

- TPZ 498 **Integration of Nanoscale HPLC-FTICRMS and HPLC-QIT for Accurate Mass Measurements and High Throughput MS/MS to Achieve Enhanced Proteome Characterization;** Chongle Pan; Nathan VerBerkmoes; Robert Hettich; *Oak Ridge National Lab, Oak Ridge, TN*
- TPZ 499 **A New Isotopically-labeled Cleavable Cross-Linker for Studying Complex Protein Assemblies;** Evgeniy V. Petrotchenko¹; Vyacheslav K. Olkhovik²; Christoph H. Borchers¹; ¹*UNC-Chapel Hill, Chapel Hill, NC*; ²*Institute of New Materials Chemistry, Minsk, Belarus*
- TPZ 500 **Blending Protein Separation and Peptide Analysis Through Real-time Proteolytic Digestion;** Gordon W. Slys; David C. Schriemer; *University of Calgary, Calgary, Alberta, Canada*
- TPZ 501 **An Alternative Method for Top Down Proteomics using MALDI-QIT-TOF MSⁿ;** Koichi Tanaka¹; Rachel Martin²; ¹*Shimadzu Corporation, Kyoto, Japan*; ²*Kratos Analytical Ltd., Manchester, UK*
- TPZ 502 **Differential Proteomic Analysis of Schizosaccharomyces Pombe Using Metabolic Labeling, IEF Prefractionation Combined with Nano-LC ESI MS and 2D-LC ESI MS;** Michael W. Schmidt; Dieter A. Wolf; Alexander Ivanov; *Harvard University, Boston, MA*
- TPZ 503 **New Sequence-Specific Correction Factors for Prediction of Peptide Retention in RP-HPLC: Application to Protein Identification by Off-Line HPLC-MALDI-MS;** Oleg V. Krokhin¹; Stephen Ying¹; Robert Craig²; Victor Spicer¹; Werner Ens¹; Kenneth G. Standing¹; Ronald C. Beavis²; John A. Wilkins²; ¹*University of Manitoba, Winnipeg, MB, Canada*; ²*Manitoba Centre for Proteomics, Winnipeg, MB, Canada*
- TPZ 504 **A New Reagent for Peptide Mass Fingerprinting - Simultaneous Increase in Peptide Coverage and Identification of Arginine-Containing Peptides by MALDI-TOF-MS;** Susan F Wheeler; Edwin M Southern; Vladimir A Korshun; Mikhail S Shchepinov; *Trident Technologies, OGT Operations Ltd, Oxford, OX5 1PF, UK*

WEDNESDAY POSTERS

Wednesday posters should be set up 7:30 – 8:00 am on Wednesday and removed 7:30 – 8:00 pm on Wednesday. Authors of odd numbered posters (i.e., 001, 003, 005) present 8:45 – 10:15 am on Wednesday. Authors of even numbered posters (i.e., 002, 004, 006) present 1:30 – 3:00 pm on Wednesday

ATOMIC ELEMENTAL ANALYSIS

- WPA 002 **ICP-MS Evaluation of the Specificity of Cd interactions with the Estrogen Receptor;** Marc J-F Suter; Victor J Nesatyy; Adrian A Ammann; Barbara V Rutishauser; Rik IL Eggen; *EAWAG, Dübendorf, Switzerland*
- WPA 003 **Metal Ion Detection in Water Samples with Electrospray Ionization;** Shida Shen; Craig Whitehouse; *Analytica of Branford, Branford, CT*
- WPA 004 **Isobar Separation of Cl from S⁺ at Low Energy for Accelerator Mass Spectrometry;** Ilija Tomski¹; Jonathan Doupe²; Gholamreza Javahery¹; Ted Litherland²; ¹*IONICS Mass Spectrometry Group, Concord, ON, Canada*; ²*IsoTrace Laboratory, University of Toronto, Toronto, ON, Canada*
- WPA 005 **Perfluorinated Carboxylic Acid as Ion-Pairing Agent for Reversed Phase Chromatography: Characterization and Determination of Se Species by LC-ICP-MS and LC-MS;** Sasi S. Kannamkumarath¹; Jorgelina C.A. Wuilloud²; Rodolfo G. Wuilloud²; Joseph A. Caruso¹; ¹*University of Cincinnati, OH*; ²*U.S. Food and Drug Administration, Cincinnati, OH*
- WPA 006 **Characterizing a Frequency-Swept Octopole as a High Pass Mass Filter for Elemental FTICR Mass**

Spectrometry; Keith D Zientek; John R Eyler; *University of Florida, Gainesville, FL*

BIOINFORMATICS

- WPB 007 **A Recursive Database Search Strategy to Identify Posttranslational Modifications;** Wenyao Shi¹; Dawn M. Maynard²; Sanford P. Markey¹; Jeffrey A. Kowalak¹; ¹*National Institute of Mental Health, Bethesda, MD*; ²*National Human Genome Res Inst, Bethesda, MD*
- WPB 008 **A Comprehensive Database of Peptide Fragmentation Mechanisms: A Key Step Towards Confident Protein Identification;** Robert Mistrik *HighChem, Ltd., Bratislava, Slovakia*
- WPB 009 **New Software for Protein Identification by Combining De Novo Sequencing and Database Search;** Christopher Hendrie¹; Lei Guo¹; Iain Rogers¹; Zhiwei Wang¹; Ming Li²; ¹*Bioinformatics Solutions Inc, Waterloo, ON, Canada*; ²*University of Waterloo, ON, Canada*
- WPB 010 **Peptide MS/MS Spectral Quality Scoring for Reducing False Positive Database Search Results;** Karl R. Clauser *Millennium Pharmaceuticals Inc., Cambridge, MA*
- WPB 011 **A Method for Evaluating the Effect of SEQUEST Parameters and Database Size on Filtering Criteria;** Jian Wang; Duc Duong; Lijian Liao; Dongmei Cheng; Haiyan Wu; Junmin Peng; *Emory Univ., Atlanta, GA*
- WPB 012 **A Comprehensive Comparison on the de novo Sequencing Accuracy of PEAKS, Bioanalyst, and PLGS;** Bin Ma¹; Amanda Doherty-Kirby¹; Aaron Booy²; Bob Olafson²; Gilles Lajoie¹; ¹*University of Western Ontario, London, ON, Canada*; ²*UVic Genome BC Proteomics Centre, Victoria, BC, Canada*
- WPB 013 **P-Mod, a Statistically-based Algorithm for Matching Unanticipated Modifications on Peptide Sequences to MS-MS Spectra;** Beau T. Hansen²; Sean W. Davey²; Amy-Joan L. Ham¹; Christopher R. Orton²; Olivier Boutaud¹; John A. Oates¹; Daniel C. Liebler¹; ¹*Vanderbilt University, Nashville, TN*; ²*University of Arizona, Tucson, AZ*
- WPB 014 **CHIPS (Complete Hierarchical Integration of Protein Searches), a Database Program for Storing, Filtering and Comparing Sequest Outputs;** Amy-Joan L. Ham²; Sean W. Davey¹; Julie A. Jones¹; Daniel C. Liebler²; ¹*University of Arizona, Tucson, AZ*; ²*Vanderbilt University, Nashville, TN*
- WPB 015 **Towards a Comprehensive and Accurate Method for Automated Protein Identification from 2D-Gels and MALDI-TOFMS Data;** Stephen W. Hunsucker; Jennifer L. Baltz; Lewis M. Brown; Steve Helmke; Mark W. Duncan; *University of Colorado Health Sciences Center, Denver, CO*
- WPB 016 **A Method for the Analysis of Stable Isotope Labeling Data in Proteomics;** Xiang Zhang¹; Wade Hines¹; Jiri Adamec²; John Asara¹; Steve Naylor³; Fred Regnier²; ¹*Beyond Genomics Inc, Waltham, MA*; ²*Purdue University, West Lafayette, IN*; ³*Boston University School of Medicine, Boston, MA*
- WPB 017 **Automated Structural Elucidation of Glycopeptides from MS/MS Spectra;** Baozhen Shan; Kaizhong Zhang; Bin Ma; Cunjie Zhang; Gilles Lajoie; *University of Western Ontario, London, ON, Canada*
- WPB 018 **A Computational Method for Automated De Novo Peptide Sequencing using Cross-Correlated Electrospray Tandem Mass Spectra;** Michael Lin; Matthew Sniatynski; Robert Taylor; Patrick Beaudette; Jason Rogalski; Juergen Kast; *Biomedical Research Centre, Vancouver, BC, Canada*
- WPB 019 **OMSSA: An Efficient MS/MS Peptide Spectra Search Algorithm with Explicit Probability Scoring;** Lewis Y

- Geer¹; Sanford P Markey²; Jeffrey A Kowalak²; Lukas Wagner¹; Ming Xu¹; Dawn M Maynard²; Xiaoyu Yang²; Wenya Shi²; Stephen H Bryant¹; ¹NCBI/NLM/NIH, Bethesda, MD; ²LNT/NIMH/NIH, Bethesda, MD
- WPB 020 **A Comparison of Sequest and Mascot Database Searching Results from Complex Mixture Analysis from Different Instrument Platforms**; Joshua E Elias; Wilhelm Haas; Scott A Gerber; Steven P. Gygi; *Harvard Medical School, Boston, MA*
- WPB 021 **Determining Confidence in Protein Identifications When Using the Mascot Search Engine**; Brent Weatherly; James Atwood; Todd Minning; Cameron Cavola; Ron Orlando; Rick Tarleton; *University of Georgia, Athens, GA*
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- CARBOHYDRATES/OLIGOSACCHARIDES**
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- WPC 022 **Identifying Diagnostic Signals for Structural Determination of Oligosaccharide by MSⁿ using MALDI-QIT-TOF Mass Spectrometry**; Chris W Sutton¹; Masaki Yamada²; Noriyuki Ojima²; David Harvey³; Koichi Tanaka²; ¹Shimadzu Biotech, Manchester, UK; ²Shimadzu Corporation, Kyoto, Japan; ³Glycobiology Institute, Oxford, UK
- WPC 023 **Optimization of Permethylated Glycoprotein Oligosaccharides**; Krystyn E Ross; Ionel Ciucanu; Catherine E Costello; *Boston University, MA*
- WPC 024 **Anion Attachment for Oligosaccharide Mixture Analysis in Negative Mode Electrospray Mass Spectrometry**; Yanjie Jiang; Richard B. Cole; *Univ. of New Orleans, LA*
- WPC 025 **Structural Characterization of Permethylated Oligosaccharides Derived from Glycoproteins Using Malditof/ToF Tandem Mass Spectrometry**; Pilsoo Kang; Yehia Mechref; Milos Novotny; *Indiana University, Bloomington, IN*
- WPC 026 **Fragmentation Patterns of Native and Derivatized Glycosaminoglycan Oligosaccharides**; Joseph Zaia; Namrata Udeshi; Alicia Hitchcock; Estee Naggar; Shiu-Yung Chan; Catherine E. Costello; *Boston University, MA*
- WPC 027 **Controlling Fragmentation of Oligosaccharides on Either Side of the Glycosidic Oxygen Using Different Derivatives at the Reducing End**; Tammy T. Fang; Brad Bendiak; *University of Colorado Health Sciences Center, Denver, CO*
- WPC 028 **Characterization of Pectin Derived Oligosaccharides in Pathogen-Infected Tomato Tissues Using MALDI-MS**; Hyun Joo An; Susan Lurie; Carl Greve; John M Labavitch; Carlito B Lebrilla; *University of California, Davis, CA*
- WPC 029 **New Multifunctional Tags for Oligosaccharides**; Andreas H. Franz; Joanne Hsu; Soo Jin Chang; *University of the Pacific, Stockton, CA*
- WPC 030 **Application of Permethylated/Ion Trap MSⁿ/Fragmentation Library Strategies to Glycosphingolipid Structure Elucidation**; Suddham Singh; Vernon N. Reinhold; Beau Bennion; Steven B. Levery; *University of New Hampshire, Durham, NH*
- WPC 031 **Production and Detection of Sulfated, Heparinase-I Resistant Trisaccharides**; Andre Ziegler; Joseph Zaia; *Boston University School of Medicine, Boston, MA*
- WPC 032 **Stereospecific Fragmentations of Sugars and Glycoconjugates**; Yoko Ohashi¹; Yoshiyuki Itoh¹; Masayuki Kubota²; Mitsuhiro Nakamura¹; Mamoru Ohashi³; Haruki Niwa¹; ¹Univ. of Electro-Communications, Chofu, Tokyo, Japan; ²Thermoelectron Co., Yokohama, Kanagawa, Japan; ³Kanagawa University, Hiratsuka, Kanagawa, Japan
- WPC 033 **Highly Sensitive Detection of Oligosaccharides Labeled with Cyanine Dyes Using Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry**; Akihiko Kameyama¹; Hiromi Ito¹; Shuuichi Nakaya¹; Yasuro Shinohara²; Hisashi Narimatsu¹; ¹AIST, Tsukuba, JAPAN; ²Amersham Biosciences K.K., Tokyo, JAPAN
- WPC 034 **In vivo Quantitative Glucose Metabolite Analysis in Yeast Using Carbon-13 Labeled Sugars to Determine Enzyme Channeling**; Michael A Grayson¹; Daniel Kohl¹; James J Walters¹; Maureen Hughes¹; Michael L Gross¹; James Bashkin²; ¹Washington University in St Louis, MO; ²Consultant, St Louis, MO
- WPC 035 **Complete Assignment of Fragment Ions of Neutral Oligosaccharide in MS/MS Spectrum by MSⁿ Technology**; Noriyuki Ojima¹; Yuko Fukuyama¹; Osamu Nishimura¹; Katsuyoshi Masuda²; ¹Shimadzu Corporation, Kyoto, Japan; ²Suntory Institute for Bioorganic Research, Osaka, Japan
- WPC 036 **Site-Specific Characterisation of the N-glycans of Various Aminopeptidase N Isoforms by ESI-MS/MS and MALDI-TOF/TOF Tandem Mass Spectrometry**; Elaine Stephens; Sarah L Maslen; Jane Sugar; David J Ellar; Dudley H Williams; *University of Cambridge, Cambridge, UK*
- WPC 037 **Chemical Derivatization, Liquid Chromatographic Separation and Tandem Mass Spectrometric Characterization of Keratan Sulfate Oligosaccharides**; Susanne C. Moyer; Shiu-Yung Chan; Catherine E. Costello; Joseph Zaia; *Boston University School of Medicine, MA*
- WPC 038 **Fragmentation of Negative Ions from N-Linked Glycans: Use of Nitrate Adducts to Induce Antenna-Specific Fragmentation**; David J. Harvey *University of Oxford, UK*
- WPC 039 **Development of HPLC Atmospheric Pressure Ionization Tandem Mass Spectrometric Methods for the Determination of Selenosugars in Human Urine**; Kevin A. Francesconi¹; Pedro Traar¹; Sophia Letsiou²; Spiros A. Pergantis²; ¹Karl-Franzens-University Graz, Graz, Austria; ²University of Crete, Heraklion, Greece
- WPC 040 **A Novel Derivatization Process for Oligosaccharides**; Dilusha. S. Dalpathado; Hui Jiang; Marcus. A. Kater; Heather Desaire; *University of Kansas, Lawrence, KS*
- WPC 041 **Heparin Sequencing Using Enzymatic Digestion and ESI-MSⁿ with HOST: A Heparin/HS Oligosaccharide Sequencing Tool**; Ola M. Saad; Julie A. Leary; *University of California, Berkeley, CA*
- WPC 042 **The Application of Mass Spectrometry in Metabolomic Studies of *Campylobacter jejuni* 81-176**; Evelyn C Soo¹; Nadia C S Myktyczuk²; Annie J Aubry¹; Susan M Logan¹; Patricia Guerry⁴; ¹NRC-Institute for Marine Biosciences, Halifax, Canada; ²Dept. Environmental Sciences, Carleton University, Ottawa, Canada; ³NRC-Institute for Biological Sciences, Ottawa, Canada; ⁴Naval Medical Research Center, Silver Spring, MD
- WPC 043
- WPC 044 **Fragmentation of N-Linked Carbohydrates with Q-Trap and ToF-ToF Mass Spectrometers**; David J. Harvey¹; Jane Thomas-Oates²; Jerry Thomas-Oates²; Martin P. Hornshaw^{3,4}; Christof Lenz^{3,4}; Laura Main^{3,4}; ¹University of Oxford, Oxford, UK; ²University of York, York, UK; ³Applied Biosystems, Warrington, UK; ⁴Applied Biosystems, Darmstadt, Germany
- WPC 045
- WPC 046 **An Underivatized Oligosaccharide, LC/MS Method for the Online Analysis of Glycoprotein Therapeutics**; Reb J Russell II¹; Richard Ludwig¹; Jeremy Johnston¹; David Kirkley¹; Da Ren²; Himanshu Gadgil²; Kirk Leister¹; ¹Bristol Myers-Squibb, Syracuse, NY; ²Waters Corp, Milford, MA

- WPC 047 **Identification of Complex Glycoconjugates Related to Congenital Disorders of Glycosylation by FT-ICR MS and MS/MS in Combination with Computational Algorithm;** Sergey Vakhrushev; Michael Mormann; Jasna Peter-Katalinic; *Institute for Medical Physics and Biophysics, Muenster, Germany*
- WPC 048 **Sensitive and Efficient Analysis of Reducing Oligosaccharides;** Arugadoss Devakumar; Matthew S. Thompson; Weidong Cui; James P. Reilly; *Indiana University, Bloomington, IN*
- WPC 049 **Permethylated Profiling of *Caenorhabditis elegans* N- and O-glycans;** John F. Cipollo¹; Antoine Awad¹; Catherine E. Costello²; Carlos B. Hirschberg¹; ¹*Boston University School of Dental Medicine, Boston, MA*; ²*Boston University School of Medicine, Boston, MA*
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- GLYCOPROTEINS**
- WPD 050 **Characterization of Protein Glycosylation using Chip-Based Infusion Nano-electrospray Coupled to a Linear Ion Trap Mass Spectrometer;** Sheng Zhang¹; Dirk Chelius²; Colleen K. Van Pelt¹; ¹*Advion BioSciences, Ithaca, NY*; ²*Thermo Electron, San Jose, CA*
- WPD 051 **Using MALDI TOF/TOF Tandem MS/MS to Map Sites of N-linked Glycosylation After PNGase F Treatment of Human Nephritin;** Salisha Hill; Jamshid Khoshnoodi; Billy Hudson; David B. Friedman; *Vanderbilt University, Nashville, TN*
- WPD 052 **Structural Elucidation of O-linked Glycopeptides by High-Energy Collision Induced Dissociation Using a MALDI-TOF/TOF Tandem Mass Spectrometer;** Sarah L. Maslen; Elaine Stephens; Dudley H Williams; Carol V Robinson; *University of Cambridge, CAMBRIDGE, UK*
- WPD 053 **Product Quality Evaluation of a Recombinant Fusion Protein Using Liquid Chromatography Coupled to a Hybrid QTOF Mass Spectrometer;** Amareth Lim; Charles E. Mitchell; Lihua Huang; Bryan J. Harmon; *Eli Lilly and Company, Indianapolis, IN*
- WPD 054 **Applications of Lectin Affinity Chromatography for Glycoproteins Enrichment Using AP-MALDI Ion Trap Mass Spectrometry;** Nelli L. Taranenko¹; Ashok K. Shukla²; Mukta M. Shukla²; Vladimir M. Doroshenko¹; ¹*MassTech, Inc., Columbia, MD*; ²*Glygen Corp., Columbia, MD*
- WPD 055 **Characterization of a Glycosylated Recombinant Erythropoietin by Liquid Chromatography and Mass Spectrometry;** Jin Wang; Jun Qian; Tom Stevenson; Ben Del Tito; *Neose Technologies Inc., Horsham, PA*
- WPD 056 **Structure of the Transferrin:Receptor Complex as Analyzed by Footprinting and Mass Spectrometry;** Mark R Chance; Olga Zak; Philip Aisen; Rutao Liu; Guozhong Zu; Jing Guan; *Albert Einstein College of Medicine, Bronx, NY*
- WPD 057 **Concerted Mass Spectrometry Strategies for Glycomics, Glycan Sequencing and Glycosylation Site Mapping;** Chia-Wei Lin¹; Chin-Mei Chen¹; Lan-Yi Chang¹; Kay-Hooi Khoo¹; Kay-Hooi Khoo²; ¹*Institute of Biological Chemistry, Taipei, Taiwan*; ²*Core facilities for Proteomics Research, Academia, Taipei, Taiwan*
- WPD 058 **Identification of Unusual Bacterial Glycosylation from Intact Proteins and Identification of Modification Sites by Targeted LC/MS/MS;** Michael Schirm¹; Susan Logan²; Karen Waldron¹; Pierre Thibault³; ¹*University of Montreal, Montreal, (QC) Canada*; ²*Institute for Biological Sciences, Ottawa, (ON) Canada*; ³*Caprion Pharmaceuticals, Montreal, (QC) Canada*
- WPD 059 **Improved Deglycosylation of N-linked Glycoprotein and Sample Preparations for MALDI-TOF Analysis of Oligosaccharides;** Ying Qing Yu; Weibin Chen; Martin Gilar; John C. Gebler; *Waters Corporation, Milford, MA*
- WPD 060 **Characterization of Glycoproteins from Uroplakins Ia and Ib by Mass Spectrometry;** Bo Xie¹; Ulf Sommer¹; Ge Zhou²; Robert Seward¹; Shiu-Yung Chan¹; Tung-Tien Sun²; Catherine E. Costello¹; ¹*Boston University School of Medicine, Boston, MA*; ²*New York University School of Medicine, New York, NY*
- WPD 061 **LC-MS Methods for the Characterization of IgG Glycosylation at the Intact Protein and Peptide Level;** Himanshu S Gadgil; Da Ren; Paul Rainville; Jeff Mazzeo; *Waters Corporation, Milford, MA*
- WPD 062 **Mass Spectrometry and NMR Analysis of the Unusual Glycan Modification of the Flagella of *Methanococcus voltae*;** Sebastien Voisin¹; Sonia L Bardy²; Ken F Jarrell²; Jean-Robert Brisson¹; David Watson¹; Susan M Logan¹; John Kelly¹; ¹*Institute for Biological Sciences, NRC, Ottawa, ON - Canada*; ²*Department of Microbiology and Immunology, Queen's, Kingston, ON - Canada*
- WPD 063 **Systematic Analysis of Glycan and Peptide Backbone of Glycopeptides with MALDI QIT-TOFMS;** Michiko Tajiri¹; Yoshinao Wada²; ¹*Japan Science & Technology Agency, Osaka, Japan*; ²*Research Institute, MCH, Osaka, Japan*
- WPD 064 **Identification and Site-Mapping of O-GlcNAc Modified Proteins;** Lauren E. Ball; Maria G. Buse; *Medical University of South Carolina, Charleston, SC*
- WPD 065 **Novel Reversed-Phase LC/UV/MS Method for Characterization of Intact Antibodies;** Thomas M. Dillon; Margaret Speed Ricci; Gary Pipes; Douglas Rehder; Pavel V. Bondarenko; *Amgen Inc., Thousand Oaks, CA*
- WPD 066 **Toward Simplification of Complex Protein Mixtures: A Combination of Lectin Microcolumns with High-Resolution Analytical Techniques;** Milan Madera; Yehia Mechref; Milos Novotny; *Indiana University, Bloomington, IN*
- WPD 067 **High Field Asymmetric Ion Mobility Mass Spectrometry (FAIMS) Applied to the Analysis of Glycans and Glycopeptides;** Ragnar G. Dworschak¹; Mark Ritchie²; ¹*Ionalytics Corporation, Ottawa, ON Canada*; ²*Waters Corporation, Manchester, UK*
- WPD 068 **A Novel Strategy for Characterization of Glycosylated Proteins Separated by Gel Electrophoresis;** Martin R. Larsen¹; Peter Skottrup²; Peter Hoejrup¹; Peter Roepstorff¹; ¹*Biochemistry and Molecular Biology, SDU, Odense, Denmark*; ²*Molecular Biology, University of Aarhus, Aarhus, Denmark*
- WPD 069 **Using Bioconjugate Techniques and Mass Spectrometry to Identify Active Site Amino Acids of a Recombinant Human Glycosyltransferase;** Jeremiah D Tipton; David H Powell; Nicole A Horenstein; *University of Florida, Gainesville, FL*
- WPD 070 **Investigation of Cationic Peanut Peroxidase Glycans by Electro-spray Ionization Mass Spectrometry;** Cunjie Zhang; Amanda Doherty-Kirby; Robert van Huystee; Gilles Lajoie; *University of Western Ontario, London, Canada*
- WPD 071 **Analysis of N-glycosylated Peptides Using On-Line LC-ESI MS and Off-Line LC MALDI MS;** Per M Hägglund; Jacob Bunkenborg; Shabaz Mohammed; Ole Nørregaard Jensen; Peter Roepstorff; *University of Southern Denmark, Odense, Denmark*
- WPD 072 **Identification of N-glycosylation Sites and Disulfide Bonds of the Luteinizing Hormone Receptor Ectodomain by Mass Spectrometry;** Yongsheng Li; Prema Narayan; David Puett; *University of Georgia, Athens, GA*

