

70S

53rd ASMS Conference on Mass Spectrometry

- Pierre Chaurand; Kirk B Lane; Georgios Stathopoulos; Richard M Caprioli; *Vanderbilt University, Nashville, TN*
- TP 585 **Quantitative TLC/MS of Caffeine using Surface Sampling Electrospray Ionization Mass Spectrometry;** Bruce A. Tomkins¹; Gary A. Van Berkel¹; Michael J. Ford²; Michael A. Deibel³; ¹*Oak Ridge National Laboratory, Oak Ridge, TN;* ²*National Center for Toxicological Research, Jefferson, AR;* ³*Earlham College, Dept. of Chemistry, Richmond, IN*
- TP 586 **Evaluation of a New Aerosol Matrix Deposition Method for Atmospheric Pressure and Vacuum MALDI Ion Imaging;** Daniel Kenny¹; Marten Snel¹; Jeff Brown¹; Bob Bateman¹; Jamie Coleman²; John Petrie²; Hilary Laidlaw²; Michael Ashford²; ¹*Waters Corporation, Manchester, UK;* ²*University of Dundee, Dundee, UK*
- TP 587 **New Cluster Beam Techniques for Sub- μm TOF-SIMS Organic Molecular Imaging;** Felix Kollmer; Thomas Grehl; Rudolf Moellers; Derk Rading; Ewald Niehuis; *ION-TOF GmbH, Muenster, Germany*
- TP 588 **Characterization of Metal-Organic Contacts with Mass Spectrometry;** Zihua Zhu; Nicholas Winograd; *Penn State University, University Park, PA*
- TP 589 **Imaging Mass Spectrometry with LD/MSⁿ at Different Pressure Regimes;** Timothy J Garrett¹; Viatcheslav Kovtoun²; Huy Bui²; Maria C Prieto Conaway²; Ken Miller²; George Stafford²; Richard A Yost¹; ¹*University of Florida, Gainesville, FL;* ²*Thermo, San Jose, CA*
- TP 590 **Examination of the Distribution of Secondary Metabolites in Plant Tissue by Imaging Matrix Assisted Laser Desorption Ionisation Mass Spectrometry;** Malcolm R Clench¹; Sally J Atkinson¹; Josephine Bunch²; Michael Burrell²; Daniel Kinsman²; ¹*Sheffield Hallam Univeristy, Sheffield, UK;* ²*University of Sheffield, Sheffield, UK*
- TP 591 **Determination of the Spatial Distribution of Pigments in Tissues with MALDI Imaging Software and QqTOF Mass Spectrometry;** Kaoru Karasawa; Makiko Komatsu; Toshiyuki Yamazaki; *Applied Biosystems Japan Ltd., Tokyo, Japan*
- Nicholas Winograd; *The Pennsylvania State University, University Park, PA*
- WP 010 **Application of Coincidence Ion Mass Spectrometry for Characterization of Nanoparticles;** Sara Balderas; Stanislav V. Verkhotourov; Richard D. Rickman; Robert E. Cable; Raymond E. Schaak; Emile A. Schweikert; *Texas A&M University, College Station, TX*
- WP 011 **Multi-ion Emission from Massive Gold Cluster Impacts;** George J. Hager; Stanislav V. Verkhotourov; Emile A. Schweikert; *Texas A&M University, College Station, TX*
- WP 012 **Imaging Mass Spectrometry of Protein Microarrays and Thin Tissue Sections: A Simultaneous Top-Down/Bottom-Up Approach;** Stacy D. Sherrod; John A. McLean; David H. Russell; *Texas A&M University, College Station, TX*
- WP 013 **Influence of Massive Projectile Size and Energy on Secondary Ions Yields of Organic Targets;** Christelle Guillemier¹; Serge Della Negra²; Richard D Rickman¹; Veronika Pinnick¹; Emile A Schweikert¹; ¹*Texas A&M University, College Station, TX;* ²*Institut de Physique Nucleaire, Orsay, France*
- WP 014 **Practical Aspects of Direct Tissue Analysis at Atmospheric Pressure by Desorption Electrospray Ionization;** Satu M. Puolitaival¹; Justin M. Wiseman²; Zoltan Takats³; R. Graham Cooks²; Richard M. Caprioli¹; ¹*Vanderbilt University, Nashville, TN;* ²*Purdue University, West Lafayette, IN;* ³*Hungarian Academy of Sciences, Budapest, Hungary*
- WP 015 **A Comparison of Secondary Ion Yields Obtained with C_n⁺ and Au_n⁺ on Organic Surfaces;** Jay E. Locklear; Stanislav V. Verkhotourov; Christelle Guillemier; Emile A. Schweikert; *Texas A&M University, College Station, TX*

CLINICAL CHEMISTRY

- WP 016 **Strategies for the Detection and Analysis of Buprenorphine and Norbuprenorphine;** Tanya N Gamble; Gary Impey; *Applied Biosystems/MDS Sciex, Concord, ON, Canada*
- WP 017 **Identification of Nucleosides as Potential Biomarkers for Breast Cancer in Urine by ESI-TOF-MS;** Thomas Zey¹; Matthias Pelzing¹; Dino Bullinger²; Antje Frickenschmidt²; Gabriela Zurek¹; H. M. Liebich²; Bernd Kammerer²; ¹*Bruker Daltonik GmbH, Bremen, Germany;* ²*University of Tuebingen, Tuebingen, Germany*
- WP 018 **Routine Clinical Analysis of Endocrine Analytes (Dopamine, Epinephrine, Norepinephrine, Metanephrine, Normetanephrine, 5-HIAA, VMA and HVA) in Urine by LC/MS/MS;** Jeff C. Eichhorst¹; Michele L Etter¹; Joyce Lepage¹; Crystal Bellegarde¹; Denis C. Lehotay²; ¹*Saskatchewan Provincial Laboratory, Regina, SK, Canada;* ²*University of Saskatchewan, Saskatoon, SK, Canada*
- WP 019 **Recent Developments in the Direct Determination of the Ratio (Tetrahydrocortisol+alloTetrahydrocortisol)/Tetrahydrocortisone in Urine;** Alessandro Saba; Andrea Raffaelli; Edda Vignali; Claudio Marcocci; Piero Salvadori; *AmbiSEN High Technology Center of the University, Pisa, Italy*
- WP 020 **LC-MS/MS Analysis of Steroids for Clinical Evaluation of Endocrine Disorders;** Andrew Wagner; Teresa Kallal; William Curtin; Mary Moor; Walt Chandler; Russell P Grant; *Esoterix Inc., Calabassas Hills, CA*
- WP 021 **Applying a Q TRAPTM and Dynamic Background Subtraction for Multi Target Screening (MTS) with MS/MS-library based identification of drugs;** Sebastian Dresen¹; Juergen Kempf¹; Andre Schreiber²; Gary Impey³; Byron Kieser³; Wolfgang Weinmann¹; ¹*Institute*
- WP 004 **High-Speed Automated Deposition of Matrix Onto Tissue Samples for Small Molecule Imaging Application using MALDI MS/MS;** Min Yang; Andrew James; Tom Covey; Peter Kovarik; *MDS Sciex, Concord, ON, Canada*
- WP 005 **Three-Dimensional Molecular Imaging of Peptide Films with Mass Spectrometry and Buckyballs;** Juan Cheng; Nicholas Winograd; *Penn State University, University Park, PA*
- WP 006 **Automated Surface Sampling Electrospray Mass Spectrometry;** Vilmos Kertesz; Michael J. Ford; Gary J. Van Berkel; *Oak Ridge National Laboratory, Oak Ridge, TN*
- WP 007 **Desorption Electrospray Ionization (DESI): A New Method for Bioanalytical Mass Spectrometry;** Zoltan Takats; Justin M. Wiseman; Bogdan Gologan; R. Graham Cooks; *Purdue University, West Lafayette, IN*
- WP 008 **Analysis of a Monolayer Model of a Dental Composite Material by Laser Desorption Photoionization Mass Spectrometry;** Manshui Zhou; Chunping Wu; Praneeth D. Edirisinghe; James L. Drummond; Luke Hanley; *University of Illinois, Chicago, IL*
- WP 009 **Metal Nanoparticle Deposition (MND) for ToF-SIMS Signal Enhancement of Polymers;** Abigale J. Marcus;

WEDNESDAY POSTERS

SURFACE ANALYSIS

- of Forensic Medicine University Hospital, Freiburg, Germany; ²Applied Biosystems, Darmstadt, Germany; ³Applied Biosystems/MDS SCIEX, Toronto, Canada
- WP 022 **Analysis of Benzodiazepines in Urine by Turbulent Flow Liquid Chromatography Mass Spectrometry;** Chris Esposito¹; Kevin J McHale²; Francois A Espourteille¹; ¹Cohesive Technologies, Inc., Franklin, MA; ²Thermo Electron, Somerset, NJ
- WP 023 **A Method for Quantification of L-Tryptophan in Urine and Plasma by Liquid Chromatography - Tandem Mass Spectrometry;** Perry R Loken; Jean M Lacey; Mark J Magera; Piero Rinaldo; Dietrich Matern; *Mayo Clinic, Rochester, MN*
- WP 024 **Method for Determination of Guanidinoacetate, Creatine and Creatinine by Liquid Chromatography - Tandem Mass Spectrometry;** Karen A Kramer; Mark J Magera; Dietrich Matern; Silvia Tortorelli; *Mayo Clinic College of Medicine, Rochester, MN*
- WP 025 **Rapid Determination of the Blood Level of Psychotic Drugs;** Andrea Raffaelli¹; Alessandro Saba¹; Marco Maccheroni³; Piero Salvadori²; ¹CNR-ICCOM - Sezione di Pisa, Pisa, Italy; ²Università di Pisa, Pisa, Italy; ³Azienda Ospedaliera Pisana, Pisa, Italy
- WP 026 **Quantitation of Urinary Total Metanephrines by Liquid Chromatography-Atmospheric Pressure Ionization-Tandem Mass Spectrometry;** Shuguang Li; Michael P Caulfield; Richard E Reitz; *Quest Diagnostics Inc., San Juan Capistrano, CA*
- WP 027 **Identification and Quantitation of Multiple Classes of Antibiotics in Human Biological Matrices by LC/MS/MS;** Anh T Pham; David Simons; Hubert Vesper; Maria Ospina; Gary Myers; *Center for Disease Control, Atlanta, GA*
- WP 028 **Quantification of Fatty Acid Ethyl Ester Biomarkers by Electrospray Ionization and Tandem Mass Spectrometry;** Whitney V. Milec¹; Chrys Westdemiotis¹; Cynthia F. Bearer²; ¹The University of Akron, Akron, OH; ²Rainbow Babys and Childrens Hospital, Cleveland, OH
- WP 029 **Simultaneous Quantitation of Homovanillic and Vanilmandelic acids in Human Serum by LC-ESI-MS/MS;** Katerina Sadilkova; Kathryn A. Dugaw; Rhona M. Jack; *Children's Hospital and Regional Medical Center, Seattle, WA*
- WP 030 **The Measurement of Adenosine in the Exhaled Air of Patients with Emphysema using Filter Trapping and Mass Spectrometry;** Charis Uhlson; Norbert F. Voelkel; Robert C. Murphy; *University of Colorado Health Sciences Center, Aurora, CO*
- WP 031 **Direct Quantitation of Total Testosterone in Human Sera or Plasma by High Turbulent Flow LC-APCI Tandem Mass Spectrometry;** Nigel J Clarke; Mildred Redor-Goldman; Shuguang Li; Michael P Caulfield; Richard E Reitz; *Quest Diagnostics Nichols Research Institute, San Juan Capistrano, CA*
- WP 032 **Simultaneous Separation and Detection of Purine Metabolites in Biological Samples by LC/MS;** Satoshi Yamaki; Tomio Fujita; *Shimadzu, Co., Kyoto, Japan*
- WP 033 **Development of a Method for the Determination of Transferrin Isoforms from Filter Paper Dried Blood Spots by LC-MS;** Jean M Lacey; Mark M Magera; John F O'Brien; Dietrich Matern; *Mayo Clinic College of Medicine, Rochester, MN*
- WP 034 **Fragmentation Pathways of Anabolic Steroids by ESI MS/MS;** Fuyu Guan¹; Cornelius E. Uboh²; Lawrence R. Soma¹; Scott Peterman³; Yi Luo¹; ¹University of Pennsylvania, Kennett Square, PA; ²West Chester University, West Chester, PA; ³Thermo, Somerset, NJ
- WP 035 **Aristolochic Acid Metabolism in the Rat;** M. Cecilia Torres; Horacio Priestap; Shinya Shibutani; Robert A. Rieger; Arthur P. Grollman; Charles R. Iden; *SUNY-Stony Brook, Stony Brook, NY*
- WP 036 **Assessment of Ex Vivo DPP IV Proteolytic Cleavage of TH9507 in Rat, Dog and Human Plasma by LC/MS;** Kim A. High¹; Ari Gritsas²; Tommy Tsikos²; Themis Flarakos²; Eckhardt S. Ferdinandi¹; ¹Theratechnologies, Saint Laurent, Quebec, Canada; ²MDS Pharma Services, Saint Laurent, Quebec, Canada
- WP 037 **14,15-EET and 14,15-DHET as Urinary Target Biomarkers for Preclinical Soluble Epoxide Hydrolase Inhibition with N, N-Dicyclohexylurea;** Hideji Fujiwara; Steven L. Roberds; Sarbani Ghosh; Jan L. Wahlstrom; Matthew Furzeczott; Silvia Pomposiello; W. Rodney Mathews; *Pfizer Inc, Chesterfield, MO*
- WP 038 **Identification of a Urinary Metabolite of the Designer Steroid Tetrahydrogestrinone;** Yu-Chen Chang¹; Borislav Starcevic¹; Brian D. Ahrens¹; M. Jane Strouse²; Don H. Catlin¹; ¹UCLA Olympic Analytical Laboratory, Los Angeles, CA; ²University of California, Los Angeles, CA
- WP 039 **LC-ES-MS/MS Identification of Metabolites of 4,4'-Methylenedianiline in Vascular Smooth Muscle Cells;** Kan Chen¹; Tammy R. Dugas²; Richard B. Cole¹; ¹University of New Orleans, New Orleans, LA; ²Louisiana State University Health Sciences Center, Shreveport, LA
- WP 040 **Quantitative Analysis of Sulforaphane and its Metabolites in vivo;** Karolina M. Krasinska¹; Suvarna Bhamre²; James D. Brooks²; Allis S. Chien¹; ¹Vincent Coates Foundation Mass Spectrometry Lab, Stanford, CA; ²Dept. of Urology, Stanford School of Medicine, Stanford, CA
- WP 041 **Identification of In-Vitro Metabolites of Indinavir, using a Tandem Quadrupole / Time-of-Flight Mass Spectrometer: Is it Worth to Fly?;** Casey C Hao¹; Jun Liu¹; Justin Withers¹; Tong Lin²; Jodie Pang²; Lin Pan²; ¹Applied Biosystems, Foster City, CA; ²Celera, South San Francisco, CA
- WP 042 **Analysis of Conjugated and Free Estrogens in Plasma by Liquid Chromatography/Electron Capture Atmospheric Pressure Chemical Ionization/Mass Spectrometry;** Xingpin Cui; Seon Hwa Lee; Peter O'Dwyer; Peter Moate; Ray Boston; Ian A. Blair; *University of Pennsylvania, Philadelphia, PA*
- WP 043 **Characterization of Ketamine Metabolites in Equine Plasma and Urine by Linear Ion Trap and Linear Ion Trap-Fourier Transform Mass Spectrometry;** Jeffrey Rudy¹; Cornelius Uboh¹; Lawrence Soma²; Bernd Dreissen²; ¹Pennsylvania Equine Research and Toxicology Center, West Chester, PA; ²University of Pennsylvania, Kennett Square, PA
- WP 044 **Identification of Metabolites of Double Prodrug RO0696560 in Biological Fluids using HPLC Combined with Quadrupole-Linear Ion Trap Mass Spectrometry;** Manfred Zell¹; Christophe Husser¹; Gerard Hopfgartner²; ¹F. Hoffmann-La Roche Ltd, Pharma Research, Basel, Switzerland; ²University of Geneva, Pharmaceutical Chemistry, Geneva, Switzerland
- WP 045 **Elucidation of in vivo Rat Metabolic Pathways of Histone Deacetylase Inhibitor MS-275 by LC-MS/MS;** Xuejun Peng; Jeff Gillespie; James J. Wang; *MethylGene Inc., Montreal, QC Canada*
- WP 046 **In vitro Metabolism of Novel 3-Amino-1-Tetralone Analogs with Opioid-Related Activity by LC-MS/MS;**

DRUG METABOLISM: IDENTIFICATION, METHODS AND TOOLS

- Jing Yuan¹; Xiaoyi Hu¹; Brett Williams¹; David Fries¹; Zaijie Wang²; O. David Sparkman¹; Patrick R. Jones¹; ¹University of the Pacific, Stockton, CA; ²University of Illinois, Chicago, IL
- WP 047 **Mass Spectrometric Structure Elucidation of an Unusual Drug Metabolite: a Phosphocholine Ester Conjugate of the Macrolactone Everolimus**; Markus Zollinger; Claudia Sayer; Jean-Pierre Baldeck; Richard Sedrani; *Novartis Pharma AG, Basel, Switzerland*
- WP 048 **CID Fragmentation of Hydroxymidazolam and Analysis of the Fragmentation Cascade using MS² and MS³ and Accurate Measured Mass Spectra**; Katrina J. Rogers; Jacqueline L. McGourty; Douglas S. Mautz; *MDS Pharma Services, Bothell, WA*
- WP 049 **Multiple Reaction Monitoring Mode Combined with Enhanced Product Ion Spectra Provides Highest Sensitivity and Specificity in Complex Matrix**; Wolfgang Voelkel; Nataly Bittner; Karoline Scholz; *Pharmacology & Toxicology, Wuerzburg, Germany*
- WP 050 **Accurate Mass Measurements on Unit Mass Resolution Mass Spectrometers**; Ming Gu¹; Yongdong Wang¹; Xianguo Zhao²; Zheming Gu²; ¹Cerno Bioscience, New Haven, CT; ²XenoBiotic Laboratories, Plainsboro, NJ
- WP 051 **Metabolic Studies of 7-Keto-dehydroepiandrosterone Acetate in Horse Urine**; Nola H Yu; Evonne W Chung; Emmie N M Ho; Him W Kwok; David K K Leung; Gary N W Leung; Francis P W Tang; Terence S M Wan; *Racing Laboratory, The Hong Kong Jockey Club, Hong Kong, China*
- WP 052 **Application of Triple Quadrupole Mass Spectrometer in the Measurement of Metabolic Stability and Identification of Phase I and II Metabolites**; Peter B Ehmer; Ethirajulu Kantharaj; Katie De Wager; Anne Van Vlaslaer; Claire Mackie; Ron AHJ Gilissen; *Johnson & Johnson Pharmaceutical R & D, Beerse, Belgium*
- WP 053 **In Vitro Cross Species Metabolism of the MEK Inhibitor PD 0325901**; John A. Davis; James A. Williams; Cho-Ming Loi; *Pfizer Inc, Ann Arbor, MI*
- WP 054 **Identification of Isomeric Metabolites by Substructure Specific MS/MS Experiments and H/D Exchange Combined with Electrospray Ionisation**; Thomas Pfeifer¹; Jochen Tuerk²; ¹ME, Radebeul, Germany; ²IUTA, Duisburg, Germany
- WP 055 **Identification of the Circulating Metabolites of CP-122,721 in Humans by HPLC/RAM/ESI/MS/MS. Characterization of a Novel Major Metabolite by NMR**; Kevin Colizza; Mohamed Awad; Amin Kamel; *Pfizer Global R & D, Groton, CT*
- WP 056 **Evaluation of Cytochrome P450 3A4 Inhibition by Test Compound HDAC Inhibitor MS-275 using LC-MS/MS**; Xuejun Peng; Celine Gagne; Courtenay Gonzales; Jeff Gillespie; James J. Wang; *MethylGene Inc., Montreal, QC Canada*
- WP 057 **In Vitro Metabolism of JWH-015, an Aminoalkylindole Agonist for the Peripheral Cannabinoid Receptor**; Qiang Zhang¹; Peng Ma¹; Weiqun Wang²; Richard B. Cole²; Guangdi Wang¹; ¹Xavier University of LA, New Orleans, LA; ²University of New Orleans, New Orleans, LA
- WP 058 **Analysis of RO0508231 and its Metabolites in Rat Tissue Sections by MALDI-Quadrupole-Time of Flight Mass Spectrometry**; Luca Signor¹; Roland F. Staack¹; Emmanuel Varesio¹; Gerard Hopfgartner¹; Volkmar Starke²; Wolfgang Richter²; ¹University of Geneva, Geneva, GE, Switzerland; ²F.Hoffmann La Roche, Basel, BS, Switzerland
- WP 059 **Urinary Metabolites of Di-2-Ethylhexyl Phthalate in Humans**; Manori J Silva; James Preau; Ella Samandar; Arnetra Herbert; John A Reidy; Larry L Needham; Antonia M Calafat; *Centers for Disease Control and Prevention, Atlanta, GA*
-
- DRUG METABOLISM: PHARMACOKINETICS**
-
- WP 060 **Pharmacokinetic Measurements of IDN5390 using Electropray-Ionization Tandem Mass Spectrometry: Structure Characterization and Quantification in Dog Plasma**; Liguo Song¹; Joshua D. Prey¹; Jun Xu¹; Peter Kanter¹; Carla Manzotti²; Ezio Bombardelli²; Paulo Morazzoni²; Lakshmi Pendyala¹; ¹Roswell Park Cancer Institute, Buffalo, NY; ²Indena S.p.A, Milan, Italy
- WP 061 **A Rapid Approach to PK analysis for Lead Optimization Drug Discovery**; Wilmin P. Bartolini; Tammi L. Reza; Erik O. Solberg; Kristine A. Sykes; Christina M. Butler; Alexander P. Bryant; Robert W. Busby; *Microbia, Inc., Cambridge, MA*
- WP 062 **Simultaneous in vivo Microdialysis Sampling from Brain and Blood Followed By LC/ESI-MS/MS to Assess Pharmacokinetics and CNS-Bioavailability in Rats**; April C. Braddy; Stanley M. Stevens, Jr; Scott H. McClung; Helene Cardasis; Alevtina D. Zharikova; Laszlo Prokai; *University of Florida, Gainesville, FL*
- WP 063 **LC-MS-MS Method Development in Support of Sub-Therapeutic Preclinical Pharmacokinetics**; Lisa M Buchholz; Jeremy R McFadden; Joseph A Ware; Donald L McKenzie; David L Weller; Christopher Holliman; Lucinda H Cohen; *Pfizer Global Research & Development, Ann Arbor, MI*
- WP 064 **Identification of Human Cytochrome P450 Isozymes Responsible for the Metabolism of 8-Prenylnarigenin and Isoxanthohumol in Hops**; Jian Guo; Dejan Nikolic; Yongmei Li; Dongwei Zhu; Richard B. van Breemen; *University of Illinois College of Pharmacy, Chicago, IL*
- WP 065 **LC/MS/MS Support Of A Sub-Pharmacologic Human Dosing Study using Triple-Quadrupole Mass Spectrometry**; Jeremy R McFadden; Christopher L Holliman; Lisa Buchholz; *Pfizer, Inc., Ann Arbor, MI*
- WP 066 **Kinetics of Orally or Intravenously Administered 1, 2-13C-DCA in Human**; Minghong Jia; Bonnie Coats; Mona Chadha; Barbara Frentzen; Paul A. Chadik; Richard A. Yost; George N. Henderson; Peter W. Staepoole; *University of Florida, Gainesville, FL*
- WP 067 **Determination of Glucuronidation Rate of New Chemical Entities (NCE's) in Liver Microsomes using Liquid Chromatographic/Mass Spectrometry**; Johan Benoot¹; Dipankar Ghosh²; Karel Lazou¹; Veronique Van Genechten³; Kantharaj Ethirajulu³; Peter Ehmer³; Ron Gilissen³; Claire Mackie³; ¹ThermoElectron, Brussels, Belgium; ²ThermoElectron Corporation, San Jose, Ca; ³ADME/Tox, Johnson & Johnson, Beerse, Belgium
-
- DRUG QUANTITATION**
-
- WP 068 **Rapid Analysis of Cefprozil (Z)-Isomer and Cefprozil (E)-isomer in Human EDTA K3 Plasma by LC/MS/MS using Multiprobe II Automated Extraction**; Martin Lévesque; Jean Couture; *SFBC Anapharm Inc., Ste-Foy, QC, Canada*
- WP 069 **Quantitation of Cabergoline at Low pg/mL Level in Human EDTA K3 Plasma by LC/MS/MS using Multiprobe II Automated Extraction**; Réjean Dumas; Jean Couture; *SFBC Anapharm Inc., Ste-Foy, QC, Canada*
- WP 070 **Development of a HPLC-MS/MS Method to Quantitate a Novel Anti-Tumor Agent, PM00104, in Mouse/Rat/Dog Plasma**; Jianming Yin¹; Pablo Aviles²; Maria Jose Guillen²; Carl Ly¹; William Lee¹; Simon Mount²; Carmen Cuevas²; Glynn Faircloth¹; *PharmaMar*

