & Neurobiology, Virginia Commonwealth Univ, Richmond, VA. Featured as a Lightning Talk on Mon or Tues.*
- Poster 37 **Comparison of the Rat and Human Dorsal Root Ganglion Proteome**; Adam Schwaid¹; Alicja Krasowka-Zoladek²; An Chi¹; Ivan Cornella-Taracido¹; ¹*Merck & Co., Inc., Boston, MA*; ²*Merck & Co., Inc., West Point, PA*
- Poster 38 **High pressure (>30,000 psi) Packing of Capillary Columns for Shotgun Proteomics**; Evgenia Shishkova¹; Alexander Hebert¹; Michael Westphall¹; Joshua Coon^{1, 2}; ¹*University of Wisconsin - Madison, Madison, WI*; ²*Morgridge Institute for Research, Madison, WI*
- Poster 39 **In Silico Design and In Vitro Characterization of Universal Tyrosine Kinase Peptide Substrates**; Laura Marholz; *University of Minnesota, Minneapolis, MN*
- Poster 40 **Development of a Novel LC Concept for Clinical Proteomics**; Nicolai Bache¹; Philipp Geyer²; Ole Hoerning¹; Lasse Falkenby¹; Peter Treit²; Sophia Doll²; Igor Paron²; Florian Meier²; Ole Vorm¹; Matthias Mann²; ¹*Evosep, Odense, Denmark*; ²*Max-Planck Inst. for Biochemistry, Martinsried, Germany. Featured in Wednesday's plenary on Tips & Tricks.*
- Poster 41 **Rapid Trypsin Digestion of Complex Protein Mixtures for Proteomics Analysis**; Judy Boland; Zhiyun Cao; Nicolas Caffarelli; Amber Henry; Jeffrey Turner; Kevin Ray; *MilliporeSigma, St. Louis, Missouri*
- Poster 42 **timsTOF Pro Powered by PASEF for High Speed and Sensitive Shotgun Proteomics**; Gary Kruppa¹; Juergen Cox²; Heiner Koch³; Scarlet Koch³; Baozhen Shan⁴; ¹*Bruker Daltonics Inc., Billerica, MA*; ²*Max Planck Inst. of Biochem., Martinsried, Germany*; ³*Bruker Daltonik, GmbH, Bremen, Germany*; ⁴*Bioinformatics Solutions Inc, Waterloo, ON, Canada. Featured in Wednesday's plenary on Tips & Tricks.*
- Poster 43 **TimsTOF Pro Powered by PASEF for High Sensitivity Phosphoproteomics**; Paul Savage¹; Koch Heiner²; Scarlet Koch²; Markus Lubeck²; Florian Maier³; Oliver Raether²; Andreas Brunner³; Matthias Mann⁴; ¹*Bruker Daltonics Inc., Billerica, MA*; ²*Bruker Daltonik, GmbH, Bremen, Germany*; ³*Max Planck Institute of Biochemistry, Martinsried, Germany*; ⁴*Max-Planck Inst. for Biochemistry, Martinsried, N/A*