- WPD 073 **A Practical Method For Detection And Characterization Of Sulfated Glycopeptides And Its Application To Sulfated Ovine Luteinizing Hormone Alpha Subunit;** Hui Jiang¹; Vladimir, Y. Butnev²; George, R. Bousfield²; Heather, J. Desaire¹; ¹University of Kansas, Lawrence, KS; ²Wichita State University, Wichita, KS
- WPD 074 **Protein and Carbohydrate Structural Elucidation of Fas Ligand Inhibitory Protein;** P. Clayton Gough; Lei Yu; Lihua Huang; *Eli Lilly and Company, Indianapolis, IN*
- WPD 075 **Identification of Glycosylated Peptides from Data-Dependent Neutral-Loss Scans Using a Linear Ion Trap Mass Spectrometer;** Gargi Choudhary; Jae C. Schwartz; Diane Cho; *Thermo Electron, San Jose, CA*
- WPD 076 **Structural Analysis of Carbohydrates in Glycoproteins: A Site-Specific Approach for Proteins with Multiple Glycosylation Sites;** Heather J. Desaire¹; Hui Jiang¹; Mary L. Bandu¹; Dilusha Dalpathado¹; Vladimir Y. Butnev²; George R. Bousfield²; ¹University of Kansas, Lawrence, KS; ²Wichita State University, Wichita, KS
- WPD 077 **De novo Characterization of Tryptic Glycopeptides from a Two-Dimensional Gel Glycoprotein Spot by MALDI-QIT-TOF MS;** Nobuaki Takemori; Naoka Komori; Hiroyuki Matsumoto; *The University of Oklahoma Health Science Center, Oklahoma City, OK*
- WPD 078 **Applications of Glycosidase in Glycoproteins Structure Determination by AP-MALDI MS/MS Analysis;** Ashok K. Shukla¹; Mukta M. Shukla¹; Vladimir M. Doroshenko²; Nelli I. Taranenko²; ¹Glygen Corp., Columbia, MD; ²MassTech, Inc., Columbia, MD
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- ION ACTIVATION/DISSOCIATION**
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- WPE 079 **Advancements in Unknown Identification Using ESI MS/MS;** Mary L. Bandu; Kathryn R. Watkins; Melinda L. Bretthauer; Christopher A. Moore; Thomas D. Grubbs; Heather Desaire; *University of Kansas, Lawrence, KS*
- WPE 080 **'Top Down' Analysis of High Mass Multiply-Charged Protein Ions Using an Ion Trap Mass Spectrometer;** Sharon J. Pitteri; Jason M. Hogan; Scott A. McLuckey; *Purdue University, West Lafayette, IN*
- WPE 081 **Dynamics of Competitive Dissociations of Protonated Amino Acids;** Jianhua Ren¹; Stephen E. Stein²; ¹University of The Pacific, Stockton, CA; ²National Institute of Standards and Technology, Gaithersburg, MD
- WPE 082 **Computational Investigation and H/D Exchange of the Fixed Charge Derivative TMPP and the Charge-Remote Aspartic Acid Cleavage Mechanism;** Kristin A Herrmann¹; Linda A Breci¹; Vicki H Wysocki¹; Erich R Vorpapel²; ¹University of Arizona, Tucson, AZ; ²Pacific Northwest National Laboratories, Richland, WA
- WPE 083 **Determination of "Effective Temperature" of IR Activation in a Quadrupole Ion Trap;** Alawee H Racine; Gary L Glish; *University of North Carolina at Chapel Hill, Chapel Hill, NC*
- WPE 084 **Evaluation of ESI-MSⁿ Ion Trap and MALDI-MSⁿ Ion Trap/Reflectron TOF Mass Spectra (n=1-3) for Incorporation into a Searchable Database;** Ernst Pittenauer¹; Martin Zehl¹; Robert Mistrik²; Günter Allmaier¹; ¹Vienna University of Technology, Vienna, Austria; ²Highchem Ltd., Bratislava, Slovakia
- WPE 085 **Comparison of Dissociation Pathways at Ambient and Elevated Temperatures in a Quadrupole Ion Trap;** April L. Jue; Gary L. Glish; *University of North Carolina, Chapel Hill, NC*
- WPE 086 **Effect of Proline on Photofragmentation of Peptides by Vacuum Ultraviolet Light;** Weidong Cui; Matthew S. Thompson; James P. Reilly; *Indiana University, Bloomington, IN*
- WPE 087 **Comparison of 193 and 157 nm Light for the Non-Statistical Photodissociation of Peptide Ions;** Matthew S. Thompson; Weidong Cui; James P. Reilly; *Indiana University, Bloomington, IN*
- WPE 088 **Systematic Evaluation of Electron Capture Dissociation Efficiency;** Melinda A. McFarland¹; Michael J. Chalmers²; John P. Quinn²; Christopher L. Hendrickson²; Alan G. Marshall¹; ¹Florida State University, Tallahassee, FL; ²National High Magnetic Field Laboratory, Tallahassee, FL
- WPE 089 **Fragmentation Mechanisms of Deprotonated Amino Acids with Acidic Side Chain and Their Derivatives;** Gang Tang; Jianhua Ren; *University of the Pacific, Stockton, CA*
- WPE 090 **Gas-Phase Decomposition of Threonine: Evidence for Backside Displacement;** Scott Vincent Serafin; Kangling Zhang; Thomas Hellman Morton; *University of California, Riverside, Riverside, CA*
- WPE 091 **Physical Aspects of ECD;** Eugene N. Nikolaev¹; Alexander A. Vedenov²; ¹The Institute for Energy Problems of Chemical Phys, Moscow, Russia; ²Kurchatov Institute for Atomic Energy, Moscow, Russia
- WPE 092 **Investigations of energy deposition during Ion/Ion Reactions for Predicting Biomolecular Fragmentation;** Harsha P. Gunawardena; Ravi Amunugama; Scott A. McLuckey; *Purdue University, West Lafayette, IN*
- WPE 093 **Thermal Dissociation of Multiprotein Complexes in the Gas Phase. Investigating the Origin of the Asymmetric Dissociation Behavior;** Igor V. Sinelnikov; Elena N. Kitova; John S. Klassen; *University of Alberta, Edmonton, Canada*
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- ION MOLECULE REACTIONS**
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- WPF 094 **Laser-Induced Acoustic Desorption (LIAD) in a Flowing-Afterglow Guided-Ion Beam Tandem Mass Spectrometer;** John W. Torchia; J. Larry Campbell; Hilka I. Kenttämaa; *Purdue University, West Lafayette, IN*
- WPF 095 **A Supersonic Pyrolysis-Selected Ion Flow Tube Instrument for Reactions of Gas Phase Ions with Organic Radicals;** Shuji Kato; Xu Zhang; G. Barney Ellison; Veronica M. Bierbaum; *University of Colorado, Boulder, CO*
- WPF 096 **Study of Biomolecule Ion/Reagent Gas Molecule Reactions in the Segmented RFQ Interfaced to the O-TOF MS;** Viatcheslav I. Kozlovski; Ilia V. Soulimenkov; Vladimir S. Brusov; Alexandre R. Pikhitelev; Alexei V. Chudinov; Alexandr F. Dodonov; *Institute of Energy Problems of Chemical Physics, Chernogolovka, Russia*
- WPF 097 **Effect of a Hydroxyl Substituent on Reactivity and Thermochemistry of m-Benzyne Analogues in FT-ICR and Flowing-Afterglow Guided Ion Beam Apparatus;** Katrina E. Nizzi; John W. Torchia; F. Sedinam Amegayibor; Jason M. Price; John J. Nash; Hilka I. Kenttämaa; *Purdue University, West Lafayette, IN*
- WPF 098 **Infrared Radiative Association and Dissociation of Gaseous Cluster Ions;** Po Shan Ng¹; Richard A. Marta¹; Travis D. Fridgen²; Terry B. McMahon¹; ¹University of Waterloo, Waterloo, ON, Canada; ²Wilfrid Laurier University, Waterloo, ON, Canada
- WPF 099 **Ion-molecule Reactions of Organoborates Allow Counting of Functionalities in Polyfunctional O-Containing Compounds;** Jayalakshmi Somuramasami; Penggao Duan; Hilka I Kenttämaa; *Purdue University, West Lafayette, IN*
- WPF 100 **Gas Phase Ion-Molecule Reactions in C₅F₈;** Akira Wada¹; Kazuo Fujita¹; Masayumi Ishida¹; Toshiyasu Ichikawa¹; Hiroshi Okada¹; Koki Hiizumi¹; Kiyotoshi

- Takao¹; Kenzo Hiraoka¹; Shinichi Yamabe²; ¹University of Yamanashi, Takeda, Kofu, Japan; ²Nara University of Education, Takabatake-cho, Nara, Japan
- WPG 101 **Ion Molecule Chemistry of Formaldehyde**; Paul F. Wilson; Murray J McEwan; Greg Francis; Colin G Freeman; Michael N Mautner; University of Canterbury, Christchurch, CA NZ
- WPG 102 **Gas-Phase Acidities of Acidic Amino Acids and Their Amides**; Zhong Li; Thomas Millstead; Carolyn J Cassidy; The University of Alabama, Tuscaloosa, AL
- WPG 103 **Do b₃ ions have the Same Structure as Other b ions?**; Julia M. Allen; Gary L. Glish; UNC-CH, Chapel Hill, NC
- WPG 104 **Investigation of the Fundamental Reactivity of Trimethylsilyl Chloride with Acidic Anions: Theory and Experiment**; Christopher J. Petzold; Michael D. Leavell; Kathleen A. Durkin; Julie A. Leary; University of California, Berkeley, CA
- WPG 105 **Reactivity of Aromatic Biradicals Toward Components of Nucleic Acids**; Linan Yang; Anthony Adeuya; F. Sedinam Amegayibor; Hilka I. Kenttamaa; Purdue University, West Lafayette, IN
- WPG 106 **Ion/Molecule Reactions of Trimethylborate with Sulfates and Phosphates**; Ani Temple; Scott Gronert; San Francisco State University, San Francisco, CA
- WPG 107 **Electron Catalyzed Cope Cyclization Studies of 2,5-Substituted-1,5-hexadiene Radical Anions**; Silvi A. Chacko; Paul G. Wenthold; Purdue University, West Lafayette, IN
- WPG 108 **Carbon/Oxygen-Bonded Meisenheimer Complexes in the Gas Phase**; Hao Chen; Huanwen Chen; R. Graham Cooks; Purdue University, West Lafayette, IN
- WPG 109 **A Gas-phase Study of the Reactivity of 4,6-Didehydropyrimidinium Biradicals Toward Neutral Organic Reagents**; Anthony Adeuya; John J. Nash; Hilka I. Kenttamaa; Purdue University, West Lafayette, IN
- WPG 110 **Ion-Molecule Reactions for Functional Group Characterization in Protonated Monofunctional Nitrogen-Containing Compounds**; Karinna M. Campbell¹; Michael A. Watkins¹; Jayalakshmi Somuramasami¹; Brian Winger²; Hilka I. Kenttamaa Kenttamaa¹; ¹Purdue University, West Lafayette, IN; ²Eli Lilly & Co., Indianapolis, IN
- WPG 111 **Charge Inversion via Gaseous Phase Ion/Ion Reactions**; Min He; Scott, A. McLuckey; Department of Chemistry, Purdue University, West Lafayette, IN
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- INSTRUMENTATION: LASER DESORPTION**
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- WPG 112 **Atmospheric Pressure Laser Desorption for Study of Intra-cluster Proton Transfer Mass Spectrometry**; Xiaolin Zhang; Gary R Kinsel; University of Texas, Arlington, TX
- WPG 113 **A Method for Enhancing MALDI Ion Signal from Complex Mixtures**; Vadym D. Berkout; Maciej P. Bromirski; Vladimir M. Doroshenko; Mass Tech., Inc., Columbia, MD
- WPG 114 **Wavelength Tunable mid-IR Nanosecond Light Generation from Optical Parametric Oscillator for IR-MALDI**; Yasutoshi Takada¹; Tetsumi Sumiyoshi¹; Hitoshi Sekita¹; Kazuhiko Fukui²; Katsutoshi Takahashi²; ¹Cyber laser Inc., Tokyo, Japan; ²CBRC, AIST, Tokyo, Japan
- WPG 115 **AP MALDI Performance on a Hybrid Quadrupole - Linear Ion Trap (QqLIT) Instrument**; Bradley B. Schneider; Chris Lock; Thomas R Covey; MDS SCIEX, Concord, ON, Canada
- WPG 116 **On-line Single Droplet Deposition for MALDI-MS**; Xia Zhang; Damien A. Narcisse; Kermit K. Murray; Louisiana State University, Baton Rouge, LA
- WPG 117 **A MALDI-TOF/MS Multiwavelength Geometry for in situ Environmental and Biological Analyses**; Jérôme Bour; Gilles Frache; Marc Dodeller; Natacha Lourette; Benoît Maunit; Jean-François Muller*; LSMCL-Université de Metz, Metz, France
- WPG 118 **Practical Considerations Related to Increasing MALDI-TOFMS Throughput**; Noah P. Christian¹; Kirk S. Boraas¹; James P. Reilly²; ¹Inproteo, Bloomington, IN; ²Indiana University, Bloomington, IN
- WPG 119 **UV/FEL-MALDI-TOFMS of Insoluble Proteins**; Yasuhide Naito; Kunio Awazu; iFEL, Osaka Univ., Osaka, Japan
- WPG 120 **Intermediate Pressure MALDI Inside Ion Funnel for FT ICR**; Alexander I. Spasskij; Oleg N. Harybin; Igor A. Popov; Aleksey S. Kononikhin; Dmitry N. Brumirsky; Konstantin S. Chingin; Vladimir V. Driven; Michael V. Gorshkov; Eugene N. Nikolaev; The Institute for Energy Problems of Chemical Phys, Moscow, Russia
- WPG 121 **MALDI TOF-MS System with High-Repetition Rate Laser for Fast Analysis of Separated Peptide Mixtures**; Eugene Moskovets; Hsuen-Shen Chen; Tomas Rejtar; Viktor Andreev; Barry L. Karger; Barnett Institute, Boston, MA
- WPG 122 **Reduction of Fragmentation in MALDI-FTMS Using Atmospheric Pressure Matrix Assisted Laser Desorption Ionization and Hexapole Ion Storage**; Robert H. Williams; Robert T. McIver, Jr.; IonSpec Corporation, Lake Forest, CA
- WPG 123 **Infrared Atmospheric Pressure MALDI Utilizing a Peltier-Cooled Sample Stage**; Christopher E. Von Seggern; Ben D. Gardner; Robert J. Cotter; Johns Hopkins University School of Medicine, Baltimore, MD
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- INSTRUMENTATION: MASS ANALYZERS**
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- WPH 124 **FT-ICR MS Data Station for Automated High Speed Data-Dependent Acquisition**; Greg T. Blakney; TuKiet T. Lam; Christopher L. Hendrickson; Alan G. Marshall; National High Magnetic Field Laboratory, Tallahassee, FL
- WPH 125 **Cryo and Absorption Trapping on a Transportable Miniature FTMS**; Wayne V. Rimkus; Dean Davis; Siemens Applied Automation, Bartlesville, OK
- WPH 126 **A Gas-Filled Penning Trap to Improve the Performance of the Canadian Penning Trap System**; Zhen Zhou¹; Anthony Levand¹; Jason A. Clark²; Guy Savard¹; Kumar S. Sharma²; Jicheng Wang²; Yuyan Wang²; ¹Argonne National Laboratory, Argonne, IL; ²University of Manitoba, Winnipeg, Canada
- WPH 127 **Addition of External ESI, EI and MALDI Sources to the FEL-FTICR Instrumentation at the FELIX facility in The Netherlands**; Jose J. Valle¹; John R. Eyerl¹; David T. Moore²; Jos Oomens²; Gert von Helden²; Gerard Meijer²; Alan G. Marshall³; ¹University of Florida, Gainesville, FL; ²FOM Institute for Plasma Physics, Nieuwegein, The Netherlands; ³National High Magnetic Field Laboratory, Tallahassee, FL
- WPH 128 **Dynamical Coupling of Ions and Its Effect on Accurate Mass Measurement in FTMS**; Don L. Rempel; Michael L. Gross; Washington University, St. Louis, MO
- WPH 129 **A Novel ICR-cell Design**; Kim F. Haselmann¹; Frank Kjeldsen²; Roman A. Zubarev²; ¹University of Southern Denmark, Odense, Denmark; ²Uppsala University, Uppsala, Sweden
- WPH 130 **Remote Access to FTICR MS Instrumentation at the NHMFL**; Michael A. Freitas¹; Mitchell E. Meade¹; Greg T. Blakney²; TuKiet T. Lam²; Melinda A. McFarland²; Christopher L. Hendrickson²; Alan G. Marshall²; ¹The