- USA, Inc., Cambridge, MA; ²PharmaMar S.A., Colmenar Viejo, Madrid, Spain
- WP 071 **Simultaneous Determination of Lovastatin and Lovastatin Acid in Mouse Lung using Liquid-Liquid Extraction and LC/MS/MS**; Robert J. Valesky; Donald G. Musson; Jamie J. Zhao; Merck Research Laboratories, West Point, PA
- WP 072 **LC/MS Analysis of Ketamine and Norketamine in Serum and Tissue**; Nathan C. Twaddle; Daniel R. Doerge; Charlotte Hotchkiss; Cheng Wang; William Slikker, Jr; National Center for Toxicological Research, Jefferson, AR
- WP 073 **Bioanalytical Challenges in LC-MS-MS Quantitation of Gabapentin in a Rat Isolated Perfused Kidney System**; Sarah Osgood; Lisa uchholz; Betsy Galvan; Christopher Lepsy; Pfizer, Ann Arbor, MI
- WP 074 **An Automated Extraction Method with MultiProbe II EX for the Analysis of Nateglinide in Human EDTA K3 by LC/MS/MS**; Nicolas Jean; Jean Couture; SFBC Anapharm Inc., Ste-foy, QC, Canada
- WP 075 **Determination of Ketamine and Metabolites in Urine by Liquid Chromatography-Mass Spectrometry**; Chung Yu Chen; Maw-Rong Lee; National Chung Hsing University, Taichung, Taiwan, R.O.C.
- WP 076 **Determination of Acetaminophen and Five Acetaminophen Metabolites in Mouse and Human Urine with LC-MS/MS**; Ann (Zhu) Draghi; Ming Wang; Daid Roos; Danlin Wu; Xinpeng Fang; Purdue Pharma L.P., Ardsley, NY
- WP 077 **Determination of Diuretics in Urine using Liquid Phase Microextraction Couple to Liquid Chromatography-Mass Spectrometry**; Tzu-Feng Tsai; Maw-Rong Lee; National Chung Hsing University, Taichung, Taiwan, R.O.C.
- WP 078 **Validation of a Method for the Determination of Mefenamic Acid in Human Plasma using HPLC with Tandem Mass Spectrometric Detection**; Vincent Moreau; Maryse Fontaine; Marie-Pierre Taillon; Malika Madi; Troy Bradley; Marc Lefebvre; Algorithmme Pharma, Laval, Canada
- WP 079 **Validation of a Method for the Determination of Celecoxib in Humans Plasma using HPLC with Tandem Mass Spectrometric Detection**; Malika Madi; Troy Bradley; Marc Lefebvre; Algorithmme Pharma, Laval, Canada
- WP 080 **Validation of a Method for the Determination of Bupropion and 4-Hydroxybupropion in Human Plasma using HPLC with Tandem Mass Spectrometric Detection**; Maryse Fontaine; Malika Madi; Troy Bradley; Marc Lefebvre; Algorithmme Pharma, Laval, QC, Canada
- WP 081 **Analysis of Rosiglitazone and Metabolites in Urine by Liquid Chromatography-Tandem Mass Spectrometry**; Chi-Chi Chou¹; Fu-Chou Cheng²; Maw-Rong Lee¹; ¹National Chung-Hsing University, Taichung, Taiwan, R.O.C.; ²Taichung Veterans General Hospital, Taichung, Taiwan, R.O.C.
- WP 082 **Sensitive LC-MS/MS Method for the Determination of Docetaxel in Human Plasma**; John Allanson; Jeremy Cook; Terry Noctor; Lyndsey Snelling; York Bioanalytical Solutions, York, United Kingdom
- WP 083 **Quantitative Analysis of Lovastatin and its β -Hydroxyl Acid in Rat Plasma using LC-MS-MS**; Long Yuan; Alexander V. Lyubimov; Richard B. van Breemen; University of Illinois, Chicago, IL
- WP 084 **Validation of a Method for the Determination of Rivastigmine in Humans Plasma using HPLC with Tandem Mass Spectrometric Detection**; Malika Madi; Troy Bradley; Marc Lefebvre; Algorithmme Pharma, Laval, Canada
- WP 085 **An Alternative Internal Standard for Use in The APCI Negative-Ion LC/MS/MS Analysis of Propofol**; Lakshmi K Bajpai^{1,2,3}; Matthew M Booth^{1,2,3}; Donn M Dennis^{1,2,3}; ¹University of Florida, Gainesville, FL; ²University of Florida, Gainesville, FL; ³University of Florida, Gainesville, FL
- WP 086 **Development of a Method for the Determination of Fentanyl in Human Plasma using HPLC with Tandem Mass Spectrometry Detection**; Sylvain Latour; Malika Madi; Troy Bradley; Marc Lefebvre; Algorithmme Pharma, Laval, Canada
- WP 087 **Rapid and Sensitive Determination of Sertraline in Human Plasma by Use of Automated 96-Well SPE and LC-MS/MS**; Kyu Young Chang²; Hee Joo Lee²; Kyung Ryul Lee¹; Hohyun Kim¹; ¹Seoul Medical Science Institute, Seoul, Korea; ²BioCore Co., Ltd., Seoul, Korea
- WP 088 **Highly Sensitive Determination of Fenoterol in Human Plasma by LC-MS/MS**; Chang Hun Park²; Moon Sun Jang²; Ye-Rie Lee²; Hee Joo Lee²; Kyung Ryul Lee¹; Hohyun Kim¹; ¹Seoul Medical Science Institute, Seoul, Korea; ²BioCore Co., Ltd., Seoul, Korea
- WP 089 **Assay Performance Comparison of Normal Phase and Reverse Phase LC-MS/MS Methods for Determination of Buprenorphine and Norbuprenorphine in Human Plasma**; Ann (Zhu) Draghi; David Roos; Ming Wang; Danlin Wu; Xinpeng Fang; Purdue Pharma L.P., Ardsley, NY
- WP 090 **Validation of a Method for the Determination of Ramipril/Ramiprilat in Human Plasma using HPLC with Tandem Mass Spectrometric Detection**; Gilles Vaudrin; Malika Madi; Troy Bradley; Marc Lefebvre; Annik Bergeron; Algorithmme Pharma, Laval, Canada
- WP 091 **Validation of a Method for the Determination of Leflunomide in Humans Plasma using HPLC with Tandem Mass Spectrometric Detection**; Annik Bergeron; Malika Madi; Troy Bradley; Marc Lefebvre; Algorithmme Pharma, Laval, Canada
- WP 092 **Improving the Robustness of a Method for the Quantitative Determination of Valproic Acid in Human Serum using LC/MS/MS**; Shane C Karnik; Marcy R Hartman; William J Hartman; Spencer J Carter; Pyxant Labs, Inc., Colorado Springs, CO
- WP 093 **A Non-Chiral LC/MS/MS Method for the Determination of Escitalopram in Human EDTA K3 Plasma with MultiProbe II EX**; Réjean Dumas; Jean Couture; Patrice Arcand; SFBC Anapharm Inc., Ste-foy, QC, Canada
- WP 094 **Quantitative Determination of Ketorolac in Human Plasma by HPLC/MS/MS**; Mindy Cohen¹; Yan Ling Zhang¹; Jeffrey Galinkin²; Jeannie Zuk²; Uwe Christians¹; ¹University of Colorado Health Sciences Center, Denver, CO; ²The Children's Hospital of Denver, Denver, CO
-
- ENVIRONMENTAL ANALYSIS**
- WP 095 **GC-GC-MS Study of Contamination of Grey Whales**; Olga V. Polyakova; Valentin Yu. Yliashenko; Albert T. Lebedev; Moscow State University, Moscow, Russia
- WP 096 **Classification of Microorganisms Contained in EM (Effective Microorganisms™) Based on Automated MALDI-TOF MS Fingerprinting and Pattern Recognition Software**; Thomas Maier¹; Vera Sieg²; Monika Krueger²; Stefan Klepel¹; Mark Flocco³; Catherine Stacey³; Markus Kostrzewa¹; ¹Bruker Daltonik GmbH, Leipzig, Germany; ²Institute of Bacteriology and Mycology, Leipzig, Germany; ³Bruker Daltonics Inc., Billerica, MA

- WP 097 **Analysis of Hexabromocyclododecane and Tetrabromobisphenol A-Bisallylether by LC-ESI-MS-MS**; Gordia MacInnis¹; Gregg Tomy²; Mehran Alaei¹; Chris Marvin¹; ¹*Environment Canada, Burlington, ON, Canada*; ²*Dept. of Fisheries & Oceans, Winnipeg, MB, Canada*
- WP 098 **Direct Analysis and Quantification of Isocyanate Compounds from Industrial Air-Sampling Filters by MALDI Mass Spectrometry**; Karen E Warburton¹; Malcolm R Clench¹; Vikki A Carolan¹; John White²; Duncan A Rimmer²; ¹*Sheffield Hallam University, Sheffield, UK*; ²*Health and Safety Laboratory, Buxton, UK*
- WP 099 **The Identification of the Water-borne Pathogen *Aeromonas* using Whole Cell Analysis by Matrix Assisted Laser Desorption/Ionization-Mass Spectrometry**; Maura J. Donohue¹; Anthony W. Smallwood²; Dennis Lye¹; Jody A. Shoemaker¹; Mark R. Rodgers¹; ¹*U.S. Environmental Protection Agency, Cincinnati, OH*; ²*National Council on the Aging, Cincinnati, OH*
- WP 100 **Characterization of Total Organic Halogen (TOX) Produced During Disinfection Processes by ESI TOF MS and ESI FT-ICR MS**; Sarah A.L. Caccamise¹; Patrick G. Hatcher¹; Rakesh Sachdeva¹; Sunghwan Kim²; Alan G. Marshall²; Ryan P. Rodgers²; David A. Reckhow³; ¹*The Ohio State University, Columbus, OH*; ²*National High Magnetic Field Laboratory, Tallahassee, FL*; ³*University of Massachusetts, Amherst, MA*
- WP 101 **Improved Derivatization Technique for GC/MS/MS Determination of 3-Chloro-4-(dichloromethyl)-5-Hydroxy-2(5H)-Furanone in Drinking Water**; Cariton Kubwabo; Natalia Vais; Brian Stewart; *Health Canada, Ottawa, Canada*
- WP 102 **Rapid Identification of Environmental Bacteria using Atmospheric Pressure MALDI Ion Trap Mass Spectrometry**; Nelli I. Taranenko¹; Gavin E. Black¹; Robert M. Serino²; Vladimir M. Doroshenko¹; ¹*MassTech, Columbia, MD*; ²*SESI, Columbia, MD*
- WP 103 **Selected Ion Chemical Ionization in a Quadrupole Ion Trap Mass Spectrometer for the Detection of Volatile Organic Compounds**; Karen S. Wendling; Desmond A. Kaplan; Gary L. Glish; *University of North Carolina at Chapel Hill, Chapel Hill, NC*
- WP 104 **Comparative Studies of PTV On-Column Like Injection for Improved Sensitivity in GC/MS Analysis of Thermolabile High Boiling Brominated Flame Retardants**; Dirk Krumwiede; Jens Griep-Raming; Helmut Muenster; *Thermo Electron Corp., Bremen, Bremen, Germany*
- WP 105 **GC/MS Identification of Polybrominated Diphenyl Ethers in Electronic & Electrical Equipments**; Byung-Hoon Kim; Su-Jung Mun; Jin-Ki Kwon; Jae-Hak Lee; *Analysis Team, Corporate R&D Center, Samsung SDI, Yongin, Gyeonggi, Korea*
- WP 106 **Identification and Quantification of Methylene Diphenyl Diisocyanate (MDI) Thermal Degradation Products by LC-ESI-MS/MS and LC-CIS-MS/MS**; Sebastien Gagne¹; Yves Cloutier²; Jacques Lesage²; ¹*Merck Frosst Canada Ltee, Montreal, Qc, Canada*; ²*IRSST, Montreal, Qc, Canada*
- WP 107 **Measurement and Toxicity of Iodo-Acid Disinfection By-Products in Chloraminated Drinking Water**; Susan D. Richardson¹; J. Jackson Ellington¹; F. Gene Crumley¹; John J. Evans¹; Michael J. Plewa²; Elizabeth D. Wagner²; ¹*U.S. EPA, Athens, GA*; ²*University of Illinois, Urbana, IL*
- WP 108 **LC/MS/MS Detection of Perchlorate at Part Per Trillion Concentrations in Water**; Denise K. MacMillan¹; Randy D. Laubscher²; Prem N. Arora¹; ¹*Engineer Research & Development Center, Omaha, NE*; ²*Analytical Services, Inc., Vicksburg, MS*
- WP 109 **De Novo Identification of Viable Biological Species in Ambient Air**; Ann M. Snellinger; Murray V. Johnston; *University of Delaware, Newark, DE*
- WP 110 **Investigation of Atmospheric Pressure Photo-Ionization for the Analysis of Polybromodiphenylethers and their Related Biotic or Abiotic Degradation Products**; Laurent Debrauwer; Anne Riu; Isabelle Jouanin; Daniel Zalko; *UMR 1089 Xenobiotiques, Toulouse, France*
- WP 111 **Determination of Decabromodiphenyl Ethane, 1,2-bis(2,4,6-Tribromophenoxy)Ethane (BTBPE), and Hexabromocyclododecane in Bird Eggs and Seals from the Arctic**; Grazina Pacepavicius¹; Daisuke Ueno²; Birgit Braune Braune³; Derek Muir¹; Chris Marvin¹; Gordia MacInnis¹; Mehran Alaei¹; ¹*National Water Research Institute, Burlington, Canada*; ²*Ehime University, Matsuyama, Japan*; ³*Canadian Wildlife Service, Ottawa, Canada*
- WP 112 **Identification of Candidate Attractant Compounds from Chicken Feathers for the Mosquito Vector of the West Nile Virus by GC/MS**; Samaret M Otero Santos¹; Ulrich Bernier²; Sandra A Allan²; Brian Quinn²; Matthew M Booth¹; Daniel L Kline²; Donald R Barnard²; Richard A Yost¹; ¹*University of Florida, Gainesville, FL*; ²*USDA-ARS, Gainesville, FL*
- WP 113 **Determination of Chlorophenols in Water using Liquid Phase Microextraction Coupled to Gas Chromatography-Mass Spectrometry**; Li-Wen Chung; Maw-Rong Lee; *National Chung Hsing University, Taichung, Taiwan, R.O.C.*
- WP 114 **OVOC Flux Measurement Above Perennial Ryegrass and Sugar Beet in Braunschweig, Germany**; Thomas G Custer; Gunnar Schade; *Universität Bremen, Bremen, Germany*
- WP 115 **Development of IC-MS and IC-MS/MS Methods for the Determination of Haloacetic Acids in Drinking Water**; Rosanne W. Slingsby¹; Rida Al-Horr¹; Silvano Cavalli¹; Robert Joyce¹; Guerrino Predieri²; Gabriella Aggazzotti²; Loren Olson³; Elliott Jones³; ¹*Dionex Corp, Sunnyvale, CA*; ²*Universita di Modena e Reggio Emilia, Modena, Italy*; ³*Applied Biosystems, Foster City, CA*
-
- FLAVOR AND FRAGRANCES**
-
- WP 116 **Application of Liquid Chromatography-Mass Spectrometry and Multivariate Analysis to Food Science: A Regional Analysis of Coffee Bean Extracts**; Paul Rainville; Jennifer H. Granger; James N. Willis; *Waters Corporation, Milford, MA*
- WP 117 **Quantitative LC/UV/ESI-MS Analysis of Polyunsaturated Fatty Acid Hydroperoxides Used as Intermediates in the Natural Synthesis of Flavor Compounds**; Olivier P. Haefliger; Jacques W. Sulzer; *Firmenich SA, Geneva, Switzerland*
-
- INSTRUMENTATION: NEW CONCEPTS**
-
- WP 118 **Dynamical Methods for Mass Selection in RF Ion Traps**; Bruce B Reinhold; *Dana Farber Cancer Institute, Boston, MA*
- WP 119 **Proton-Transfer Ion Trap Mass Spectrometry (PIT-MS) for Atmospheric VOC Analysis: Design, Performance, and First Deployment During the NEAQS-ITCT Experiment**; Shuji Kato¹; Carsten Warneke²; Joost A de Gouw²; Paul D Goldan²; William C Kuster²; Min Shao³; Edward R Lovejoy²; Ray Fall¹; Fred C Fehsenfeld²; ¹*University of Colorado, Boulder, CO*; ²*NOAA Aeronomy Laboratory, Boulder, CO*; ³*Peking University, Peking, China*

- WP 120 **Comprehensive Mass Spectral Calibration to Achieve High Mass Accuracy and Parameter-Free Peak Detection;** Yongdong Wang; Ming Gu; *Cerno Bioscience, New Haven, CT*
- WP 121 **A Mass Selective Adiabatic Ion Guide and Collision Cell for Improving the Sensitivity of Quadrupole and Oa-TOF Mass Analysers;** John B Hoyes; David Langridge; *MS Horizons Ltd, Manchester, United Kingdom*
- WP 122 **Ion Motion Control in the Orbitrap Mass Analyzer;** Qizhi Hu¹; Robert J. Noll¹; Guangxiang Wu¹; Alexander A. Makarov²; Wolfgang R. Plass³; R. Graham Cooks¹; ¹*Purdue University, West Lafayette, IN*; ²*Thermo Electron (Bremen), Bremen, Germany*; ³*II. Physikalisches Institut, Justus-Liebig-Universi, Giessen, Germany*
- WP 123 **Improving Transmission Efficiency Even More – Sensitivity and Signal-to-Noise Improvements on the API 5000TM;** Hassan Javaheri¹; Bruce A. Thomson¹; Clinton P. T. Groth²; Jugroot Manish²; ¹*MDS Sciex, Concord, Canada*; ²*University of Toronto, Toronto, Canada*
- WP 124 **The Development of a Compensated Cylindrical Ion Trap for the Analysis of Volatile Organic Compounds;** Desmond A. Kaplan; Jared M. Bushey; Gary L. Glish; *The University of North Carolina at Chapel Hill, Chapel Hill, NC*
- WP 125 **Non-Linear Electronics for High Dynamic Range TOF-MS;** Craig A. Keller¹; Steven Waltman²; Steve Miller¹; ¹*Ciphergen Biosystems, Fremont, CA*; ²*Electronics Consultant, Boulder, CO*
- WP 126 **Fabrication of Cylindrical Ion Traps using Selectively Plated Non-Conducting Materials;** F.H.W. vanAmerom¹; A. Chaudhary¹; S. Bhansali²; R. T. Short¹; G. Steimle¹; ¹*Center for Ocean Technology, USF, St. Petersburg, FL*; ²*Dept. Of Electrical Engineering, USF, Tampa, FL*
- WP 127 **Ion Funnels for the Masses: Experiments and Simulations with a Simplified Ion Funnel;** Ryan R Julian; Sarah R Mabbett; Martin F Jarrold; *Indiana University, Bloomington, IN*
- WP 128 **Toward Single Cell Detection-Development of a Novel Bioaerosol Fourier Transform Mass Spectrometer;** Xin Cong; Gregg A. Czerwieniec; Scott C. Russell; Richard R. Seipert; Michael C. Sisto; Blaine D. Hutson; Carlito B. Lebrilla; *University of California, Davis, CA*
- WP 129 **Ion Focusing in Distance-of-Flight Mass Spectrometry;** Christie G. Enke; Anding Zhang; *University of New Mexico, Albuquerque, NM*
- WP 130 **Developments, Tests and Applications at Gas Cell Facilities for Nuclear Physics;** Wolfgang R Plass¹; Zhenyu Di¹; Timo Dickel¹; Alexander F Dodonov³; Sergey A Eliseev²; Hans Geissel²; Viatcheslav Kozlovski³; Martin Petrick¹; Alexander Pikhtev³; Christoph Scheidenberger²; Iliia Soulimenkova³; Zheng Wang¹; ¹*Justus-Liebig-Universitaet Giessen, Giessen, Germany*; ²*GSI, Darmstadt, Germany*; ³*Russian Academy of Sciences, Chernogolovka, Russia*
- WP 131 **High Speed Analysis of Peptide Mixtures via a Dual reflectron, Peptide Mass Mapping/157 nm Photodissociation MALDI Mass Spectrometer;** Kirk S. Boraas; Noah P. Christian; James P. Reilly; *Indiana University, Bloomington, IN*
- WP 132 **A New Twist to Flow Tubes: Ion-Molecule Kinetics in a Curved Flow Tube with Mixed Carrier Gases;** Daniel B Milligan²; Barry J Prince²; Gregory J Francis¹; Murray J McEwan¹; Paul F Wilson¹; ¹*University of Canterbury, Christchurch, New Zealand*; ²*Syft Technologies Ltd, Christchurch, New Zealand*
- WP 133 **Improved Ion Transmission with a Frequency Switching RF Generator for Multiple Vacuum Pumping Stage Ion Guides;** Shida Shen; Robert Valley; Craig Whitehouse; Vsevelod S. Rakov; *Analytica of Branford, Branford, CT*
- WP 134 **Development and Characterization of an ESI-RIT Mass Spectrometer;** Sameer Kothari; Qingyu Song; Zheng Ouyang; R. Graham Cooks; *Purdue University, West Lafayette, IN*
- WP 135 **Sequential Electron Capture- and Collision Induced Dissociations in a Linear Radio-Frequency-Quadrupole Ion Trap;** Takashi Baba; Hiroyuki Satake; Yuichiro Hashimoto; Hideki Hasegawa; Atsumu Hirabayashi; Izumi Waki; *Central Research Laboratory, Tokyo, Japan*
- WP 136 **Beam Dynamics in a High Resolution Multi-Pass Time of Flight Mass Separator;** Viatcheslav A. Shechepunov¹; Hermann Wollnik²; ¹*Oak Ridge Associated Universities, Oak Ridge, TN*; ²*Joint Institute for Heavy Ion Research, Oak Ridge, TN*
- WP 137 **Soft and Reactive Landing of Gas Phase Ions on a Plasma-Treated Metal Surface;** Michael Volny¹; W. Timothy Elam²; Buddy Ratner³; František Tureček¹; ¹*Dept. of Chemistry, University of Washington, Seattle, WA*; ²*Applied Physics Lab, University of Washington, Seattle, WA*; ³*University of Washington Engineered Biomaterials, Seattle, WA*
- WP 138 **Transmission of Ions Through Laminated Conductance Pathways from Atmospheric Pressure;** Ross Willoughby¹; Edward Sheehan³; David Fries²; ¹*Chem-Space Associates, Inc, Pittsburgh, PA*; ²*University of South Florida, St. Petersburg, FL*
- WP 139 **A Comparison of API3000 Performance using the Standard Atmospheric Pressure Interface or a Hot Source-Induced Desolvation (HSID) Interface;** Jason S Gobey¹; John Janiszewski¹; Ashkan Alavi²; Reza Javahery²; Lisa Cousins²; ¹*Pfizer Global R&D, Groton, CT*; ²*Tonics Mass Spectrometry Group, Concord, ON, Canada*
-
- ION SPECTROSCOPY**
-
- WP 140 **Direct Observation of a Correlation between Solution and Gas-phase Protein Conformations using Fluorescence Measurements of Ions Formed by ESI;** Anthony T. Iavarone; Joel H. Parks; *The Rowland Institute at Harvard, Cambridge, MA*
- WP 141 **Infrared Spectra of Gas-Phase Uranyl Complexes;** Gary S. Groenewold¹; Michael J. Van Stipdonk²; David T. Moore⁴; Anita K. Gianotto¹; Kevin C. Cossel³; Jos Oomens⁴; Nick Polfer⁴; ¹*Idaho National Laboratory, Idaho Falls, ID*; ²*Wichita State University, Wichita, KS*; ³*California Institute of Technology, Pasadena, CA*; ⁴*FOM Institute for Plasma Physics, Nieuwegein, The Netherlands*
- WP 142 **Fluorescence Resonance Energy Transfer in Gas-Phase Ions;** Maxim Dashtiev¹; Vladimir Azov¹; Vladimir Frankevich¹; Ludwig Scharfenberg²; Renato Zenobi¹; ¹*Swiss Federal Institute of Technology, Zurich, Switzerland*; ²*Technical University of Berlin, Berlin, Germany*
-
- ION STRUCTURE/ENERGETICS**
-
- WP 143 **Structure and Mechanism of Formation of an Important Ion in Doping Control;** Chad R. Borges; James Taccogno; Dennis J. Crouch; Ly Le; Thanh N. Truong; *University of Utah, Salt Lake City, UT*
- WP 144 **Using Ion-Molecule Reactions to Probe the Structure of Amino Acid-Alkali Metal Ion Complexes in the Gas Phase;** Katrina E. Vaitkunas; Victor Ryzhov; *Northern Illinois University, DeKalb, IL*