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- Poster 44 **Liquid Extraction Surface Analysis (LESA) and LESA Plus Chromatography as Novel Surface Analysis Tools for Mass Spectrometry;** Daniel Eikel; *Advion, Ithaca, NY.*
- Poster 45 **High Pressure Denaturation Improves Protein Digestion by Trypsin;** Vera Gross; Nicole Cutri; Gary Smejkal; Alexander Lazarev; *Pressure BioSciences, Inc., South Easton, MA. Featured in Wednesday's plenary on Tips & Tricks.*
- Poster 46 **Impact of Three Different Mutations in Ehrlichia Chaffeensis in Altering the Global Gene Expression Patterns;** Chandramouli Kondethimmanahalli; Roman Ganta; *Kansas State University, Manhattan, KS. Featured as a Lightning Talk on Mon or Tues.*
- Poster 47 **Quantitative Analysis of Signaling Pathways Using 11plex TMT Reagents and Comprehensive SMOAC Phosphopeptide Enrichment Strategies;** Bhavin Patel; Leigh Foster; Jae Choi; Ryan Bomgarden; John Rogers; *Thermo Fisher Scientific, Rockford, IL*
- Poster 48 **Detection of Post-Translational Modifications Using Mass Spectrometry;** Nathan Zuniga; Marcus Hadfield; Lavender Lin; David Parkins; John Price; *Brigham Young University, Provo, UT. Featured as a Lightning Talk on Mon or Tues.*
- Poster 49 **Adaptation of KALIP for the Development and Prediction of Artificial Peptide Substrates to Monitor FMS-Like Tyrosine Kinase 3 (FLT3) Activity;** Minervo Perez¹; W. Andy Tao³; Laurie L. Parker²; ¹University of Minnesota, Minneapolis, MN; ²University of Minnesota Twin Cities, Minneapolis, MN; ³Purdue University, West Lafayette, IN. *Featured as a Lightning Talk on Mon or Tues.*
- Poster 50 **Finding Proteins Connected to Rheumatoid Arthritis;** Marcus Hadfield¹; David Parkinson¹; Stephen Ames¹; Brad Naylor¹; Lavender Lin¹; Colette Quinn²; Lee Hansen¹; John Price¹; ¹Brigham Young University, Provo, UT; ²TA Instruments, Draper, UT. *Featured as a Lightning Talk on Mon or Tues.*
- Poster 51 **MetaMorpheus for Enhanced Global PTM Discovery (G-PTM-D) and Quantitative Proteomics;** Stefan Soltsev; Michael Shortreed; Brian Frey; Lloyd Smith; *University of Wisconsin, Madison, WI. Featured as a Lightning Talk on Mon or Tues.*
- Poster 52 **Big Data: Ensuring Integrity of Differential Analyzes From Large Scale DIA-MS Experiments;** Andrea Matlock¹; Erin Crowgey²; Vidya Venkatraman¹; Victoria Dardov¹; Jennifer Van Eyk¹; ¹Cedars-Sinai Medical Center, Los Angeles, CA; ²Nemours Children's Health System, Wilmington, DE. *Featured as a Lightning Talk on Mon or Tues.*
- Poster 53 **Complement C3 in Individual Plasma Lipoproteome as a Potential Biomarker of Alzheimer's Disease;** Fangying Huang; Danni Li; *University of Minnesota, Minneapolis, MN*
- Poster 54 **Changes in Glycan and Protein Expression in Aging Brain Nigrostriatal Pathway for Adeno-Associated Virus Mediated Gene Therapy in Parkinson's Disease;** Rekha Raghunathan¹; Nicole Polinski²; Joshua Klein¹; John D. Hogan¹; Chun Shao¹; Kshitij Khatri¹; Deborah Leon¹; Mark McComb¹; Caryl Sortwell²; Joseph Zaia¹; ¹Boston University, Boston, MA; ²Michigan State University, Grand Rapids, MI. *Featured as a Lightning Talk on Mon or Tues.*
- Poster 55 **A Multi-omics Analysis of Lifespan Extension in Mice Through Short-term Calorie Restriction Reveals Mechanisms of Post-Transcriptional Proteome Regulation;** Richard Carson; Bradley Naylor; John Price; *Brigham Young University, Provo, UT*
- Poster 56 **Investigating Mechanisms Which Support Improved Proteostasis;** John Price; *Brigham Young University, Provo, UT*
- Poster 57 **Quantification of the Proteins in Pathways Affected by Autophagy Inhibition in Rat Myoblasts;** Edgar Arriaga; Katherine Muratore; Omprakash Nacham; *University of Minnesota, Minneapolis, Minnesota*
- Poster 58 **Investigation of the Effect of Reduced Synthesis and Degradation on in Vivo Protein Stability;** Lavender Hsien-Jung Lin; Marcus Hadfield; Nathan Zuniga; John C Price; *Brigham Young University, Provo, UT. Featured as a Lightning Talk on Mon or Tues.*
- Poster 59 **The Effects of Apolipoprotein E Isoforms on the Metabolism of Lipid and Protein in Alzheimer's Disease Related Metabolic Pathways;** Russell Denton; Joseph Creery; Joshua Chamberlain; John Price; *BYU, Provo, UT*
- Poster 60 **Phosphoproteomic Investigation of the Mechanism of Calorie Restriction Attenuation by Dietary Protein Signaling;** Joshua Mcphie¹; Marco Hadisurya²; Aaron Moss³; Richard Carson¹; John Price¹; ¹Brigham Young University, Provo, UT; ²Brigham Young University - Hawaii, Laie, HI; ³Brigham Young University - Idaho, Rexburg, ID. *Featured as a Lightning Talk on Mon or Tues.*
- Poster 61 **Dynamics of Proteomics Changes in Presence of ER Stress in ALS Relevant Mouse Neuronal Model;** Shuvadeep Maity¹; Disi An²; Justin Rendleman¹; Esteban Mazzoni¹; Christine Vogel¹; ¹Center for Genomics

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and System Biology, NYU, New York, NY; ²Department of Biology, NYU, New York, NY. **Featured as a Lightning Talk on Mon or Tues.**