- Ohio State University, Columbus, OH; ²The National High Magnetic Field Laboratory, Tallahassee, FL
- WPH 131 **Electron Capture Dissociation of Mass Selected Isoforms of Histone H4**; Mitchell L. Meade; Michael A. Freitas; Ohio State University, Columbus, OH
- WPH 132 **SIMION Modeling of RF-Only Multipole Ion Guides for Injection of Externally Generated Ions in High Field FT-ICR MS**; Steven C. Beu¹; Christopher L. Hendrickson²; Alan G. Marshall²; ¹S. C. Beu Consulting, Austin, TX; ²National High Magnetic Field Laboratory, Tallahassee, FL; ³Florida State University, Tallahassee, FL
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- ISOTOPE RATIO MS**
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- WPI 133 **High Precision Relative Position-Specific Carbon Isotope Ratio Measurements in Alanine and Phenylalanine Analogues**; Christopher J. Wolyniak; Gavin L. Sacks; Bruce S. Pan; Sara K. Metzger; Sarah C. Chiang; J. Thomas Brenna; Cornell University, Ithaca, NY
- WPI 134 **15N/14N Position Specific Isotope Analysis of Polynitrogenous Amino Acids by Enzymatic Deamination**; Tom Brenna; Sven Asche; Gavin L. Sacks; Cornell University, Ithaca, NY
- WPI 135 **Sensitivity Comparison Between Mass Spectrometry and Photoacoustic Spectroscopy for Isotope Ratio Measurement of 13CO₂/12CO₂**; Chul Min Shin¹; Keun Woo Park¹; Seon Young Cho¹; M. Sidharthan¹; Keun Mou Yoo¹; Seong Sik Hong¹; Sung-Ho Kim¹; Sung Hoon Kang²; ¹Soonchunhyang University, Asan, South Korea; ²Medichems Co. Ltd., Asan, South Korea
- WPI 136 **Applications of Stable Isotopes and GC-Combustion-Isotope Ratio Mass Spectrometry in Metabolic Studies**; Henk Schierbeek; Maaikje W Schaart; Trinet Rietveld; Darcos J L Wattimena; Wim J W O van den Berg; Hans B van Goudoever; Erasmus University, Rotterdam, The Netherlands
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- LC/MS SAMPLE PREPARATION**
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- WPJ 137 **Method Development Strategies for Vincristine - A Very Light-Temperature Sensitive and Plastic Strongly Adsorbed Compound**; Viviana Desperati; Fabio Garofolo; Luigi Colombo; Vicuron Pharmaceuticals Inc., Gerenzano (VA), Italy
- WPJ 138 **Development of a Robust LC/MS/MS Assay for the Determination of Analytes with a Wide Range of Polarities in Multiple Species**; Timothy J. Ordway¹; Matthew W. Chapple¹; Karla J. Van Every¹; Sabine Coates Pulver¹; Enaksha R. Wickremsinhe²; Vincent A. Romano²; John H. Mullen²; Michelle M. He²; John R. Perkins¹; ¹Advion BioSciences, Ithaca, NY; ²Eli Lilly, Indianapolis, IN
- WPJ 139 **Direct Injection of MTBE Extracts onto Ultrafast HILIC-MS/MS – Higher Throughput Analysis of Loratadine and Descarboethoxy-loratadine in Human Plasma**; Wei Zhou; Shaolian Zhou; Naidong Weng; Covance Laboratories, Madison, WI
- WPJ 140 **Determining the Production of 2 Novel Drug Dinucleotides in the CD38 Protein Pathway Using An HPLC/MS/MS Triple Quadrupole Method**; Bhasha Desai; Kathleen I. MacKenzie; GlaxoSmithKline, RTP, NC
- WPJ 141 **A Simplified Method for Quantifying Vitamin D Analogs in Biological Fluids Using an SPE-LC MS/MS Approach**; Samir P Tabash; Alvin Berger; Bozena Korczak; Cytochroma, Inc, Markham, ON Canada
- WPJ 142 **On-Line Sample Extraction or Clean-up Using Symbiosis? and Aria 2303 HTLC?: Performance and Comparison in Bioanalytical Assays**; Jian Wang; Pathanjali Kadiyala; Christian Caporusico; James Smalley; Bogdan Slecicka; Steven Wu; Carrie Xu; Timothy Olah; Bristol-Myers Squibb, Princeton, NJ
- WPJ 143 **New Technology in Tissue Homogenization: Using Focused Acoustic Energy to Improve Extraction Efficiency of Drug Compounds Prior to LC/MS/MS Analysis**; Edward J. Takach; Qing Zhu; Shaoxia Yu; Mark Qian; Frank Hsieh; Millennium Pharmaceuticals, Cambridge, MA
- WPJ 144 **Overcoming Matrix Effects Resulting from Phospholipids Using Selective Extractions in Quantitative LC/MS/MS**; Hairui Liang; Patrick Bennett; Tandem Labs, A Division of NWT Inc., Salt Lake City, Utah
- WPJ 145 **Determination of Concomitant Histone Modifications in Mouse Lymphocytes Treated with HDAC Inhibitors**; Chen Ren; Liwen Zhang; Kalpana Ghoshal; Samson T. Jacob; Michael A. Freitas; The Ohio State University, Columbus, OH
- WPJ 146 **Supported Liquid Membrane Clean-up and/or Enrichment of Nitrofurans in the Presence of Anthelmintic Compounds and Detection by LC-ES-MS**; Mathew M. Nindi; Titus A.M. Msagati; Opelo Ramothabi; University of Botswana, Gaborone, Botswana
- WPJ 147 **LC/MS/MS Assay for the Determination of Simvastatin, Lovastatin and their hydroxy acids Using Stable Ammonium or Alkali Metal Adduct Formation**; Alexandre Pimenov; Evgueni Fedorov; Sylvain Mandeville; Michael Mancini; Warnex Bioanalytical, Laval, PQ Canada
- WPJ 148 **Determination of Drug Concentrations in Plasma by LC/MS/MS Using a Single 96-well Plate for Automated Protein Precipitation and Filtration**; Iris Xie; Henry Wu; Linda Rakes; Michael Wang; Joelle Onorato; Merck & Co, West Point, PA
- WPJ 149 **Automated Ultrafiltration with Direct Injection LC-MS/MS Assay for the Determination of Unbound α and β 3 Bone Integrin Antagonist in Human Plasma**; Jin Zhang; Donald G. Musson; Merck Research Laboratories, West Point, PA
- WPJ 150 **A Novel Method for On-Line Analysis of Polar Basic Compounds using Weak Cation Exchange Media and LC-MS/MS**; Eleftheria Selinotakis; Amal Hage; Aristidis Gritsas; Edward J. Daly; Donald Chun; Themis Flarakos; Mark L. J. Reimer; MDS Pharma Services, Montreal, Canada
- WPJ 151 **Rapid Sample Preparation Method for High Throughput Total Drug Analysis by LC-MS/MS**; Nanying Bian; Elissa Benson; Jason Blodgett; John Lynch; Tom Onofrey; Aldo Pitt; Millipore Corporation, Bedford, MA
- WPJ 152 **Initiation Specific Assay for RNA polymerase by Electrospray Mass spectrometry**; Vinayak Nadiger; Ramya Ramani; Suresh Solapur; Vrinda Nandi; AstraZeneca R&D, Bangalore, India
- WPJ 153 **A Novel Monomeric C18 Bonded Phase for Improved Resolution and Sensitivity in LC-MS/MS Analysis of Peptides**; Reno T. Nguyen¹; Cindy Lou Chepanoske²; Nathan VerBerkmoes³; Michael B. Strader³; Larry Gross⁴; Ning Mu¹; ¹Grace Vydac, Hesperia, CA; ²Prolexys Pharmaceuticals, Salt Lake City, UT; ³Oak Ridge National Laboratory, Oak Ridge, TN; ⁴Howard Hughes Medical Institute, Univ. Calif., San Diego, CA
- WPJ 154 **Micro Extraction in Packed Syringe (MEPS) on-line with LC-MS-MS for Quantitative Bioanalysis of Unstable Drug in Human Plasma Samples**; Maria Sandberg-Ställ; Göran Eklund; Mohamed Abdel-Rehim; AstraZeneca R&D Södertälje, Södertälje, Sweden

- WPJ 155 **Determination of Docetaxel in Mouse Plasma and Tissues Containing a Liposome-Entrapped Docetaxel Formulation by Automated L/L Extraction and LC/MS/MS Detection;** Jeffrey X. Duggan; Sofia Bardin; Jenifer L. Johnson; Wei Guo; June Zang; Sumsullah Khan; Ateeq Ahmad; Imran Ahmad; *NeoPharm, Inc., Waukegan, IL*
- WPJ 156 **Mass Spectrometric Strategies for the Peptide, Disulfide, and Glycosylation Mapping of Recombinant Soluble Rat Neuroligin 1;** Ross C. Hoffman¹; Lori L. Jennings²; Davide Comoletti²; Robyn E. Flynn²; Palmer Taylor²; ¹Howard Hughes Medical Institute - UCSD, La Jolla, CA; ²University of California, San Diego, La Jolla, CA
- WPJ 157 **Investigation of the Degradation of PCI-0108 in the Presence of Motexafin Gadolinium (MGd, Xcytrin®) Using Ion-Trap Mass Spectrometry;** Purvi Jejurkar; Dale Miles; Alice Lin; Chitra Mani; *Pharmacyclics, Inc., Sunnyvale, CA*
- WPJ 158 **Mixed-Mode SPE Eliminates Matrix Effects from Biological Samples;** Ziling Lu; Diane M. Diehl; Claude R. Mallet; Jeffrey R. Mazzeo; *Waters Corporation, Milford, MA*
- WPJ 159 **Can Ion Suppression be Quantitated?;** Claude R. Mallet; Ziling Lu; Jeff R. Mazzeo; *Waters Corporation, Milford, MA*
- WPJ 160 **The Elimination of Signal Suppression from Ion Pairing Reagents by "in sample" Injection;** Jan R. Crowley¹; Barry Markaverich²; Kevin Shoulars²; John Turk¹; ¹Washington University School of Medicine, St. Louis, MO; ²Baylor College of Medicine, Houston, TX
- WPJ 161 **Statistical Study of Ions and Peptides Found in LC/MS/MS Analysis of Human Serum Digest;** Marc V. Gorenstein; Guo-Zhong Li; Scott Geromanos; Jeffrey C. Silva; Craig A. Dorschel; Robert S. Plumb; Chris L. Stumpf; Timothy Riley; *Waters Corporation, Milford, MA*
- WPJ 162 **Evaluation of a Detergent Free Mammalian Proteome Isolation Technique for LC/MS/MS Studies;** Adaikkalam Vellaichamy; Thin Thin AYE; Newman Siu K. Sze; *Genome Institute of Singapore, Singapore*
- WPJ 163 **The Smaller the Better – Peptide Analysis with nanoLC-MS/MS Using 25-µm-i.d. Columns;** Andreas Schlosser *Institute of Medical Immunology, Berlin, Germany*
- WPJ 164 **High Throughput Analysis of Nucleotide Analogs in Biological Matrix Using Online Ion Exchange Extraction LC/MS/MS;** Dunmin Mao; Shaolian Zhou; Naidong Weng; Xiangyu Jiang; *Covance Laboratories Inc., Madison, WI*
- WPJ 165 **Improved High Throughput Protein Precipitation Using a Novel Filtration Microplate;** Anne E Howells; Matthew Cleeve; Richard A Calverley; Scott N Merriman; Geoff Davies; *Argonaut Technologies, Foster City, CA*
- WPJ 166 **On-Line Extraction LC-MS for Automated Therapeutic Drug Monitoring;** Alex Berhithu¹; Emile H.M. Koster¹; Martijn J. Hilhorst¹; Bert Ooms¹; Harm A.G. Niederlaender²; Harm J. Metting²; ¹Spark Holland, Emmen, The Netherlands; ²University Centre for Pharmacy, Groningen, The Netherlands
- WPJ 167 **The Continuing Search for a Generic On-line Extraction Method for LC/MS/MS Sample Preparation;** Tazeen Shahid; Robert, T Cass; *Theravance, Inc, South San Francisco, CA*
- WPJ 168 **Extending the Detection Limit of In Vitro Fluorescent Assays by LC-MS/MS Using On-Line Sample Clean-Up Via a Dual Trapping System;** Deborah J. Barlow¹²; Joseph Cantone¹²; Dieter Drexler¹²; Paul Falk¹²; Dennis Hernandez¹²; Fiona McPhee¹²; Asoka Ranasinghe¹²; Bethanne Warrack¹²; Mark Sanders¹²; ¹Bristol-Myers Squibb, Wallingford, CT; ²Bristol-Myers Squibb, Princeton, NJ
- WPJ 169 **Novel and Miniaturized Monolithic Polymer-Based Capillary Columns for nanoLC Separations and Proteomics Applications;** Severine Le Gac; Cecile Cren-Olive; Christian Rolando; *USTL Chimie Organique et Macromoléculaire, Lille, France*
- WPJ 170 **Improved Protein Identification in Complex Sample Mixtures;** David K. Crockett¹; Zhaosheng Lin¹; Megan S. Lim²; Kojo S.J. Elenitoba-Johnson²; ¹ARUP Research Institute, Salt Lake City, UT; ²University of Utah School of Medicine, Salt Lake City, UT
- WPJ 171 **Determination of Epimers in Monkey Plasma by Liquid Chromatography/tandem Mass Spectrometry;** Iris Xie; Henry Wu; Kimberly Algayer; Danielle Euler; Gloria Kwei; *Merck, West Point, PA*
- WPJ 172 **A Study on Matrix Effects Observed During Quantitative Liquid Chromatography / Tandem Mass Spectroscopy (LC/MS/MS) Analysis of Biological Samples;** Linda H. Rakes; Kari J. Lynn; Joelle Onorato; Michael Hong Wang; Henry Y. Wu; Iris H. Xie; *Merck and Co., Inc., West Point, PA*
- WPJ 173 **Liquid Chromatography Mobile Phase Buffer Modifications and Collision Cell Gas Effects on Tandem Mass Spectrometric Analysis of Steroids;** Brian J Nies; Seyed Sadjad; David C Jones; Guang Lee; *Varian Inc., Lake Forest, CA*
- WPJ 174 **Reduced Carry-Over in On-Line Sample Preparation Liquid Chromatography- Mass Spectrometry Systems;** Otto Halmingh; Emile H.M. Koster; *Spark Holland Inc, Plainsboro, NJ*
- WPJ 175 **Determination of Vardenafil in Sub 50 Microliter Plasma Samples by LC-MS-MS;** Petra Gerhards¹²³; Seyed Sadjadi¹²³; William Hudson¹²³; ¹Varian Inc., Lake Forest, CA; ²Varian Inc., Lake Forest, CA; ³Varian Inc., Lake Forest, CA
- WPJ 176 **Dual Gradient Nanospray LC System for Multidimensional Separations and Increased Throughput;** David W. Neyer; Marc Foster; Jason E. Rehm; Karen M. Hahnenberger; *Eksigent Technologies, Livermore, CA*
- WPJ 177 **A Highly Efficient Ion-Pair Reversed-Phase Chromatography for Arsenic Species Characterization and Determination with Combined Ion Trap MS and ICP-MS Detection;** Jorgelina CA Wuilloud; Rodolfo G Wuilloud; Douglas T Heitkemper; *Food and Drug Administration, Cincinnati, Oh*
- WPJ 178 **Screening of Botanicals for Estrogenic Compounds Using On-line Miniaturized Ultrafiltration LC-MS;** Sool Yeon Cho; Yongkai Sun; Dajan Nikolic; Richard B. van Breemen; *University of Illinois College of Pharmacy, Chicago, IL*
- WPJ 179 **Peak Focusing for High Performance Front-End Sample Preparation LC-MS in Bioanalysis;** Emile Koster *Spark Holland Inc., Plainsboro, NJ*
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- WPK 180 **Identification of Ecdysteroids in Biological Samples Using LC-ESI-MS;** Yutai Li; James Warren; Avram Gold; Ram Sangaiah; Gunnar Boysen; Larry Gilbert; James Swenberg; *The University of North Carolina at Chapel Hill, NC*
- WPK 181 **Quantitation, Clinical Identification and Characterization of Biologically Active Nitrated Linoleic Acid Isomers;** Paul RS Baker¹; Francisco J Schopfer¹; Gary Impney²; Nadia Pace²; Scott Sweeney¹; Bruce A Freeman²; ¹University of Alabama, Birmingham,

- AL; ²Applied Biosystems/MDS Sciex, Toronto, Ontario, Canada
- WPK 182 **LC-MS-MS Determination of TBARs as a Measurement of Lipid Peroxidation for Human Serum Sample;** Dongwei Zhu; Richard B van Breemen; University of Illinois, College of Pharmacy, Chicago, IL
- WPK 183 **Rapid Compositional Assessment and Detection of Adulteration of Vegetable Oils by ESI FT-ICR MS;** Zhigang Wu¹; Ryan P Rodgers²; Alan G Marshall²; ¹Florida State University, Tallahassee, FL; ²National High Magnetic Field Lab, Tallahassee, FL
- WPK 184 **Fungal Biomarkers of Opportunistic Infections in Bone Marrow Transplant Patients by Pyrolysis Metastable Atom Bombardment Time of Flight Mass Spectrometry;** Petra Miketova¹; Pascal Martin²; Ludmila Khailova¹; Sylvie Beaudet²; David Jelinek¹; Karl H. Schram¹; Ida M. (Ki) Moore¹; Michael L. Graham¹; ¹University of Arizona, Tucson, AZ; ²Dephy Technologies, Montreal, Canada
- WPK 185 **LC-MS/MS Identification and Quantitation of Ceramide-1-phosphate;** Jeremy C. Allegood; Elaine Wang; M. Cameron Sullards; Alfred H. Merrill, Jr.; Georgia Institute of Technology, Atlanta, GA
- WPK 186 **Ultrahigh-Sensitive LC/MS/MS Quantitation of Lipids in Biological Fluids Using Electron Capture APCI;** Seon Hwa Lee¹; Kevin J. McHale²; Michelle Williams¹; Ian A. Blair¹; ¹University of Pennsylvania, Philadelphia, PA; ²Thermo Electron, Somerset, NJ
- WPK 187 **Analysis of Epoxyhydroxy-Lipids by LC/Electron Capture APCI/MS;** Seon Hwa Lee¹; Michelle V. Williams¹; Tomoyuki Oe¹; Raymond N. DuBois²; Ian A. Blair¹; ¹University of Pennsylvania, Philadelphia, PA; ²Vanderbilt University Medical Center, Nashville, TN
- WPK 188 **Characterization of the Ceramide Moieties of Sphingoglycolipids Containing Sphingadienine from Human Brain with Alzheimer's Disease by ESI-MS/MS;** Benoit Colsch¹; Carlos Afonso²; Françoise Fournier²; Jacques Portoukalian³; Jean-Claude Tabet²; Nicole Baumann¹; ¹INSERM U495, Paris, France; ²CNRS UMR 7613, Paris, France; ³INSERM U346, Lyon, France
- WPK 189 **Lipoxygenase mediated endogenous DNA damage: Analysis by LC/MS;** Wenyang Jian; Seon Hwa Lee; Ian A. Blair; Center for Cancer Pharmacology, U. of Pennsylvania, Philadelphia, PA
- WPK 190 **Discrimination of Pathogenic Arcobacters and Campylobacters Using Fatty Acid and Lipid Composition;** David Jelinek¹; Petra Miketova²; Ludmila Khailova¹; Karl H. Schram¹; Ida M. (Ki) Moore²; Jarmila Vytrasova³; ¹College of Pharmacy, University of Arizona, Tucson, AZ; ²College of Nursing, University of Arizona, Tucson, AZ; ³University of Pardubice, Pardubice, Czech Republic
- WPK 191 **Mass Spectrometric Methods for the Characterization of an ApoB Lipid Complex;** Ulf Sommer; Haya Herscovitz; Catherine E Costello; Boston University School of Medicine, Boston, MA
- WPK 192 **Deciphering the Role of Mitochondrial Lipids in Cell-Death Signaling;** Ileana M. Cristea¹; Maurizio Sorice²; Simon J. Gaskell³; Brian T. Chait¹; Mauro Degli Esposti⁴; ¹The Rockefeller University, New York, NY; ²Università "La Sapienza", Roma, Italy; ³UMIST, Manchester, UK; ⁴University of Manchester, Manchester, UK;
- WPK 193 **The Effects of ApoE on the Lipidome of Mouse Peripheral Nervous System: A Two-Dimensional Electrospray Ionization Mass Spectrometric Study;** Hua Cheng; Xianlin Han; Washington University School of Medicine, St. Louis, MO
- WPK 194 **Biomarker Prostanoid Assay for Selectivity of COX-1/COX-2 Inhibitors Using an Online C-18 Trapping, Followed by LC/MS/MS;** Hideji Fujiwara; Anthony Yem; Yan Zhang; John J. Likos; William R. Mathews; Pfizer Inc, Chesterfield, MO
- WPK 195 **Analysis of Oxysterols in Brain;** William J Griffiths¹; Suya Liu²; Gunvor Alvelius²; Jan Sjövall²; ¹School of Pharmacy, London, UK; ²Karolinska Institute, Stockholm, Sweden
- WPK 196 **Bioconjugation of Lipid Peroxidation Products;** John D Sowell; Jan F Stevens; Oregon State University, Corvallis, OR
- WPK 197 **Detailed Fatty Acid Analysis of Selected Fungi;** Ludmila Khailova¹; Petra Miketova²; David Jelinek¹; Ida M. (Ki) Moore²; Karl H. Schram¹; Jarmila Vytrasova³; ¹College of Pharmacy, University of Arizona, Tucson, AZ; ²College of Nursing, University of Arizona, Tucson, AZ; ³University of Pardubice, Pardubice, Czech Republic
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- MACROMOLECULAR COMPLEXES**
- WPL 198 **Analysis of Insulin Hexamers Containing Zinc by Electrospray Ionisation and Fourier Transform Ion Cyclotron Resonance Mass Spectrometry;** William I Burkitt; Peter J Derrick; The University of Warwick, Coventry, UK
- WPL 199 **Quantification of Phosphorylated Diastereomers using Tandem Mass Spectrometry and Its Application in Kinetic Measurements of Phosphoglucose Isomerase;** Hong Gao; Julie A. Leary; University of California, Berkeley, CA
- WPL 200 **Multi-Enzyme Tandem ESI-MS Assay for Evaluating Substrate Specificity of Multiple Enzyme Systems;** Na Pi¹; Caren L. Freel Myers²; Michelle Pacholec²; Christopher T. Walsh²; Julie A. Leary¹; ¹UC Berkeley, CA; ²Harvard University, Boston, MA
- WPL 201 **Collision-Induced Loss of Charged Versus Neutral Heme from Gaseous Myoglobin Ions in an FTICR Cell;** Yi-Sheng Wang; Shih-Chia Wei; Sabu Sahadevan; Chau-Chung Han; Huan-Cheng Chang; Academia Sinica, Taipei, Taiwan
- WPL 202 **FTMS and Covalent Catalysis: Unique Insights into the Kinetics and Mechanics of Natural Product Bioassembly on 200-600 kDa Enzymes;** Shaun M. McLoughlin; Matthew T. Mazur; Leah M. Miller; Leslie M. Hicks; Neil L. Kelleher; University of Illinois Urbana-Champaign, Urbana, IL
- WPL 203 **Mass Spectral Monitoring of Thioester Hydrolysis by Arthrobacter 4-HBA-CoA Thioesterase Mutant R150A in the Millisecond Time Scale Range;** Zhili Li¹; Feng Song²; Zhihao Zhuang²; Debra Dunaway-Mariano²; Karen S Anderson¹; ¹Yale University, New Haven, CT; ²University of New Mexico, Albuquerque, NM
- WPL 204 **IMAC Enrichment of Peptide-RNA Cross-Links from Complex Ribonucleoprotein Particles (RNPs) for the Accurate Analysis by Mass Spectrometry;** Eva Kuehn¹; Jianhe Peng¹; Andrea Schmidt²; Reinhard Luehrmann¹; Henning Urlaub¹; ¹Max-Planck-Institute for Biophysical Chemistry, Goettingen, Germany; ²Gyros DE GmbH, Munich, Germany
- WPL 205 **Nanospray Tandem Mass Spectrometry Investigation of Platinum Drug Binding to Hemoglobin: A Comparison Study between Cisplatin, Carboplatin and Oxaliplatin;** Rupasri Mandal; Xing-Fang Li; University of Alberta, Edmonton, AB, Canada