- WP 145 **Proton Affinities of N-Heterocyclic Carbene Super Bases;** Hao Chen; Dina R. Justes; R. Graham Cooks; *Purdue University, West Lafayette, IN*
- WP 146 **Thermochemistry of n-Dehydrophenylnitrenes (n = 2, 3, or 4);** Tamara E. Munsch; Paul G. Wenthold; *Purdue University, West Lafayette, IN*
- WP 147 **Moment Theory of Ion Motion in Electrodynamic Quadrupole Ion Traps;** Douglas E. Goeringer¹; Larry A. Viehland²; ¹*Oak Ridge National Laboratory, Oak Ridge, TN*; ²*Chatham College, Pittsburgh, PA*
- WP 148 **Gas-Phase Acidity of N-Cysteine Helical Peptides;** Jianhua Ren; Michael C. McCallum; *University of the Pacific, Stockton, CA*
- WP 149 **Discrimination of the Ring Size in Thiolactam Moiety for N-(5-Phenylvaleryl)Azacycloalkane-2-Thiones Under the Unimolecular Dissociation;** Hiroshi Yamaoka¹; Kei Shiono¹; Kimio Isa²; Naoto Dougawa²; Yoshio Takai³; Nico M.M. Nibbering⁴; ¹*Osaka Women's University, Sakai, Osaka, Japan*; ²*University of Fukui, Fukui, Japan*; ³*Osaka University, Osaka, Japan*; ⁴*Vrije Universiteit, Amsterdam, The Netherlands*
- WP 150 **Dissociation Energetics of CO_x⁻ (x=3,4), PO_x⁻ (x=3,4) and SO_x⁻ (x=3-5) Monoanions;** Changtong Hao; Lee S Sunderlin; Kim Lobring; Kelly Nycz; *Northern Illinois University, DeKalb, IL*
- WP 151 **Binding Energies of Silver Cation Ligand Complexes Determined from Ligand Exchange Reactions;** Kenichi Iwamoto¹; Michisato Toyoda²; Kousuke Kumondai³; Morio Ishihara²; Itsuo Katakuse²; ¹*Osaka Prefecture University, Sakai, Japan*; ²*Osaka University, Toyonaka, Japan*; ³*AIST, Tokyo, Japan*
- WP 152 **The Determination of Electron Affinities, Gas Phase Acidities, and Complexation Energies using Negative Ion Mass Spectrometry;** Edward C.M. Chen¹; Edward S. Chen¹; ¹*University of Houston, Houston, TX*; ²*The Wentworth Foundation, Houston, TX*
- WP 153 **Experimental and Computational Investigation of the Conversion of Methanol to Formaldehyde By CID of Zinc Complex Ions;** Michael Kullman; Travis Cooper; Mike Van Stipdonk; *Wichita State University, Wichita, KS*
- WP 154 **Keto/Enol Tautomerization of Radical Cations: Beyond the Carbonyl Group;** John E. Bartmess; *University of Tennessee, Knoxville, TN*
- WP 155 **Determination of Bond Dissociation Energies using ES-MS/MS and a Novel Derived Effective Reaction Path Length Approach;** Bryan M. Ham; Richard B. Cole*; *University of New Orleans, New Orleans, LA*
- WP 156 **Proton Affinity of Methionine and Methionine Sulfoxide and their N- and C- Terminal Derivatives using the Kinetic Method;** Hadi Lioe¹; Richard A. J. O'Hair¹; Scott Gronert³; Austin Allen³; Gavin E. Reid²; ¹*The University of Melbourne, Parkville, Australia*; ²*Michigan State University, East Lansing, MI*; ³*San Francisco State University, San Francisco, CA*
- WP 157 **Coordination-Mode Determined Product: Dimeric Radical Cations of Derivatives of Tryptophan and Tyrosine in the Gas Phase;** Yuyong Ke; Iris Shek; Alan C. Hopkinson; K. W. Michael Siu; *York University, Toronto, Canada*
- WP 158 **Molecular Switch: Kinetics of Guest Exchange Reactions followed by FT-ICR Mass Spectrometry for both States of a Photoswitchable Calixarene;** Matthias C. Letzel; Francesca Novara; Christian Schäfer; Mattay Jochen; *University of Bielfeld, Faculty of Chemistry, Bielfeld, DE*
- WP 159 **A Proton Affinity Ladder of Liquid Crystal Model Compounds and Building Blocks;** Daniel Kühne; Karl-Peter Wanczek; *University of Bremen, Bremen, Germany*
- WP 160 **Characterization of Supramolecular Complexes between Cucurbiturils and Amino Acid Ions using ES-FTICR Mass Spectrometry;** Haizhen Zhang; David V. Dearden; *Brigham Young University, Provo, UT*
- WP 161 **Cation- π Interactions with a Model for Side Chain of Tryptophan: Structures and Absolute Binding Energies of Alkali Metal Cation-Indole Complexes;** Chunhai Ruan; Zhibo Yang; Mary Rodgers; *Wayne State University, Detroit, MI*
- WP 162 **The Role Of π Stacking and Electron Density in Gas Phase Enantiodiscrimination;** Nannan Fang; David V. Dearden; *Brigham Young University, Provo, UT*
- WP 163 **Mechanisms of Water Assisted Enolization of Acetaldehyde by Experiment and by Theory;** Xian Wang; John L. Holmes; *University of Ottawa, Ottawa, Canada*
- WP 164 **Fragmentation of [M + H]⁺ Ions of Nitrophenyl-Aryl Ethers, Amines, and Thioethers: Experimental and Theoretical Studies;** Daryl Giblin¹; George Mattai²; Amber Russell¹; Joseph T. Moolayil²; R. Srinivas³; N. S. Swamy³; Michael L. Gross¹; ¹*Washington University, St. Louis, MO*; ²*Sacred Heart College, Thevara, Kerala, India*; ³*Indian Institute of Chemical Technology, Hyderabad, India*
- WP 165 **Noncovalent Interactions of Cu⁺ with N-Donor Ligands: Collision-Induced Dissociation and Theoretical Studies;** Nalaka S. Rannulu; Mary T. Rodgers; *Wayne State University, Detroit, MI*
- WP 166 **Fragmentations of Diazepam;** Joey B.Y. Cheng; K. W. Michael Siu; Alan C. Hopkinson; *York University, Toronto, ON, Canada*
-
- LC/MS: NANO**
-
- WP 167 **Stable Gradient Nanoflow LC-MS;** Bradley B. Schneider; Xu Guo; Lorne M. Fell; Thomas R. Covey; *MDS SCIEX, Concord, Canada*
- WP 168 **Design Features and Performance of a Direct-Flow Nanoscale HPLC System Combined with Columns Packed with Sub 2 Micron Particles;** Jeffrey W. Finch; Martha D. Stapels; Keith Fadgen; Hongji Liu; Geoff Gerhardt; James C. Murphy; Steve Ciavarini; Christopher C. Benevides; John C. Gebler; *Waters Corporation, Milford, MA*
- WP 169 **Coupling Nanoflow Liquid Chromatography Column to Automated Chip-Based Nanospray Emitters for Tandem Mass Spectrometric Protein Identification;** Xian Huang; Amie Prince; Thomas, N. Corso; Gary A. Schultz; Jack Henion; *Advion BioSciences, Inc., Ithaca, NY*
- WP 170 **An Automated Two-Stage NanoLC-MS Method for Investigation of Low Molecular Weight Serum Components;** Allis S. Chien; Andrew W. Guzzetta; *Stanford University, Stanford, CA*
- WP 171 **Silica Based Monolithic Emitter for Electro Spray Ionization;** Masanori Motokawa¹; Shota Miyazaki¹; Kenichi Suzuki¹; Masayoshi Ohira¹; Hiroyoshi Minakuchi²; Kazuki Nakanishi³; ¹*GL Science Inc., Iruma, Saitama, Japan*; ²*Kyoto Monotech Co., Nishikyo-ku, Kyoto, Japan*; ³*Kyoto University, Nishikyo-ku, Kyoto, Japan*
- WP 172 **The Synergic use of Element and Molecular Mass Spectrometry for the Analysis of Selenium-Containing Species in Yeast;** Hugues Preud'homme¹; Dirk Schaumlöffel¹; Joanna Szpunar¹; Florestan Desmaris²; Ryszard Lobinski¹; ¹*Icacie-Umr 5034 Cnrs, Pau, France*; ²*Applied Biosystems France, Courtaboeuf, France*

- WP 173 **Development of a Capillary LC/Nanospray MS Technique for Identification of Degradation Products of Small Organic Drug Molecules;** Xuezhi Qin; Yang Yuan; Hossain Jahansou; *Merck, West Point, PA*
- WP 174 **Rapid Separation of Enzymatic Digest of Cancer Cell Line Proteins using Monolithic Column for Peptide Mapping Application;** Chul S. Yoo¹; Yu-ching Lin¹; David M. Lubman¹; Christian G. Huber²; ¹*University of Michigan, Ann Arbor, MI*; ²*Saarland University, Saarbrücken, Germany*
- WP 175 **Selective Acetylation Combined with LC-MALDI-MS/MS to Probe Protein Conformation;** Natasja F.C. Visser; Robert H.H. van den Heuvel; Albert J.R. Heck; *Universiteit Utrecht, Utrecht, the Netherlands*
- WP 176 **NanoLC MALDI MS and MS/MS – Method Development and Identification of Major Histocompatibility Complex Class I Associated Tumor Peptides;** Sandra Hofmann¹; Matthias Glueckmann²; Sandra Kausche³; Wolfgang Her³; Andrea Schmidt¹; Michael Karas¹; ¹*J.W. Goethe-University, Frankfurt, Germany*; ²*Applied Biosystems, Darmstadt, Germany*; ³*J.Gutenberg-University, Mainz, Germany*
- WP 177 **Off-line 2-D Capillary LC/MS/MS Analysis of Complex Proteome Samples using Capillary Monolithic PS-DVB Columns for Increased Separation Speed;** Remco Swart¹; Evert-Jan Sneekes¹; Mark van Gils¹; ¹*LC Packings, Amsterdam, The Netherlands*; ²*Dionex Corp., Sunnyvale*
- WP 178 **High-Precision Spotting for LC MALDI /MS;** Evert-Jan Sneekes¹; Remco van Soest²; Remco Swart¹; ¹*LC Packings, Amsterdam, The Netherlands*; ²*Dionex Corp., Sunnyvale*
- WP 179 **Increased Stability and Sensitivity using Direct Pumping for Nanospray LC/MS of Peptides;** David W. Never¹; Karen M. Hahnenberger¹; Charles C. Liu²; Subodh Nimkar²; Vince Hamilton³; ¹*Eksigent Technologies, Livermore, CA*; ²*Applied Biosystems, Foster City, CA*; ³*MDS Sciex, Concord, Ontario, CA*
- WP 180 **A Comparison of Low Dispersive/Dilution Columns and their Impact on MS/MS based Protein Identification;** Bernd Glatz; Patric Hoerth; Karsten Kraiczek; Gerard Rozing; *Agilent Technologies R&D and Marketing GmbH, Waldbronn, Germany*
- WP 181 **Multi-dimensional HPLC/MS of the Nucleolar Proteome using HPLC-Chip/MS;** Martin Vollmer¹; Patric Hoerth¹; Yohann Couté²; Rudi Grimm¹; Denis Hochstrasser³; Jean-Charles Sanchez²; ¹*Agilent Technologies R&D and Marketing GmbH, Waldbronn, Germany*; ²*Medical and University Center, Geneva, Switzerland*; ³*Faculty of Sciences Geneva University, Geneva, Switzerland*
- WP 182 **NanoLC Fraction Analysis by Chip-Based Nanoelectrospray for Improved Glycopeptide Characterization;** Thomas N Corso; Colleen K Van Pelt; Jie Li; Xian Huang; *Advion BioSciences, Ithaca, NY*
- WP 183 **Ultra-Narrow Bore Monolithic Column Technology for Proteome Research;** Jian Zhang¹; Lawrence L. Licklider¹; Christina I. Orazine¹; Carla Waggett²; Gary Valaskovic²; Barry L. Karger¹; ¹*Northeastern University, Bonton, MA*; ²*New Objective Inc., Woburn, MA*
- WP 184 **A Novel Strategy to Configure a High Performance Nano-LC Mass Spectrometer for Protein Identification using Conventional HPLC and Ion-Trap Instrumentation;** Yibai Chen; C. Glenn Miller; Jeffrey R. Peterson; Song-Tao Liu; Tim J. Yen; Anthony T. Yeung; *Fox Chase Cancer Center, Philadelphia, PA*
- LC/MS: SAMPLE PREPARATION**
- WP 185 **High Throughput Sample Preparation Proir to LC-MS for Drug Compounds in Serum Samples;** Nanying Bian^{1,2}; Jason Blodgett^{1,2}; Thomas Onofrey^{1,2}; Daniel Schmidt^{1,2}; ¹*Millipore Corporation, Bedford, MA*; ²*Millipore Corporation, Danvers, MA*
- WP 186 **Simultaneous Determination of a Novel KDR Kinase Inhibitor and its N-Oxide Metabolite in Human Plasma using 96-well SPE and LC-MS/MS;** Yang Xu; Lihong Du; Donald G. Musson; *Merck Research Lab, West Point, PA*
- WP 187 **Development of Semi-automated 96-well Plate Protein Precipitation for Quantitation of Pharmacokinetic Samples using Liquid Chromatography-Mass Spectrometry;** Bilin Chou; Ran W. Hwang; Young Shin; Patrick Rudewicz; *Genentech, Inc, South San Francisco, CA*
- WP 188 **Matrix Effects Eliminated by a Simple and Fast Sample Preparation Method - Mixed-Mode SPE (Matrix Effect Study: Part 2);** Ziling Lu; Diane M Diehl; Jeffrey R Mazzeo; *Waters Corporation, Milford, MA*
- WP 189 **Micro Volume Extraction for the Purification of Common Pharmaceutical Probes using Micro Elution SPE;** William Hudson; Petra Gerhards; *Varian, Lake Forest, CA*
- WP 190 **Novel SPE and LC/MS/MS Methods for Bisphosphonate Analyses;** Ziling Lu; Diane M Diehl; Jeffrey R Mazzeo; *Waters Corporation, Milford, MA*
- WP 191 **Three Acid Mix as Ion Pairing Agent for Improved Peptide Trapping, Detection, and Identification in Column Switching Experiments;** Goran Mitulovic¹; Ines Steinmacher¹; Christoph Stingl¹; Michael Schutzbier¹; Jean - Pierre Chervet²; Richard Imre¹; James Hutchins¹; Karl Mechtler¹; ¹*Research Institute of Molecular Pathology, IMP, Vienna, VI, Austria*; ²*LC Packings, Amsterdam, NH, The Netherlands*
- WP 192 **Automation Compatible Protein Precipitation in High Throughput Filterplates;** M. Cleeve; R. Calverley; G. Davies; S. Merriman; A. Howells; J. Labadie; C. Desbrow; *Argonaut Technologies Inc, Redwood City, CA*
- WP 193 **Evaluation and Implementation of MultiScreen? Shallow Filtration Plate from Millipore for Sample Preparation in LC/MS/MS Bioanalysis;** Bogdan G. Bogdan; Christian Caporuscio; Georgia Cornelius; Jian Wang; Timothy Olah; *Bristol-Myers Squibb, Princeton, NJ*
- WP 194 **Protein Precipitation Filter Plates: A Viable Automated Solution to Difficulties Analyzing Maternal Matrices by LC-MS/MS;** Cathy L. Lindermuth; Justina M. Thomas; Dina D. Goykhman; *Merck & Co., Inc., West Point, PA*
- WP 195 **Direct Injection and Quantitation of Small Molecules from Untreated Whole Blood using Online Solid Phase Extraction (SPE)/LC/MS/MS;** Emily E Mann; Miryam Kadkhodayan; *Genentech, Inc., South San Francisco, CA*
- WP 196 **Enzymatic Tissue Digestion: The Solution for Quantitative Skin Analysis using LC/MS/MS;** Chongwoo Yu; Lara D. Penn; Kristina Gueneva-Boucheva; Theodore R. Johnson; Lucinda H. Cohen; *Pfizer Global Research & Development, Ann Arbor, MI*
- WP 197 **Fast LC-MS-MS Determination of Metformin in Human Plasma with Simultaneous Liquid-Liquid Extraction and Derivatization;** Evgueni Fedorov; Jean-François Larocque; Alexandre Pimenov; Michael Mancini; *Warnex Bioanalytical Services Inc., Laval, QC, Canada*
- WP 198 **Automated LC/MS/MS Assay for the Stability Investigation of Drugs or Acyl Glucuronide Conjugates in Whole Blood and Plasma;** Lin Deng; Tom Lloyd; Jack Wang; Rasmay Talaat; *Wyeth Research, Collegeville, PA*

- WP 199 **Accurate Mass Measurement of Reduced Antibodies;** John Valliere-Douglass; Alison Wallace; Alain Balland; *Amgen inc., Seattle, WA*
- WP 200 **Comparison of the Impact of Sample Preparation Techniques on Matrix Effects in Electrospray LC-MS/MS;** L. Williams¹; S. Merriman¹; G. Davies¹; A. Howells¹; J. Labadie¹; C. Desbrow¹; R. Calverley¹; M. Cleeve¹; S. Jordan¹; H. Lodder¹; M. Burke²; ¹*Argonaut Technologies Inc, Redwood City, CA;* ²*MFB Consulting LLC, Tucson, AZ*
- WP 201 **A New Polymer-based SPE Sorbent to Reduce Matrix Effects in Bioanalytical LC-MS/MS;** M. Cleeve¹; R. Calverley¹; L. Williams¹; A. Howells¹; S. Plant¹; R. Johnston¹; G. Davies¹; S. Merriman¹; M. Burke²; O. Gooding¹; J. Labadie¹; C. Desbrow¹; ¹*Argonaut Technologies Inc, Redwood City, CA;* ²*MFB Consulting LLC, Tucson, AZ*
- WP 202 **Organic Solvents Improve Trypsin Digestion Efficiency and Specificity for Digesting Limited Protein Sample Amounts;** Michael B. Strader¹; David L. Tabb¹; W. Judson Hervey IV²; Gregory B. Hurst¹; ¹*Oak Ridge National Laboratory, Oak Ridge, TN;* ²*University of Tennessee, Knoxville, TN*
- WP 203 **Evaluation of SPE Extract Cleanliness for Pharmaceutical LC/MS/MS using UV/VIS Spectroscopy and Mass Spectrometry;** Bryan A Vining; Justin J Koehler; Scott D Kragerud; *PRACS Institute, Ltd., Fargo, ND*
- WP 204 **Strategies to Fulfill Carry-Over Requirements for SPE-LC-MS Analysis of Biological Samples;** Emile Koster; *Spark Holland, Plainsboro, NJ*
- WP 205 **Liquid Chromatography-Tandem Mass Spectrometric Analysis of Glutathione and its Derivatives in Rat and Human Liver;** Natalia M Felitsyn; George N Henderson; Peter W Stacpoole; *University of Florida, Gainesville, FL*
- WP 206 **On-line Solid Phase Extraction and LC/MS/MS Analysis of Steroids in Urine;** Huqun Liu; Andrew Li; David C Jones; *Varian, Inc., Lake Forest, CA*
- WP 207 **On-Line Dilution Techniques to Maximize Analyte Extraction from Acetonitrile-Rich Samples in Turbulent-Flow LC-MS/MS Systems;** Jeffrey P. Hendricks¹; Kimberly M. Navaline¹; Joseph M. Di Bussolo²; ¹*West Chester University of Pennsylvania, West Chester, PA;* ²*Cohesive Technologies, Franklin, MA*
- WP 208 **A Strategy for Standardized Automated Biological Sample Extraction Selection and Optimization for LC/MS/MS Bioanalysis;** Zheng Ouyang; Sanaullah Khan; Mohammed Jemal; *Bristol-Myers Squibb Company, PRL, BAS, New Brunswick, NJ*
- WP 209 **On-Line Solid Phase Extraction LC/MS/MS Analysis of Immunosuppressants from Whole Blood;** David C Jones; Petra Gerhards; Huqun Liu; *Varian, Inc., Lake Forest, CA*
- WP 210 **Reducing Matrix Effects from Phospholipids via Systematic Evaluation of Liquid-Liquid Extraction Conditions for LC-MS/MS Methods;** Theodore S. Brus; Brian D. Beato; *Covance Bioanalytical Services, LLC, Indianapolis, IN*
- WP 211 **Development and Evaluation of a Novel On-line Solid-Phase Extraction Monolithic LC-MS/MS System;** Xu Zang; Rosa Luo; Ning Song; Ta-Kung Chen; Haig Bozigian; *Neurocrine Biosciences, Inc., San Diego, CA*
- WP 212 **Evaluation of the Sirocco Protein Precipitation Plate as a Sample Preparation Device for Small Plasma Volumes in Discovery Bioanalysis;** Udeni C Yapa; Min Zhong; Nalini P Sadagopan; *Pfizer Global Research and Development, Ann Arbor, MI*
- WP 213 **A Robust, Fully Automated On-line Solid Phase Extraction LC/MS/MS Method for the Analysis of Antipsychotic Drugs;** Petra Gerhards; David C Jones; Seyed Sadjadi; *Varian, Inc., Lake Forest, CA*
- WP 214 **LC-MS Analysis of Cysteinyl-Leukotrienes using 96-Well Plate Immunoaffinity Purification;** Timo T Mauriala; Frederic Masse; Christine Brideau; Kevin Bateman; *Merck Frosst, Montreal, Canada*
- WP 215 **An Efficient Approach to Overcoming the Sample Preparation Bottleneck: Direct Injection of Organic Extracts onto HILIC-MS/MS;** Qi Song¹; Brian Beato¹; Naidong Weng²; ¹*Covance Bioanalytical Services, LLC, Indianapolis, IN;* ²*Covance Laboratories Inc., Madison, WI*
- WP 216 **An Automated Sample Preparation Technique using a 384-Well Protein Filtration System;** Tazeen Shahid; Robert T. Cass; Dane E. Karr; *Theravance, Inc, South San Francisco, CA*
-
- LIPIDS: STRUCTURAL ANALYSIS**
-
- WP 217 **LC-MS Based Method for The Qualitative and Quantitative Analysis of Complex Lipid Mixtures;** Ulf Sommer¹; Haya Herscovitz¹; Francine K Welty²; Catherine E Costello¹; ¹*Boston University School of Medicine, Boston, MA;* ²*Harvard Medical School, Boston, MA*
- WP 218 **Quantitative Analysis of Membrane Protein Associated Lipids by Maldi, Nano-Esi and Anion Adduction;** Xi Zhang; Ling Qin; Carrie Hiser; Banita Tamot; Christoph Benning; Shelagh M. Ferguson-Miller; Gavin E. Reid; *Michigan State University, East Lansing, MI*
- WP 219 **Tandem Mass Spectrometric Investigation of Esterified Stratum Corneum Ceramides;** Klaus Raith; Hany Farwanah; Christian E.H. Schmelzer; Reinhard H.H. Neubert; *Martin Luther University, Halle, Germany*
- WP 220 **Identification of the Sphingolipids in Bird Skin Extracts using HPLC-MS and HPLC-MS/MS;** Johnie C Brown¹; Joseph B Williams²; Jennifer Ro²; Agus Munoz-Garcia²; ¹*Applied Biosystems, Framingham, MA;* ²*The Ohio State University, Columbus, OH*
- WP 221 **Analysis and Identification of Meibomian Gland Secretions using Mass Spectrometry;** R. Benjamin Jones; Corrie Zeigler; Rhonda L. Pitsch; Jason J. Nichols; Kelly K. Nichols; Kari B. Green-Church; *The Ohio State University, Columbus, OH*
- WP 222 **Characterization of Sphingomyelin by Multiple-Stage Quadrupole Ion-Trap Mass Spectrometry with Electrospray Ionization;** Fong-Fu Hsu; John Turk; *Washington University School of Medicine, St. Louis, MO*
- WP 223 **Two-Dimensional Separation of Sphingoid Bases and Complex Sphingolipids;** Sarah Trotman-Pruett; Frederick H. Strobel; Dennis C. Liotta; *Emory University, Atlanta, GA*
- WP 224 **Feasibility of Breath Condensate Lipids and Eicosanoids as Non-Invasively Collected Biomarker Predictors of Pulmonary Pathobiology;** Sung-Chan Jo¹; David C White¹; James M. Cantu¹; Owen R. Moss²; Edilberto Bermudez²; Gary J. Van Berkel³; ¹*University of Tennessee, Knoxville, TN;* ²*CIIT Centers for Health Research, Research Triangle Park, NC;* ³*Oak Ridge National Laboratory, Oak Ridge, TN*
- WP 225 **Comparison in the Qualitative and Quantitative Profiling of Phospholipid Molecular Species with Shotgun MS/MS and Focused Analyses;** Ryo Taguchi; Toshiaki Houjou; Hiroki Nakanishi; Mayuko Ishida; Tokao Shimizu; *The University of Tokyo, Tokyo, Japan*
- WP 226 **Charting Cellular Lipidomes by Data Dependent MS/MS Acquisition on a Quadrupole TOF Mass Spectrometer;** Dominik Schwudke; Christer S. Ejsing;