- Poster 62 **Utilizing Multi-Omic Network Analysis to Rapidly Assess the Biological Mechanism of Action of Methotrexate;** Nicole Muszynski¹; Melissa Farrow²; Danielle Gutierrez¹; Stacy Sherrod¹; Eric Spivey¹; Tina Tsui¹; James Pino¹; Michael Ripperger¹; Randi Gant-Branum¹; Matthew Hensen²; Kaycei Moton-Melancon²; Jeremy Norris¹; D. Borden Lacy²; John McLean¹; Eric Skaar²; Carlos Lopez¹; John Wikswow¹; Richard Caprioli¹; ¹Vanderbilt University, Nashville, TN; ²Vanderbilt University Medical Center, Nashville, TN
- Poster 63 **Large Datasets and You: Using Proteomics to Design a Biosensor;** John B¹; Minervo Perez²; Laurie L. Parker³; ¹UMN, Minneapolis, MN; ²University of Minnesota, Minneapolis, MN; ³University of Minnesota Twin Cities, Minneapolis, MN. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 64 **Determining Peptide Substrates for Bruton's Tyrosine Kinase Biosensors via the KALIP Process;** Lindsay Breidenbach¹; Minervo Perez²; John B³; Laurie L. Parker⁴; ¹University of Minnesota, Maple Grove, MN; ²University of Minnesota, Minneapolis, MN; ³UMN, Minneapolis, MN; ⁴University of Minnesota Twin Cities, Minneapolis, MN. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 65 **Application for Nanofluidic Devices Towards Single-Cell Proteomics: A Study with Xenopus Laevis Embryos;** Anumita Saha-Shah¹; Melody Esmaeili¹; Peter Klein¹; Benjamin A. Garcia²; ¹University of Pennsylvania, Philadelphia, Pennsylvania; ²University of Pennsylvania School of Medicine, Philadelphia, PA. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 66 **Proteome-Wide Structure-Based Function Prediction Reveals Roles of Proteins Responsible for E. coli Fitness;** Chengxin Zhang; Mehdi Rahimpour; Peter Freddolino; Yang Zhang; *University of Michigan, Ann Arbor, MI. Featured as a Lightning Talk on Mon or Tues.*
- Poster 67 **Development of Hydrogen-Deuterium Exchange Methodology Coupled to Top- and Middle-Down Mass spectrometry Enables High-Resolution Analysis of Histone Dynamics;** Kelly Karch; Mariel Coradin; ZhongYuan Kan; Ben Black; Benjamin Garcia; *University of Pennsylvania School of Medicine, Philadelphia, PA. Featured as a Lightning Talk on Mon or Tues.*
- Poster 68 **Antibody-Antigen Interaction Characterization Using Stopped Flow Assisted Hydrogen Deuterium Exchange Mass Spectrometry;** Zhe Wang¹; Kellye Sutton¹; Michael Ashby¹; Kenneth Smith²; Si Wu¹; ¹University of Oklahoma, Norman, OK; ²Oklahoma Medical Research Foundation, Oklahoma City, OK. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 69 **Expanding Proteoform Identifications and Constructing Proteoform families in Top-Down Proteomics Using Proteoform Suite;** Leah V. Schaffer; Michael R. Shortreed; Anthony J. Cesnik; Brian L. Frey; Stefan K. Solntsev; Mark Scalf; Lloyd M. Smith; *University of Wisconsin, Madison, WI*
- Poster 70 **Development of A High-Performance Sheathless CZE-MS Interface for Top-Down Proteomics;** Lushuang Huang; Zhe Wang; Si Wu; *University of Oklahoma, Norman, OK. Featured as a Lightning Talk on Mon or Tues.*
- Poster 71 **Finding a Needle in a Haystack: Novel Top-down Proteomics Tools for Serum Antibody Analysis;** Zhe Wang¹; Ken Smith²; Si Wu¹; ¹University of Oklahoma, Norman, OK; ²OMRF, Oklahoma City, OK
- Poster 72 **Improved Protein Sequence Analysis by 21 Tesla FT-ICR MS/MS and Advanced Mass Spectral Interpretation;** Lissa Anderson¹; Jeffrey Shabanowitz²; Chad Weisbrod¹; Greg Blakney¹; Donald Smith¹; Donald Hunt²; Christopher Hendrickson¹; ¹NHMFL, Tallahassee, FL; ²Dept. of Chemistry University of Virginia, Charlottesville, VA. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 73 **Examination of the Specific Binding of Cytochrome c on MPA-Coated Gold Nanoparticles via Protein Footprinting;** Emily Tollefson¹; Xi Zhang²; Nikita Rozanov³; Caley Allen³; Rigoberto Hernandez³; Catherine Murphy²; Erin Carlson¹; ¹University of Minnesota, Minneapolis, MN; ²University of Illinois Urbana Champaign, Urbana, IL; ³Johns Hopkins University, Baltimore, MD. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 74 **Tumor-Specific HLA-peptide Identification for Cancer Immunotherapy Using Accurate Epitope Prediction and Targeted Mass Spectrometry;** Jennifer Busby¹; Michele Busby¹; Tyler Murphy¹; Brendan Bulik-Sullivan¹; Matthew Davis¹; Lauren Young¹; Andrew Clark¹; Fujiko Duke¹; Firaz Mohideen¹; Corinne Gustafson²; Assunta De Rienzo²; William G. Richards²; Nhien T. Dao²; Hyeong R. Kim³; Jamie E. Anderson²; Chang-Min Choi³; Vincent De Montpreville⁴; Se Jin Jang³; Olaf Mercier⁴; Raphael Bueno²; Elie Fadel⁴; Joshua Francis¹; Roman Yelensky¹; ¹Gritstone Oncology, Cambridge, MA; ²Division of Thoracic Surgery and Lung Center, BWH, Boston, MA; ³Asan Medical Center, Seoul, Korea; ⁴Centre Chirurgicale Marie Lannelongue, Le Plessis-Robinson, France. **Featured in Wednesday's plenary on Tips & Tricks.**