MALDI SAMPLE PREPARATION

- WPM 206 **Small Molecule and Peptide TOF MS Detection Using Nanoscale Particles Compared to Analyte Detection Using DIOS Substrates;** Grace M Credo; Edouard S.P. Bouvier; *Waters Corporation, Milford, MA*
- WPM 207 **Novel Formulation of Matrix Solution for MALDI-TOF Analysis Reduces Laser-Induced Crystal Damage;** Mahbod R. Hajivandi; John Leite; Marshall Pope; *Invitrogen, Carlsbad, CA*
- WPM 208 **A Feasibility Study on Quantitation of Bioactive Peptides with MALDI-Qq TOF Mass Spectrometry;** Qing Yang; Takeo Sakuma; *Applied-Biosystems-MDS Sciex, Concord, ON, Canada*
- WPM 209 **Routinely Achieving Ideal Mass Spectra: Matrix Suppression and Small-Molecule MALDI;** Gregor McCombie; Richard Knochenmuss; *Novartis Institutes For Biomedical Research, Basel, Switzerland*
- WPM 210 **Importance of Relative Solubility of Matrix and Analyte in MALDI Sample Preparation, Explored Using HPLC;** Andrew J. Hoteling¹; William J. Erb¹; Kevin G. Owens¹; ¹Drexel University, Philadelphia, PA; ²Eastman Kodak Company, Rochester, NY
- WPM 211 **The Influence of Laser Energy on Mass Discrimination in Internal Source MALDI-FTMS Spectra of Polymers;** Arwah J. Jaber; Jacob M. Kaufman; Rohana Liyanage; Charles L. Wilkins*; *University of Arkansas, Fayetteville, AR*
- WPM 212 **High Throughput Screening of Small Molecule Weight New Chemical Entities and Non-Covalent Binding of Small Molecules to Intact Proteins;** Henry Shion¹; Frank Cheng²; Anders Lund¹; Jay Xu³; Irving Sucholeiki³; ¹Waters Corp., Beverly, MA; ²Purdue Pharma, LLP, Ardsley, NY; ³Alantos, Inc., Cambridge, MA
- WPM 213 **Investigation into Accurate Mass Capability of MALDI-TOF-MS, with Respect to Organometallic and Highly Conjugated Compounds;** Bridget K. Stein; Mark F. Wyatt; A. Gareth Brenton; *EPSRC National Mass Spectrometry Service Centre, Swansea, UK*
- WPM 214 **The Role of MALDI Mass Spectrometry in Clinical Proteomics;** Scott Kuzdzal¹; Mary Lopez¹; David Bennett²; Alvy Mikulskis¹; Eva Golenko¹; ¹Perkin Elmer Life and Analytical Sciences, Boston, MA; ²Rush Alzheimer's Institute, Chicago, IL
- WPM 215 **Chemical Noise and Limits of Detection in MALDI Analysis of Peptides;** Darlene A. Cothron; Jianwei Shen; Robert W. Johnson; *Abbott Laboratories, Abbott Park, IL*
- WPM 216 **Polymeric Nanoparticles in MALDI-TOF-MS;** Peter Spegel¹; Curt T. Reimann²; Peter Viberg³; Staffan Nilsson¹; ¹Technical Analytical Chemistry, Lund University, Lund, Sweden; ²Analytical Chemistry, Lund University, Lund, Sweden; ³Applied nutrition and food chemistry, Lund Univers, Lund, Sweden
- WPM 217 **Enhanced Protein Identification by Direct LCMALDI Analysis of Peptides Eluted in Phosphate buffers via On-Target Desalting;** Hari Nair; Andy Tomlinson; *Applied Biosystems, Framingham, MA*
- WPM 218 **Matrix to Analyte Concentration Ratio: A Critical Factor in the Successful Identification of Low-Abundance Proteins by AP-MALDI;** Jose E. Meza; Patrick D. Perkins; Christine A. Miller; *Agilent Technologies, Santa Clara, CA*
- WPM 219 **Development of a Substrate for Surface-Enhanced Laser Desorption/Ionization (SELDI) with Affinity for Selected Analytes;** Hong Yu; Richard A. Yost; *University of Florida, Gainesville, FL*
- WPM 220 **Vancomycin-Based Affinity Capture for MALDI-MS Analysis of Bacteria;** Ya-Shiuan Lin; Yu-Chien Chen; *National Chiao Tung University, Hsinchu, Taiwan*
- WPM 221 **Preparation of Quantitative MALDI Samples;** Fiona L Plows; Arkadi Krainev; Pranathi Perati; Brett Houser; *Ciphergen Biosystems, Inc., Fremont, CA*
- WPM 222 **Use of a "Lotus Effect" Compound as a Disposable Hydrophobic Surface on MALDI Targets for Proteomics;** Roy Edward; Rachel Martin; *Shimadzu Biotech, Manchester, UK*
- WPM 223 **AP-MALDI Target Plate Surface Coating and Structure for Attomole Level Protein Identification;** Gregor Overney; Jose Meza; Alexander Moedelhai; Jean-Luc Truche; Jian Bai; *Agilent Technologies, Santa Clara, CA*
- WPM 224 **New MALDI Matrices for Biomolecular Analysis Based on Functionalized Carbon Nanomaterials;** Michael V. Ugarov¹; Dmitry V. Khabashesku¹; Haiqing Peng²; Valery N. Khabashesku²; Hiroshi Furutani³; Kimberley S. Prather³; J. Albert Schultz¹; Amina S. Woods⁴; ¹Ionwerks, Houston, TX; ²Department of Chemistry and CNST, Rice University, Houston, TX; ³Department of Chemistry, University of California, San Diego, CA; ⁴NIDA IRP, NIH, Baltimore, MD
- WPM 225 **Laser Desorption/Ionization Mass Spectrometry on Titania Nanocrystalline Sol-Gel Deposited Film;** Cheng-Tai Chen; Yu-Chie Chen; *National Chiao Tung University, Hsinchu, Taiwan*
- WPM 226 **Fluorinated Surface Coatings for Enhanced MALDI Analysis of Biological Molecules;** Felix Meier; Stacey J. Owen; Dietrich A. Volmer; *Institute for Marine Biosciences, Halifax, Canada*
- WPM 227 **MALDI Sample Preparation: Does Matrix Purity Really Matter?;** Peter J. Lee; Weibin Chen; John C. Gebler; *Waters Corporation, Milford, MA*
- WPM 228 **Direct Determination of HbA1c from Aminophenylboronic Acid Modified Beads by Matrix Assisted Laser Desorption Ionization Mass Spectrometry;** Mi Young Ha¹; Jeong Heon Lee¹; Eun Kyu Lee¹; Yangsun Kim¹; ¹Hanyang University, Ansan, Korea; ²Proteonik Inc., Ansan, Korea

METABOLISM STUDIES: TECHNOLOGY & AUTOMATION

- WPN 229 **Metabolite Imaging in Tissues via MALDI MS;** Michelle L. Reyzer¹; Kwokei Ng²; Yunsheng Hsieh²; Walter A. Korfmacher²; Richard M. Caprioli¹; ¹Vanderbilt University, Nashville, TN; ²Schering-Plough, Kenilworth, NJ
- WPN 230 **Sample Pooling: A Bioanalytical Strategy to Reduce LC-MS/MS Analysis Time in Drug Discovery;** Nalini P Sadagopan; Udeni C Yapa; Kjell Johnson; Hyo-Kyung Han; Lucinda H Cohen; *Pfizer Global Research and Development, Ann Arbor, MI*
- WPN 231 **Accelerating Metabolite Identification using Automated Chip-Based Infusion Nanoelectrospray on a QqTOF;** Jeffery D. Miller¹; Sai Y. Chang¹; Colleen K. Van Pelt²; Zhiqi Hao²; Ellen Pace²; ¹Applied Biosystems, Framingham, MA; ²Advin BioSciences, Ithaca, NY
- WPN 232 **Higher Throughput Screening of Metabolic Clearance in vitro Catalysed by Recombinant Human UDP-Glucuronosyltransferases;** Kati Hakala¹; Bohumila Suchanova²; Leena Luukkanen¹; Raimo Ketola¹; Risto Kostianen¹; ¹University of Helsinki, Helsinki, Finland; ²Charles University, Hradec Králové, Czech Republic
- WPN 233 **Streamlined Workflow for Fast Turnaround LC-MS/MS: Automation, Bioanalysis, and Data Handling Strategies;** Bethlyn Jaramilla; Roger V. Pham; Bernd A. Bruenner; John D. Laycock; Jennifer Kerr; Jason R.

- WPN 234 Clapper; Michelle L. Kelly; Pamela S. Sproul; Stan P. Mallard; Krys J. Miller; *Amgen, Inc., Thousand Oaks, CA*
Evaluation, Optimization and Carryover Reduction of On-line SPE/LC/MS/MS Approaches for the Quantitation of Drug Levels in Rat Plasma; Mathew Gruver; Kristen MacFarland; Ping Wang; Daksha Desai-Krieger; *Johnson & Johnson PRD, Spring House, PA*
- WPN 235 **A Generic Co-Ordinated Chemical, Instrumental and Software Strategy for the Identification of Drug Metabolites in Rat Urine;** David S. Jones¹; Lis Johnsen¹; Camilla Bæk¹; Börje Egestad¹; Mark Bayliss²; Vitaly Lashin²; Rhiannon C. Jones²; ¹*NeuroSearch A/S, Copenhagen, Denmark*; ²*Advanced Chemistry Development Inc, Toronto, Canada*
- WPN 236 **Identification of In-Vitro Metabolites of Indinavir using Automated LC/MS/MS Acquisition, In-Silico Prediction, and Structure-Based Data Analysis;** Casey C Hao¹; Scott Campbell²; David Stranz²; Nicole McSweeney³; ¹*Applied Biosystems, Foster City, CA 94404 USA*; ²*Sierra Analytics, Inc., Modesto, CA 95355 USA*; ³*LHASA Limited, University of Leeds, Leeds LS2 9JT UK*
- WPN 237 **A New, General, Simple, Low Cost, and Efficient Strategy for Reducing Serious Autosampler Carryover in LC-MS/MS Bioanalysis;** Fabio Garofolo¹; Mary T. Gilbert²; Luigi Colombo¹; Lucia Carrano¹; Anna Amaru¹; ¹*Vicuron Pharmaceuticals Inc., Gerenzano (VA), Italy*; ²*Bioanalytical Solutions, LLC, Ambler, PA*
- WPN 238 **Assay Sensitivity Comparisons in the ESI Mode Between the Waters Premier, Applied Biosystems API4000 and Finnigan TSQ Quantum Mass Spectrometers;** Jian Wang; Bogdan Slecza; Cecilia Chi; Christian Caporuscio; Georgia Cornelius; Timothy Olah; *Bristol-Myers Squibb, Princeton, NJ*
- WPN 239 **Simultaneous Determination of Amoxicillin and Clavulanic Acid in Dog Plasma;** John Stamatopoulos; Angela Pitsakis; Othman Akram; Chenier Dodard; Rudolf Guilbaud; *MDS PHARMA SERVICES, Saint-Laurent, Canada*
- WPN 240 **A New Concept for Fully Automated Metabolite Identification by LC/MS;** Laurent L Leclercq¹; Claude Delatour¹; Eric Marlot¹; Françoise Brunelle¹; Mike McCullagh²; Jose Castro-Perez²; Gary Harland²; Steve Preece²; ¹*Lilly Development Center, Mont-Saint-Guibert, Belgium*; ²*Waters Corporation, Manchester, UK*
- WPN 241 **Impact of Plate Composition on Mass Spectrometric Analyses of Small Molecules;** Catherine Pham; Terri L. Quenzer; Jessica M. R. Bylund; Michael J. Greig; Manuel Ventura; Ben Bolanos; *Pfizer Global R&D - La Jolla, San Diego, CA*
- WPN 242 **Impact of High Flow Rate on Sensitivity and Resolution in Quantitative Bioanalytical LC-MS/MS using Monolithic and HILIC Columns;** Wei Zhou¹; Shaolian Zhou¹; Mary Pelzer¹; Chun-sheng Liu²; Xiangyu Jiang¹; Naidong Weng¹; ¹*Covance Laboratories Inc., Madison, WI*; ²*Applied Biosystem Inc., Foster City, CA*
- WPN 243 **Quantification by Desorption/Ionization on Silicon of Enzyme-Inhibition Reactions with Comparisons to Liquid Chromatography Mass Spectrometry;** Daniel B. Wall; Jeffrey W. Finch; Steven A. Cohen; *Waters Corporation, Milford, MA*
- WPN 244 **A Four-Channel Staggered LC/MS/MS System for High-Throughput In Vitro Screens;** Birgitta Pettersson; Erika Skoglund; Sveinn Briem; *AstraZeneca R&D Sodertalje, Sodertalje, Sweden*
- WPN 245 **Direct Injection of SPE Organic Eluents onto Silica Columns for Bioanalysis: Faster Sample Preparation by Elimination of Evaporation and Reconstitution;** Austin C. Li; Wilson Z. Shou; Thomas E. Addison; Matthew S. Bryant; Naidong Weng; *Covance Laboratories, Inc., Madison, WI*
- WPN 246 **Stabilization and Determination of a Dual PPAR α/γ Agonist in Human Urine using Automated 96-Well Liquid-Liquid Chromatography/Tandem Mass Spectrometry;** Michelle A. Groff; Kerry Riffel; Hengchang Song; Man-Wai Lo; *Merck & Co., Inc., West Point, PA*
- WPN 247 **Maximizing MSn Sample Information with Fast Cycle Time on a Linear Ion Trap Mass Spectrometer;** Melissa Chen; Mary Blackburn; Diane Cho; *Thermo Electron Corp, San Jose, CA*
- WPN 248 **Ultra-fast Gradient LC/MSn Assay for Metabolite Identification and the Resolution of Co-Eluting Metabolites;** Diane Cho; Melissa Chen; Mary Blackburn; *Thermo Electron, San Jose, CA*
- WPN 249 **APPI Revisited for Early ADME Applications Using a PhotoSpray Source on the Sciex API 4000;** Peter L. Jacobs; Benno A. Ingelse; Harrie A.M. Peters; Chris H. Swaanen; *NV Organon, Oss, The Netherlands*
- WPN 250 **LC/MS/MS Studies of Amino Acid and Neuropeptide in Freely Moving Rats by In Vivo Microdialysis with Automated Sampling Technique;** Yongxin Zhu; Philip S.H. Wong; Karen Cadle; Candice B. Kissinger; Peter T. Kissinger; *Bioanalytical Systems, Inc., West Lafayette, IN*
- WPN 251 **Accelerating Bioanalytical LC-MS/MS Method Development Using an Automated Modular Strategy;** Teresa Kallal; Russell P. Grant; Andrea Sanchez; *Esoterix inc., 4301 Lost Hills Road, CA*
- WPN 252 **Development and Validation of GLP-like Cytochrome P450 Inhibition Assays Using Automated Microplate Incubation and Triple Quadrupole LC/MS;** Ming Yao; Mingshe Zhu; Michael Sinz; David Rodrigues; Renke Dai; *Bristol-Myers Squibb/PRI, Princeton, NJ*
- WPN 254 **Simultaneous, Automated Determination of Twelve Antidepressants in Serum by TX-4 HTLC-MS-MS;** Sum Chan; Qibo Jiang; Richard Reitz; *Questdiagnostics Nichols Institute, San Juan Capistrano, CA*
- WPN 255 **Using pg/mL LC-MS/MS Sensitivity to Reduce Sample Handling Requirements for ng/mL Quantitation Limits;** Debra A McLoughlin; Richard King; *Merck Research Laboratories, West Point, PA*
- WPN 256 **Separation and Quantitation of Caffeine Metabolites by High-Field Asymmetric Waveform Ion Mobility Spectrometry (FAIMS);** Beata M Kolakowski¹; David Lustig²; Randy W. Purves³; ¹*Ionalytics, Ottawa, ON, Canada*; ²*CVT Therapeutics, Palo Alto, CA*
- WPN 257 **Evaluation II: Software Automation for Industrialized High-Throughput Bioanalytical Mass Spectrometry in support of ADME-HTS;** Kevin M. Whalen; John S. Janiszewski; Mark J. Cole; *Pfizer Global R & D, Groton Laboratories, Groton, CT*
- WPN 258 **Multiplexed LC Separations and Fraction Collection with Nanoelectrospray and MALDI Ionization for Drug Metabolism;** Gerard Hopfgartner; Roland F. Staack; Emmanuel Varesio; *University of Geneva, Geneva, Switzerland*
- WPN 259 **Applying High Resolution Mass Spectrometry to Metabolomics: Analysis of Amyotrophic Lateral Sclerosis (ALS) Patients;** C. A. Barringer; S. J. Harrison; C. W. W. Beecher; L. Paige; J. Oswald; T. Barret; R. K. Daouk; *Metabolon, Research Triangle Park, NC*
- WPN 260 **Evaluation of an Open Access LC/MS/MS Quantification System for In Vitro Screening;** Ulrica Danneman¹; Birgitta Pettersson¹; Eva Floby¹; Erica Åström¹; Sveinn Briem¹; Per-Åke Hynning²; ¹*AstraZeneca*