- WP 227 Andrej Shevchenko; *Max Planck Institute, Dresden, Germany*
Identification of Molecular Species of Phospholipids by Combination of Neutral Loss Scanning and MS³; Mayuko Ishida¹; Toshiaki Houjou²; Hiroki Nakanishi²; Shinichi Yamaguchi¹; Junichi Tanigucui¹; Yusuke Inohana¹; Junko Iida¹; Kozo Miseki¹; Takao Shimizu²; Ryo Taguchi²; ¹*Shimadzu Corporation, Kyoto, Japan*; ²*University of Tokyo, Tokyo, Japan*
- WP 228 **Characterization of the Lipids Non-Covalently Bound to Plasma Derived Human Serum Albumin using Ultraviolet High-Energy CID MALDI**; Omar Belgacem¹; Gerald Stubiger³; Gunter Allmaier³; Christoph Kannicht²; Andrea Buchacher²; Katharina Pock²; ¹*Shimadzu Biotech, Manchester, United Kingdom*; ²*Octapharma, Vienna, Austria*; ³*Institute for chemical Technologies and analysis, Vienna, Austria*
- WP 229 **Structural Characterization of Toxin-Binding Gangliosides by TLC/VC-FTMS**; Vera Ivleva¹; Anne A. Wolf²; Wayne I. Lencer²; Peter B. O'Connor¹; Catherine E. Costello¹; ¹*Boston University School of Medicine, Boston, MA*; ²*Children's Hospital, Boston, MA*
- WP 230 **Separation and Quantitation of Glucosylceramides and Galactosylceramides by LC-MS/MS**; Jeremy C. Allegood; Jessica Kollmeyer; Elaine Wang; M. Cameron Sullards; Alfred H. Merrill Jr; *Georgia Institute of Technology, Atlanta, GA*
- WP 231 **Structural Characterization of Lipid A Derived from *Francisella novicida* on an ESI Ion Trap-FTICR Hybrid Mass Spectrometer**; Scott A. Shaffer; David R. Goodlett; Robert K. Ernst; *University of Washington, Seattle, WA*
- WP 232 **Mass Spectrometric Analysis of Phosphatidylserine Accumulation Altered by Gene Regulation in Mamalian Cells**; Lyuba Stockert; Mingquan Guo; Mohammed Akbar; Hee-Yong Kim; *NIH, Bethesda, MD*
- WP 233 **Nano-electrospray MS/MS and MSⁿ Investigations of Lipid A Fragmentation Pathways: Characterizing the Lipid A from *Vibrio fischeri* LPS**; Nancy J. Phillips¹; Dawn M. Adin²; Eric V. Stabb²; Michael A. Apicella³; Margaret J. McFall-Ngai⁴; Bradford W. Gibson¹; ¹*University of California, San Francisco, CA*; ²*University of Georgia, Athens, GA*; ³*University of Iowa, Iowa City, IA*; ⁴*University of Wisconsin, Madison, WI*
- WP 234 **Qualitative Analysis of Triacylglycerols using Electrospray Mass Spectrometry**; Andrew M. McAnoy; Robert C. Murphy; *University of Colorado Health Sciences Center, Aurora, CO*
- WP 235 **Direct Profiling of Lipid Distribution in Brain Tissue using MALDI-TOFMS**; Shelley N Jackson; Hay-Yan J. Wang; Amina S. Woods; *NIDA-IRP, NIH, Baltimore, MD*
- WP 236 **Derivatization of Fatty Acids using Tetrabutyl Ammonium Hydroxide for Improved MS/MS Performance**; Kevin J Hart; Marcus B Wise; Cyril V Thompson; Wayne H Griest; *Oak Ridge National Laboratory, Oak Ridge, TN*
- WP 237 **MALDI-TOF MS of Phosphorylated Lipids in Tears using Immobilized Metal Affinity Chromatography and a Solid Ionic Crystal Matrix**; Bryan M. Ham¹; Jean T. Jacob²; Monica M. Keese²; Richard B. Cole^{*1}; ¹*University of New Orleans, New Orleans, LA*; ²*Louisiana State University Health Sciences Center, New Orleans, LA*
- WP 238 **Ganglioside Analysis of Tumor Cells and Tissues by Mass Spectrometry**; Yanni Zhang¹; Charisa D Cornellison¹; Darrick Carter¹; David W. Peckham¹; Marc W Retter¹; Gary R. Fanger¹; Kenneth L Rock²; ¹*Corixa Corp., Seattle, WA*; ²*University of Massachusetts, Boston, MA*
- WP 239 **Analysis of Wax Ester Molecular Species by Liquid Chromatography Tandem Mass Spectrometry**; Jessica L Krank; Robert C Murphy; *University of Colorado Health Sciences Center, Aurora, CO*
- WP 240 **Examining CID Spectra of Triglycerides as a Function of Fatty Acid Chain Length, Degree of Unsaturation, and Position**; Jason J Evans; Xingwen Li; *University of Massachusetts Boston, Boston, MA*
- WP 241 **Identification of Sphorolipids by LC-MS(MS)**; Filip Lemière¹; Iris Cornet²; Paul Vanderauwera²; Walter Van Dongen¹; Erwin Witters¹; Eddy L. Esmans¹; ¹*University of Antwerp, Antwerp, Belgium*; ²*Hogeschool Antwerpen, Antwerp, Belgium*
-
- CARBOHYDRATES**
-
- WP 242 **Quantitative Analysis of Monosaccharides by LC/MS Approach: Opportunities and Pitfalls**; Xin Zhang; Tuyen Nguyen; Lynn Chevette; Jakal Amin; Brian Lilley; Farhad Sayyarpour; *Charles River Labs, Worcester, MA*
- WP 243 **Unraveling Isobaric *C. elegans* Glycomers: Toward Automated Molecular Disassembly and Total Structure Assignment by Sequential Mass Spectrometry (MSⁿ)**; Andrew J. Hanneman; David J. Ashline; Hailong Zhang; Anthony J. Lapadula; Vernon N. Reinhold; *UNH-CSB, University of New Hampshire, Durham, NH*
- WP 244 **A System for Rapid and Accurate Identification of Oligosaccharide Structures using Observational MSⁿ Spectral Library of Human Glycans**; Akihiko Kameyama¹; Norihiro Kikuchi³; Shuuichi Nakaya²; Hiromi Ito¹; Takashi Sato¹; Yoriko Takahashi³; Hisashi Narimatsu¹; ¹*AIST, Tsukuba, Japan*; ²*Shimadzu Corporation, Kyoto, Japan*; ³*Mitsui Knowledge Industry Co., Ltd., Tokyo, Japan*
- WP 245 **Automated Glycan Topology Assignment via MSⁿ: The OSCAR and IsoSolve Algorithms**; Anthony J. Lapadula¹; Philip J. Hatcher²; David J. Ashline¹; Andy J. Hanneman¹; Vernon N. Reinhold¹; ¹*Center for Structural Biology (UNH), Durham, NH*; ²*Dept. of Computer Science (UNH), Durham, NH*
- WP 246 **Highly Sensitive Analysis of Disaccharides in Chondroitin and Dermatan Sulfates by Reversed-Phase Ion-Pair LC/MS**; Toshihiro Oguma¹; Toshihiko Toida²; Osamu Okazaki¹; ¹*DAIICHI Pharmaceutical Co., LTD, Tokyo, Japan*; ²*Chiba University, Chiba, Japan*
- WP 247 **Simulation of Characteristic Fragment Patterns on Tandem Mass Spectra Towards Distinction of Complex type of N-Linked Oligosaccharide Isomers**; Shuuichi Nakaya¹; Akihiko Kameyama²; Norihiro Kikuchi³; Hiromi Ito²; Hide-ki Ishida⁴; Mitsuru Nakamura²; Takashi Angata²; Hisashi Narimatsu²; ¹*Shimadzu Corporation, Kyoto, Japan*; ²*AIST, Tsukuba, Japan*; ³*Mitsui Knowledge Industry Co., Ltd., Tokyo, Japan*; ⁴*The Noguchi Institute, Tokyo, Japan*
- WP 248 **Tandem Mass Spectra of Phenylhydrazones of Glycans: Automated vs. Manual Interpretation**; Helene Perreault¹; Erika Lattova¹; Oleg Krokhin¹; Martin Ethier²; ¹*University of Manitoba, Winnipeg, MB, Canada*; ²*University of Ottawa, Ottawa, ON, Canada*
- WP 249 **Real Time Study of the Formose Reaction: Sugar-Boronic Acid Complexes Detected by Negative Ion ESI FT-ICR**; Jeremiah D Tipton; Alonso Ricardo; Steven A Benner; David H Powell; *University of Florida, Gainesville, FL*
- WP 250 **Analysis of UDP-Hexoses in Keratinocytes with Ion-Pairing HPLC-MS/MS**; Seppo Auriola; Raija Tammi; Eveliina Hamalainen; Markku Tammi; *University of Kuopio, Kuopio, Finland*

- WP 251 **Differentiation of Carbohydrate Stereoisomers by IRMPD Spectroscopy using a FEL-FTICR-MS;** Jose Valle¹; John Eyster¹; Alan Marshall²; David Moore³; Jos Oomens³; Nick Polfer³; Brad Bendiak⁴; Gert von Helden⁵; Gerard Meijer⁵; ¹University of Florida, Gainesville, FL; ²National High Magnetic Field Laboratory, Tallahassee, FL; ³FOM Institute for Plasma Physics Rijnhuizen, Nieuwegein, The Netherlands; ⁴University of Colorado Health Science Center, Denver, CO; ⁵Fritz-Haber-Institute, Berlin, Germany
- WP 252 **Determining Glycan Structures from both MS/MS Spectra and Structural Alignment;** Baozhen Shan; Weiwu Chen; Kaizhong Zhang; Bin Ma; *The University of Western Ontario, London, CA*
- WP 253 **Characterization and Quantitation of Glycosylation Heterogeneity and Glycation of Monoclonal IgG at Intact Protein Level by Reversed-Phased LC/MS;** Himanshu S. Gadgil; Thomas M. Dillon; Douglas Rehder; Natalie Perico; Pavel V. Bondarenko; *Amgen, Thousand Oaks, CA*
- WP 254 **Nano-LC FT-ICR-MS of Oligosaccharides;** Katherine S Lancaster; Carlito B Lebrilla; *University of California, Davis, CA*
- WP 255 **Automated Data Collection for Sequential Mass Spectrometry of Glycans;** David J. Ashline; Anthony J. Lapadula; Vernon N. Reinhold; *UNH-CSB, University of New Hampshire, Durham, NH*
- WP 256 **Structure Elucidation of Positional Isomers of Keratan Sulfate using a Hybrid Linear Ion Trap – FTICR Mass Spectrometer;** Masayuki Kubota¹; Hiroshi Matsumoto¹; Mamoru Ohashi²; ¹Thermo Electron, Yokohama, Japan; ²Kanagawa University, Kanagawa, Japan
- WP 257 **Automated Interpretation of MS/MS Spectra of Oligosaccharides;** Haixu Tang; Yehia Mechref; Milos V. Novotny; *Indiana University, Bloomington, IN*
- WP 258 **GlycoMatic: An Automated Approach to Glycoprotein Detection and Characterization;** Lewis K Pannell¹; Erik R Walp¹; Julio Ruiz¹; Joseph Nawrocki²; ¹Cancer Research Institute, Univ. of South Alabama, Mobile, AL; ²Cardinal Health, San Diego, CA
- WP 259 **An LC/MS/MS Platform for Glycoform Quantification of Chondroitin Sulfate;** Alicia M. Hitchcock; Catherine E. Costello; Joseph Zaia; *Boston University School of Medicine, Boston, MA*
- WP 260 **Combining Ion Trap MSⁿ with Glycan Fragment Library and Decomposition Pathway Constraint Strategies: Applications to Glycosphingolipid Structure Analysis;** Steven B. Levery; David J. Ashline; Suddham Singh; Hailong Zhang; Anthony Lapadula; Vernon N. Reinhold; *University of New Hampshire, Durham, NH*
- WP 261 **Structural Characterisation of Neutral Mono- and Disaccharides using Ion trap MS and MS/MS;** Bengt-Olof Axelsson; Grzegorz Gründer; Magnus Jörnten-Karlsson; *Astrazeneca R&D, Lund, Sweden*
-
- GLYCOPROTEINS**
-
- WP 262 **Identification of N-Glycosylated Proteolytic Peptides by MALDI-TOF MS using Off-line Sample Deposition by Capillary Electrophoresis;** Sergei I. Snovidia; Vincent C. Chen; Hélène Perreault; *University of Manitoba, Winnipeg, MB, Canada*
- WP 263 **Differentiation of Isomeric Deoxyhexoses using Tandem MS and Investigation of the Nature of Glycosylation of HMG2 Protein *in vivo*;** Yuan Gao; Yan Zou; Yinsheng Wang; *University of California, Riverside, CA*
- WP 264 **An Efficient Method of Elucidating Site-Specific Glycan Heterogeneities in Very Large Glycoproteins;** Michiko Tajiri¹; Shumi Yoshida³; Yoshinao Wada²; ¹JST, Osaka, Japan; ²Osaka MCHRI, Osaka, Japan; ³Osaka University Graduate School of Medicine, Osaka, Japan
- WP 265 **Analysis of an FTMS Based Platform for Plasma Profiling and Comparative Proteomics;** Ekaterina Devanova; Xuemei Zhao; Fanyu Meng; Matthew Mazur; Cloud Paweletz; Anita Lee; Jayshree Mistry; Matthew Wiener; Jeff Sachs; Nathan Yates; Ronald Hendrickson; *Merck Research Laboratories, Rahway, NY*
- WP 266 **Archaeal Membrane-Bound *cd*₁ Nitrite Reductase from *Pyrobaculum aerophilum* is a Glycoprotein;** Sander R. Piersma¹; Yana Tatur²; Marc J.F. Stampraad²; Imke Schroder²; Simon De Vries²; ¹FOM-AMOLF, Amsterdam, The Netherlands; ²Delft University of Technology, Delft, The Netherlands; ³UCLA, Los Angeles, CA
- WP 267 **Comparison of Pituitary Glycoprotein Hormones (FSH and LH) between Different Species using Q-TOF and LTQ-FT Mass Spectrometry;** Dilusha S. Dalpathado¹; Janet Irungu¹; Hui Jiang¹; George R. Bousfield²; Vladimir Y. Butnev²; Heather Desaire¹; ¹University of Kansas, Lawrence, KS; ²Wichita State University, Wichita, KS
- WP 268 **Lectin-Based Method for Profiling the Relative Fucosylation of N-Linked Glycans from Human Serum;** Christa L. Feasley; Fred E. Regnier; *Purdue University, West Lafayette, IN*
- WP 269 **Analysis of N-Glycosylation Pattern of Glycoprotein, UP Ia and UP Ib -A Better Understanding of Urinary Tract Infection Mechanisms;** Bo Xie¹; Ge Zhou²; Shiu-Yung Chan¹; Tung-Tien Sun²; Catherine E. Costello¹; ¹Boston University, School of Medicine, Boston, MA; ²New York University, School of Medicine, New York, NY
- WP 270 **Targeted Glycoproteomics: Serial Lectin Affinity Chromatography in the Selection of O-Glycosylation Sites on Proteins from the Human Blood Proteome;** Malaika O Durham; Fred E Regnier; *Purdue University, West Lafayette, IN*
- WP 271 **Application of Intact Mass Profiling as a Complementary Technique to Peptide Mapping for Assessing Glycosylation Heterogeneity;** Jennifer F. Nemeth; George A. Heavner; *Centocor, Inc., Radnor, PA*
- WP 272 **Deciphering the Glycosylation of Sap9 and Sap10 Proteases;** Petr Novak¹; Petr Man¹; Jiri Dostal²; Iva Pichova²; ¹Institute of Microbiology, Prague, Czech Republic; ²Institute of Organic Chemistry and Biochemistry, Prague, Czech Republic
- WP 273 **Human IgA1 Hinge Region O-Glycan Profiling by FT-ICR MS;** Matthew B. Renfrow¹; Stacy Hall¹; Rhubell Brown¹; Milan Tomana¹; Bruce Julian¹; Jiri Mestecky¹; Mark R. Emmett²; Jan Novak¹; Alan G. Marshall²; ¹University of Alabama at Birmingham, Birmingham, AL; ²National High Magnetic Field Laboratory, FSU, Tallahassee, FL
- WP 274 **Optimization of Deglycosylation and Evaluation of Protein Disulfide Status of Glycoproteins;** Xiaorong (Sharon) Wei; Steven L. Cohen; *Merck Research Laboratories, West Point, PA*
- WP 275 **Use of Ion-pairing Technique to Characterize Sulfated and Non-sulfated Glycopeptides in Equine Thyroid Stimulating Hormone by ESI-FTMS;** Janet Irungu¹; Dilusha S. Dalpathado¹; Ying Zhang¹; Hui Jiang¹; George R. Bousfield²; Heather Desaire¹; ¹University of Kansas, Lawrence, KS; ²Wichita State University, Wichita, KS
- WP 276 **Characterization of Large N-Terminally Blocked Glycoproteins - Identification of N-Terminus and Site Specific Glycosylation;** Pamela K Cochran; William Haskins; Viswanatham Katta; *Genentech, Inc, South San Francisco, CA*