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- Poster 75 **Integrated Proteogenomic Analyses Reveal Extensive Tumor Heterogeneity and Validate Expression of Somatic Mutations in Lung Adenocarcinoma;** Xu Zhang¹; Paul Rudnick²; Shaojian Gao¹; Shivangi Awasthi¹; David Fenyo³; Udayan Guha¹; ¹CCR, NCI, NIH, Bethesda, MD; ²Spectragen Informatics LLC, Bainbridge Island, WA; ³NYU School of Medicine, New York, NY. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 76 **Using HUPO Proteomics Standards With Software Inputs and Outputs for Galaxy-Based Multi-Omic Informatics;** Thomas McGowan; James Johnson; Subina Mehta; Praveen Kumar; Pratik Jagtap; Tim Griffin; *University of Minnesota, Minneapolis, MN*
- Poster 77 **Active Kinase Characterization Using an Isobaric Labeling Activity-Correlated Protein Profiling Platform (TMT-ACPP);** Hongyan Ma; Paul Sims; Si Wu; *University of Oklahoma, Norman, OK. Featured as a Lightning Talk on Mon or Tues.*
- Poster 78 **Galaxy-Based Multi-Stage Two-Step Database Searching Pipeline for Improved multi-omics analysis;** Praveen Kumar¹; James Johnson¹; Thomas McGowan¹; Matthew Chambers²; Mohammad Heydarian³; Subina Mehta¹; Caleb Easterly¹; Joel Rudney¹; Pratik Jagtap¹; Timothy Griffin¹; ¹University of Minnesota, Minneapolis, MN; ²Vanderbilt University, Nashville, TN; ³Johns Hopkins University, Baltimore, MD. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 79 **A High-throughput Omics Pipeline for Comprehensive Analysis of Challenged Human Cells;** Danielle Gutierrez¹; Carrie Romer¹; Jamie Allen¹; Yuan-Wei Nei²; Melissa Farrow³; Randi Gant-Branum¹; Stacy Sherrod¹; Nicole Muszynski¹; Eric Spivey¹; Salisha Hill¹; Kristie Rose¹; John Wikswo¹; John McLean¹; Eric Skaar³; D. Borden Lacy³; Jeremy Norris¹; Richard Caprioli¹; ¹Vanderbilt University, Nashville, TN; ²Quest Diagnostics, Chantilly, VA; ³Vanderbilt University Medical Center, Nashville, TN. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 80 **Multi-Omics Analysis of Stem Cell Neural Differentiation - Processing SWATH® Acquisition Data in the Cloud with the OneOmics™ Project;** Christie Hunter⁴; Katherine Williams^{2, 3}; Hao Chen³; Joshua Robinson³; Arianna Jones¹; ¹SCIEX, Framingham, MA; ²Sandler Moore Mass Spec Core Facility, UCSF, San Francisco, CA; ³UCSF, Dept of ObGyn & Reproductive Sciences, San Francisco, CA; ⁴SCIEX, Redwood City, CA
- Poster 81 **A Comparison of Quantitative Reproducibility Between DDA Precursor and DIA Fragment Quantification Techniques;** Jacob Lippincott¹; Susan Weintraub²; Sammy Pardo²; Phillip Seitzer¹; Susan Ludwigsen¹; Brian Searle¹; ¹Proteome Software, Portland, OR; ²Univ. of Texas HSC, San Antonio, TX
- Poster 82 **Comprehensive Benchmarking for Label-Free Quantitative Proteomics;** Thevaa Chandere²; Shengchao Liu²; John Denu¹; Anthony Gitter²; James Dowell¹; ¹Wisconsin Institute for Discovery, Madison, WI; ²Morgridge Institute for Research, Madison, WI
- Poster 83 **Statistical Model for dDetecting dDifferentially Abundant Proteins in Isobaric Labeling-Based Protein Quantification Experiments;** Ting Huang¹; Meena Choi¹; Manuel Tzouros²; Nikhil Pandya²; Balazs Banfai²; Tom Dunkley²; Olga Vitek¹; ¹Northeastern University, Boston, MA; ²Roche Innovation Center Basel, Basel, Switzerland. **Featured as a Lightning Talk on Mon or Tues.**
- Poster 84 **Cross-Species Comparison of Proteome Turnover Kinetics;** Kyle Swovick¹; Kevin Welle²; Jennifer Hryhorenko²; Andrei Seluanov¹; Vera Gorbunova¹; Sina Ghaemaghani¹; ¹University of Rochester, Rochester, NY; ²University of Rochester Mass Spectrometry Lab, Rochester, NY
- Poster 85 **Label-Free Quantitative Proteomics of Active Replication Forks;** Ya-Chu Chang¹; Rebecca Rivard²; Yee Mon Thu¹; Susan Kaye Van Riper¹; LeeAnn Higgins¹; Todd William Markowski¹; Katarzyna Kulej²; Jack Hedberg¹; Luke Erber¹; Yue Chen¹; Eric Brown²; Anja Bielinsky¹; ¹University of Minnesota, Minneapolis, MN; ²University of Pennsylvania, Philadelphia, PA
- Poster 86 **Accurate, Sensitive, and Precise Multiplexed Proteomics Using the Complement Reporter Ion Cluster;** Matthew Sonnett; Eyan Yeung; Martin Wühr; *Princeton University, Princeton, NJ*
- Poster 87 **Bayesian Confidence Intervals for Multiplexed Proteomics Integrate Ion-Statistics with Peptide Quantification Concordance;** Leonid Peshkin²; Lillia Ryazanova¹; Martin Wühr¹; ¹Princeton University, Princeton, NJ; ²Harvard Medical School, Boston, MA
- Poster 88 **Intact Protein Quantitation in Complex Samples Using Protein-Level TMT Labeling and Top-down Mass Spectrometry;** Dahang Yu; Zhe Wang; Hongyan Ma; Si Wu; *University of Oklahoma, Norman, OK*
- Poster 89 **Evaluation of Precursor-Based Peptide Quantification Software Tools Within the Galaxy Framework;** Subina Mehta¹; Caleb Easterly¹; James E Johnson¹; Björn Grüning²; Andrea Argentini³; Robert J Millikin⁴; Michael R Shortreed⁴; Lee S Parsons¹; Thomas McGowan¹; Praveen Kumar¹; Lennart Martens³; Lloyd M Smith⁴; Timothy J Griffin¹; Pratik Jagtap¹; ¹University of Minnesota, Minneapolis, MN;