- R&D Sodertalje, Sodertalje, Sweden;*²*Waters AB, Sollentuna, Sweden*
- WPN 261 **A Fast LC/MS/MS Screening Method for Evaluating Red Blood Cell Partitioning of Small Molecule Drugs;** Shaoxia Yu; Shelly Li; Hua Yang; Jing-Tao Wu; Frank Lee; Mark Qian; *Millennium Pharmaceuticals, Cambridge, MA*
- WPN 262 **A comparison between LCMS and Matrixless MALDI as Rapid Screening Methods for High Throughput Analysis;** Richard T Gallagher¹; Paul Davey¹; Ian Sinclair¹; Rachel Martin²; Matthew Openshaw²; ¹*AstraZeneca, Alderley Park, UK;* ²*Shimadzu Biotech, Manchester, UK*
- WPN 263 **Ultra-High Throughput Quantitative Analysis Using the Medusa Parallel Sprayer;** Drew Gibson; Kenneth Saunders; *Pfizer Global R&D, Sandwich, Kent, UK*
- WPN 264 **Fundamental Studies on the Application of Nanobore LC-MS for the Analysis of Small Drug Molecules;** Mike S. Lee¹; James P. Murphy²; Gary A. Valaskovic²; ¹*Milestone Development, Newtown, PA;* ²*New Objective Inc, Woburn, MA*
- WPN 265 **An Approach for Automatic Metabolic Stability and Detailed Metabolite Profiling on a Single Low-Level In-vitro Assay Sample;** Jeffrey L. Whitney¹; Mark E. Hail¹; David J. Detlefsen¹; Kerry D. Nugent²; ¹*Novatia, LLC, Princeton, NJ;* ²*Michrom BioResources, Auburn, CA*
- WPN 266 **Comparison of FIA/MS/MS and LC/MS/MS Methods for High Throughput Microsome Stability Assay;** Susan Q. Li; Li Di; Edward Kerns; *Wyeth Research, Princeton, NJ*
- WPN 267 **Micro Parallel Liquid Chromatography for High Throughput ADMET Profiling;** Li Zhang; Paren Patel; Jeffrey Koehler; Steve Hobbs; Surekha Vajjhala; Chris Phillips; *Nanostream, Pasadena, CA*
- WPN 268 **Application of Automated Nanoelectrospray for the Determination of Drug Candidates in Urine;** Matthew W. Chapple¹; Sarah M. Burke¹; Sabine Coates Pulver¹; Ellen M. Pace¹; Julie Flynn²; Krys J. Miller²; John R. Perkins¹; Jack D. Henion¹; ¹*Advion BioSciences, Inc., Ithaca, NY;* ²*Amgen, Thousand Oaks, CA*
- WPN 269 **Development of Combined On-Line SPE and Monolithic Column LC-MS for Bioanalytical Support;** Yazen Alnouti²; Karthik Srinivasan¹; David Waddell¹; Honggang Bi¹; Olga Kavetskaia¹; Arkady Gusev¹; ¹*Pfizer Inc, Groton, CT;* ²*University of Georgia, Athens, GA*
- WPN 270 **Automated pH Switching in Ballistic Gradient HPLC For High Throughput Screening of ADME Samples With Both + and - ESI/MS;** Gloria Atwood¹; Dee Long¹; Houle Wang¹; Will Proctor²; Ying Jiang²; Eric Milgram²; ¹*Michrom Bioresources, Auburn, CA;* ²*Pfizer Global Research, La Jolla, CA*
- WPN 271 **Automated 96-Well Liquid-liquid Back Extraction Liquid Chromatography-Tandem Mass Spectrometry Method for the Determination of ABT-202 in Human Plasma;** Naxing Xu; Grace E. Kim; Hope Gregg; Azza Wagdy; Brendan A. Swaine; Min S. Chang; Tawakol A. El-Shourbagy; *Abbott Laboratories, Abbott Park, IL*
- WPN 272 **Sample Preparation Strategy for MALDI Analysis of Drugs in Hank's Buffer;** Emily Adarayan¹; Richard King¹; Jay Corr²; ¹*Merck Research Labs, West Point, PA;* ²*MDS Sciex, Concord, Ontario, CAN*
- WPN 273 **Simultaneous ESI/APCI Acquisition Using a Multimode Source in High Throughput Analysis;** Patrick D. Perkins; Steven M. Fischer; Douglas E. McIntyre; Wayne P. Duncan; *Agilent Technologies, Santa Clara, CA*
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- MICROSCALE SEPARATIONS**
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- WPO 274 **Analysis of Physiological Amino Acids by Capillary Electrophoresis – Time-Of-Flight Mass Spectrometry;** Kenji Nagatomo¹; Toshinobu Hondo¹; Tetsuichiro Morita¹; Jun Tamura¹; Yasunori Nishimura¹; Zhanpin Wu²; ¹*JEOL Ltd., Akishima, Tokyo, Japan;* ²*JEOL USA, Inc., Peabody, MA*
- WPO 275 **Quantitative LC/MS Proteomic Analysis of Biological Samples Using a Novel Nano-Flow LC System;** Julie A. Corbo¹; Jeffrey W. Finch²; Tad Dourdeville²; Wade Hines¹; Xiang Zhang¹; Jeff Banas¹; Paul Stroobant¹; Michael Meys¹; ¹*Beyond Genomics, Inc., Waltham, MA;* ²*Waters Corporation, Milford, MA*
- WPO 276 **Coupling Nano and Capillary LC Columns to the ESI Chip for Enhanced Sensitivity, Ionization Efficiency and Reduced Ion Suppression;** Gary A. Schultz; Robert E. Murphy; Sheng Zhang; *Advion BioSciences, Inc., Ithaca, NY*
- WPO 277 **A Low-Makeup Beveled Tip CE/Electrospray Ionization MS Interface for Micellar Electrokinetic Chromatography and Capillary Zone Electrophoresis Using Nonvolatile Buffer;** Guor-Rong Her; Mei-Chun Tseng; *National Taiwan University, Taipei, Taiwan, ROC*
- WPO 278 **Continuously Pumped Nanoparticle Based Pseudo Stationary Phase in CEC/ESI-MS;** Peter Viberg¹; Peter Spégel¹; Jakob Nilsson¹; Christian Nilsson¹; Magnus Jornten-Karlsson²; Patrik Petersson²; Staffan Nilsson¹; ¹*Lund University, Lund, Sweden;* ²*AstraZeneca R&D Lund, Lund, Sweden*
- WPO 279 **Improved Chromatographic Performance for Proteomics Applications Using Nano LC-MS;** Alain Carrier¹; Eric Bonneil¹; Anik Forest¹; Genevieve Mercier¹; Marie-Helene Fortier²; Pierre Thibault¹; ¹*Caprion Pharmaceuticals Inc, Montreal, PQ, Canada;* ²*University of Montreal, Montreal, PQ, Canada*
- WPO 280 **Identification of Phosphopeptides Using on-line nanoLC-Q-q-TOF-MS with an Improved Ionspray Interface;** Jun Liu*; Charles C. Liu; *Applied Biosystems, Foster City, CA*
- WPO 281 **Chip 2-D LC/MS;** Hongfeng Yin; Kevin Killeen; Reid Brennen; Tom van de Goor; *Agilent Laboratories, Palo Alto, CA*
- WPO 282 **Comprehensive 2-D Nano LC/MS for Human Tissue Proteomics;** Remco van Soest¹; Goran Mitulovic²; Jean-Pierre Chervet²; Mark van Gils²; ¹*LC Packings/Dionex, Sunnyvale, CA;* ²*LC Packings/ Dionex, Amsterdam, Netherlands*
- WPO 283 **Nanoflow Gradient Generator for Nanoscale LC/MS System;** Shinya Ito¹; Izumi Ogata¹; Eri Yamashita¹; Shinji Yoshioka²; Kisaburo Deguchi³; ¹*Hitachi High-Technologies Corporation, Hitachinaka, Japan;* ²*Hitachi Science Systems Corporation, Hitachinaka, Japan;* ³*Hokkaido University, Sapporo, Japan*
- WPO 284 **Effect of Different Mobile Phase Flow Rates and Column Diameters on Analyte Ion Signals in Fast Micro and Capillary LC-ESI-MS;** Marketa U Berkova; Craig M Whitehouse; *Analytica of Branford, Inc., Branford, CT*
- WPO 285 **Graphite as Indirect Conductive Coating for Nanospray Mass Spectrometry;** Peter Viberg; Staffan Nilsson; Kerstin Skog; *Lund University, Lund, Sweden*
- WPO 286 **Capillary HPLC- Electro spray Ionization Mass Spectrometry Using Monolithic Columns and Carbon Fiber ESI Emitters;** Kyung Won Ro; Jian Liu; Mark Busman; Daniel R. Knapp; *Medical University of South Carolina, Charleston, SC*

NATURAL PRODUCTS

- WPP 287 **Aldehyde Mass Spectrometry**; Martha M. Vestling¹; John Greaves²; ¹University of Wisconsin, Madison, WI; ²University of California, Irvine, CA
- WPP 288 **Quantitative Analysis of Polyphenols in Grapes Using Electrospray LC-MS-MS**; Yongkai Sun; Wenkui Li; Richard B. van Breemen; *University of Illinois, Chicago, IL*
- WPP 289 **Determination of Nordihydroguaiaretic Acid in Chaparral-Containing Dietary Supplements**; Martha L. Gay; Steven M. Musser; *Food and Drug Administration, College Park, MD*
- WPP 290 **Characterization of New Conotoxins in Crude Venoms by nano-ESI/FT-ICR and MALDI/FT-ICR Mass Spectrometry**; Loïc Quinton¹; Jean-Pierre Le Caer¹; Guillaume van der Rest¹; Liliana Pardo²; Nicolas Gilles²; Julia Chamot-Rooke¹; ¹CNRS - Ecole Polytechnique, Palaiseau, France; ²CEN/Saclay, Gif/Yvette, France
- WPP 291 **Confirmation of an Unusual "OH-shift" Mechanism Discovered During the Structural Elucidation of a New Natural Antibiotic by ESI-MS/MS**; Marina Feroggio; Fabio Garofolo; Luigi Colombo; *Vicuron Pharmaceuticals Inc., Gerenzano (VA), Italy*
- WPP 292 **Isomer Differentiation of Flavonoid Disaccharides by Aluminum Complexation and Tandem Mass Spectrometry**; Junmei Zhang; Jennifer S. Brodbelt; *University of Texas, Austin, TX*
- WPP 293 **Analysis of Furanocoumarins and Limonoids in Grapefruit by Tandem Mass Spectrometry**; Michael Pikulski¹; Minhee Cho¹; Basavaraj Girrenavar²; Narayan Bhat³; Bhimanagouda S. Patil²; Jennifer S. Brodbelt¹; ¹The University of Texas at Austin, Austin, TX; ²Texas A&M University-Kingsville Citrus Center, Weslaco, TX; ³The University of Texas-Pan American, Edinburg, TX
- WPP 294 **LC/MS Quantification of N-Butanoyl- and N-3-Oxododecanoyl-Homoserine Lactone in Pseudomonas aeruginosa Cultures**; Emilie Gauthier¹; Francois Lepine¹; Anne-Pascale Richardson¹; Eric Deziel²; ¹INRS-Institut Armand-Frappier, Laval, QC, Canada; ²Massachusetts General Hospital, Boston, MA
- WPP 295 **Screening Botanicals for Ligands to Cyclooxygenase-2 (COX-2) Using Ultrafiltration LC-MS**; Wenkui Li; Yi Tao; John F. Fitzloff; Richard B. van Breemen; *University of Illinois College of Pharmacy, Chicago, IL*
- WPP 296 **Ultrafiltration LC-MS Screening of Natural Products for Ligands to the Androgen Receptor**; Natasa Pajkovic; Dejan Nikolic; Aarti Sawant; Barbara Calamini; Andrew Mesecar; Richard B. van Breemen; *University of Illinois College of Pharmacy, Chicago, IL*
- WPP 297 **Softwaretools for the Analysis of Natural Product Derivatives from Plant Extracts**; Petra Palloch¹²³; Matthias Pelzing¹²³; Christian Neussess¹²³; Marcus Macht¹²³; Helen Muccitelli¹²³; Gabriela Zurek¹²³; ¹Bruker Daltonics, Leipzig, Germany; ²Bruker Daltonics, Bremen, Germany; ³Bruker Daltonics, Billerica, MA
- WPP 298 **Identification and Quantification of Neurotoxic Acetogenins by MALDI-TOF Mass Spectrometry**; Vincent Guerineau¹; Pierre Champy²; Christophe Gleye²; Raynald Hocquemiller²; Olivier Laprevote¹; ¹CNRS-ICSN, Gif sur Yvette, France; ²Faculté de Pharmacie, Chatenay-Malabry, France; ³Hopital Pitie Salpetriere, Paris, France
- WPP 299 **Identification of the Flavor Compound, Monomethyl succinate, in Lycium barbarum and Mentha piperita and by Liquid Chromatography-Tandem Mass Spectrometry**; Richard D. Hiserodt; Dennis F. H. Swijter; Jide Adedeji; T. V. John; Mark L. Dewis; *International Flavors & Fragrances Inc. (IFF), Union Beach, NJ*
- WPP 300 **Identification of Electrophilic Constituents of the Botanical Dietary Supplement, Lepidium Meyenii (Maca)**; Zorica Vujic; Dejan Nikolic; Richard B. van Breemen; *University of Illinois College of Pharmacy, Chicago, IL*
- WPP 301 **Characterization of N-Formyl Amino Acid, Amino Acid Methyl Esters and N-Formyl Amino Acid Methyl Esters by Electron Impact Mass Spectrometry**; Boris V. Rozynov *Aspen research corporation, St. Paul, MN*
- WPP 302 **Protonation-Directed Fragmentation of Electrospray-Ionized Chalcones in Tandem Mass Spectrometry: A Practical Method for Structure Elucidation**; Sheng-Xiang Qiu; Richard Z. Yang; Daryl Giblyn Giblyn; Michael L. Gross Gross; *Washington University in St. Louis, MO*
- WPP 303 **Determination of the Glycosylation Site of Flavonoid Glucosides by Metal Complexation and Tandem Mass Spectrometry**; Barry D Davis; Jennifer S Brodbelt; *The University of Texas, Austin, TX*
- WPP 304 **Quantification of Suspected Allergens in Fragrances by an Ammonia Chemical Ionization GC/MS**; Manoutchehr (Joseph) Youssefi *Firmenich SA, Geneva, Switzerland*
- WPP 305 **Structural Elucidation of Natural Products by SORICID Using 9.4 Tesla FTMS**; Xidong Feng¹; Frank E Koehn¹; Guy Carter¹; Damian Laird²; Rohan A Davis²; Chris Ireland²; ¹Wyeth Research, Pearl River, NY; ²University of Utah, Salt Lake City, UT
- WPP 306 **Method Development for the Enhanced Detection of Flavonoids by ESI-Mass Spectrometry**; Yong-Ill Lee; Seung-Jin Kim; Sung-Gun Park; *Changwon National University, Changwon, Korea*
- WPP 307 **Comparison of Lipid Content of Wild vs. Cultured Snow Algae (Chloromonas spp.)**; Karl H. Schram¹; David Jelinek¹; Ludmila Khailova¹; Brian Duval²; Ron W. Hoham³; Hau Ling⁴; Petra Miketova¹; Ki (Ida) Moore¹; ¹University of Arizona, Tucson, AZ; ²Department of Environmental Protection, Worcester, MA; ³Colgate University, Hamilton, NY; ⁴Australian Antarctic Division, Kingston, Tasmania, Australia
- WPP 308 **FAIMS-MS Technology Applied to the Characterization of Natural Health Products**; Margaret A. McCooney; Zoltan Mester; *National Research Council of Canada, Ottawa, ON, Canada*
- WPP 309 **Differentiation of Isomeric Saponins Using Electrospray Ionization Tandem Mass Spectrometry**; Shuying Liu¹; Fengrui Song¹; Zhiqiang Liu¹; Biao Yu²; ¹Changchun Institute of Applied Chemistry, Changchun, China; ²Shanghai Institute of Organic Chemistry, Shanghai, China
- WPP 310 **Development and Validation of an Innovative Bioanalytical LC-MS/MS Method for the Quantitative Determination of a Natural Antibiotic in Biological Fluids**; Luigi Colombo; Fabio Garofolo; Anna Valagussa; *Vicuron Pharmaceuticals Inc., Gerenzano (VA), Italy*
- WPP 311 **Structural Characterization of Oligosaccharide Antibiotics Related to Ziracin (SCH27899) in a Quadrupole Ion Trap**; Guodong Chen; Birendra N. Pramanik; Ibrahim Daaro; Min Chu; *Schering-Plough Research Institute, Kenilworth, NJ 07033*
- WPP 312 **The Role of Mass Spectrometry in the Discovery and Development of a New Family of Natural Products: the Butenyl Spinosyns**; Jeffrey R Gilbert; Jesse L Balcer; Paul Lewer; Don R Hahn; Paul R Graupner; Dennis O Duebelbeis; Laura L Karr; *Dow AgroSciences, Indianapolis, IN*
- WPP 313 **A Rapid HPLC-MS/MS Method for Quantitation of B₆ Vitamers**; Christopher A. Haynes; M. Cameron Sullards; Alfred H. Merrill, Jr.; *Georgia Institute of Technology, Atlanta, GA*

- WPP 314 **Primary and Secondary Metabolism of *Medicago tuncatula* in Response to Biotic and Abiotic Elicitation;** David V. Huhman; Corey D. Brockling; Mohamed A. Farag; Lloyd W. Sumner; *The Samuel Roberts Noble Foundation, Ardmore, OK*
- WPP 315 **Metabolism of Xanthohumol and Isoxanthohumol, Prenylated Flavonoids from Hops (*Humulus lupulus* L.), by Human Liver Microsomes;** Dejan Nikolic; Yongmei Li; Lucas Chadwick; Richard B. van Breemen; *University of Illinois College of Pharmacy, Chicago, IL*
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- NON-COVALENT INTERACTIONS: H/D EXCHANGE**
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- WPQ 316 **Determination of the Binding Site of The Eg5 Monastrol Inhibitor By H/D MS And Directed mutagenesis;** Sebastien Brier; David Lemaire; Salvatore De Bonis; Frank Kozielski; Eric Forest; *Institut de Biologie Structurale, Grenoble, France*
- WPQ 317 **Exchange Pro: An Automated High Performance Software Package for Analysis of Deuterium Exchange Mass Spectrometric Data Obtained by FTMS;** Walter C Davidson¹²; Lee E Frego¹²; Gary H Kruppa³; ¹*Boehringer-Ingelheim, Ridgefield, CT*; ²*Boehringer-Ingelheim, Ridgefield, CT*; ³*MS Consulting Services, Livermore, CA*
- WPQ 318 **Probing Prion Strain Conformations by Hydrogen/Deuterium Exchange, Noncovalent Tagging and MALDI ToF Mass Spectrometry;** Sebastian D. Friess¹; Alexis Nazabal¹; Simone Hornemann¹; Adriano Aguzzi²; Renato Zenobi¹; ¹*Swiss Federal Institute of Technology-ETH, Zurich, Switzerland*; ²*University Hospital of Zurich, Zurich, Switzerland*
- WPQ 319 **Improving Resolution of Hydrogen/Deuterium Exchange Experiments: A Study on the HET-s218-289 prion Protein;** Alexis NAZABAL¹; Marc BONNEU²; Sven.J. SAUPE³; Jean-Marie SCHMITTER⁴; ¹*Swiss Federal Institute of Technology-ETH, Zurich, Switzerland*; ²*Plateforme de Génomique Fonctionnelle, UB2, Bordeaux, France*; ³*Institut de Biochimie et de Génétique Cellulaires, Bordeaux, France*; ⁴*Institut Européen de Chimie et de Biologie, Pessac, France*
- WPQ 320 **Evaluating Self-Association Interactions using Mass Spectrometry, Self-Titration and amide Exchange (SIMSTEX): Studies on Insulin;** Raghu K. Chitta; Don L. Rempel; Michael L. Gross; *Washington University in St. Louis, MO*
- WPQ 321 **Hydrogen Exchange–Mass Spectrometry Coupled with On-Line Proteolysis for Characterization of A-beta Amyloid Fibrils;** Maolian Chen¹; Indu Kheterpal²; Ronald B. Wetzel²; Kelsey D. Cook¹; ¹*University of Tennessee, Knoxville, TN*; ²*University of Tennessee Medical Center, Knoxville, TN*
- WPQ 322 **Development of Comprehensive HDX MS Strategies to Study Metal-Binding Properties of Transferrin;** Mingxuan Zhang; Igor A. Kaltashov; *Univ. of Massachusetts, Amherst, MA*
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- NON-COVALENT INTERACTIONS: SMALL MOLECULES**
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- WPR 323 **FELIX IR Spectra of Metal Carbonyl Clusters Formed in the FTMS by Ion Molecule Reactions and SWIFT-SORI-CID;** Douglas P. Ridge¹; Scott W. Robinson¹; David T. Moore²; ¹*University of Delaware, Newark, DE*; ²*FOM Plasma Institute, Utrecht, Netherlands*
- WPR 324 **Mass Spectrometric Studies of Siderophores – Characterization, Fragmentation, and Metal Interaction;** Stacey J. Owen; Roger O. Ebanks; Dietrich A. Volmer; *Institute for Marine Biosciences, Halifax, Canada*
- WPR 325 **Self-Assembly of a Novel Crown Ether Complex Directed by Pi-Stacking Interactions;** Courtney L. Sherman¹; Jennifer S. Brodbelt¹; Alan P. Marchand²; Bhaskar Poola²; ¹*University of Texas, Austin, TX*; ²*University of North Texas, Denton, TX*
- WPR 326 **Dual-Channel Plastic Microchips and Chips Arrays for Mass Spectrometry Analysis of Non-Covalent complexes;** Luc Alexis Leuthold; Claude Piguet; Gérard Hopfgartner; Emmanuel Varesio; Luca Signor; *University of Geneva, Geneva, Switzerland*
- WPR 327 **Unexpected Non Covalent Homo- and Heterodimers of Sabarubicin, a Third-Generation Anthracycline Anti-Tumor Drug;** Antonio Triolo¹; Maria Altamura¹; Fabio Animati²; Fabrizio Bonaccorsi³; Cristina Di Bugno³; Maurizio Franciotti³; Maria Giammaruco³; Stefano Manzini²; Andrea Raffaelli⁴; Piero Salvadori⁴; ¹*Menarini Ricerche Spa, Firenze, Italy*; ²*Menarini Ricerche Spa, Pre-clinical Development, Pomezia, Italy*; ³*Menarini Ricerche Spa - Chemical Development, Pisa, Italy*; ⁴*CNR-ICCOM Sezione di Pisa, Pisa, Italy*
- WPR 328 **A Study of H-Bonded Supramolecular Complexes by Nano-electrospray Mass Spectrometry;** Honghai Jiang; Xiaowu Yang; Cheng Zhao; Bing Gong; Troy D. Wood; *State University of New York, Buffalo, NY*
- WPR 329 **Enantioselectivity in Gas-Phase Zwitterion Formation;** Xin Cong; Seonghee An; Erica Mcjimpsey; Carlito B. Lebrilla; *University of California, Davis, CA*
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- PEPTIDES: FRAGMENT SEQUENCING**
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- WPS 330 **Chemically Assisted Fragmentation of Peptides for de novo Peptide Sequencing from MALDI TOF-TOF MS/MS Spectra;** Peter S. Backlund; Alfred L. Yergey; *NICHHD, NIH, Bethesda, MD*
- WPS 331 **MSn Characterization of Protonated Cyclic Peptides and Metal Complexes;** Sheldon M Williams¹; Jennifer S Brodbelt²; ¹*Center for Research in Mass Spectrometry, Toronto, ON, Canada*; ²*University of Texas, Austin, TX*
- WPS 332 **Derivatization of Dipeptides by Alkyl Chloroformate/Alkanol for GC/ESI-MS Analysis: Differentiation of Isomers;** Vladimir G. Zaikin¹; Roman S. Borisov¹; Boris V. Vas'kovsky²; Leonid Yu. Sklyarov³; ¹*Topchiev Institute of Petrochemical Synthesis RAS, Moscow, Russia*; ²*Institute of Bioorganic Chemistry RAS, Moscow, Russia*; ³*Institute of Immunology, Moscow, Russia*
- WPS 333 **Diastereoisomeric Peptides Differentiation by Cu^{II} Complexation by Tandem Mass Spectrometry;** Anne BOSSEE²; Mélanie LAGARRIGUE¹; Carlos AFONSO¹; Françoise FOURNIER¹; Jean-Claude TABELT¹; ¹*CNRS UMR 7613 University of Paris VI, Paris, France*; ²*Centre d'Etudes du Bouchet (CEB), Vert le Petit, France*
- WPS 334 **Effect of Cysteine Sulfonic Acid and Cysteine Sulfonic Acid on the Fragmentation of Peptides;** Lijie Men; Yinsheng Wang; *University of California, Riverside, CA*
- WPS 335 **Detection and Sequencing of Peptides by LC-MS/MS with Immonium Precursor Ion Scanning;** Andrew R.S. Ross; Stephen J. Ambrose; *National Research Council Canada, Saskatoon, Saskatchewan*
- WPS 336 **c₁ Fragment Ions in Collision-induced Dissociation of Glutamine Containing Peptide Ions: A Tip for De Novo Sequencing;** Young Jin Lee; Young Moo Lee; *University of California, Davis, CA*
- WPS 337 **Investigating the Elimination of Water from Peptides Using Tandem Mass Spectrometry and Isotope Labeling;** Erach R. Talaty; Travis J. Cooper; Debra L. Piland; Michael J. VanStipdonk; *Wichita State University, Wichita, KS*
- WPS 338 **Generation of Radical Cations of Peptides by Electron Transfer Reaction in the Gas Phase;** Huanwen Chen; Hao Chen; Graham, R Cooks; *Purdue University, West Lafayette, IN*