METABOLOMICS

- WP 277 **A Novel Approach to Identification of Biomarkers using the Cross Correlation of Low - High CID UPLC/ToF-MS: A Metabonomics Approach;** Robert S. Plumb¹; Kelly Johnson¹; Ian D. Wilson²; Jeremy Nicholson³; ¹Waters Corporation, Milford, MA; ²Astra Zeneca, Alderley Park, Macclesfield, UK; ³Imperial College, London, UK
- WP 278 **A New Approach to Small Molecular Analysis using Matrix-Less Laser Desorption and a Hybrid Mass Spectrometer, Potential for Metabonomic Applications;** Fan Xiang¹; Joseph D. Cuiffi²; Annie Yun Wang¹; Daniel J. Hayes²; ¹Shimadzu Biotech, Pleasanton, CA; ²NanoHorizons Inc., State College, PA
- WP 279 **Identification of New Potential Biomarkers of Experimental Pulmonary Fibrosis by a LC/MS Metabolomic Based Approach;** Céline Ducruix¹; François Huau³; Dominique Lison³; Jean-Claude Tabet²; Eric Ezan¹; Christophe Junot¹; ¹CEA, Gif-sur-Yvette, France; ²CNRS, Paris, France; ³Université Catholique de Louvain, Brussels, Belgium
- WP 280 **Measurement of the Yeast Transcriptome, Proteome and Metabolome Reveals Global Repercussions of a Metabolic Defect;** Peng Lu; Anupama Rangan; Sherwin Y. Chan; Vishwanath R. Iyer; Dean R. Appling; David W. Hoffman; Edward M. Marcotte; *University of Texas, Austin, TX*
- WP 281 **Optimizing Low Mass Ion Transmission on a Hybrid Linear Ion Trap FTICR-MS Instrument and its Application to Metabonomic Profiling;** Mark Sanders¹; Bethanne Warrack¹; Oliver Lange²; Kerstin Strupat²; Stevan Horning²; ¹Bristol-Myers Squibb, Princeton, NJ; ²Thermo Electron Corp, Bremen, Germany
- WP 282 **Metabolomic Investigations in Islets of Langerhans and Prokaryotic Cells using MALDI-TOF-MS and Sheathless CE-ESI-MS;** James L Edwards; Robert T Kennedy; *University of Michigan, Ann Arbor, MI*
- WP 283 **Using LC with Parallel Electrochemical Array – MS (LC/ECArray-MS) to Discover Metabolic Biomarkers in the Zucker Diabetic Fatty Rat Model;** David F. Meyer¹; Brad L. Ackermann²; James A. Eckstein²; Paul H. Gamache¹; ¹ESA Inc, Chelmsford, MA; ²Eli Lilly, Indianapolis, IN
- WP 284 **Probing Aging in Zucker Rats using Ultra Performance Liquid Chromatography Coupled to Time of Flight Mass Spectrometry;** Kelly Johnson¹; Robert S. Plumb¹; Ian D. Wilson²; ¹Waters Corporation, Milford, MA; ²Astra Zeneca, Alderley Park, Macclesfield, UK
- WP 285 **Evaluation of Metabolomic Sample Processing Approaches for LC-MS;** Thomas O. Metz; Jennifer S.D. Zimmer; Matthew E. Monroe; Dwayne A. Elias; Richard D. Smith; *Pacific Northwest National Laboratory, Richland, WA*
- WP 286 **Investigating Biochemical Effects of an Obesity-Reducing Agent using LC/MS and NMR Metabonomic Methods;** Brain T. Regg; J. David Pinkston; Anne F. Russell; Karen H. Strader; Tonny L. DeBeer; William P. Schwecke; Ofer Reizes; *Procter & Gamble Pharmaceuticals, Mason, OH*
- WP 287 **Metabonomics with Mass Spectrometry for the Early Detection of Renal Transplant Rejection;** Richard Knochenmuss; Houdiere Fabrice; Zhang Juan; McCombie Gregor; *Novartis Institutes for Biomedical Research, Basel, Switzerland*
- WP 288 **High Resolution Mass Spectrometry in Combination with Capillary Electrophoresis as a Tool for Metabolome Research;** Edward E. Baidoo¹; Matthias Witt²; Christain Neusüss³; Sandra Villa¹; Gary Kruppa⁴; Francesco Pingitore¹; Julie Leary⁵; Jay D. Keasling¹; ¹University of California, Berkeley, CA; ²Bruker Daltonik GmbH, Bremen, Germany; ³Bruker Daltonik, Leipzig, Germany; ⁴Bruker Daltonik Inc., Fremont, CA; ⁵University of California, Davis, CA
- WP 289 **Nanospray Infusion as a New Powerful Tool for Fast and Accurate Metabolomics Profiling;** K. Olaf Boernsen; Stephan Gatzek; Georges Imbert; *Novartis Pharma AG, Basel, Switzerland*
- WP 290 **Metabolomic Study of Protein Glycosylation in Pathogenic Bacteria by Mass Spectrometry;** Evelyn C Soo¹; Nadia C S Mykytczuk²; Annie J Aubry³; Patricia Guerry⁴; Susan M Logan³; ¹NRC-Institute for Marine Biosciences, Halifax, Canada; ²Carleton University, Ottawa, Canada; ³NRC-Institute for Biological Sciences, Ottawa, Canada; ⁴Naval Medical Research Center, Silver Springs, MD
- WP 291 **Selective Detection and Identification of Sugar Phosphates by Electrospray-Ionization Tandem Mass Spectrometry and Its Application in Bacterial Metabolomics;** Joseph P M Hu¹; Christine M Szymanski²; Evelyn C Soo¹; ¹NRC-Institute for Marine Biosciences, Halifax, NS, Canada; ²NRC-Institute for Biological Sciences, Ottawa, ON, Canada
- WP 292 **Strategies for the Use of Mass Spectrometry for LC/MS Metabonomic Profiling: How Much Resolution Is Needed and In What Dimension?;** Bethanne M. Warrack; Serhiy Hnatyshyn; Haiying Zhang; Mark Sanders; *Bristol-Myers Squibb Pharmaceutical Research Inst., Princeton, NJ*

NEUROPEPTIDES

- WP 293 **Identification of Drosophila Melanogaster Neuropeptides with Capillary Liquid Chromatography-Tandem Mass Spectrometry;** Yun Wang¹; Joanne Yew²; Edward Kravitz²; Lingjun Li¹; ¹University of Wisconsin, Madison, WI; ²Harvard Medical School, Boston, MA
- WP 294 **De Novo Sequencing of Novel Neuropeptide by a Combination of N-Terminal Derivatization and NanoLC-MS/MS;** Qiang Fu; Lingjun Li; *University of Wisconsin at Madison, Madison, WI*
- WP 295 **Quantitative MALDI-FTMS Towards Analysis of a Simple Neural Circuit;** Stephanie S DeKeyser; Lingjun Li; *University of Wisconsin, Madison, WI*
- WP 296 **Digging Deeper in the (Direct Tissue) Proteome Segment of Natural Peptides;** Peter D. Verhaert¹; Markus Kellmann²; Stefan Clerens³; Babs van de Plas³; Lutgarde Arckens³; Peter Schulz-Knappe²; ¹Flemish Interuniversity Institute of Biotechnology, Leuven, Belgium; ²BioVision, Hannover, Germany; ³K.U.Leuven, Leuven, Belgium
- WP 297 **Methods for Determining the Chirality of Residues in Neuropeptides;** Michael A. Ewing; Jane Wang; Jonathan V. Sweedler; *University of Illinois, Urbana, IL*
- WP 298 **Rat in vivo Brain Dopamine Receptor Occupancy Data Obtained using 3H-Raclopride and Scintillation Spectroscopy or Unlabeled Raclopride Measured by LC/MS;** Vanessa N. Barth; Eyassu Chernet; Laura J. Martin; Anne B. Need; Karen S. Rash; Lee A. Phebus; *Eli Lilly and Company, Indianapolis, IN*
- WP 299 **Mass Signature for Insect Adipokinetic Hormones;** Simone Koenig¹; Christian Albers¹; Svenja Bockelmann¹; Gerd Gaede²; ¹University of Muenster, Muenster, Germany; ²University of Cape Town, Cape Town, South Africa
- WP 300 **Strategies for the Identification of Orcokinin Neuropeptides in Crustaceans using Asp-Xxx Cleavages and Matrix Assisted Laser Desorption/Ionization-**

- Fourier Transform Mass Spectrometry; Elizabeth A. Stemmler;** Heather L. Provencher; Maureen E. Guiney; Noah P. Gardner; Patsy S. Dickinson; *Bowdoin College, Brunswick, ME*
- WP 301 **Neuropeptidomics of the Honey Bee CNS: A Mass Spectrometric Onslaught of a Newly Sequenced Genome Resulting in Neuropeptide Discovery; Timothy A. Richmond¹;** Peter Verleyen²; Amanda B. Hummon¹; Jurgen Huybrechts²; Michael A. Ewing¹; Geert Baggerman²; Evy Vierstraete²; Sandra Rodriguez-Zas¹; Gene E. Robinson¹; Liliane Schoofs²; Jonathan V. Sweedler¹; ¹*University of Illinois, Urbana, IL;* ²*K.U.Leuven, Leuven, Belgium*
- WP 302 **Identification of Neuropeptides in the Fruit Fly using a Combination of 2D LC Q-ToF and LC MALDI-ToF/ToF; Geert Baggerman;** Kurt Boonen; Peter Verleyen; Arnold De Loof; Liliane Schoofs; *K.U.Leuven, Leuven, Belgium*
- WP 303 **Characterization of Microinfusion-Microdialysis MALDI-MS Methodology for Investigation of Extracellular Neuropeptide Processing; Brian Reed;** Nicole M Dankert; B Elizabeth Oosterhuis; Brian T Chait; Mary Jeane Kreek; *The Rockefeller University, New York, NY*
- WP 304 **Monitoring the Effect of RB101 on Enkephalin Levels in vivo using Capillary Liquid Chromatography with Triple-Stage Mass Spectrometry (cLC-MS³); Holly M. Shackman;** Emily M. Jutkiewicz; Nicholas A. Cellar; Minshan Shou; James H. Woods; Robert T. Kennedy; *University of Michigan, Ann Arbor, MI*
- WP 305 **The Use of Magnetic Beads to Extract Brain Peptides for MS Analysis; Jessica D. Read; Joan M. Vaughan;** Minkyu Park; **Wolfgang H. Fischer;** *The Salk Institute, La Jolla, CA*
- WP 306 **SwePep – A Database Optimally Designed for Storing and Mining of Neuropeptide MS data; Maria Falth¹;** Karl Skold¹; Marcus Svensson¹; Mathias Norrman¹; Anna Nilsson¹; David Fenyö²; Per E Andren¹; ¹*Uppsala University, Uppsala, Sweden;* ²*GE Healthcare, Uppsala, Sweden*
- WP 307 **Direct Quantitative Neuropeptidomic Analysis of Brain Extracts After Microwave Treatment; Fa-Yun Che;** Jihyeon Lim; Hui Pan; Lloyd D Fricker; *Albert Einstein College of Medicine, Bronx, NY*
- WP 308 **Characterization of the Neuropeptidome of Cancer productus Hemolymph in Two Physiological States by FTICR Mass Spectrometry; Kimberly K. Kutz¹;** Andrey N. Vilkov²; Nikola Tolic²; Ljiljana Pasa-Tolic²; Richard D. Smith²; Andrew E. Christie³; Lingjun Li¹; ¹*University of Wisconsin, Madison, WI;* ²*Pacific Northwest National Laboratory, Richland, WA;* ³*University of Washington, Seattle, WA*
-
- NON-COVALENT INTERACTIONS**
- WP 309 **Discovery of Picomolar Slow Tight-Binding Inhibitors of alpha-L-Fucosidase by Tandem Mass Spectrometry; Yet-Ran Chen;** Guo-Hsing Tseng; Chun-Hung Lin; Yu-Ju Chen; *Academia Sinica, Taipei, Taiwan, R.O.C.*
- WP 310 **Behavior of [PNA/DNA] and [PNA/PNA] Duplexes in the Gas Phase; Alice Delvolvé¹;** Peter E Nielsen²; **Carlos Afonso¹;** Françoise Fournier¹; Jean-Claude Tabet¹; ¹*University Pierre & Marie Curie, Paris, France;* ²*Center for Biomolecular Recognition, Copenhagen, Denmark*
- WP 311 **Studies of Ligand Dissociation and Transfer from Retinoic Acid-Binding Proteins using ESI MS and HDX; Joshua K Hoerner;** Igor A Kaltashov; *University of Massachusetts at Amherst, Amherst, MA*
- WP 312 **DNA Quadruplex Supramolecular Assemblies Studied by ESI-MS and MS/MS; Valérie Gabelica¹;** Frédéric Rosu¹; Marie-Paule Teulade-Fichou²; Edwin De Pauw²; ¹*University of Liège, Liège, Belgium;* ²*Collège de France, Paris, France*
- WP 313 **Comparison of Solution Phase and Gas Phase Dissociation Behaviour of Large Non-Covalent Complexes; Rimco B.J. Geels¹;** Esther van Duijn²; Albert J.R. Heck²; Saskia M. van der Vies³; Ron M.A. Heeren¹; ¹*FOM - Amolf, Amsterdam, The Netherlands;* ²*Utrecht University, Utrecht, The Netherlands;* ³*Vrije Universiteit, Amsterdam, The Netherlands*
- WP 314 **ESI-MSMS of Peptide-Peptide Noncovalent Complexes; Amina S Woods¹;** Shelley N Jackson¹; Alfred Yergey²; Hay-Yan J Wang¹; ¹*NIDA IRP NIH, Baltimore, MD;* ²*NICHD NIH, Bethesda, MD*
- WP 315 **Probing Effects of Site-Specific Mutations on Insulin Hexamerization by using SIMSTEX; Raghu K Chittai;** Don L Rempel; Michael A Grayson; Michael L Gross; *Washington University, Saint Louis, MO*
- WP 316 **Study of Prostaglandin-Branched β-Cyclodextrin Inclusion Complex by ESI-MS and Computational Methods; Naoe Yamane¹;** Chie Honda²; Yuki Nishi²; Toshiko Tanimoto²; Zenzaburo Tozuka¹; ¹*JCL Bioassay Co., Ltd., Nishiwaki, Japan;* ²*School of Pharmaceutical Sciences Mukogawa Women's, Nishinomiya, Japan*
- WP 317 **Analysis of the Tumor Necrosis Factor Alpha Trimer using ESI and MALDI Mass Spectrometry; Eric J. Beil;** Sheng-Jiun Sam Wu; Deidra Bethea; George A. Heavner; Jennifer F. Nemeth; *Centocor, Inc., Radnor, PA*
- WP 318 **Investigation of Plasma Proteins that Bind to Antisense Oligonucleotide (ASO) Drugs using Orthogonal Native Fractionation Techniques; Gregory A. Barrett-Wilt;** Hans Gaus; Sam Lee; Richard H. Griffey; *Isis Pharmaceuticals, Carlsbad, CA*
- WP 319 **Analysis of HIV Protease Non-Covalent Dimer and Inhibitors by FTMS; Catherine N. Pham;** Ben J. Bolanos; Michael J. Greig; *Pfizer Global R&D, San Diego, CA*
- WP 320 **Characterization on Noncovalent Complexes of Native and Modified Haemoglobins by Nano-ESI MS/MS; Antti E Hesso;** Jarkko A Tornaesus; *Institute of Occupational Health, Helsinki, Finland*
- WP 321 **Protein Size in a Solventless Environment: An Electrospray Ionization Ion Mobility Analysis; Catherine S. Kaddis;** Beniam Berhane; Marcin Apostol; Joseph A. Loo; *University of California, Los Angeles, CA*
- WP 322 **Interactions of T7 DNA Polymerase with DNA Substrates Studied by Chemical Modification Coupled Tandem Mass Spectrometry; Bich T. N. Vu;** John S. Taylor; Michael L. Gross; *Washington University, St. Louis, MO*
- WP 323 **Detection of Intact Protein Complexes using Chemical Stabilization and High Mass MALDI with Cryogenic Detection; Ryan J. Wenzel;** Alexis Nazabal; Renato Zenobi; *ETH, Zürich, Switzerland*
- WP 324 **A Method for Distinguishing Between Specific and Nonspecific Protein-Ligand Complexes in ES-MS; Jiangxiao Sun;** Weijie Wang; Elena N. Kitova; John S. Klassen; *University of Alberta, Edmonton, AB Canada*
- WP 325 **Study of Noncovalent Interactions between β-Amyloid Peptide and Bioactive Compounds by Electrospray Ionization Mass Spectrometry; Anthony Tsarbopoulos¹;** Fotini N. Bazoti²; Jonas Bergquist³; Karin E. Markides³; ¹*University of Patras, Pharmacy Dpt., Greece;* ²*GAIA Research Center, Bioanalytical Dpt., Greece;* ³*Uppsala University, Analytical Chemistry Dpt., Uppsala, Sweden*
- WP 326 **Characterisation of Noncovalent AB5 Toxin Assemblies by Means of Mass Spectrometry and Tandem Mass Spectrometry; Jonathan P. Williams¹;** Brian N. Green²;

- Daniel C. Smith¹; Keith R. Jennings¹; Susan E. Slade¹; Lynne M. Roberts¹; James H. Scrivens¹; ¹University of Warwick, Coventry, United Kingdom; ²Waters MS Technologies Centre, Manchester, United Kingdom
- WP 327 **Investigating the Inhibition of Protein-Protein Interactions by Small Covalent Antagonists with Nano-ESI-Mass Spectrometry**; Nina Viswanathan; Amy D. Fung; Brian C. Cunningham; Mark T. Cancilla; *Sunesis Pharmaceuticals, South San Francisco, CA*
- WP 328 **Quantitative Evaluation of Protein-DNA Binding Affinity by Laser Spray Ionization Mass Spectrometry**; Xiangguo Shi¹; Atsushi Takamizawa²; Yoshifumi Nishimura¹; Kenzo Hiraoka²; Satoko Akashi¹; ¹Yokohama City University, Yokohama, Japan; ²Clean Energy Research Center, Yamanashi University, Kofu, Japan
- WP 329 **Intrinsic Energy-Entropy Compensation in Gaseous Biomolecular Complexes**; Elena N Kitova; John S Klassen; *University of Alberta, Edmonton, Canada*
- WP 330 **Hydrogen Exchange Mass Spectrometry: Direct Analysis with Nano-Electrospray and Applications to Multiprotein Complexes**; Zhong-ping Yao¹; Markus A. Seeliger²; Jonathan Phillips¹; Sophie Jackson¹; Laura S. Itzhaki²; Carol V. Robinson¹; ¹University of Cambridge, Cambridge, UK; ²Hutchison/MRC Research Centre, Cambridge, UK
- WP 331 **Thermodynamic Analysis of Protein-Protein Interactions in E. coli Molybdopterin Synthase using SUPREX**; Yan Tong; Margot M. Wuebbens; K. V. Rajagopalan; Michael C. Fitzgerald; *Duke University, Durham, NC*
- WP 332 **Mass Spectrometric Analysis of Hydrophobic Transmembrane Segment Complexes and Their Regulation by Other Molecules**; Thomas Letzel; Dieter Langosch; *Chair of Biopolymer Chemistry, TU Munich, Freising, Germany*
- WP 333 **“Western Mass Spectrometry” for the Structural Characterization of Antibodies**; Alexis Nazabal¹; Ryan Wenzel¹; Magdalini Polymenidou²; Adriano Aguzzi²; Renato Zenobi¹; ¹Swiss Federal Institute of Technology-ETH, Zürich, Switzerland; ²University Hospital of Zürich, Zürich, Switzerland
- WP 334 **Characterization of Protein-Ligand Non-Covalent Interactions for a Zinc-Dependent Enzyme Phosphomannose Isomerase using ESI-FTICR Mass Spectrometry**; Hong Gao; Yonghao Yu; Julie A. Leary; *UC-Davis, Davis, CA*
- WP 335 **Stereoselective Noncovalent Interactions Of Carbohydrates**; Gianluca Giorgi¹; Laura Salvini²; ¹Chemistry, Siena, Italy; ²Ciads, Siena, Italy
- WP 336 **Binding Constants of Supramolecular Duplexes by NanoESI**; Honghai Jiang; Cheng Zhao; Xiaowu Yang; Bing Gong; Troy D. Wood; *State University of New York at Buffalo, Buffalo, NY*
- WP 337 **The Role of Coulomb Repulsion in Heme Binding in Gas Phase Myoglobin Ions**; Kevin J. Mark; Donald J. Douglas; *University of British Columbia, Vancouver, BC, Canada*
- WP 338 **Supramolecular Complexation of Conjugated Schiff-Base Macrocycles with Amino Acids and Small Peptides by ESI-MS and ESI-MS/MS**; Yun Ling; Carmen Yeung; Cindy Lee; Mark MacLachlan; *University of British Columbia, Vancouver, BC, Canada*
- WP 339 **Characterization of Intact Complexes of an Antineoplastic Benzyl Styryl Sulfone and Mouse and Human Albumin by Direct Serum Injection**; John Roboz¹; Sool Yeon Cho¹; Stanley Bell²; Premkumar Reddy²; James F. Holland¹; ¹Mount Sinai School of Medicine, New York, NY; ²Onconova Therapeutics, Inc., Lawrenceville, NJ; ³Fels Inst. Cancer Res., Temple Univ., Philadelphia, PA
- WP 340 **Comparisons of Solution and Gas Phase Binding of Non-Covalent Complexes of Cex and its Inhibitors**; Milica Tesic; Donald J. Douglas; Stephen G. Withers; Jacqueline Wicki; *University of British Columbia, Vancouver, BC, Canada*
- WP 341 **Noncovalent Complexes of HSP90 Investigated by Nano-ESI and MALDI Tandem-MS**; Frank Sobott; Zhongping Yao; Carol V Robinson; *Cambridge University, Cambridge, UK*
-
- COMPUTER APPLICATIONS: GENERAL**
- WP 342 **3D Particle-In-Cell Code for Simulations of Ion Motion in the Presence of Magnetic Field**; Alexander M Popov¹; Maria S Sharova¹; Alexander V Pozdneev¹; Alexander A Vedenov²; Ron M.A. Heeren³; Eugene N Nikolaev⁴; ¹Moscow State University, Moscow, Russia; ²Kurchatov Institute for Atomic Energy, Moscow, Russia; ³FOM Institute for Atomic and Molecular Physics, Amsterdam, Netherlands; ⁴The Institute for Energy Problems of Chemical Phys, Moscow, Russia
- WP 343 **Simulation of Ion Cooling in Adiabatic Gas Flow**; Valeriy V. Raznikov¹; Vladislav V. Zelenov¹; Elena V. Aparina¹; Sergey V. Ivashin¹; Michael Ugarov²; Agnes Tempez²; John A. Schultz²; ¹Institute for Energy Problems of Chemical Physics, Chernogolovka, Russia; ²Ionwerks, Inc., Houston, TX
- WP 344 **Ion Trajectory Simulation of Electric Components with Arbitrary Geometries by ITSIM**; Guangxiang Wu¹; Meng Yu¹; Wolfgang R. Plass²; Yuehui Ouyang¹; William J. Chappell¹; R. Graham Cooks¹; Zheng Ouyang¹; ¹Purdue University, West Lafayette, IN; ²Justus-Liebig-Universität Giessen, Giessen, Germany
- WP 345 **Peak Classification in MS/MS using High Precursor Resolution Ion Trap**; Shigeki Kajihara; Shinichi Iwamoto; *Shimadzu corporation, Kyoto, Japan*
- WP 346 **Two-band Targeting Entropy Minimization Method (bTEM): Theory and Applications on Deconvolution of MS Mixture Spectra**; Huajun Zhang; Marc Garland; *Institute of Chemical and Engineering Science, Singapore, Singapore*
- WP 347 **The Influence of Proton Transfer Ion/Ion Reactions on Deconvolution Algorithms**; Dave E. Erickson; Jason M. Hogan; Scott A. McLuckey; *Purdue University, West Lafayette, IN*
- WP 348 **Custom Automated Acquisition Software for a Solution Stability Assay using the Finnigan Xcalibur Development Kit (XDK)**; Robert A Langish^{1,2}; Petia A Shipkova^{1,2}; Gerry G Everlof^{1,2}; Mark Sanders^{1,2}; ¹Bristol-Myers Squibb, Hopewell, NJ; ²Bristol-Myers Squibb, Lawrenceville, NJ
- WP 349 **Software Development for FT-ICR MS Data Analysis Based on Data Grid**; Man Hoi Hur¹; Kyung-Hoon Kwon¹; Han Bin Oh²; Jong Shin Yoo¹; Hyun Sik Kim¹; ¹Korea Basic Science Institute, Daejeon, Republic of Korea; ²Sogang University, Seoul, Republic of Korea
- WP 350 **Mass-Spectral Peaks Detection and Overlapped Peaks Separation Procedures Implemented in a New Data Acquisition and Processing Software**; Alexander R Pikhtelev; Valeriy V Raznikov; Alexander F Dodonov; Viatcheslav I Kozlovski; Ilia V Soulimenkov; *Institute for Energy Problems of Chemical Physics, Chernogolovka, Russia*
- WP 351 **Charge-State and Sodium Adduct Deconvolution of MALDI MS Spectra for Improved Diagnosis**; Jon G. Wilkes¹; M. Paul Chiarelli²; Ricky D. Holland¹; Xiaomei

Gu²; Dan A. Buzatu¹; ¹National Center for Toxicological Research, Jefferson, AR; ²Loyola University, Chicago, IL