POSTER LIST

All posters will be displayed Monday and Tuesday.

Each day: even-numbered posters present 1:30-2:15 pm; odd-numbered posters present 2:15-3:00 pm.

²University of Freiburg, Freiburg, Germany; ³Ghent University, Ghent, Belgium; ⁴University of Wisconsin, Madison, Wisconsin

- Poster 90 **High-Throughput Untargeted Data-Independent Analysis of Misoprostol Challenged HL60 Cells as a Model for Chemical Threat Assessment;** Roy Martin¹; Brad Williams¹; Danielle Gutierrez²; Jeremy Norris²; ¹Waters, Beverly, MA; ²Mass Spectrometry Research Center, Vanderbilt University, Nashville, TN. **Featured in Wednesday's plenary on Tips & Tricks.**
- Poster 91 **Protein Turnover in a Whole Mouse Model;** Erin Weisenhorn¹; Gary Wilson¹; Emily Wilkerson²; Chris Rose³; Joshua Coon¹; ¹University of Wisconsin-Madison, Madison, WI; ²University of North Carolina, Chapel Hill, NC; ³Genentech, San Francisco, CA
- Poster 92 **Plasma Proteomics Using Label-free Quantification and Tandem Mass Tags in Non-Depleted and Immune-Depleted Samples;** Ling Li; Belinda Willard; Cleveland Clinic, Cleveland, OH