- WPS 339 **Collision-Induced Dissociation of Organophosphate-Modified Peptides**; Reggie S Spaulding¹; Lisa E Sandoval; Matt D Thullbery; Beverly Parker; Kathleen M George; Charles M Thompson; *University of Montana, Missoula, MT*
- WPS 340 **Fragmentation of Oligopeptides Containing Methylated Lysine Residues**; P. Y. Iris Shek; K. W. Micheal Siu; *York University, Toronto, ON, Canada*
- WPS 341 **Statistical Evaluation of Peptide Fragment Ion Distribution in Electrospray Tandem Mass Spectra**; Jason C. Rogalski¹; Michael S. Lin¹; Robert J. Taylor¹; Nikolay Youhnovski²; Michael Przybylski²; Juergen Kast¹; ¹*The Biomedical Research Centre, Vancouver, Canada*; ²*University of Konstanz, Konstanz, Germany*
- WPS 342 **Employing Multiple Proteases in Parallel to Differentiate Mutation Points in Two Proteins**; Ruud J.J.M. Steenvoorden¹; Issa S. Isaac¹; David E. Miller¹; Rebekah Woolsey²; Hua Zhang³; F. Gerald Plumley³; Tracey Martinson³; David Quilici²; ¹*Genomic Solutions Inc., Ann Arbor, MI*; ²*University of Nevada at Reno, Reno, NV*; ³*University of Alaska Fairbanks, AK*
- WPS 343 **High Accuracy Mass Analysis on a Finnigan LTQ FT for Peptide Composition Analysis and Composition Based Sequencing**; Bernhard Spengler *Justus Liebig University, Giessen, Germany*
- WPS 344 **Extraribosomal Cyclic Tetrapeptides Beauverolides: Profiling and Quantum Chemical Study**; Alexandr Jegorov¹; Bela Paizs²; Marek Kuzma³; Martin Zabka⁴; Zdenek Landa⁴; Miroslav Sulc³; Mark P. Barrow⁵; Peter J. Derrick⁵; Vladimir Havlicek³; ¹*IVAX-Pharmaceuticals, Ceske Budejovice, Czech Republic*; ²*Deutsches Krebsforschungszentrum, Heidelberg, Germany*; ³*Institute of Microbiology, Prague, Czech Republic*; ⁴*University of Southern Bohemia, Ceske Budejovice, Czech Republic*; ⁵*University of Warwick, Coventry, UK*
- WPS 345 **Divinyl Sulfone as a Post-digestion Modifier for Enhancing the a1 Ion in MS/MS and PSD: Potential Applications in Proteomics**; Emily S. Boja^{1,2,3}; Edward A. Sokoloski^{1,2,3}; Henry M. Fales^{1,2,3}; ¹*NHLBI, NIH, Bethesda, MD*; ²*NHLBI, NIH, Bethesda, MD*; ³*NHLBI, NIH, Bethesda, MD*
- WPS 346 **A Method for Specific Isolation and Identification of N-Terminal Peptide from Blocked Proteins and for its de novo Sequencing**; Keisuke Shima¹; Minoru Yamaguchi¹; Eiji Ando¹; Taka-aki Okamura²; Norikazu Ueyama²; Takashi Nakazawa³; Shigemi Norioka⁴; ¹*Shimadzu Corporation, Kyoto, Japan*; ²*Osaka University, Osaka, Japan*; ³*Nara Women's University, Nara, Japan*
- WPS 347 **Novel Amino Acids Sequencing Using MSⁿ of MALDI-QIT-TOF-MS**; Shinichi Iwamoto¹; Shigeki Kajihara¹; Mike May²; Jennifer Broughton²; Jing Wen Yao²; Koichi Tanaka¹; ¹*Shimadzu Corporation, Kyoto, Japan*; ²*Shimadzu Research Laboratory Ltd., Manchester, UK*
- WPS 348 **Competive Losses of Small Molecules in Protonated Peptides**; Francesco Pingitore¹; Chrys Wesdemiotis¹; Bela Paizs²; ¹*University of Akron, Akron, OH*; ²*German Cancer Research Center, Heidelberg, Germany*
- WPS 349 **Copper(II)-Mediated Dissociations of Peptide Complexes to Yield Peptide Radical Cations**; Yuyong Ke; Houssain El Aribi; Alan C. Hopkinson; K.W. Michael Siu; *York University, Toronto, ON, Canada*
- WPS 350 **Mass Spectrometry Characterization of Disulfide Bonds in Dust Mite Allergen Der p II**; Keli Ou¹; Chin Chin Yau²; I-Chun Kuo³; Kaw Yan Chua³; ¹*Agenica Research Pte Ltd/Shimadzu (Asia Pacific), Singapore*; ²*Agenica Research Pte Ltd, Singapore*; ³*National University of Singapore, Singapore*
- WPS 351 **Optimizing Automated de-novo Sequencing for Various Fragmentation Modes on MALDI-TOF/TOF**; Barbara Ehrhard^{1,2,3}; Volker Sauerland^{1,2,3}; Franz-Josef Mayer-Posner^{1,2,3}; Marcus Macht^{1,2,3}; Sergej Dikler^{1,2,3}; ¹*Bruker Daltonics, Bremen, Germany*; ²*Bruker Daltonics, Leipzig, Germany*; ³*Bruker Daltonics, Billerica, MA*
- WPS 352 **The Use of Coumarin Tags for the Analysis of Proteomic Samples by High-Throughput LC-MALDI-MS/MS**; Anna Pashkova; Hsuan-Shen Chen; Tomas Rejtar; Eugene Moskovets; Barry Karger; *Barnett Institute, Northeastern University, Boston, MA*
- WPS 353 **Negative Ion Dissociation of Basic Peptides. The Cleavage Mechanism for Negative c-Ions**; Dan Pu; Nigel Clipston; Carolyn J. Cassidy; *University of Alabama, Tuscaloosa, AL*
- WPS 354 **De novo Sequencing of Tryptic Peptides and Internal Mass Calibration Using a Novel Derivatization Strategy**; Richard L Beardsley; James P Reilly; *Indiana University, Bloomington, IN*
- WPS 355 **Sequencing of Pea Albumin 1b-Related Insecticidal Peptides using Peptidase Digestion and MALDI Time of Flight MS**; Wesley G. Taylor¹; Douglas J.H. Olson²; Daniel H. Sutherland¹; Andrew R.S. Ross²; Paul G. Fields³; ¹*Agriculture and Agri-Food Canada, Saskatoon, SK, Canada*; ²*National Research Council Canada, Saskatoon, SK, Canada*; ³*Agriculture & Agri-Food Canada, Winnipeg, MB, Canada*
- WPS 356 **A Systematic Study of Cationized Peptide Ion Fragmentation**; J Garrett Slaton; David H. Russell; *Texas A&M University, College Station, TX*
- WPS 357 **Mass Spectrometric Investigation of Chemically Modified Myristoylpeptides**; Tsefang S. Chen; Jennifer D. Yoder; Cliff Gagnier; Dennis E. Hruby; *Oregon State University, Corvallis, OR*
- WPS 358 **Sequence Elucidation of Gelatine-Derived Peptides by LIFT-TOF/TOF and Multistage Ion Trap Mass Spectrometry**; Mireia Fernandez Ocana¹; Richard Parker²; Jackie Jarvis³; Peter M Bramley¹; John Halket¹; Raj Patel¹; Hendrik Neubert⁴; ¹*Royal Holloway University, Surrey, UK*; ²*Veterinary Laboratory Agency, Surrey, UK*; ³*Bruker Daltonics Limited, Coventry, UK*; ⁴*King's College London, London, UK*
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- PROTEINS: GENERAL**
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- WPT 359 **Characterization of Stromal Cell-derived Factor-1 (SDF-1alpha and beta) in Serum Using LC-ESI-MS and MALDI-TOF-MS**; Fuquan Yang¹; Giovanna Tosato²; Henry M. Fales¹; ¹*National Heart, Lung, and Blood Institute, NIH, Bethesda, MD*; ²*National Cancer Institute, NIH, Bethesda, MD*
- WPT 360 **Deorphanizing a Human Nuclear Receptor: A New Home Among the Phospholipids**; Agneta Tjernberg¹; Åsa Brunnström²; Micael Jacobsson¹; Natalia Johansson-Markova¹; Maria Jaki-Borg¹; Stefan Svensson¹; Patrik Blomquist¹; ¹*Biovitrum AB, Stockholm, Sweden*; ²*Karolinska institute, Stockholm, Sweden*
- WPT 361 **Rapid Identification of Markers from Whole Epithelial Cells During Differentiation by MALDI-Tof MS and Statistical Analysis**; Laure F. Marvin-Guy; Sandrine Wagnière; Nicolas Antille; Peter Duncan; Laurent B. Fay; Martin Kussmann; *Nestlé Research Center, Lausanne, Switzerland*
- WPT 362 **Characterization of Novel Cardiac Troponin T isoforms in Canine by Capillary HPLC and Mass Spectrometry-Based Approach**; Lin Yan; Wei Chen; Kok Loo; Hui Ge; Dorothy Vatner; *UMDNJ-New Jersey Medical School, Newark, NJ*

- WPT 363 **Characterisation of the Proteolytic Reactivity and Specificity of the Human HtrA1 Protease on Alzheimer-Target Proteins by High Resolution Mass Spectrometry;** Raluca Stefanescu¹; Xiaodan Tian¹; Eugen N. Damoc¹; Sandra Grau²; Michael Ehrmann²; Michael Przybylski¹; ¹University of Konstanz, Konstanz, Germany; ²University of Cardiff, Cardiff, UK
- WPT 364 **Development of Mass Spectrometry Methods to Study Protein Translocation into Mitochondria;** Yan Wu; John R. Engen; *University of New Mexico, Albuquerque, NM*
- WPT 365 **Probing the Structure of DNA Repair Proteins by Surface Modification and Mass Spectrometry;** Jenny M Cutalo¹; Thomas A Darden²; Thomas A Kunkel²; Kenneth B Tomer²; ¹University of North Carolina at Chapel Hill, Chapel Hill, NC; ²NIEHS, RTP, NC
- WPT 366 **Mass Spectrometry Investigation of Transthyretin Fibrils;** Nan Wang; Maggie McCammon; Catherine Keetch; Carol Robinson; *University of Cambridge, Cambridge, UK*
- WPT 367 **Imaging Mass Spectrometry of Whole Rat Sagittal Sections;** Sheerin Khatib-Shahidi¹; Michelle L. Reyzer¹; Jennifer Herman²; Todd A. Gillespie²; Richard M. Caprioli¹; ¹Vanderbilt University, Nashville, TN; ²Eli Lilly and Co., Indianapolis, IN
- WPT 368 **Using Q-FTMS to Assess Multiple Covalent Intermediates in the Nonribosomal Biosynthesis of Gramicidin S;** Leah M. Miller; Leslie M. Hicks; Matthew T. Mazur; Shaun M. McLoughlin; Neil L. Kelleher; *University of Illinois Urbana-Champaign, Urbana, IL*
- WPT 369 **GIPC is a Multifunctional Adaptor Protein Involved in NGF Signaling and Trafficking;** Meng-Qiu Dong¹; Xiaojing Lou¹; Ingrid Niesman¹; Tianlin Ma³; Hyacynth Gacula¹; Francis Castets^{3,4}; Ariane Monneron^{3,4}; Joseph R Testa³; John R Yates²; Marilyn G Farquhar¹; ¹UCSD, La Jolla, CA; ²The Scripps Research Institute, La Jolla, CA; ³Fox Chase Cancer Center, Philadelphia, PA; ⁴INSERM U 464, Marseille, France
- WPT 370 **Mapping the Molecular Path of Binding Precursor to SecB Chaperone;** Suzana Martinovic¹; Jennine M. Crane²; Kim K. Hixson¹; Ronald J. Moore¹; Linda L. Randall²; Harold R. Udseth¹; ¹Pacific Northwest National Laboratory-EMSL, Richland, WA; ²University of Missouri, Columbia, MO
- WPT 371 **Isolation and Identification of Albumin from the Temporal Gland Secretions of African Elephants;** Cheryl F. Lichti¹; Dustin C. Freyaldenhoven²; Randall A. Kopper²; Thomas E. Goodwin²; Kevin D. Raney¹; ¹University of Arkansas for Medical Sciences, Little Rock, AR; ²Hendrix College, Conway, AR
- WPT 372 **Protein Analysis of the Cerebellum by MALDI-TOF MS: A Methodological Study in Post-natal and Adult Mouse;** Claudine Laurent¹; Sarah A. Schwartz¹; Douglas F. Levinson²; Daniel B. Campbell¹; Jeremy L. Norris¹; Paula J. Woods¹; Hans R. Aerni¹; Philip Ebert¹; Pierre Chaurand¹; Pat Levitt¹; Richard M. Caprioli¹; ¹Vanderbilt University School of Medicine, Nashville, TN; ²University of Pennsylvania School of Medicine, Philadelphia, PA
- WPT 373
- WPT 374 **Comprehensive Proteomic Analysis of Adiposome Proteome;** Yue Chen; Pingsheng Liu; Richard G. W. Anderson; Yingming Zhao; *University of Texas Southwestern Medical Center, Dallas, TX*
- WPT 375 **Mass Differences in HDL Apolipoproteins in Equine Species;** Lang M Yam¹; Don L Puppione¹; Julian P Whitelegge¹; Melinda H MacDonald²; Verne N Schumaker¹; ¹UCLA, Los Angeles, CA; ²UC Davis, CA
- WPT 376 **Purification of a Novel E3 Ubiquitin Ligase;** Deborah H. Smith¹; Jeffrey C. Silva²; Martin Wiedmann¹; *Memorial Sloan-Kettering Cancer Center, New York, NY; ²Waters Corporation, Milford, MA*
- WPT 377 **Characterization of the Intact Complexes of Antineoplastic Benzyl Styryl Sulfone Analogs and Serum Albumin;** John Roboz¹; Shouxun Zhao¹; Stanley Bell²; Premkumar Reddy³; James F. Holland¹; ¹Mount Sinai School of Medicine, New York, NY; ²Onconova Therapeutics, Inc., Larenceville, NJ; ³Fels Inst. Cancer Res., Temple Univ., Philadelphia, PA
- WPT 378 **FTMS Analysis of NRPS/PKS Thioesterase Enzymology;** Matthew T. Mazur¹; Shaun M. McLoughlin¹; Christopher T. Walsh²; Neil L. Kelleher¹; ¹University of Illinois at Urbana-Champaign, Urbana, IL; ²Harvard Medical School, Boston, MA
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- PROTEINS: PHOSPHOPROTEINS**
- WPU 379 **Evaluation of Proteomic Methods for Enrichment and Identification of Phosphopeptides;** Joseph Fernandez; Brian Imai; Bhaskar Chandrasekhar; Haiteng Deng; *The Rockefeller University, New York, NY*
- WPU 380 **LC/MS/MS Based Strategies for Investigating Phosphorylation of Proteins Implicated in Neurological Diseases;** Malcolm A Ward¹; Helen L Byers¹; Kit-Yi Leung¹; Diane Hanger²; Hugh Reynolds²; Brian Anderton²; ¹Proteome Sciences plc, London, UK; ²Institute of Psychiatry, London, UK
- WPU 381 **A Mass Spectrometry-Based Approach Toward the Global Identification of Protein Phosphorylation Sites in the Developing Mouse Brain;** Bryan A. Ballif; Judit Villen; Steven P. Gygi; *Harvard Medical School, Boston, MA*
- WPU 382 **A Novel MDLC-MS Instrument Set-Up for the Identification of Phosphorylation Sites in Proteins;** Henrik Wadensten; Anders Tangen; *Amersham Biosciences, Uppsala, Sweden*
- WPU 383 **Immunoaffinity Profiling of Tyrosine Phosphorylation;** John Rush; Albrecht Moritz; Kimberly A. Lee; Valerie L. Goss; Ailan Guo; Hui Zhang; Roberto D. Polakiewicz; Michael J. Comb; *Cell Signaling Technology, Inc., Beverly, MA*
- WPU 384 **Mass Spectrometric Characterization of Phosphorylation Sites in RsbV1 and RsbV2 from *Chlamydia trachomatis*;** Young Jin Lee; Lei Huo; Chester Price; Young Moo Lee; *University of California, Davis, CA*
- WPU 385 **New Insights into Phosphorylation of Tau Protein in Alzheimer's Disease Using *in vitro* Models Combined with LC/MS/MS Analysis;** Helen L Byers¹; Kit-Yi Leung¹; Hugh Reynolds²; Fiona Kerr²; Diane Hanger²; Malcolm A Ward¹; Brian Anderton²; ¹Proteome Sciences plc, London, UK; ²Institute of Psychiatry, London, UK
- WPU 386 **Comprehensive Phosphoproteome Analysis without Chemical Modification; Application to Sub-Cellular Signaling Events Following Drug Administration;** Pierre Thibault¹; Christian Band¹; Alexandra Furtos-Matei¹; Manon Ouimet¹; Rachel Pagé-Bélanger¹; Eustache Paramithiotis¹; Jason Yen¹; Paul Keaney¹; Amanda Parmar²; Gerry Baquiran²; Barry Posner²; ¹Caprion Pharmaceuticals, Montreal, Quebec, Canada; ²Polypeptide Hormone Laboratory, McGill University, Montreal, Quebec, Canada
- WPU 387 **Phosphopeptide Detection by a Data-Dependent, Neutral-loss Driven MS3 Scan;** Sean A Beausoleil; Judit Villen; Scott A Gerber; Mark Jedrychowski; Ross Tomaino; Steven P Gygi; *Harvard Medical School, Boston, MA*
- WPU 388 **Post-Translational Modification Analysis of Native Rat Bone Osteopontin;** Amanda Doherty-Kirby; Mandana