COMPUTER APPLICATIONS: LABORATORY INFORMATION MANAGEMENT

- WP 352 **Optimizing Laboratory Efficiency by using an Automated Processing and Acquisition Management System**; Scott J Campbell¹; Tony Hall²; ¹SpectralWorks Ltd, Runcorn, UK; ²Hall Analytical Ltd, Manchester, UK
- WP 353 **Development of a Biomarker Software Tool: A New Tool Integrating Mass Spectrometric Data with Statistical Analysis Packages Enabling Biomarker Discovery**; Cheni Krishnan¹; Stephen Hattan¹; Shelagh Booth¹; Qing Xiao²; Ashok Dongre²; ¹Applied Biosystems, Framingham, MA; ²Bristol Myers Squibb, Pennington, NJ
- WP 354 **A Digital Interface Promotes Compliance with GLP & 21 CFR Part 11 Electronic Records Regulations**; Joel Usansky; Greg O'Neill; Kevin Lavigne; Mike Sinotte; *Thermo Electron, Philadelphia, PA*
- WP 355 **MIRION - A Data Analysis Software Package for Imaging MS**; Alfons J. Hester; Werner S. Bouschen; Arne Leisner; Kai Maass; Carmen Paschke; Bernhard Spengler; *Institute of Inorganic and Analytical Chemistry, Giessen, Germany*
- WP 356 **On-line Sample Preparation LC-MS in a 21 CFR § 11 Compliant Environment using a New Approach for Software Integration**; Tjipke de Beer; *Spark Holland, Plainsboro, NJ*
- WP 357 **21 CFR Part 11 Compliant Data Replication Strategies for LC/MS-MS & HRMS Data Acquisition Systems**; Ike D. Tabani¹; Scott R. Serl¹; Mikhail Amchislavsky¹; Robert A. Bethem²; Jim D. Lehman²; Paul B. Woolley²; Stanley C. Murakami²; Cindy E Gilaman²; Dale Schoener²; ¹Innovative Automation, Sacramento, CA; ²Alta Analytical Laboratory Inc., El Dorado Hills, CA
- WP 358 **PRIME: Proteome Research Information Management Environment For High-Throughput Proteomics Laboratories**; Philip C Andrews; David H Lentz; Panagiotis G Papoulias; *University Of Michigan, Ann Arbor, MI*
- WP 359 **A Software Shell for MS Data Conversion and Database Submission of MS Data**; Yang Su; Sequin Huang; Hua Huang; David H Perlman; Claire Dauly; Catherine E Costello; Mark E McComb; *Boston University School of Medicine, Boston, MA*
- WP 360 **Does a Laboratory Information Managing System (LIMS) for Proteomics Laboratories Need to be Customized?**; Jermaine O. Rouson; Timothy J. Kirksey; Maria E. R. Warren; Christoph H. Borchers; *UNC-CH, Chapel Hill, NC*
- WP 361 **High Throughput Mass Spectrometric Protein Identification Workflow in an Academic Environment**; Stefaan Van Damme; Kris Laukens; Peter Deckers; Eddy Esmans; Harry Van Onckelen; Walter Van Dongen; Filip Lemiere; Erwin Witters; *University of Antwerp, Antwerp, Belgium*
- WP 362 **Browser for Open Mass Spectrometry Search Algorithm (OMSSA)**; Ming Xu; Leiws Y. Geer; Stephen H Bryant; *NCBI/NLM/NIH, Bethesda, MD*
- WP 363 **Proteomics Data Platform to Integrate Disparate Laboratory Data Pools**; James DeGreef; *GenoLogics Life Sciences Software Inc., Victoria, BC Canada*
- WP 364 **CANDI – A Software Suite for the Masses**; Mark F Bean; Bill Schmidt; Bill Wolff; Rob Clark; Qian K Jin; Mark E Hemling; *GlaxoSmithKline, Colledgeville, PA*

BIOINFORMATICS: PEPTIDE IDENTIFICATION SOFTWARE & TECHNIQUES

- WP 365 **Automated de novo Sequencing using Tof-Tof Tandem MS Data**; Jennifer Locke¹; Jason Rogalski¹; Lei Guo³; Bin Ma²; Juergen Kast¹; Gilles Lajoie²; ¹University of British Columbia, Vancouver, BC, Canada; ²University of Western Ontario, London, ON, Canada; ³Bioinformatics Solutions Inc., Waterloo, ON, Canada
- WP 366 **Robust Accurate Identification of Peptides (RAID): Deciphering MS/MS data using a Structured Library Search with de novo based Statistics**; Gelio Alves; Yi-Kuo Yu; *NCBI/NLM/NIH, Rockville, MD*
- WP 367 **Improved Identification of Proteins from Fragment Ion Spectra using Machine Learning in Proteomics**; King Wai Lau; Jennifer Lynch; Thomas MacLaughlin; Josip Lovric; Ben Stapely; Simon Gaskell; Hujun Yin; Simon Hubbard; *University of Manchester, Manchester, UK*
- WP 368 **Comparison of Tandem Mass Spectrometry Search Engines - Mascot vs. X!Tandem**; Douglas A. Whitten; Brett S. Phinney; Curtis G. Wilkerson; Charles Ngowe; *Michigan State University, East Lansing, MI*
- WP 369 **Proteome Analyses of LC/MS/MS Data using Multiple Search Engines**; Xiaoyu Yang¹; Lewis Y. Geer²; Anthony J. Makusky¹; Wenyao Shi¹; Jeffrey A. Kowalak¹; Sanford P. Markey¹; ¹National Institute of Mental Health, Bethesda, MD; ²National Center for Biotechnology Information, Bethesda, MD
- WP 370 **Software for Protein Identification by MALDI-TOF MS of Microwave-Assisted Acid Hydrolyzed Proteins**; Weijie Yang; Cunjie Zhang; Bin Ma; Gilles Lajoie; *University of Western Ontario, London, ON, Canada*
- WP 371 **Improving the de novo Sequencing Accuracy by Combining Two Independent Scoring Functions in PEAKS Software**; Bin Ma; Gilles Lajoie; *University of Western Ontario, London, ON, Canada*
- WP 372 **Peptide Identification in an LC FT-ICR MS Analysis Based on Ultrahigh Accuracy Mass Measurements and Retention Times**; Corey M. Yanofsky¹; Alexander W. Bell¹; Souad Lesimple¹; Frank Morales¹; TuKiet T. Lam²; Greg T. Blakney³; Alan G. Marshall³; Brian Carrillo¹; Christian E. H. Beaudrie¹; Jian Liu¹; Daniel Boismenu¹; Robert E. Kearney¹; ¹McGill University, Montreal, Canada; ²WM Keck Foundation Biotechnology Resource Lab, New Haven, CT; ³Florida State University, Tallahassee, FL
- WP 373 **New Database-Independent, Sequence-Tag-Based Scoring of Peptide MS/MS Data Validates Mowse scores, Recovers Below-Threshold Data and Singles Out Modified Peptides**; Mikhail M Savitski; Michael L Nielsen; Roman A Zubarev; *Uppsala University, Uppsala, Sweden*
- WP 374 **Verification of Single-Peptide Protein Identifications by Application of Complementary Database Search Algorithms**; James G. Rohrbough; Linda Brecci; Nirav Merchant; Paul A. Haynes; *University of Arizona, Tucson, AZ*
- WP 375 **Identification of Proteins from a Hibernating Mammal using Mass Spectrometry and Multiple Database Search Programs**; LeeAnn Higgins¹; Kevin Russeth²; Matthew T. Andrews²; ¹University of MN, St. Paul, MN; ²University of MN Duluth, Duluth, MN
- WP 376 **De novo Peptide Sequencing using Ion-Peak Intensity and Cleavage Intensity Ratio from MS/MS Spectrum**; Mitsuhiro Kanazawa¹; Hisae Anyoji²; Atsushi Ogiwara³; Umpei Nagashima⁴; ¹University of Tsukuba, Ibaraki, Japan; ²Medical ProteoScope Co., Ltd., Tokyo, Japan;

- WP 377 ³Tokyo Medical University, Tokyo, Japan; ⁴National Institute of Advanced Industrial Science, Ibaraki, Japan
Use of Multiple Peptide Identification Programs to Increase Peptide and Protein Identifications in Human Whole Saliva; Phillip A. Wilmarth¹; Brian C. Searle²; D. Leif Rustvold¹; Michael A. Riviere¹; Larry L. David¹; ¹Oregon Health & Science University, Portland, OR; ²Proteome Software, Inc., Portland, OR
- WP 378 **Platform for Proteomic Analysis using Real-time Analysis of Peptide Sequence Followed by 157nm Photodissociation;** Noah P. Christian; Kirk S. Boraas; Sean Stryker; James P. Reilly; *Indiana University, Bloomington, IN*
- WP 379 **Assessment of an Amalgamative Approach to Protein Identification;** Iain J. Rogers; *Bioinformatics Solutions Inc., Waterloo, Canada*
- WP 380 **Improvements to SEQUEST Database Search Algorithm for Accurate Mass Support and Improved Phosphorylation Searching;** Rovshan G. Sadygov; Jim Shofstahl; Andreas Huhmer; *ThermoElectron Corporation, San Jose, CA*
- WP 381 **Bioinformatics Solutions for Proteomics;** Herbert Thiele¹; Gerhard Körting²; Jörg Glandorf¹; Jens Vagts¹; Daniel Chamrad²; Ralf Reinhard²; Martin Blüggel²; ¹Bruker Daltonik GmbH, Bremen, Germany; ²Protagen, Dortmund, Germany
- WP 382 **Some Recent Enhancements to Protein Prospector;** Peter R Baker; Robert J Chalkley; Jonathan Trinidad; Alma L Burlingame; *University of California, San Francisco, CA*
- WP 383 **Analysis of Shotgun Proteomics Datasets using Peptide Spectral Libraries;** Barbara E Frewen; Gennifer E Merrihew; Michael J MacCoss; *University of Washington, Seattle, WA*
- WP 384 **De novo Peptide Interpretation Based on Probability Profile Method: Comparison with SEQUEST;** Andrey Gorin; Nikita D. Arnold; Robert M. Day; Tema Fridman; *Oak Ridge National Laboratory, Oak Ridge, TN*
- WP 385 **Use of an Improved Peak Intensity Prediction Model as a Secondary Filter to Improve Peptide Mass Fingerprint Database Search Results;** Konstantinos Thalassinou; Susan E. Slade; James H. Scrivens; *University of Warwick, Coventry, United Kingdom*
- WP 386 **A Novel Spectra Processing Algorithm for MALDI TOF/TOF Fragment Spectra For Automated Protein Identification;** Marc Gentzel; Matthias Wilm; *EMBL Heidelberg, Heidelberg, Germany*
- WP 387 **ID-ZOOMER: an Integrated Software to Manage MALDI-TOF PMF and ESI-MS/MS Parallel Probe Processing in the Off-Line Molecular Scanner Mode;** Andrey Lisitsa¹; Yurii Koptsov¹; Herbert Thiele²; Alexander Archakov¹; ¹Institute of Biomedical Chemistry, Moscow, Russia; ²Bruker Daltonik GmbH, Bremen, Germany
- WP 388 **BUPID: Probability-Based Protein Identification by Searching Sequence Databases using Peptide Mass Fingerprint Data;** Weiwei Tong¹; Mark E. McComb¹; David Perlman¹; Hua Huang¹; Peter B. O'Connor¹; Catherine E. Costello¹; Zhiping Weng²; ¹Boston University School of Medicine, Boston, MA; ²Boston University, Boston, MA
- WP 389 **A Statistical Model for Estimating Reliability of Peptide Identifications using Mascot;** Jian Liu¹; Chrisitan E.H. Beaudrie¹; Corey Yanofsky¹; Brian Carrillo¹; Daniel Boismenu²; Frank R Morales¹; Alexendar Bell²; Robert E Kearney¹; ¹McGill University, Montreal, Quebec, Canada; ²RPMPN, Montreal, Quebec, Canada
- WP 390 **Protein Results Parser – Combining and Comparing Multiple Tandem Mass Spectrometry Protein Database Search Results;** Randy J. Arnold; Kiran Annaiah; Milos V. Novotny; *Indiana University, Bloomington, IN*
- WP 391 **Simultaneous Fragmentation of Multiple Peptides by High Performance ESI-oeTOF coupled with Advanced Software Algorithm for Peptide Deconvolution and Protein Identification;** Jayson A Falkner¹; Michael Flanagan²; Donghui Yi²; Philip Andrews¹; ¹University of Michigan, Ann Arbor, MI; ²Agilent Technologies, Santa Clara, CA
- WP 392 **Identification of Multiple Peptides from a Single MS/MS Spectrum;** Ignat V. Shilov; Alex V. Loboda; Alpesh A. Patel; Sean L. Seymour; Wilfred H. Tang; Sean P. Keating; Christie L. Hunter; Daniel A. Schaeffer; *Applied Biosystems|MDS Sciex, Foster City, CA*
- WP 393 **InProID: an Integrated Protein Identification System;** Irina Fedulova¹; Sergey Pevtsov¹; Mingwu Zhang²; Zheng Ouyang²; Sunil Prabhakar²; Xiang Zhang²; ¹Lomonosov Moscow State University, Moscow, Russian; ²Purdue University, West Lafayette, IN
- WP 394 **An Algorithm for Sequence Searching of Peptide Spectra Generated via Electron Transfer Dissociation;** Lewis Y. Geer¹; Dina L. Bai²; Jeffrey Shabanowitz²; Jeffrey A. Kowalak³; Sanford P. Markey³; Stephen H. Bryant¹; Donald F. Hunt²; ¹National Library of Medicine, Bethesda, MD; ²University of Virginia, Charlottesville, VA; ³National Institute of Mental Health, NIH, Bethesda, MD
- WP 395 **PepSeeker: A Database of Peptide Identifications from Tandem Mass Spectra;** Thomas McLaughlin; Jennifer Lynch; King-Wai Lau; Simon J Gaskell; Simon J Hubbard; *University of Manchester, Manchester, UK*
- WP 396 **Identification of Peptides using High Quality Reference MS/MS Spectra;** Lisa E. Kilpatrick¹; Pedatsur Neta¹; Jeri Roth²; Stephen Stein¹; ¹NIST, Gaithersburg, MD; ²NIH, Bethesda, MD
- WP 397 **An Algorithm to Analyse Mass Spectra of the Successive C-Terminal Amino Acid Truncation Reaction;** Hiroaki Torii; Kenji Miyazaki; Kenichi Kamijo; Akira Tsugita; *NEC Corporation, Ibaraki, Japan*
- WP 398 **Rapid Determination of Precursor Ion Charge State in Low-Resolution Mass Spectrometry;** Aaron A Klammer¹; Christine C Wu²; Michael MacCoss¹; William Noble¹; ¹University of Washington, Seattle, WA; ²University of Colorado, Denver, CO
-
- PEPTIDES: GENERAL**
- WP 399 **Improved Peptide ID using a New Isotope Correlation Filter Algorithm;** Melvin A. Park; Kory Morrow; Ze Zhang; Catherine Stacey; Thomas Knudsen; *Bruker Daltonics, Inc., Billerica, MA*
- WP 400 **Investigation of Gas Phase Dissociation Pathways of Lys-Lys Crosslinked Peptides: Influence of Crosslinker Identity and Position;** Sara P. Gaucher; Masood Z. Hadi; Malin M. Young; *Sandia National Laboratories, Livermore, CA*
- WP 401 **Assignment of Peptide Sequences to FTICRMS-Derived Accurate Mass Features using Relative Chromatographic Elution Landmarks;** Jacob D. Jaffe¹; Kyriacos C. Leptos¹; Debbie Lindell²; Sallie W. Chisholm²; George M. Church¹; ¹Harvard Medical School Dept. of Genetics, Boston, MA; ²MIT Dept. of Civil and Environmental Engineering, Cambridge, MA
- WP 402 **Evaluation of a Peptidyl-Lys Metalloendopeptidase from *Grifola frondosa* for Routine Protein Analysis by Mass Spectrometry;** Jun Liu; Ling Chen; Pau-Miau Yuan; *Applied Biosystems, Foster City, CA*

- WP 403 **CID Identified as a Significant Source of Variation in the SRM Analysis of a Peptide Biomarker using Stable Isotope Dilution**; Michael J. Berna; Bradley L. Ackermann; Christopher A. Schmalz; Kevin L. Duffin; *Eli Lilly and Company, Greenfield, IN*
- WP 404 **Simultaneous Identification and Relative Quantitation of Intact Peptide Hormones by nanoLC-FT-IT MSn and DeCyder MS(TM)**; Steven W. Taylor¹; Nancy L. Andon¹; James M. Bilakovics¹; Harald Pettersen²; Carolyn Lowe¹; Richard A. Pittner¹; Soumitra S. Ghosh¹; ¹*Amylin Pharmaceuticals Inc., San Diego, CA*; ²*GE Healthcare Bio-sciences, Uppsala, Sweden*
- WP 405 **Quantitative Analysis of Mediator Stoichiometry**; Andrew C. Paoletti; Tari J. Parmely; Shigeo Sato; Chierir Tomomori-Sato; Laurence Florens; Michael, P. Washburn; Ronald, C. Conaway; Joan, C. Conaway; *Stowers Institute for Medical Research, Kansas City, MO*
- WP 406 **Mass Spectrometry of Regio-Specifically-¹³C-Labeled Phenylalanine**; Hiroshi Hatase; Mitsuhiro Nakamura; Yoko Ohashi; Takashi Hirano; Shojiro Maki; Haruki Niwa; *The University of Electro-Communications, Chofu, Tokyo, Japan*
- WP 407 **Identification of C-Terminal Peptide Fragments of Parathyroid Hormone in Human Plasma at Low pM Levels by Mass Spectrometry**; Chao-Xuan Zhang; Brittney Weber; Jerdravee Thammavong; Thomas Grover; David Wells; *NPS Pharmaceuticals, Salt Lake City, UT*
- WP 408 **Single Photon Ionization of Derivatized Peptides with a Fluorine Laser**; Praneeth D. Edirisinghe¹; Jerry F. Moore²; Michael J. Pellin¹; Luke Hanley¹; ¹*University of Illinois, Chicago, IL*; ²*Argonne National Laboratory, Argonne, IL*
- WP 409 **Use of MALDI-QqTOFMS of Tryptic Peptides to Assess Incorporation of Heavy Isotopes into Protein Samples for NMR Studies**; Lynda J. Donald; Kajal Choudhary; Victor L. Spicer; Harry W. Duckworth; Werner Ens; Kenneth G. Standing; *University of Manitoba, Winnipeg, Canada*
- WP 410 **Detection of C-Terminal Peptide Amidation by Enzymatic Digestion and by In-Source Fragmentation using the Q-Trap Mass Spectrometer**; Kevin M McCowen; Kathrin Copley; *Amylin Pharmaceuticals, Inc., San Diego, CA*
- WP 411 **Direct Combination of Isotope Ratio Monitoring and Electrospray Ionization Mass Spectrometry in Peptide/Proteins Metabolic Studies**; Paolo Lecchi¹; Ricardo E Perez¹; Matthew Olson²; Alessandra C Rovescalli²; ¹*George Washington University, Washington, DC*; ²*National Institutes of Health, Bethesda, MD*
- WP 412 **MALDI and DIOS Analysis for Cysteine Sulfonic Acid Containing Peptide**; Tomoya Kinumi¹; Yukiyasu Shimomae²; Ryuichi Arakawa²; Yasushi Shigeri¹; Yoshiro Tatsu¹; Etsuo Niki¹; ¹*Natl Inst of Advanced Industrial Sci & Tech, Osaka, Japan*; ²*Kansai University, Osaka, Japan*
- WP 413 **Biomarker Discovery for Type 2 Diabetes using Differential Peptidomics**; Haihong Zhou¹; Hua Lin¹; Gary Frenzel²; Thomas A. Shaler¹; Sushmita Roy¹; Praveen Kumar¹; Jeffery Sakofsky¹; Christopher H. Becker¹; ¹*SurroMed-PPD, INC, Menlo Park, CA*; ²*PDL, Fremont, CA*
- WP 414 **LC-MS/MS Analysis of Complex Mixtures of Neuroactive Peptides from the Venom of Cone Snails**; Victor S. Asirvatham; Paula Borges; Aldo Franco; Frank Mari; *Florida Atlantic University, Boca Raton, FL*
- WP 415 **Sensitive Phosphopeptide Analysis: Selective Extraction and Injection of Phosphopeptides using Capillary Electrophoresis (CE) Coupled ESI-MS**; Jennifer N.M. Ballard; Haixia Zhang; Cunjie Zhang; Ken K.-C. Yeung; Gilles A. Lajoie; *University of Western Ontario, London, ON Canada*
- WP 416 **Accurate Mass Measurements of Peptides Immobilized on SAMs by High Resolution Fourier Transform Mass Spectrometry**; Maricor Batoy¹; Idris Karagoz²; Jacob Kaufman¹; Milan Mrksich²; Charles L. Wilkins¹; ¹*University of Arkansas, Fayetteville, AR*; ²*University of Chicago, Chicago, IL*
- WP 417 **A Specific and Sensitive Quantitative Method for the Determination of Urinary C-Reactive Protein by μ LCMS**; Mike Aguiar¹; Ying Ge¹; Robert Masse¹; Bernard F. Gibbs¹; ¹*Applied R&D, MDS Pharma Services, Montreal, Canada*; ²*McGill University, Montreal, Canada*
- WP 418 **Improved Spectral Quality in LC-MS Peptide Analysis using Ultra Small Particle Chromatographic Packings**; Thomas E. Wheat; Beth L. Gillece-Castro; Eric S. Grumbach; Paul R. Rainville; Uwe D. Neue; Jeffrey R. Mazzeo; *Waters Corporation, Milford, MA*
- WP 419 **Comparison of Ion Pairing Agents in Protein Digest Cleanup and Analyzed by MALDI-TOF**; Doreen Pippen¹; William Hudson¹; George Tarr²; ¹*Varian, Lake Forest, CA*; ²*Pproseeg, Hamilton, MA*
-
- PEPTIDES: POSTTRANSLATIONAL MODIFICATIONS**
-
- WP 420 **Using High Resolution Mass Spectrometry to Map Backbone Modifications of the MARCKS Protein**; Kellie A. Woodling; Iman Al-Naggar; Hazel Tapp; Stanley Stevens; John R. Eyley; Arthur S. Edison; Michael R. Bubb; *University of Florida, Gainesville, FL*
- WP 421 **Structural and Post Translational Modification Analysis by MALDI Orthogonal-TOF MS**; Chris Lynch¹; Scott Kuzdzal¹; Lisa Sapp¹; Tillmann Ziegert¹; Alexandre Lobada²; Suzanne Ackloo²; ¹*PerkinElmer, Shelton, CT*; ²*MDS SCIEX, Concord, ON, Canada*
- WP 422 **Characterization of Phosphopeptides with Electron Detachment Dissociation FT-ICR Mass Spectrometry**; Hye Kyong Kweon; Kristina Håkansson; *University of Michigan, Ann Arbor, MI*
- WP 423 **Proteomics of Mitochondrial Phosphoproteins using Improved IMAC and Nano-HPLC/MS/MS/MS**; Jaecik Lee; Yingda Xu; Yue Chen; Sung Chan Kim; Yingming Zhao; *UT Southwestern Medical Center, Dallas, TX*
- WP 424 **Identification of Post-Translational Modifications on the Guanine Nucleotide Exchange Factor, RCC1 by CAD and ETD Mass Spectrometry**; Tara L. Muratore; Ting Chen; Beatrix Ueberheide; Joshua J. Coon; Jeffrey Shabanowitz; Ian G. Macara; Donald F. Hunt; *University of Virginia, Charlottesville, VA*
- WP 425 **O-Linked Hexosamine Modification Discovery and Localization using Multiple Marker Ions and Spectral Correlation**; Jason C Rogalski; Matthew J Sniatynski; Jason R Grant; Juergen Kast; *Biomedical Research Centre, Vancouver, Canada*
- WP 426 **Titanium Dioxide Columns for Selective Enrichment and Chromatographic Separation of Phosphopeptides**; David R. Craft¹; Dan Y. Chen²; John D. Brennan²; Devanand M. Pinto¹; ¹*NRC-IMB, Halifax, Canada*; ²*McMaster University, Hamilton, Canada*
- WP 427 **Comparison of Phospho-Peptide Identification Capabilities of Three Different Mass Spectrometers**; Chad D. Walls¹; Dariusz J. Janecki¹; Ross R. Cocklin²; Tony J. Tegeler¹; Mu Wang¹; ¹*Indiana Centers for Applied Protein Sciences, Indianapolis, IN*; ²*Dept of Biochemistry and Molecular Biology (IUSM), Indianapolis, IN*
- WP 428 **Combination of Ergodic and Non-Ergodic Ion Activation, New Approach for PTM-Peptide Identification**; Andreas Brekenfeld; Thorsten Ledertheil;

- Markus Lubeck; Carsten Baessmann; Ralf Hartmer; *Bruker Daltonik GmbH, Bremen, Germany*
- WP 429 **Analysis of Adiposome Phosphoproteins using Improved IMAC and Nano-HPLC/MS/MS/MS;** Yingda Xu; Jaeick Lee; Yue Chen; Sung Chan Kim; Pingsheng Liu; Richard Anderson; Yingming Zhao; *UT Southwestern Medical Center, Dallas, TX*
- WP 430 **Dynamic Collision Energy Switching on Q-TOF Instruments for Specifically Scanning for Different Types of Secondary Protein Modifications Simultaneously;** Ricarda Niggeweg; Matthias Wilm; *EMBL, Heidelberg, Germany*
- WP 431 **Identification of Phosphorylation Motifs in Insulin Receptor Substrate (IRS)-1 by Hypothesis-Driven HPLC-ESI/MS/MS;** Zhengping Yi; Moulun Luo; Christopher A. Carroll; Susan T. Weintraub; Lawrence J. Mandarino; *University of Texas Health Science Center, San Antonio, TX*
- WP 432 **Analysis of Peptides and Proteins Containing 3-Nitrotyrosine by MALDI-Linear Ion Trap Mass Spectrometry;** Zhiqi Hao¹; Rosa Viner¹; Andreas F. Hühmer¹; Victor S. Sharov²; Christian Schöneich²; ¹*Thermo Electron Corporation, San Jose, CA;* ²*University of Kansas School of Pharmacy, Lawrence, KS*
- WP 433 **Characterization of a Variant Form of Prealbumin by Mass Spectrometry: Potential Early Marker for Drug Induced Toxicity;** Annette R. Erskine; Kristen D. Herring; Michelle L. Reyzer; Lisa J. Zimmerman; Gregory R. Wernke; Richard M. Caprioli; *Vanderbilt University, Nashville, TN*
- WP 434 **LC and LC/MS Analyses of Post-Translational Modifications of Proteins using Bonded Phases with Unique Selectivity;** Ritu Arora; Guang Qing Li; Chris Lee; Dennis D. Blevins; *Varian Inc., Lake Forest, CA*
- WP 435 **Fragmentation Patterns and Chromatographic Changes of Peptides Containing Commonly Occurring Co- and Posttranslational Modifications;** Surendra Dasari; Phillip A. Wilmarth; D. Leif Rustvold; Matthew J. Rodland; Ashok P. Reddy; Larry L. David; Srinivasa R. Nagalla; *Oregon Health & Science University, Portland, OR*
- WP 436 **A Multiplexed Technique for Comprehensive Post-Translational Modification Screening on a Hybrid Triple Quadrupole/Linear Ion Trap Instrument;** Mike D Hoffman¹; Jason C. Rogalski¹; Yves Le Blanc²; Juergen Kast¹; ¹*University of British Columbia, Vancouver, BC, Canada;* ²*MDS Sciex, Concord, ON Canada*
- WP 437 **Identification of Protein Ubiquitination by Electrospray Tandem Mass Spectrometric Analysis of Sulfonated Tryptic Peptides;** Dongxia Wang; Dario Kalume; Sara C. McGrath; Akhilesh Pandey; Robert J. Cotter; *Johns Hopkins University School of Medicine, Baltimore, MD*
- WP 438 **Tandem High Resolution Mass Spectrometry of Glycopeptide Anions;** Julie T. Adamson; Kristina Håkansson; *University of Michigan, Ann Arbor, MI*
- WP 439 **Electron Transfer Ion/ion Reactions and Collision-Induced Dissociation in an Electrodynamic Ion Trap: Complementary Structural Information for Glycopeptide Analysis;** Jason M. Hogan¹; Sharon J. Pitteri¹; Paul A. Chrisman²; Scott A. McLuckey²; ¹*BIATECH, Bothell, WA;* ²*Purdue University, West Lafayette, IN*
- WP 440 **Enhanced Detection of Post-Translational Modifications on Peptides; Application of Enhanced Duty Cycle Function on a Quadrupole-Time of Flight Mass Spectrometer;** Iain Campuzano; Mark Ritchie; James Langridge; Therese McKenna; *Waters MS technologies centre, Manchester, UK*
- WP 441 **On-line Identification and Characterization of Glycopeptides in a Single Run using a Hybrid Linear Ion Trap – FTICR Mass Spectrometer;** Scott M. Peterman; Joseph J. Mulholland; *Thermo Electron Corporation, Somerset, NJ*
- WP 442 **Differentiation of Phosphorylated and Sulfated Peptides using Novel API-Qq-TOF Technology;** Matthias Pelzing; Oliver Raether; Uwe Demelbauer; Christian Neusuess; *Bruker Daltonik GmbH, Bremen, Germany*
- WP 443 **Identification of Post-Translational Modifications in Human Cerebrospinal Fluid (CSF) using Hybrid Triple Quadrupole/Linear Ion Trap Mass Spectrometer;** Dariusz J. Janecki; Tony J. Tegeler; Jinsam You; *Indiana Centers for Applied Protein Sciences, Indianapolis, IN*
- WP 444 **Identification of N-Terminal Acetylation and Ubiquitination of ERK3 and the Cell Cycle Inhibitor p21 using NanoLC-MS-MS;** Eric Bonneau; Philippe Coulomb; Sylvain Meloche; Pierre Thibault; *Institute for Research in Immunology and Cancer, Montreal, QC, Canada*
- WP 445 **Targeting the Phosphotyrosine Proteome using an Immobilized Metal Affinity Chromatography Spin Column and MALDI Matrix Optimization for Mass Spectrometric Enhancement;** Jessica M Moeller; John G. Dapron; Ned Watson; Justin Wildsmith; Graham B. I. Scott; *Sigma-Aldrich Biotechnology, Saint Louis, MO*
- WP 446 **Mass Spectrometry Provides Evidence for an Unusual Cross-Linked Cofactor in a Bacterial Catalase-Peroxidase;** Katalin F. Medzihradzky; Reza Ghiladi; Paul Ortiz de Montellano; *UCSF, San Francisco, CA*
- WP 447 **Discovering Protein Modifications By De novo/MS Blast;** Xunming Chen¹; Marvin Vestal²; Philip Ross¹; Stephen Hattan¹; Philip Savickas¹; Darryl Pappin¹; ¹*Applied Biosystems, Inc., Framingham, MA;* ²*Virgin Instrument, Framingham, MA*
- WP 448 **Novel Application of Psuedo-MS³ to the Detection and Quantitation of Glycopeptides in Complex Mixtures;** Joseph J. Mulholland; Scott M. Peterman; Kevin J. McHale; *Thermo Electron Corp., Somerset, NJ*
- WP 449 **P.Quant: Software for Quantitative Mapping of Posttranslational Modifications without Stable Isotope Labeling;** Adrian Pasculescu; Chris Smith; Inna Falikovitch; Rod Taylor; Paul Taylor; Alexandre Zougman; *Protana Inc., Toronto, Canada*
- WP 450 **A Case Study: Identification of Three Phosphorylation Sites of Adenoviral E1A-Binding Protein (p300) by LC-ESI-MS/MS;** Cunjie Zhang¹; Amanda Doherty-Kirby¹; J. Larry Campbell¹; Michael Kahn²; Kathy Emani²; Gilles Lajoie¹; ¹*University of Western Ontario, London, Ont. Canada;* ²*University of Washington, Seattle, WA*
- WP 451 **Organism Specific Computational Identification of Post-Translational Modifications;** Jane Razumovskaya¹; Tema Fridman⁴; Nathan Verberkmoes¹; Greg Hurst²; Brad Strader³; Ed Uberbacher²; ¹*Genome Science and Technology, Knoxville, TN;* ²*Life Sciences Division, Oak Ridge, TN;* ³*Chemical Sciences Division, Oak Ridge, TN;* ⁴*Computer Science and Mathematics Division, Oak Ridge, TN*
- WP 452 **Detecting Isoaspartyl Residues in Proteins by Electron Capture Dissociation;** Jason J Courmover¹; Cheng Lin¹; Lucy Waskell²; Peter B O'Connor¹; ¹*Boston University School of Medicine, Boston, MA;* ²*University of Michigan, Ann Harbor, MI*

- WP 453 **Tandem Excitation Technique for Sequencing Biomolecules with Labile Post-Translational Modifications in Vibrational Cooling (VC) MALDI FTMS;** Bogdan A. Budnik¹; Judith A. Jebanathirajah²; Hanno Steen²; Catherine E. Costello¹; Peter B. O'Connor¹; ¹Boston University School of Medicine, Boston, MA; ²Harvard Medical School, Boston, MA
- WP 454 **Determination of Phosphorylation Sites of a Microtubule-Association Protein by Combining CAD and ECD Mass Spectrometry;** Gabriela Grigorean; Kathryn Lilley; *University of Cambridge, Cambridge, UK*
-
- PROTEOMICS: LOWER ORGANISMS**
- WP 455 **Exploring Fungal Spores by Mass Spectrometry;** Miroslav Sule¹; Ales Ulrych¹; Alexandr Jegorov²; Martin Zabka³; Vladimir Havlicek¹; ¹Institute of Microbiology, Prague, Czech Republic; ²IVAX-Pharmaceuticals, Ceske Budejovice, Czech Republic; ³University of Southern Bohemia, Ceske Budejovice, Czech Republic
- WP 456 **Proteomics of Partially Digested Tomato Plant Leaves from the Gut of Hornworms;** Jason A Kuchar; Brett Phinney; Greg Howe; *Michigan State University, East Lansing, MI*
- WP 457 **Virulence Factor/Protein Identification and Annotation from Uncharacterized Pathogens using *De novo* Sequencing and Orthogonal MS/MS Searching;** Matthew M. Champion¹; Patricia A. DiGiuseppe²; Jeffery S Cox²; ¹Applied Biosystems, Foster City, CA; ²University of California, San Francisco, CA
- WP 458 **An Organellar Approach to Describing the Proteome of *Tetrahymena thermophila* using LC/LC-MS/MS and Mass Exclusion Lists - the Mitochondriome;** Daryl G.S. Smith¹; David F. Spencer²; Michael W. Gray²; Ronald E. Pearlman¹; K.W. Michael Siu¹; ¹York University, Toronto, Canada; ²Dalhousie University, Halifax, Canada
- WP 459 **Proteomic Analysis of the Leech CNS Response following Septic Challenge;** David Vergote¹; Eduardo R. Macagno³; Michel Salzet¹; Pierre-Eric Sautière¹; ¹UMR 8017, USTL, Villeneuve d'Ascq, France; ²University of California, San Diego, La Jolla, CA
- WP 460 **Identification of Biofilm Proteins in *Haemophilus Influenzae*;** Timothy K. Gallaher¹; Siva Wu²; Paul Webster²; Rodrigo Aguilera¹; ¹University of Southern California, Los Angeles, CA; ²House Ear Institute, Los Angeles, CA
- WP 461 **Proteomic Verification of Signal Peptide Prediction Algorithms in *Rhodospseudomonas palustris*;** W. Judson Hervey¹; Nathan C. VerBerkmoes¹; Manesh B. Shah²; Dale A. Pelletier²; Frank W. Larimer²; Gregory B. Hurst²; ¹UT-ORNL Graduate School of Genome Science, Knoxville, TN; ²Oak Ridge National Laboratory, Oak Ridge, TN
- WP 462 **Differentiating Pathogenic and Non-Pathogenic Strains of *Escherichia coli* using Intact Protein LC/MS and an Automated Data Processing Workflow;** Scott J. Berger¹; Tracie L. Williams²; Ignatius J. Kass³; Steven M. Musser²; ¹Waters Corporation, Milford, MA; ²U.S. Food and Drug Administration, College Park, MD; ³Waters, Beverly, MA
- WP 463 **Analysis of the Cytosolic Proteome of *Halobacterium salinarum* -Implications for Genome Annotation and Differential Expression;** Andreas Tebbe; Christian Klein; Birgit Bisle; Kosta Konstantinidis; Alexander Schmidt; Friedrich Lottspeich; Frank Siedler; Beatrix Scheffer; Carolina Garcia-Rizo; Jan Wolfertz; Friedhelm Pfeiffer; Dieter Oesterhelt; *Max-Planck-Institute of Biochemistry, Martinsried, Germany*
- WP 464 **A Mass Spectrometry Based "Orfeome" Project: High Throughput Confirmation of Protein Coding Genes in *C. elegans*;** Gennifer E Merrihew; James H Thomas; Phil Green; Michael J MacCoss; *University of Washington, Seattle, WA*
- WP 465 **A Proteomic Study of Citrus Fruit Peel;** Ignacio Lliso; Brett S. Phinney; *Michigan State University, East Lansing, MI*
- WP 466 **Proteomic Analysis of the Pathogen *Salmonella typhimurium* Under Culture Conditions that Mimic Different Life-Cycle States;** Joshua N Adkins¹; Joanne Rue²; Heather M Mottaz¹; Angela D Norbeck¹; Therese RW Clauss¹; Fred Heffron²; Richard D Smith¹; ¹Pacific Northwest National Laboratory, Richland, WA; ²Oregon Health Sciences University, Portland, OR
- WP 467 **Targeted Proteomic Studies of *Methanococcus maripaludis*: Understanding Methane Regulation through Examination of Energy Transferring Hydrogenases;** Bryan A. Parks; Iris Porat; William B. Whitman; L. Jonathan Amster; *University of Georgia, Athens, GA*
- WP 468 **Affinity Isolation and Mass Spectrometric Analysis of Protein Complexes from *Rhodospseudomonas palustris*;** Gregory B. Hurst¹; Dale A. Pelletier¹; Stephen J. Kennel¹; Frank W. Larimer¹; Trish K. Lankford¹; Manesh B. Shah¹; Denise D. Schmoyer¹; Tse-Yuan S. Lu¹; Linda J. Foote¹; Cathy K. McKeown¹; W. Hayes McDonald¹; Michael B. Strader¹; ¹Oak Ridge National Laboratory, Oak Ridge, TN; ²University of Tennessee, Knoxville, TN
- WP 469 **Identification of the Cytosolic Protein Inventory and Quantitative Analysis under Different Physiological States on *Natronomonas pharaonis*;** Kosta Konstantinidis; Andreas Tebbe; Michaela Falb; Alexander Schmidt; Friedrich Lottspeich; Frank Siedler; Friedhelm Pfeiffer; Dieter Oesterhelt; *Max-Planck-Institute of Biochemistry, Martinsried, Germany*
- WP 470 **A Proteomic Survey of Multiple Stages of *Brugia malayi*, a Parasitic Nematode and the Endosymbiotic Wolbachia Bacteria;** Jack S Benner; Deana Martin; Michelle Cushing; Sanjay Kumar; *New England Biolabs, Inc., Beverly, MA*
- WP 471 **Proteome Study on Rice Responses Under Osmotic Stress;** Hong Chen²; Xiaojuan Li¹; Shihua Shen¹; Jihong Lin²; ¹Institute of Botany, CAS, Beijing, Ch; ²Shimadzu International Trading (Shanghai) Co. Ltd., Beijing, Ch
- WP 472 **Proteome Analysis of Aerobic Hyper-Thermophilic Crenarchaeon, *Aeropyrum pernix* K1, by SDS-PAGE and 2-Dimensional LC/MS/MS;** Hanako Ishikawa; Miyako Mise; Keiko Nishijima; Rie Otsuka; Jun Yamazaki; Shuji Yamazaki; Kazumi Sasaki; Shinichi Tago; *National Institute of Technology and Evaluation, Shibuya, Tokyo, Japan*
- WP 473 **Proteome Characterization of Chromium-Shocked and Chromium-Adapted *Shewanella oneidensis*;** Melissa R. Thompson¹; Nathan C. VerBerkmoes¹; Karuna Chourey³; Steven D. Brown³; Dorothea K. Thompson³; Robert L. Hettich²; ¹Genome Science and Technology, UTK, Knoxville, TN; ²OBMS, Oak Ridge National Laboratory, Oak Ridge, TN; ³ESD, Oak Ridge National Laboratory, Oak Ridge, TN
- WP 474 **Low Molecular Weight Fungal Metabolites as Specific Markers for Diagnosing of Infections Caused by Opportunistic Human Pathogens;** Ales Ulrych¹; Miroslav Sule¹; Alexandr Jegorov²; Martin Zabka³; Marian Hajduch⁴; Oleg Ditrich⁵; Vladimir Havlicek¹; ¹Institute of Microbiology, Prague, Czech Republic; ²IVAX-Pharmaceuticals, Ceske Budejovice, Czech Republic; ³University of Southern Bohemia, Ceske Budejovice, Czech Republic; ⁴Palacky University, Olomouc, Czech Republic;

⁵*Institute of Parasitology, Ceske Budejovice, Czech Republic*

PROTEOMICS: BIOMARKERS - GENERAL

- WP 475 **Proteomics and Directed Bioengineering for Lifespan Enhancement in *Drosophila melanogaster***; Renā A. Sowell; Katherine E. Hersberger; Thomas C. Kaufman; David E. Clemmer; *Indiana University, Bloomington, IN*
- WP 476 **Identification of Protein Biomarkers of Nephrotoxicity in Rat Urine**; Nancy Ng¹; Henry Duewel¹; Jian Chen¹; Moyez Dharsee¹; Yury Bukhman¹; Lingyun Yang¹; Peter Chu¹; Rob Ewing¹; Guo Dong Mao¹; Thodoros Topaloglou¹; Muriel Bellot²; Roger Burnett²; ¹*Protana, Toronto, ON, Canada*; ²*MDS Pharma Services, Lyon, France*
- WP 477 **Microtechnologies Enabling Mass Spectrometry-Based Biomarker Discovery using Microdissected Tissue Specimens**; Yueju Wang¹; Brian M. Balgley²; Paul Rudnick²; Diya Ren²; Erin L. Evans²; Zhengping Zhuang³; Fattaneh A. Tavassoli³; Cheng S. Lee¹; ¹*University of Maryland, College Park, MD*; ²*Calibrant Biosystems, Rockville, MD*; ³*National Institute of Neurological Disorders, Bethesda, MD*; ⁴*Yale University, New Haven, CT*
- WP 478 **Establishment of the Full Term Placental Chorionic Villous Proteome by 2D SDS-PAGE and Offline 2D LC**; Aaron T. Booy¹; Paula P. Pittock¹; J. Larry Campbell¹; Victor K. Han²; Gilles A. Lajoie¹; ¹*University of Western Ontario, London, ON, Canada*; ²*Children's Health Research Institute, London, ON, Canada*
- WP 479 **Predictive Multiple Reaction Monitoring for the Identification of Low-Abundance Components in Spliceosomal Protein Complexes**; Henning Urlaub¹; Christof Lenz²; Uwe Plessmann¹; Klaus Hartmuth¹; Reinhard Luehrmann¹; ¹*Max-Planck-Institute for Biophysical Chemistry, Goettingen, Germany*; ²*Applied Biosystems Europe, Darmstadt, Germany*
- WP 480 **Identification of Elastase Derived Elastin Peptides for the Use as Potential Biomarkers**; Christian H Lindh; Bo AG Jönsson; *Dep. Occupational and Environmental Medicine, Lund, Sweden*
- WP 481 **Mass Spectrometric Analysis of Eicosanoids and Proteins in Exhaled Breath Condensate**; Julia H. Bowman; Catherine E. Costello; George T. O'Connor; Robert E. Walter; *Boston University, Boston, MA*
- WP 482 **Biomarker Discovery in the Absence of Blood**; John M. Koomen¹; Christopher Wilson²; Patrick Guthrie²; Heinrich Taegtmeyer²; Ryuji Kobayashi¹; ¹*MD Anderson Cancer Center, Houston, TX*; ²*UT Medical School, Houston, TX*
- WP 483 **Identification and Characterization of the Antiproliferative Factor from the Urine of Interstitial Cystitis Patients**; Thomas P. Conrads¹; Zoltan Szekely²; Joseph J. Barchi²; Chen-Ou Zhang³; Kristopher Koch³; Christopher J. Michejda²; Timothy D. Veenstra¹; Susan K. Keay³; ¹*NCI-Frederick/SAIC-Frederick, Inc., Frederick, MD*; ²*NCI-Frederick, Frederick, MD*; ³*University of Maryland School of Medicine, Baltimore, MD*
- WP 484 **Discovery of Animal Host Protein Biomarkers in *Salmonella enterica* serovar Newport**; Tracie L. Williams; Denis Andrzejewski; Steven M. Musser; *U.S. Food and Drug Administration, College Park, MD*
- WP 485 **Potential Protein Biomarkers from Plasma Proteome Analysis of RcsX-Tumor-Bearing SJL Mice**; Vadiraja B. Bhat; Man Ho Choi; John S. Wishnok; Steven R. Tannenbaum; *Massachusetts Institute of Technology, Cambridge, MA*
- WP 486 **The Alternations in Human Bronchial Epithelial Beas-2b Cell Proteome Upon the Treatment of Trans,Trans-**

- WP 487 **2,4-Decadinal**; Yu-Chang Tyan; Hsin-Yi Wu; Pao-Chi Liao; *National Cheng Kung University, Tainan, Taiwan*
- WP 488 **Proteomic Analysis of Human Pulmonary Artery Endothelial Cells using Nano-LC-MS/MS**; Haven Baker¹; Cristhian D Ochoa²; Deborah A Quinn²; William Hancock¹; ¹*Barnett Institute, Boston, MA*; ²*Mass General Hospital & Harvard Medical School, Boston, MA*
- WP 489 **Identification of Ubiquinated Proteins in Complex Biological Samples by Immunoaffinity Purification and Tandem Mass Spectrometry**; Julian Vasilescu; Nathalie Major; Martin Ethier; Daniel Figeys; *Ottawa Institute of Systems Biology, Ottawa, Canada*
- WP 490 **Identification of Cytoplasm and Nucleoplasm Protein of Human Hepatocyte with Nanospray 2DLC/ESI/LTQ FT/MS/MS**; Shohei Shioyama; Yasuhiro Yamashita; Rieko Goto; Naoe Yamane; Hisami Murai; Zenzaburo Tozuka; *JCL Bioassay Co. Ltd., Nishiwaki, Japan*
- WP 490 **Analysis of Human Plasma Proteins by Tandem Gel Filtration and Cation Exchange Peptide Fractionation: Increasing Protein Identification Efficiency by Design**; Henry S. Duewel; Thierry Le Bihan; Ewan P. DeSilva; Chengsong Liu; Nancy Ng; *Protana Inc., Toronto, ON, Canada*