- Keykhosravi; Cunjie Zhang; Harvey Goldberg; Graeme Hunter; Gilles Lajoie; *University of Western Ontario, London, ON, Canada*
- WPU 389 **Directed Mass Spectrometry-Based Approaches for Characterization of Protein Phosphorylation**; Allan L. Bieber; Randall W. Nelson; Kemmons A. Tubbs; Dobrin Nedelkov; Eric E. Niederkofler; Urban A. Kiernan; *Intrinsic Bioprobes Inc., Tempe, AZ*
- WPU 390 **Absolute Quantification of Phosphorylation (AQUAP) by Protein Cleavage Isotope Dilution Mass Spectrometry**; Daniel J. McCormick; Michael W. Holmes; Benjamin J. Madden; David C. Muddiman; *Mayo Clinic, Rochester, MN*
- WPU 391 **Determination of Phosphorylation Sites on Tau by Casien Kinase 1 Using Enzymatic Digestions with Mass Mapping and LC/MS/MS**; Nanette M. Kleinholz; Rhonda L. Pitsch; Liwen Zhang; Kari B. Green-Church; Guibin Li; Haishan Yin; Jeff Kuret; *The Ohio State University, Columbus, OH*
- WPU 392 **In vivo Phosphorylation Sites on Mad3p Identified Using Nano-HPLC Micro-ESI Mass Spectrometry**; An Chi¹; Janet Burton²; Mark Solomon²; Jeffery Shabanowitz¹; Donald F. Hunt¹; ¹*University of Virginia, Charlottesville, VA*; ²*Yale University, New Haven, CT*
- WPU 393 **Time Resolved Continuous-Flow ESI-TOF Mass Spectrometry: Instrument Calibration and Its Application for the Detection of Transient Phosphorylated Species**; Cristina Furdui; Erin D. Lew; Joseph Schlessinger; Karen S. Anderson; *Yale University, New Haven, CT*
- WPU 394 **The Consequences of Deamidation During Phosphate Analysis**; Jonathan A. Karty; James P. Reilly; *Indiana University, Bloomington, IN*
- WPU 395 **Selective Detection and Sequencing of Phosphopeptides on a Hybrid 2D Trap-FTMS**; Steven A. Carr¹; Karl Clauser²; Barry Karger²; Shiao-Lin Wu²; ¹*Broad Institute, Cambridge, MA*; ²*Northeastern University, Boston, MA*; ³*Millennium Pharmaceuticals, Cambridge, MA*
- WPU 396 **Detection of Ser-/Thr-Phosphorylation Sites Using a New Peptide Derivatization Method**; Katrin Marcus¹; Joerg Reinders³; Detlev Suckau²; Christian Bunse¹; Denise Grillmaier²; Helmut E. Meyer¹; ¹*Medical Proteome-Center, Ruhr University of Bochum, Bochum, Germany*; ²*Bruker Daltonik, Bremen, Germany*; ³*Rudolf-Virchow-Center for Experimental Biomedicine, Wuerzburg, Germany*
- WPU 397 **Understanding Global Changes in Specific Sites of Phosphorylation in Histone H1 Isoforms**; Leesa J. Deterding; Maureen K. Bungler; Trevor K. Archer; Kenneth B. Tomer; *NIEHS/NIH/DHHS, Research Triangle Park, NC*
- WPU 398 **Autophosphorylation Site Identification of a Calcium-Dependent Protein Kinase**; Camille N. Strachan¹; Estelle M. Hrabak²; Stanley Stevens¹; James D. Winefordner¹; Nancy D. Denslow¹; Alice C. Harmon¹; ¹*University of Florida, Gainesville, FL*; ²*University of New Hampshire, Durham, NH*
- WPU 399 **Evaluation of CNBr Protein Digests Using a Hybrid Linear Trap/FT-ICR MS: Chemical vs. Enzymatic Digests for the Detection of PTM's**; Scott M. Peterman¹²³; Craig P. Dufresne¹²³; Stevan Horning¹²³; Hans Pfaff¹²³; Helmut Muenster¹²³; Torsten Ueckert¹²³; ¹*Thermo Electron, Somerset, NJ*; ²*Thermo Electron, West Palm Beach, FL*; ³*Thermo Electron, Bremen, Germany*
- WPU 400 **Selective Isolation at the Femtomole Level of Phosphopeptides from Proteolytic Digests Using 2D-nanoLC-ESI-MS/MS and Titanium Oxide Pre-Columns**; Martijn W.H. Pinkse¹; Pauliina M. Uitto¹; Martijn J. Hillhorst²; Bert Ooms²; Albert J.R. Heck¹; ¹*Utrecht University, Utrecht, The Netherlands*; ²*Spark Holland BV, Emmen, The Netherlands*
- WPU 401 **Reaching New Limits of Phosphopeptide Detection and Sequencing Using a Linear Ion Trap Mass Spectrometer**; Joseph J. Mulholland; Scott M. Peterman; *Thermo Electron Corp., Somerset, NJ*
- WPU 402 **Analysis of the Phosphoproteome in Human Tissues by In-Gel IEF and LC-MS/MS**; Francesco Giorgianni; Dominic M. Desiderio; Sarka Beranova-Giorgianni; *University of Tennessee Health Science Center, Memphis, TN*
- WPU 403 **Methyl Esterification of Peptides Prior to Immobilized Metal-Ion Affinity Chromatography: Determination of Optimal Time Course and Side Products**; Robert J. Seward; David H. Perlman; Eric A. Berg; Jianming Hu; Catherine E. Costello; *Boston University School of Medicine, Boston, MA*
- WPU 404 **Specific and Efficient Enrichment of Phosphopeptides for Phosphoproteome Analysis by Mass Spectrometry**; Sven Andrecht; Cora Rüter; Anette Börner; Anja Seiler; Robertus Hendriks; Jonas Anders; *Merck KGaA, LSP R&D MDA, Darmstadt, Germany*
- WPU 405 **IMAC Enrichment of Phosphopeptides from Complex Mixtures: To Methylate or Not to Methylate**; Michelle Stettler-Gill; Arthur R. Salomon; Scott B. Ficarro; Lawrence M. Brill; Eric C. Peters; *GNF, San Diego, CA*
- WPU 406 **Identification and Localization of New Phosphorylation Sites in alphaA-Crystallin Using Mass Spectrometrical Data**; Heike Schaefer¹; Daniel C. Chamrad²; Gabriele Becker¹; Janine Stuwe³; Joachim Klose³; Helmut E. Meyer¹; Katrin Marcus¹; ¹*Medical Proteome-Center, Bochum, Germany*; ²*Protagen AG, Dortmund, Germany*; ³*Charite, Institute of Human genetics, Berlin, Germany*
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- PROTEOMICS: BIOCHEMISTRY**
- WPV 407 **Lipid Raft Proteome Analysis by 2D LC/ESI and 2D LC/MALDI MS/MS**; Nan Zhang; Nan Li; Allan Mak; Andrew R. Shaw; Liang Li; *University of Alberta, Edmonton, AB, Canada*
- WPV 408 **Expression Proteomics in the Human Vitreous Humor by 1D-SDS/PAGE and Ion Trap Tandem Mass Spectrometry**; Noriko Mukai; Toyofumi Nakanishi; Reiko Koyama; Tsunehiko Ikeda; Akira Shimizu; *Osaka Medical College, Takatsuki, JAPAN*
- WPV 409 **Biological Interpretation of MS Results**; Lydia Nuwaysir; Christie Hunter; Peter Juhasz; Ken Parker; Armin Graber; Wilfred Tang; Subodh Nimkar; Randy Ribaldo; *Applied Biosystems, Foster City, CA*
- WPV 410 **Proteomic Identification and Characterization of a Novel Component of SAGA**; David W. Powell; Connie M. Weaver; Jennifer L. Jennings; Jill K. McAfee; Yue He; Andrew J. Link; *Vanderbilt University Medical Center, Nashville, TN*
- WPV 411 **Proteomic Identification of Maize Pollen Proteins Probed by Monoclonal and Polyclonal Antibodies Against β -Expansin and Its Related Proteins**; Lian-Chao Li; A. Daniel Jones; Daniel J. Cosgrove; *The Pennsylvania State University, University Park, PA*
- WPV 412 **Identification of Protein Phosphatase 2A Interaction with Kinase Suppressor of Ras**; Ming Zhou¹; Stephane Ory²; Thomas P. Conrads¹; Deborah K. Morrison²; Timothy D. Veenstra¹; ¹*SAIC-Frederick, Inc., Frederick, MD*; ²*National Cancer Institute, Frederick, MD*
- WPV 413 **Defining the Periplasmic Proteome of *Caulobacter crescentus* Using Automated LC-MS**; William E. Running; Jonathan A. Karty; James P. Reilly; *Indiana University, Bloomington, IN*

- WPV 414 **Mitochondrial Proteomic Analysis of Motor Neurons Expressing SOD1 Mutants Linked with Lou Gehrig's Disease;** Kei Fukada¹; Fujian Zhang¹; Alexis Holmberg²; Xiaoning Lu¹; Haining Zhu¹; ¹University of Kentucky, Lexington, KY; ²Asbury College, Wilmore, KY
- WPV 415 **Quantitative Proteomic Analysis of Cortical Neuron Cell Death;** Li-Rong Yu¹; Thomas P Conrads¹; David A Lucas¹; Takuma Uo²; King C Chan¹; Haleem J Issaq¹; Mark D Johnson³; Richard S Morrison²; Timothy D Veenstra¹; ¹SAIC-Frederick, Inc., Frederick, MD; ²University of Washington, Seattle, WA; ³Harvard University, Boston, MA
- WPV 416 **Advanced Applications of PTC Derivatization: Determination of Protein Synthesis Rates in Chicken Muscle and Identification of Ubiquitinated Yeast Proteins;** Isabel Riba¹; Robert J Beynon²; Simon J Gaskell¹; ¹UMIST, Manchester, UK; ²University of Liverpool, Liverpool, UK
- WPV 417 **Semi-quantitative Proteomic Analysis of Rat Forebrain Postsynaptic Density Fractions by Mass Spectrometry;** Junmin Peng³; Myung Jong Kim²; Dongmei Cheng³; Duc M Duong³; John Rush⁴; Steven P Gygi¹; Morgan Sheng²; ¹Harvard Medical School, Boston, MA; ²Massachusetts Institute of Technology, Cambridge, MA; ³Emory University, Atlanta, GA; ⁴Cell Signaling Technology, Inc., Beverly, MA
- WPV 418 **Discovery and Identification of Interacting Proteins of the Growth Factor Receptor Bound Protein (Grb2) Utilizing SELDI ProteinChip® Technology;** Jennifer S Cannon; Mark M Garner; Zheng Wang; Vanitha Thulasiraman; Lee Lomas; *Ciphergen Biosystems, Fremont, CA*
- WPV 419 **Influence of Quinupristin/Dalfopristin on Growth and Exotoxin Release of Staphylococcus aureus;** Katussevani Bernardo¹; Carmen Koszczoll²; Martin Kroenke²; ¹Biocrates life Sciences GmbH, Innsbruck, Austria; ²Institute for Medical Microbiology, Immunology and Cologne, Germany
- WPV 420 **Probing the Protein Partners in Huntington's Disease;** Dyna I. Shirasaki; Allan J. Tobin; Joseph A. Loo; *University of California, Los Angeles, CA*
- WPV 421 **A Global Quantitative Proteomic Analysis of the Effect of Caffeine-treatment on Metastatic Potential of Mouse Mammary Tumors;** Haiyan Yang¹; Li-Rong Yu²; David A Lucas²; King C Chan²; Haleem J Issaq²; Thomas P Conrads²; Kent W Hunter¹; Timothy D Veenstra²; ¹National Cancer Institute, Bethesda, MD; ²SAIC-Frederick, Inc., Frederick, MD
- WPV 422 **Identification of a New Potential Therapeutic Target for the Cystic Fibrosis by Proteomic;** Ana-Paula Ventura¹; Frederic Halgand¹; Olivier Laprevote¹; Noura Ben Salem²; Benoit Vallee²; Joanna Lipecka²; Danielle Tondelier²; Noëlie Davezac²; Aleksander Edelman²; ¹ICSN-CNRS, Gif-sur-Yvette, France; ²INSERM U467S (Necker Hospital), Paris, France
- WPV 423 **Proteomic Study of Proteins Associated with Lipid Droplets in 3T3-L1 Adipocytes;** Rong Wang¹; Georgia Dolios¹; Dawn L. Brasaemle²; Lawrence Shapiro³; ¹Mount Sinai School of Medicine, New York, NY; ²Rutgers, The State University of New Jersey, New Brunswick, NJ; ³Columbia University College of Physicians & Surgeons, New York, NY
- WPV 424 **Characterizing Knockout Mutant Mouse Prostate Tissues by MS;** Stacey R. Oppenheimer; Nan Gao; Janni Mirosevich; Robert J. Matusik; Richard M. Caprioli; *Vanderbilt University, Nashville, TN*
- WPV 425 **Comparative Proteomics Studies of Nuclear Proteins of Drug Susceptible and Resistant Human Breast Cancer**
- MCF-7 Cells;** Zongming Fu; Catherine Fenselau; *University of Maryland., College Park, MD 20742*
- WPV 426 **Proteomic Analysis of Eukaryotic Translation Complexes;** Tracey C. Fleischer; Connie M. Weaver; Jennifer L. Jennings; Andrew J. Link; *Vanderbilt University School of Medicine, Nashville, TN*
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- PROTEOMICS: COVALENT LABELING**
- WPV 427 **Locating Disulfide Bonds in a Phosphodiesterase-5 Construct Using LC-MS Methodologies;** Michelle K. Dennehy; Roya Zoraghi; Jackie D. Corbin; Sharron H. Francis; Daniel C. Liebler; *Vanderbilt University, Nashville, TN*
- WPV 428 **Laser Capture Microdissection, Saturation DIGE and MALDI-TOF/TOF Mass Spectrometry in the Study of Gastric Cell Lineages;** David B. Friedman; Charles Leye; Corbin A. Williams; Richard M. Caprioli; James R. Goldenring; *Vanderbilt University, Nashville, TN*
- WPV 429 **Quantitative Proteomics of *Candida albicans* using Lysine-specific Isotopic Labeling;** Jeremy E Melanson; Kenneth A. Chisholm; Steven J Locke; Devanand M Pinto; *NRC Institute for Marine Biosciences, Halifax, Nova Scotia, Canada*
- WPV 430 **Global Internal Standard Technology (GIST): Application to Complex Proteomes in a Systems Biology Strategy;** John M Asara¹; Jiri Adamec²; Xiang Zhang¹; Scott Ryan¹; Nicholas Laliberte¹; Philip Snell¹; Marina Hincapie¹; ¹Beyond Genomics, Inc., Waltham, MA; ²Purdue University, West Lafayette, IN
- WPV 431 **MS-Compatible Fluorescent Tags for Quantitative Proteomics;** Steven J Locke; Ken Chisolm; Jeremy Melanson; Elden Rowland; Dev Pinto; *NRC Institute for Marine Biosciences, Halifax, NS CANADA*
- WPV 432 **Synthesis and Characterization of a Solid Phase Fluorescence Tag for Comparative Proteomics Applications;** Adrienne Clements¹; Mark A. Scialdone²; Murray V. Johnston¹; Barbara S. Larsen²; Charles N. McEwen²; ¹University of Delaware, Newark, DE; ²DuPont Central Research and Development, Wilmington, DE
- WPV 433 **Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry for Global Quantitative Analysis of Multiply Labeled Tryptic Protein Mixtures;** Charlotte Hagman¹; Margareta Ramström²; Maria Jansson³; Peter James³; Per Håkansson¹; Jonas Bergquist²; ¹Division of Ion Physics, Uppsala University, Uppsala, Sweden; ²Institute of Chemistry, Uppsala University, Uppsala, Sweden; ³Department of Electrical Measurements, Lund University, Lund, Sweden
- WPV 434 **Application of Quantitative Mass Spectrometry to Measure Kinetics of Site-Specific Protein Adduction;** Christopher R. Orton; Amy-Joan L. Ham; Daniel C. Liebler; *Vanderbilt University, Nashville, TN*
- WPV 435 **Relative Quantification for Protein Expression Profiling: Isotopic Labeling Using Differential Methyl Esterification;** Joanne B Connolly³; Jeffrey A Kowalak¹; Robert Nussbaum²; Sanford P Markey¹; ¹NIMH, NIH, Bethesda, MD; ²NHGRI, NIH, Bethesda, MD; ³NIMH/NHGRI, NIH, Bethesda, MD
- WPV 436 **Development of a Protein 3-Nitrotyrosine Identification Method Using Affinity Labeling and Solid Phase Capture;** Tyler H Heibeck¹; Mark E McComb¹; Hau Haung¹; Sequin Haung¹; Christian Schoneich²; Richard A Cohen¹; Catharine E. Costello¹; ¹Boston University School of Medicine, Boston, MA; ²University of Kansas, Lawrence, KS
- WPV 437 **Identification of Lipolytic Enzymes in Mouse Adipose Tissue by a Functional Proteomic Approach;** Ruth

- Birner¹; Manfred Kollroser²; Gerald Rechberger²; Juliane Strauss²; Achim Lass²; Robert Zimmermann²; Rudolf Zechner²; Heidrun Susani-Etzerodt¹; Markus Waldhuber¹; Hannes Schmidinger¹; Gernot Riesenhuber¹; Albin Hermetter¹; ¹University of Technology, Graz, Austria; ²Karl-Franzens-University, Graz, Austria
- WPW 438 **Top-down and Bottom-up Mass spectrometry Combined with Photoaffinity Labeling for Structural Characterization of Drug Binding Sites in HIV-Integrase**; Viorel Mocanu¹; LeRae B. Graham²; Nouri Neamati³; Touradj Solouki²; Christoph H. Borchers¹; ¹UNC-Chapel Hill, Chapel Hill, NC; ²University of Maine, Orono, ME; ³USC, Los Angeles, CA
- WPW 439 **Membrane Proteomics: Mass Spectrometric Identification Of Membrane Proteins Using Biotinylation And Affinity Purification**; Evgeniy V. Petrotchenko; Robert L. Wonsotler; Carol E. Parker; David R. Loisel; Nedyalka N. Dicheva; Maria R. Warren; Lawrence E. Ostrowski; Christoph H. Borchers; *UNC-Chapel Hill, Chapel Hill, NC 27599*
- WPW 440 **High Throughput Quantitative Proteome Analysis Using Trypsin Catalyzed 18O Labeling, Thiol-Specific Enrichment, and Accurate Mass and Time Tags**; Tao Liu; Wei-jun Qian; David G. Camp II; Richard D. Smith; *Pacific Northwest National Laboratory, Richland, WA*
- WPW 441 **Comparative Proteomics of Leishmania Major Using Two-Dimensional Difference Gel Electrophoresis and MALDI-ToF to Identify Disease Markers**; Christine R. Rozanas¹; G. Reid Asbury¹; Jean-Francois Marquis²; Martin Olivier²; ¹Amersham Biosciences, Piscataway, NJ; ²McGill University, Montreal, QC Canada
- WPW 442 **Protein Expression Measurements Using Multiplexed Isobaric Tagging Technology**; Yulin Huang; Philip Ross; Sasi Pillai; Subhashish Purkayastha; Steve Martin; Darryl Pappin; *Applied Biosystems, Framingham, MA*
- WPW 443 **A New Biotinylation Reagent in the Development of a Nondiscriminatory Investigative Approach for the Study of Cell Surface Proteins**; Daniel J. Gauthier¹; Claude Lazure²; Robert Masse³; Alexandre. Zougman⁴; Bernard F. Gibbs³; ¹McGill University, Montreal, Canada; ²Institutes de recherches clinique de Montreal, Montreal, Canada; ³MDS Pharma Services, Montreal, Canada; ⁴MDS Proteomics, Toronto, Canada
- WPW 444 **Highly Parallel 18O Relative Quantitation at Low Concentration by Spiking with Improved Data Processing**; Marc Moniatte; Irène Fasso; Hassan Mattou; Jacques Colinge; *Geneprot Inc., Geneva, Switzerland*
- WPW 445 **Fluorous Affinity Tags for Selective Peptide Enrichment in Proteomics Applications: Bye-Bye Biotin?**; Scott M Brittain; Scott B Ficarro; Eric C Peters; *GNF, San Diego, CA*
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- PROTEOMICS: CANCER MARKERS**
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- WPX 446 **Search for Celecoxib-modulated Targets and Response Predictors by Serum Proteomic Profiling**; Iqbal U Ali¹; Zhen Xiao²; Brian J Luke²; Grant Izmirlan¹; Asad Umar¹; Thomas P Conrads²; Patrick M Lynch³; Robin K Phillips⁴; Haleem J Issaq²; Peter Greenwald¹; Ernest T Hawk¹; Timothy D Veenstra²; ¹National Cancer Institute, Bethesda, MD; ²SAIC-Frederick, Inc., Frederick, MD; ³M.D. Anderson Cancer Research Center, Houston, TX; ⁴St. Mark's Hospital, London, U.K.
- WPX 447 **Differential Proteomics of Metastatic Cancer Cells**; Paweena Kreunin¹; Virginia Urquidi²; Steve Goodison³; David M. Lubman¹; ¹University of Michigan, Ann Arbor, MI; ²University of California, La Jolla, CA; ³University of Florida, Jacksonville, FL
- WPX 448 **Probing HPV E7 Structure and Interaction with pRB by Using Mass Spectrometry Coupled to Synchrotron X-ray Protein Footprinting**; Ming-Zhong Sun; Robert Burk; Keiji Takamoto; Mark R Chance; *Albert Einstein Colledge of Medicine, Bronx, NY*
- WPX 449 **The Use of Combinatorial Library Screening to Find Small Molecule Ligands that Bind Lymphoma Cellular Proteins**; Suzanne Miyamoto¹; Yoomie Parks²; Eric D. Dodds²; Ruiwu Liu¹; Xiaobing Wang¹; Kit S. Lam¹; Carlito Lebrilla²; ¹UC Davis Cancer Center, Sacramento, CA; ²UC Davis, Davis, CA
- WPX 450 **Discovery of High Quality Biomarkers in Serum Through Correlation of Proteins from the Primary Tumor**; Robert L. Caldwell; Hans-Rudolf Aerni; David Carbone; John R. Floyd; Pierre P. Massion; Sarah A. Schwartz; Reid Thompson; Baogang J. Xu; Pinar Yildiz; Lisa J. Zimmerman; Richard M. Caprioli; *Vanderbilt University School of Medicine, Nashville, TN*
- WPX 451 **Identification of Tumor-Associated Plasma Biomarkers Using Proteomic Techniques: From Mouse to Human**; Jenn-Han Chen¹; Hsueh-Fen Juan³; Wei-Tse Hsu²; Su-Ching Huang¹; Shui-Tein Chen²; Yu-Wang Chang²; Yi-Chung J Lin²; Chih-Yin Chiang²; Li-Li Wen⁵; De-Chuan Chan¹; Yao-Chi Liu¹; Yu-Jui Chen²; ¹National Defense Medical Center, Taipei, Taiwan, ROC; ²Academia Sinica, Taipei, Taiwan, ROC; ³National Taipei University of Technology, Taipei, Taiwan, ROC; ⁴Taipei Medical University, Taipei, Taiwan, ROC; ⁵En Chu Kong Hospital, Taipei, Taiwan, ROC
- WPX 452 **Laser Capture Microdissection and Mass Spectrometry Facilitate Protein Marker Identification in Invasive and in Situ Breast Cancer**; Baogang J Xu; Melinda E Sanders; Yu Shyr; Jennifer A Pietenpol; Bapsi Chakravarthy; Roy A Jensen; Richard M Caprioli; *Vanderbilt University, Nashville, TN*
- WPX 453 **Proteomic Profiling in Search for Lung Cancer Biomarkers in Plasma**; Zhen Xiao¹; Brian T Luke¹; Timothy D Veenstra¹; Thomas P Conrads¹; Mylinh Smith²; Peter Greenwald³; Jerry W McLarty²; Iqbal U Ali³; ¹SAIC-Frederick, Inc., Frederick, MD; ²Louisiana State University Health Sciences Center, Shreveport, LA; ³National Cancer Institute, Bethesda, MD
- WPX 454 **Sero-Diagnostic Protein Microarrays Using Liquid Phase Fractionation of Prostate Cancer Tissue Lysates**; Manoj Pal; Arun Shreekumar; David M Lubman; Arul M Chinnayan; *Univ of Michigan, Ann Arbor, MI*
- WPX 455 **Investigating Differences in the Protein Expression of MLL-Wildtype and MLL-Deficient Murine Embryonal Fibroblasts by Using MALDI-TOF MS Methods**; Martin Hampel¹; Rolf Marschalek²; Michael Karas¹; ¹Institute of Pharmaceutical Chemistry, Frankfurt / Main, Germany; ²Institute of Pharmaceutical Biology, Frankfurt / Main, Germany
- WPX 456 **High Throughput Proteomic Protein Profile of Human Plasma from Breast Cancer Patient**; Luwang Zhu¹; Qinhua Ru¹; Richard Somiari¹; Stelle Somiari¹; Henry Brzeski¹; Michael Liebman¹; Craig Shriver²; ¹Windber Research Institute, Windber, PA, USA; ²Water Reed Army Medical Center, Washington D.C., USA
- WPX 457 **Human Prostate Proteome Analysis with Two-dimensional Gel Electrophoresis and LC-MS/MS**; Bin Fang; Francesco Giorgianni; Yingxin Zhao; Sarka Beranova-Giorgianni; *University of Tennessee Health Science Center, Memphis, TN*
- WPX 458 **Finding Serum Biomarkers for Breast Cancer**; Bing Zhang; David Hawke; Ryuji Kobayashi; Francisco J. Esteva; *University of Texas M. D. Anderson Cancer Center, Houston, TX*

- WPX 459 **Serum Proteomic Patterns for Canine Cancer Detection;** DaRue Prieto¹; Chand Khanna²; Thomas P. Conrads¹; Timothy D. Veenstra¹; ¹SAIC-Frederick, Inc, Frederick, MD; ²NCI, Bethesda, MD
- WPX 460 **Development of a Proteomic Method for Serum Analysis;** Lidan Tao; Nan Li; Sambasivarao Damaraju; Liang Li; *University of Alberta, Edmonton, Canada*
- WPX 461 **Brd2-Containing Multiprotein Complexes Participate in Transcriptional Control of the Mammalian Cell Cycle;** Gerald V. Denis; Mark E. McComb; Catherine E. Costello; *Boston University School of Medicine, Boston, MA*
- WPX 462 **Proteomic Analysis of Hepatitis B Virus-associated Hepatocellular Carcinoma: Identification of Potential Tumor Markers;** Chen Li¹; Ye-Xiong Tan²; Hu Zhou¹; Shi-Jian Ding¹; Su-Jun Li¹; Dan-Jun Ma¹; Xiao-bo Man²; Yi Hong²; Qi-Chang Xia¹; Jia-Rui Wu¹; Hong-Yang Wang²; Rong Zeng¹; ¹Shanghai Institutes for Biological Sciences, Shanghai, China; ²Eastern Hepatobiliary Surgery Hospital, Shanghai, China
- WPX 463 **Proteomic Analysis of Breast Cancer Cell Lines MN1 and MDD2: A Sensitivity Study for Cancer Biomarker Discovery;** Nan Li; Lidan Tao; Vijaya Damaraju; Sambasivarao Damaraju; Carol Cass; Liang Li; *University of Alberta, Edmonton, Canada*
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- PROTEOMICS: FUNDAMENTAL OTHER NEW**
- WPY 464 **Livestock Plasma Proteomics: Trials and Tribulations;** Marek D. Koter; Alejandro Corzo; Shane C. Burgess; *Mississippi State University, Mississippi State, MS*
- WPY 465 **Electro-Proteolysis;** Teresa Hong; Markus Kalkum; *Beckman Research Institute of the City of Hope, Duarte, CA*
- WPY 466 **Tracking Pig Oocyte Proteome During In Vitro Maturation;** Petr Halada¹; Petr Man¹; Zdenka Ellederova²; Michal Kubelka²; Jan Motlik²; Hana Kovarova²; ¹Institute of Microbiology, Prague, Czech Republic; ²Institute of Animal Physiology and Genetics, Libechev, Czech Republic
- WPY 467 **Analysis of the Ciliome of the Protozoan *Tetrahymena thermophila* Using Raw Translated Genomic Information;** Jeffrey C. Smith; Ronald E. Pearlman; K. W. Michael Siu; *York University, Toronto, Ontario, Canada*
- WPY 468 **The LC-MS Workflow: Is MALDI or ESI the Preferable Ionization Method?;** Anders Tangen; Henrik Wadensten; *Amersham Biosciences, Uppsala, Sweden*
- WPY 469 **Novel Polymer Monolithic Columns Dedicated to the Specific Trapping of Phosphopeptides;** Kamal Tobal; Christian Rolando; Séverine Le Gac; *USTL, chimie organique et macromoléculaire, Lille, France*
- WPY 470 **Improvements in Mass Defect Labeling for Shotgun Proteomic Analysis;** Hilda Hernandez; Pornnipa Vichchulada; Sarah Niehauser; I. Jonathan Amster; *University of Georgia, Athens, GA*
- WPY 471 **DNA-Protein and Protein-Protein Interactions at the Human Cyclooxygenase-2 (COX-2) Minimal Promoter by LC/MS/MS;** Thomas K. Bane; Yunan Miao; Terry D. Lee; Art D. Riggs; *Beckman Research Institute of The City of Hope NMC, Duarte, CA*
- WPY 472 **LC-MS Characterization of the Binding of SARS 3CL Protease with its Inhibitors;** Stone D.-H. Shi; Michael J. Greig; James E. Solowiej; Brion W. Murray; Robert S. Kania; *Pfizer Global R&D La Jolla, San Diego, CA*
- WPY 473 **Multidimensional HPLC of Intact Proteins Coupled with Proteolysis and Chip LC-MS;** Alex Appfel; Sharmila Udiavar; Hongfeng Yin; Kevin Killeen; Tom van de Goor; *Agilent Laboratories, Palo Alto, CA*
- WPY 474 **MDLC: A Comparative Study of Dual Gradient and Off-Line Fractionation Designs;** Niklas Edblad; Henrik Wadensten; Anders Tangen; *Amersham Biosciences, Uppsala, Sweden*
- WPY 475 **Parallel PSD Analysis of Complex Protein Mixture;** Emmanuelle Claude¹; Martin Snel¹; Daniel Kenny¹; Jeff Brown¹; Scott Berger²; Therese McKenna¹; James Langridge¹; ¹Waters Corporation, MS technologies center, Manchester, UK; ²Waters Corporation, Milford, MA
- WPY 476 **A New Concept for Proteomic Identification and Quantitation of Targeted Proteins in Complex Samples;** Nicola E. Burdeniuk; David C. Schriemer; *University of Calgary, Calgary, Canada*
- WPY 477 **Isoelectric Focusing of Peptides as a First Dimension Separation in Shotgun Proteomics: Theoretical and Practical Aspects;** Benjamin J Cargile¹; Amal S Essader¹; Bengt Bjellqvist²; Thaddeus W Freeman¹; Jonathan L Bundy¹; James L Stephenson Jr¹; ¹Research Triangle Institute, Research Triangle Park, NC; ²Amersham Biosciences, Uppsala, Sweden
- WPY 478 **Rapid Quantitative Proteomic Analysis Using Accurate Mass Measurement;** Bryan A. Parks; Jeremy J. Wolff; Hilda Hernandez; I. Jonathan Amster; *University of Georgia, Athens, GA*
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- PROTEOMICS: NEW & IMPROVED**
- WPZ 479 **Peptide Sequence Identification by Probabilistic Peptide Property Matching to an Annotated Peptide Database;** Sharon S. Chen¹; Eric W. Deutsch²; Eugene C. Yi²; Xiao-jun Li²; Ruedi Aebersold²; ¹University of Washington, Seattle, WA; ²Institute for Systems Biology, Seattle, WA
- WPZ 480 **LC/MDMS: A New Method for High Sensitivity, High Throughput and High Sequence Coverage Proteomics;** Houle Wang¹; Yang Wang¹; David Kennedy¹; Kerry Nugent¹; David R Goodlett²; ¹Michrom BioResources, Auburn, CA; ²University of Washington, Seattle, WA
- WPZ 481 **Microchip-MS - A Tool for High Throughput Analysis of Proteomic Samples;** Aaron T. Timperman¹; Trust T. Razunguzwa¹; James Lenke¹; Manoj Warrior¹; ¹West Virginia University, Morgantown, WV
- WPZ 482 **Proteome-Wide Prediction and Verification of Idiotypic Peptides for Protein Identification;** Markus Schirle¹; Parag Mallick²; Julien Gagneur¹; Robert Schmitt¹; Ruedi Aebersold²; Bernhard Kuster¹; ¹Cellzome AG, Heidelberg, Germany; ²Institute for Systems Biology, Seattle, WA
- WPZ 483 **Minimizing Post-column Band Broadening in Nanobore LC-MS/MS for Bottom-up Proteomic Applications;** Andreas Huhmer¹; James P. Murphy III²; Gary A. Valaskovic²; ¹ThermoElectron Corp., San Jose, CA; ²New Objective, Inc., Cambridge, MA
- WPZ 484 **Quantitative Measurement of Proteins from Biological Samples and Biomarker Discovery Using Surface Enhanced Laser Desorption/Ionization (SELDI) Technology;** Jane Ding; Lucie Whybrew; Luc Guerrier; Lee Lomas; *Ciphergen Biosystems, Inc., Fremont, CA*
- WPZ 485 **Globe O-Linked Glycosylation and Phosphorylation Site Mapping;** Min Xie; Ron Orlando; *Complex carbohydrate research center, Univ. of GA, Athens, GA*
- WPZ 486 **Proteomics Mass Spectrometry Applied to Transcription Factor Identification;** Meiyao Wang; I. Jonathan Amster; Robert A. Scott; *University of Georgia, Athens, GA*
- WPZ 487 **Bronchoalveolar Lavage Fluid Proteome Analyzed by MADLI QIT Time-Of-Flight Mass Spectrometer and Combined ICAT-Glycoprotein Specific Method;** Jinzhai Chen¹; Lynn Schnapp²; Chris Sutton³; David, R. Goodlett¹; ¹University of Washington, Seattle, USA; ²Univ.

- of Washington, Harborview Medical Center, Seattle, USA;*
³*Shimadzu Biotech, Manchester, UK*
- WPZ 488 **Experimental Peptide Identification Repository, EPIR: a Peptide-Centric Software Platform for Storage, Validation, and Mining of Tandem Mass Spectrometry Data;** Dan B. Kristensen; Jan C. Brønd; Peter A. Nielsen; Jens R. Andersen; Ole T. Sørensen; Vibeke Jørgensen; Keiryn L. Bennett; Alexandre V. Podtelejnikov; Jacek R. Wisniewski; Christian Ahrens; Søren G. Schandorff; *MDS Inc. Denmark, Odense, Denmark*
- WPZ 489 **Protein pI Related Post-Translational Modifications Proposed by 2-D HPLC Separation Combined with ESI and MALDI TOFMS and Database Search Method;** Suping Zheng¹; David M. Lubman¹; Timothy J. Barder²; Albert F. Bennett³; ¹*University of Michigan, Ann Arbor, MI*; ²*Eprogen Inc., Darien, IL*; ³*University of California, Irvine, Irvine, CA*
- WPZ 490 **Discovery and Identification of Differentially Expressed Native Peptides with a High Dynamic Range using Peptide Display and MALDI Tandem Time-of-Flight-MS;** Christoph Menzel¹; Vincent Guillou¹; Michael Juergens¹; Markus Kellmann¹; Matthias Glueckmann²; Dietmar Waidelich²; Hans-Dieter Zucht¹; Peter Schulz-Knappe¹; ¹*BioVisioN AG, Hanover, Germany*; ²*Applied Biosystems, Darmstadt, Germany*
- WPZ 491 **Mass Spectrometry Based Proteomics: Generation of Peak List for Reliable and Reproducible Protein Identification;** Doris E Terry *Purdue University, West Lafayette, IN*
- WPZ 492 **Smart Probe Surfaces for Elimination of the Ion Suppression Effect in MALDI MS;** Meiling Li; Richard B. Timmons; Gary R. Kinsel; *University of Texas at Arlington, Arlington, TX*
- WPZ 493 **Analysis of Small Yeast Proteins Directly from Immobilized pH Gradient Gel Strips using MALDI-TOF/TOF;** Gary A Rymar; Angela K Walker; Philip C Andrews; *University of Michigan, Ann Arbor, MI*
- WPZ 494 **Several Experimental Observations in the Study of Plasma Proteome Using Depletion and 3-Dimensional HPLC;** Xiaoyao Xiao; Georgia Dolios; Rong Wang; *Mount Sinai School of Medicine, New York, NY*
- WPZ 495 **Optimizing Data Acquisition Parameters of Linear Ion Trap Proteomics Experiments to Enhance Database Search Results;** Julie A Horner; Andreas F Huhmer; Rohan A Thakur; *Thermo Electron, San Jose, CA*
- WPZ 496 **MS Gas Phase Fractionation of Albumin Depleted and Associated Serum: A Twenty Minute MudPIT Approach;** Jennifer L Rutherford; Joe Bonapace; Mai Loan Nguyen; Tonya Pekar; John Pirro; *Charles River Proteomic Services, Worcester, MA*
- WPZ 497 **Design and Development of Polyurethane Surfaces for Protein Microarrays;** Ning Tang; Daniel Chang; Scot Weinberger; *Ciphergen Biosystems, Inc., Fremont, CA*
- WPZ 498 **In-Capillary Proteolytic Digest of Native Proteins and Simultaneous Analysis of the Resulting Peptides by nanoESI MS and MS/MS;** Gottfried Pohlentz; Jasna Peter-Katalinic; *Institute for Medical Physics and Biophysics, Muenster, Germany*
- WPZ 499 **Qcomp: A Rapid and Accurate Method for Identifying Peptides and Proteins from Partial, Qualitative Amino Acid Composition Data;** Brian D. Halligan¹; Andrew S. Greene¹; Edward A. Dratz²; ¹*Medical College of Wisconsin, Milwaukee, WI*; ²*Montana State University, Bozeman, MT*
- WPZ 500 **Evaluation of a Chi-Square Discrimination Function to Identify Genuine Components of Protein Complexes;** Jens S Andersen¹; Christoffer J Wilkinson²; Peter Mortensen¹; Erich A Nigg²; Matthias Mann¹; ¹*University of Southern Denmark, Odense, Denmark*; ²*Max Planck Institute of Biochemistry, Martinsried, Germany*
- WPZ 501 **Top-Down, Bottom-Up, and Side-to-Side Proteomics with Virtual 2-D Gels;** Rachel R. Ogorzalek Loo; Yanan Yang; Frank Hung; Robert Gunsalus; Vern Schumaker; Joseph A. Loo; *UCLA, Los Angeles, CA*
- WPZ 502 **N-terminal Side Chain Cleavage of Chemically Modified Peptides by Free Radical Processes Under CID Conditions;** Almary Chacon; Douglas Masterson; Huiyong Yin; Jeremy L. Norris; Richard M. Caprioli; Ned A. Porter; *Vanderbilt University, Nashville, TN*
- WPZ 503 **Enzymatic Micro-Reactor for Proteomic Applications;** Kamal Tobal; Séverine Le Gac; Cécile Cren-Olivé; Christian Rolando; *USTL, Lille, France*
- WPZ 504 **Integrated Top-Down/Bottom-Up Protein Analysis Platform Targeting Comprehensive and Ultrasensitive Proteomics;** Yueju Wang¹; Brian M. Balgley²; Jonathan W. Cooper²; Frederick Rosenberger²; Paul A. Rudnick²; Damali George³; Eric H. Baehrecke³; Cheng S. Lee¹; ¹*University of Maryland, College Park, MD*; ²*Calibrant Biosystems, Rockville, MD*; ³*University of Maryland Biotechnology Institute, College Park, MD*

THURSDAY POSTERS

Thursday posters should be set up 7:30 – 8:00 am on Thursday and removed at 3:00 pm on Thursday. Authors of odd numbered posters (i.e., 001, 003, 005) present 8:45 – 10:15 am on Thursday. Authors of even numbered posters (i.e., 002, 004, 006) present 1:30 – 3:00 pm on Thursday.

BIOINFORMATICS

- ThPA 002 **A New Protein Identification Software Analysis Tool to Group Proteins and Assemble and View Results;** Sean L Seymour; Alex Loboda; Wilfred H Tang; Subodh Nimkar; Daniel A Schaeffer; *Applied Biosystems, Foster City, CA*
- ThPA 003 **Dynamic Calibration of PMF Data for Increased Identification Rate in Proteome Projects;** Daniel C. Chamrad¹; Gerhard Koerting¹; Martin Schuereberg²; Peter Hufnagel²; Helmut E. Meyer¹; Martin Blueggel¹; ¹*Protagen AG, Dortmund, Germany*; ²*Bruker Daltonik GmbH, Bremen, Germany*
- ThPA 004 **How Much of a Multi-Dimensional LC-MSMS Experiment Acquired on a QSTAR is Interpretable and How Do Database Search Engines Perform;** Robert J Chalkley¹; Peter R Baker¹; Kirk C Hansen¹; Katalin F Medzihradzsky¹; Nadia P Allen²; Lan Huang³; Michael Rexach²; A. L. Burlingame¹; ¹*UCSF, San Francisco, CA*; ²*Stanford University, Stanford, CA*; ³*UC Irvine, Irvine, CA*
- ThPA 005 **Cluster Analysis of Mass Spectrometry Data to Detect Protein Interactions;** Jill McAfee; Dexter Turner; Michael Assink; Andrew J Link; *Vanderbilt University School of Medicine, Nashville, TN*
- ThPA 006 **SeQuence IDentification – A Bayesian Peptide Sequencing Algorithm for Tandem Mass Spectra;** Li Ji¹; Yingying Huang¹; Joseph Triscari²; Katheryn Resing³; Ljiljana Pasa-Tolic⁴; Mary Lipton³; Richard Smith⁴; Vicki Wysocki¹; ¹*University of Arizona, Tucson, AZ*; ²*Science Application International Corporation, Tucson, AZ*; ³*University of Colorado, Boulder, CO*; ⁴*Pacific Northwest National Laboratory, Richland, WA*
- ThPA 007 **Strategies for Building a Proteomics Data Repository;** Randall K Julian¹; James P Sefton¹; Karen Gooding¹; Chris Taylor²; Kai Runte²; Jon Reid³; ¹*Lilly Research Laboratories, Indianapolis, IN*; ²*European Bioinformatics Institute, Hinxton-Cambridge, UK*; ³*Savitar, Inc, West Lafayette, IN*