PROTEOMICS: BIOMARKERS IN BRAIN AND CSF

- WP 491 **Biomarker Search by High-Throughput Tryptic Peptide Profiling of Cerebrospinal Fluid of Patients with Multiple Sclerosis**; Marcel P Stoop; Theo M Luider; Peter A E Sillevs Smitt; Rogier Q Hintzen; *ErasmusMC, Rotterdam, The Netherlands*
- WP 492 **Decreased Expression of PEP-19 in a Mouse Model of Parkinson's Disease: Measured by NanoLC-ESI-TOF MS and MALDI Imaging MS**; Marcus Svensson¹; Anna Nilsson¹; Karl J Skold¹; Richard M Caprioli³; Per Svenningsson²; Per E Andren¹; ¹*Uppsala University, Uppsala, Sweden*; ²*Karolinska Institute, Stockholm, Sweden*; ³*Vanderbilt University, Nashville, TN*
- WP 493 **Toward Lymphoma Biomarkers: DeepLook™ Mass Spectrometry Based Expression Profiling, Identification and Validation in Cerebrospinal Fluid**; Sushmita Mimi Roy¹; Christopher H. Becker¹; Howard Schulman¹; James Rubenstein²; ¹*SurroMed, Menlo Park, CA*; ²*UCSF, San Francisco, CA*
- WP 494 **Biomarker Discovery with a Multiplex Quantitative Proteomics Platform in Human Cerebral Spinal Fluid of Patients with Various Neurodegenerative Diseases**; Fadi A Abdi¹; Joseph Quinn²; Melanie Lin¹; Joheph Jankovic³; Elaine R Peskind⁵; John Nutt²; Katherine Chung²; James Leverenze⁵; Catherine Pan⁵; Martin McIntoch⁴; Thomas Montine⁵; Jing Zhang⁵; ¹*Applied Biosystems, Framingham, MA*; ²*Oregon Health and Science University, Portland, OR*; ³*Baylor College of Medicine, Houston, TX*; ⁴*Fred Hutchison Cancer Research Center, Seattle, WA*; ⁵*University of Washington School of Medicine, Seattle, WA*
- WP 495 **Systematic Mass Spectrometry Based Approach to Biomarker Discovery in Traumatic Brain Injury**; Andrew K Ottens¹; Firas H Kobeissy¹; Erin C Golden¹; Regina A Wolper¹; William E Haskins¹; Barbara O'Steen¹; Ming Chen Liu¹; Jitendra R Dave²; Frank C Tortella²; Ronald L Hayes¹; Kevin KW Wang¹; ¹*McKnight Brain Institute of the Univ. of Florida, Gainesville, FL*; ²*Walter Reed Army Institute of Research, Silver Spring, MD*
- WP 496 **Use of Carbon-13 Peptide Standards to Quantify Enzymes of the Cyclooxygenase and Lipoygenase Pathways in Human Cerebrospinal Fluids**; Alfred N Fonteh¹; Roger G Biringier²; Andreas F Huhmer²; John Rush³; Michael G Harrington¹; ¹*Huntington Medical*

- Research Institutes, Pasadena, CA; ²Thermo Electron, San Jose, CA; ³Cell Signaling Technology, Beverly, MA
- WP 497 **Proteomic Analysis of Targets of Peroxynitrite-Mediated Protein Oxidation in Postsynaptic Density of Mouse Brain**; Stefani N. Thomas; Diane Cripps; Austin J. Yang; *University of Southern California, Los Angeles, CA*
- WP 498 **Candidate Biomarker for Vanishing White Matter Disease/ Childhood Onset Ataxia and Central Nervous System Hypomyelination**; Adeline Vanderver¹; Raphael Schiffmann²; Eric Hoffman¹; Yetrib Hathout¹; ¹Children's National Medical Center, Washington, DC; ²National Institutes of Health, Bethesda, MD
-
- PROTEOMICS: LABELING AND AFFINITY**
-
- WP 499 **Differential Labeling of Recombinant Human α (2 \rightarrow 3) Sialyltransferase with N-Acetylimidazole followed by Mass Spectrometric Analysis**; Jeremiah D Tipton; Erin Burke; David H Powell; Nicole A Horenstein; *University of Florida, Gainesville, FL*
- WP 500 **Triple Encoding SILAC Applied to Study Expression Changes of Secreted Factors During Adipocyte Differentiation**; Irina Kratchmarova; Blagoy Blagoev; Jesper V Olsen; Matthias Mann; *University of Southern Denmark, Odense, Denmark*
- WP 501 **Developing Ideal Isotopic Labels for Comparative Proteomics: Reducing Breakdown of Charged Labels During Collision Induced Dissociation**; Jihyeon Lim; Fayun Che; Lloyd Fricker; *Albert Einstein College of Medicine, Bronx, NY*
- WP 502 **Quantitative Proteomics of Human Urine by 18O-Labeling**; Ayumi Taya¹; Yoshinori Satomi¹; Kouzou Suto¹; Jorge Fernández-de-Cossio²; Toshifumi Takao¹; ¹Institute for Protein Research, Osaka University, Suita, Japan; ²Center for Genetic Engineering and Biotechnology, Havana, Cuba
- WP 503 **ALARM MS for Determination of Reactive Drug Leads, The Role of Top-Down Protein Sequencing in Elucidating Mechanisms of Reactivity**; Laura J. Miesbauer; Darlene A. Cothron; Robert J. Steffek; Richard D. Burton; Jeffrey R. Huth; Robert W. Johnson, Jr; *Abbott Laboratories, Abbott Park, IL*
- WP 504 **Mass Spectrometric Quantitation of Free Cysteine Residues in Aging Protein using a Fluorescent Reagent, ThioGlo1**; Nadezhda A. Galeva; Viktor S. Sharov; Christian Schoneich; Todd D. Williams; *University of Kansas, Lawrence, KS*
- WP 505 **Improvement of Quantitative Proteomics with 18Oxygen Incorporation: From Sample Preparation to Data Processing**; Kei Fukada; Alexis H. Vien; Haining Zhu; *University of Kentucky, Lexington, KY*
- WP 506 **Protein-Protein Interaction Studies on *Shewanella Oneidensis* MR-1**; Devi P Adhikari; Xiaoting Tang; Gerhard R Munske; James E Bruce; *Washington State University, Pullman, WA*
- WP 507 **Quantitative Analysis of the Proteome During the Cell Cycle using Stable Isotope Labeling with Amino Acids in Cell Culture**; Linfeng Wu; David K Han; *University of Connecticut Health Center, Farmington, CT*
- WP 508 **A Highly Specific Proteomic Screening Method for the Characterization of DNA Protein Interactions**; Gerhard Mittler¹; Matthias Mann²; ¹University of Southern Denmark, Odense, Denmark; ²Max Planck Institute for Biochemistry, Martinsried, Germany
- WP 509 **Determination of Stable Isotope Labeling Efficiency of Overexpressed Proteins by nLC-ESI-FTICR-MS**; Linda M Benson; Christopher J Mason; David C Muddiman; Elena Atanasova; John H Streiff; Keith A Jones; Franklyn G Prendergast; *Mayo Clinic College of Medicine, Rochester, MN*
- WP 510 **ICAT (Isotope-Coded Affinity Tag) -Based Quantification of Reversible Oxidative Post-Translational Thiol Modifications of H-Ras that Accompany its Activation**; Mahadevan Sethuraman; Nicolas Clavreul; Tyler Heibeck; Takeshi Adachi; David H Perlman; Hua Huang; Mark E McComb; Catherine E Costello; Richard A Cohen; *Boston University School of Medicine, Boston, MA*
- WP 511 **A Comprehensive Approach for the Analysis of Selected Cysteine-Targeted Modifications using Chemical Derivatization Methods and Mass Spectrometry**; Stanley M Stevens Jr; David S Barber; *University of Florida, Gainesville, FL*
- WP 512 **Effect of shRNA Knockdown of Protein Complex Subunits on Complex Formation and Quantitation using SILAC Technique**; Mahbod R. Hajivandi; John F. Leite; Xiquan Liang; Antje Taliana; Marieke Svoboda; Marshall Pope; *Invitrogen, Carlsbad, CA*
- WP 513 **Differential Proteome Analysis of Mouse Neuron Cell using Multiplexed Isobaric Tagging Method**; Kun Cho¹; Jin young Kim¹; Jeong Hwa Lee¹; Gun Wook Park¹; Kyung-Hoon Kwon¹; Sung Hyun Kang²; Seong-Eon Ryu²; Jong Shin Yoo¹; ¹Korea Basic Science Institute, Daejeon, South Korea; ²KRIBB, Daejeon, South Korea
- WP 514 **Quantitative Serum Proteomics using 18O Labeling and a Rubisco Standard**; Marek D Koter; Susan Bridges; Alejandro Corzo; Timothy Cummings; Michael Kidd; Tibor Pechan; Shane C Burgess; *Mississippi State University, Mississippi State, MS*
- WP 515 **Studies of Utility of Subtle Modification of Isotope Ratio Profiling (SMIRP) on *in-vivo* Organisms**; Jonathan E. Katz¹; Jörg Hau²; Charles A. Tindell¹; Rodrigo Aguilera³; David B. Agus¹; Julian P. Whitelegge⁴; ¹Cedars-Sinai Medical Center, Los Angeles, CA; ²Nestle Research Center, Nestec Ltd., Lausanne, Switzerland; ³University of Southern California, Los Angeles, CA; ⁴University of California, Los Angeles, CA
- WP 516 **Quantitative Proteomics: 14N/15N Metabolic Labeling in the Study of *M. acetivorans* C2A**; Lingyun Li¹; Qingbo Li²; Tomas Rejtar¹; Victor P. Andreev¹; James G. Ferry²; Barry L. Karger¹; ¹Barnett Institute and Northeastern University, Boston, MA; ²Penn State University, University Park, PA
- WP 517 **Rapid Analysis of Protein Differential Abundance using 16O/18O Labeling and MALDI-TOF Mass Spectrometer with a 2-kHz Laser**; Eugene Moskovets¹; Jan Preisler²; Tomas Rejtar¹; Hsuan-shen Chen¹; Viktor Andreev¹; Barry L. Karger¹; ¹Northeastern University, Boston, MA; ²Masaryk University, Brno, Czech Republic
- WP 518 **Increasing Coverage and Confidence in Protein Identifications from Complex Samples using Microfluidic Nano LC/MS/MS**; Christine A. Miller; Bryan D. Miller; David M. Horn; Frank E. Kuhlmann; Michael J. Manfredi; *Agilent Technologies, Inc., Santa Clara, CA*
- WP 519 **Probing Early Growth Response 1 Interacting Proteins at the Active Promoter in Osteoblast Cells using Oligoprecipitation And Mass Spectrometry**; Zhaojing Meng¹; Corinne E. Camalier²; David A. Lucas¹; Timothy D. Veenstra¹; George R. Beck Jr. ²; Thomas P. Conrads¹; ¹NCI-Frederick/SAIC-Frederick, Inc., Frederick, MD; ²NCI-Frederick, Frederick, MD
- WP 520 **Enzymatic Modification of Tyrosine Residues Utilizing**; Christopher L. Pennington; Troy D. Wood; *SUNY at Buffalo, Buffalo, NY*

WP 521 **Quantitative Proteomic Profiling of Apoptotic Mitochondria using Stable Isotope Labeling by Amino Acids in Cell Culture (SILAC);** Karim Rezaul; Sun-Il Hwang; Deborah H. Lundgren; David K. Han; *University of Connecticut Health Center, Farmington, CT*

PROTEOMICS: MEDICAL APPLICATIONS

WP 522 **Identification of the Exosome Proteome from Cultured Human Astrocytoma Cells;** Marguerite Buchanan¹; Richard Beliveau¹; Richard Desrosiers¹; Mike Aguiar²; Robert Masse²; Bernard F. Gibbs²; ¹*Universite de Quebec a Montreal, Montreal, Canada*; ²*MDS Pharma Services, Montreal, Canada*; ³*McGill University, Montreal, Canada*

WP 523 **Identification of Gene Products in Patients with Storage Pool Deficiencies using Mass Spectrometry;** Dawn M. Maynard; Meral Gunay-Aygun; William A. Gahl; *NHGRI/NIH, Bethesda, MD*

WP 524 **Identification of the Proteins Associated with CFTR Deactivation;** Leticia Sanchez¹; Alexandra Evagelidis¹; Jie Liao¹; John W. Hanrahan¹; Robert Masse²; Bernard F. Gibbs²; ¹*McGill University, Montreal, Canada*; ²*MDS Pharma Services, Montreal, Canada*

WP 525 **Characterizing Protein Expression Changes in a Cancer Cell Line: A Comparison of Gel Electrophoresis and Mass Spectrometry Based Analysis Techniques;** John F. Kelly¹; Marie-Soleil Giguère¹; Tammy-Lynn Tremblay¹; Maureen D O'Connor-McCourt²; Anne E Lenferink²; ¹*Institute for Biological Sciences, Ottawa, ON, Canada*; ²*Biotechnology Research Institute, Montreal, QC, Canada*

WP 526 **Effect of Anticoagulants and Storage on Blood Plasma Proteome Identification;** Eun-Mi Park; Kyoung-Soo Choi; Haitao Zhang; Eung-Sik Kong; Christine Ambrosone; James Marshall; Young-Mee Park; *Roswell Park Cancer Institute, Buffalo, NY*

WP 527 **Detection of Discriminatory Proteomic Patterns in Diabetic Rats;** Avalyn E. Lewis; Claire Bastie; Bintou Diouf; Jeffrey Pessin; Charles R. Iden; *State University of New York at Stony Brook, Stony Brook, NY*

WP 528 **Evaluation of the Effects of Cigarette Smoke Exposure on Lung Epithelia and the Protective Effects of Two Inhibitors using 2D-DIGE;** Christine R Rozanas¹; Jing Huang¹; Phil Beckett¹; Mamta Chawla-Sarkar²; Koustubh Panda²; ¹*GE Healthcare, Piscataway, NJ*; ²*Cleveland Clinic Foundation, Cleveland, OH*

WP 529 **Proteomic Analysis of the Human Ventricular CSF-Albumin Interactome and its Relevance to Alzheimer's Disease;** Meena Sundaramoorthy; Mark A. Lovell; Bert C. Lynn; *University of Kentucky, Lexington, KY*

WP 530 **Proteomic Identification of Cu/Zn Superoxide Dismutase as a Major Target of Oxidative Damage in Parkinson's and Alzheimer's Disease Brains;** JoungIL Choi¹; Howard D. Rees¹; Susan T Weintraub²; Allan I Levey¹; Lih-Shen Chin¹; Lian Li¹; ¹*Emory University School of Medicine, Atlanta, GA*; ²*University of Texas Health Science Center, San Antonio, TX*

WP 531 **Analysis of Contractile Phosphoproteins in the Heart;** Jennifer E. Grant; Martha M. Vestling; Jeffery W. Walker; *University of Wisconsin, Madison, WI*

WP 532 **2-D Differential Expression Mapping of Human Esophageal Premalignant and Tumor Tissue;** Chen Li; Jia Zhao; David M Lubman; *University of Michigan, Ann Arbor, MI*

WP 533 **The Proteomics Study of the Ubiquitin Proteasome System in Spinal Cord Injury;** Song Liu; Linghui Nie; Jason B. Dunsmore; Clement Echetebe; David J. McAdoo; *University of Texas Medical Branch, Galveston, TX*

WP 534 **Proteomics in Bacteria with Draft Genome Sequences: the Response of *M. haemolytica* to Sub-MIC Antibiotics;** Bindu B Nanduri; Shane C Burgess; Mark L Lawrence; *Mississippi State University, Mississippi State, MS*

WP 535 **Global Profiling of "Hodgkins Disease" using the Chicken Animal Model;** Joram J. Buza; Shane C. Burgess; *Mississippi State University, Mississippi state, MS*

WP 536 **Cataloguing The Human Sperm Proteome To Identify Targets For Male Contraception;** Joseph Wooters^{1,2}; Daniel Johnston^{1,2}; Kenneth Roberts³; Gregory Kopf^{1,2}; Yongchang Qiu^{1,2}; ¹*Wyeth Pharmaceutical, Cambridge, MA*; ²*Wyeth Pharmaceutical, Collegeville, PA*; ³*University of Minnesota, Minneapolis, MN*

WP 537 **Proteomic Analysis of an Immune Cell Line in Response to the Extract from a Herbal Medicinal Plant;** Tuan-Nan Wen¹; Jeng-Yuan Shiau²; Lie-Fen Shyur²; Ning-Sun Yang²; Wen-Chin Yang²; ¹*Institute of Botany, Academia Sinica, Taipei, Taiwan, ROC*; ²*Institute of BioAgricultural Sciences, Academia S, Taipei, Taiwan, ROC*

WP 538 **Proteomic Profiling of Human Urine using Multi-Dimensional Protein Identification Technology;** Richard A Katenhusen¹; Luwang (Andy) Zhu¹; Qinhuia (Cindy) Ru¹; David Kirchner¹; Trevor J Orchard²; Darrell L Ellsworth¹; ¹*Windber Research Institute, Windber, PA*; ²*University of Pittsburgh, Pittsburgh, PA*

WP 539 **Monitoring Tumor Margins by Histone Profiling;** Stacey R. Oppenheimer; Richard M. Caprioli; *Vanderbilt University, Nashville, TN*

PROTEOMICS: NEW METHODS

WP 540 **Novel Isotopically-Coded Crosslinkers for Studying Protein-Protein Interactions in Proteomics;** Evgeniy Petrotchenko; Christoph H. Borchers; *UNC-CH, Chapel Hill, NC*

WP 541 **Optimization of Protein Detection using Statistical Experimental Design;** Leah S. Riter¹; Olga Vitek²; Karen M. Gooding¹; Barry D. Hodge¹; Randall K. Julian, Jr. ¹; ¹*Eli Lilly and Company, Indianapolis, IN*; ²*Purdue University, West Lafayette, IN*

WP 542 **Biotinylation Signatures for the Unambiguous Identification of the Cell Surface Proteins of Prostate Cancer Cells;** Xiao-Ning Lu; Hai-Ning Zhu; *University of Kentucky, Lexington, KY*

WP 543 **The Effect of Denaturant Selection on Tryptic Digestion: Comparing Rapid Proteolysis using Trypsin Spin Columns to Traditional Solution Digestion;** Judy Boland; John G. Dapron; Jodi Zobrist; Justin Wildsmith; Graham B.I. Scott; *Sigma-Aldrich Biotechnology, St. Louis, MO*

WP 544 **Improvements in Peptide Spectral Quality and Protein Identification Confidence Levels using iTRAQTM Reagents;** Katherine Williams¹; Scott Daniels¹; Chris Lock²; Christie Hunter¹; ¹*Applied Biosystems, Foster City, CA*; ²*MDS Sciex, Toronto, Canada*

WP 545 **Accurate Mass and PIRs: A New Strategy for Systems-Level Protein Interactions;** James E. Bruce¹; Xiaoting Tang¹; Devi Adhikari¹; Gerhard Munske¹; Saiful Chowdhury¹; Harry Zhu¹; Gordon A. Anderson²; Nikola Tolic²; ¹*Washington State University, Pullman, WA*; ²*Pacific Northwest National Lab, Richland, WA*

WP 546 **Global Analysis of the Proteome in Human Pituitary Tissue by Multiple Gel-Based Technology;** Yingxin Zhao; Francesco Giorgianni; Dominic M Desiderio; Bin Fang; Sarka Beranova-Giorgianni; *University of Tennessee Health Science Center, Memphis, TN*

- WP 547 **Peptide *de-novo* Sequencing using N-Terminal Tagging and C-Terminal Digestion**; Philip L Ross; Xunming Chen; Stephen Hattan; Darryl Pappin; *Applied Biosystems, Framingham, MA*
- WP 548 **Selective and Efficient N-Terminal Amino Acid Sequencing by Bis(Terpyridine)Ruthenium(II) Labeling**; Taka-aki Okamura¹; Akihiro Ito¹; Maki Kaneko¹; Taku Iwamura¹; Minoru Yamaguchi²; Hitoshi Yamamoto¹; Norikazu Ueyama¹; Hiroki Kuyama²; Eiji Ando²; Takashi Nakazawa³; Shigemi Norioka¹; Seiki Kuramitsu¹; ¹*Osaka University, Osaka, Japan*; ²*Shimadzu Corporation, Kyoto, Japan*; ³*Nara Women's University, Nara, Japan*
- WP 549 **New Protein Interaction Reporters for Studying Protein-Protein Interactions**; Saiful M. Chowdhury; Gerhard R. Munske; Xiaoting Tang; M. Harry Zhu; James E. Bruce; *Washington State University, Pullman, WA*
- WP 550 **A Novel, Combinatorial Ligand Library used to Address Protein Dynamic Range Detection Challenges of Human Serum**; Shanhua Lin¹; Vanitha Thulasiraman¹; Steve Roth¹; Lee Lomas¹; Scot Weinberger¹; Julia Lanthrop²; David Hammond²; Egisto Boschetti¹; ¹*Ciphergen Biosystems, Fremont, CA*; ²*American Red Cross Biomedical R&D, Rockville, MD*
- WP 551 **Development of a Protein 3-Nitrotyrosine Identification Method using Solid Phase Capture**; Tyler H Heibeck¹; Mark E. McComb¹; Hua Huang¹; Christian Schoeneich²; Catherine E. Costello¹; Richard A. Cohen¹; ¹*Boston University School of Medicine, Boston, MA*; ²*University of Kansas, Lawrence, KS*
- WP 552 **A Novel Means of Identifying Specific Protein Components of Multisubunit Complexes**; J. Michael Dial; Viorel Mocanu; Maria E. R. Warren; Carol E. Parker; Christoph H. Borchers; *UNC-CH, Chapel Hill, NC*
- WP 553 **Positional Proteomics: Solving the Problem of Proteome Complexity by Selective Recovery and Analysis of N-Terminal Peptides**; Lucy McDonald; Dunaacn H.L Robertson; Jane L Hurst; Robert J Beynon; *The University of Liverpool, Liverpool, UK*
- WP 554 **iTRAQTM Labeling in Conjunction with 2D-LC and Tandem-MS to Study the Proteome and Dynamics of Excitatory Synapses in the Brain**; Kawan Li¹; Roel C. van der Schors¹; Maarten Loos¹; Sabine Spijker¹; Jianru Stahl-Zeng²³; Martin P. Hornshaw²³; August B. Smit¹; ¹*Vrije Universiteit, Amsterdam, Netherlands*; ²*Applied Biosystems, Darmstadt, Germany*; ³*Applied Biosystems, Warrington, UK*
- WP 555 **Characterizing the Regulation of Protein Complexes by *in vivo* Cross-Linking and Mass Spectrometric Protein Identification**; Peter Schubert; Juergen Kast; *University of British Columbia, Vancouver, BC, Canada*
- WP 556 **Characterization of the *S. pombe* Proteome by LC/ESI/MS/MS and a Novel Combination of Cysteine Fractionation, Performic Acid Oxidation LC/MALDI/MS/MS**; Richard J Jacob¹; Andrew Thompson²; Rainer Cramer³; ¹*University College London, London, United Kingdom*; ²*Ludwig Institute of Cancer Research, London, United Kingdom*; ³*University of Reading, Reading, United Kingdom*
- WP 557 **Analysis of Intact Proteins Isolated from Dissolvable SDS-PAGE Gels**; Peter M. Romanowski; Juergen Kast; *Biomedical Research Centre, Vancouver, BC, Canada*
- WP 558 **Antibody Arrays for Protein Quantification by Mass Spectrometry**; Ivo G Gut¹; Nelly Papin¹; Diane Lebeau¹; Ekaterina Darii¹; Alla Rubina²; Andrei Stomakhin²; Alexander Zasedatelev²; ¹*CNG, Evry, France*; ²*EIMB, Moscow, Russia*
- WP 559 **Proteomic Approach to Study *Cenibacterium Arsenoxidans* Arsenic Resistance using *de novo* Sequencing and Cross-Species Protein Identification**; Christine Carapito¹; Daniel Muller²; Evelyne Turlin³; Alain Van Dorsselaer¹; Philippe Bertin²; Emmanuelle Leize¹; ¹*Laboratoire de Spectrométrie de Masse Bioorganique, Strasbourg, France*; ²*LDEEG, Université Louis Pasteur, Strasbourg, France*; ³*Institut Pasteur, Paris, France*
- WP 560 **Comprehensive Sizing of Membrane Protein Complexes using Isotope Encoded Quantitation of Polypeptides**; Nicholas T Hartman; Kathryn S Lilley; Paul Dupree; *University of Cambridge, Cambridge, UK*
- WP 561 **Estimating Tandem Mass Spectra Quality via Spectral Feature-Based Scoring For Optimizing Protein Identification**; Christian E.H. Beaudrie¹; Corey Yanofsky¹; Brian Carrillo¹; Jian Liu¹; Frank Morales²; Daniel Boismenu²; Robert E. Kearney¹; ¹*McGill University, Montreal, QC, Canada*; ²*RPMPN, Montreal, QC, Canada*
- WP 562 **ASC_GLY_GEL: A New Reagent for the Selective Characterization of Glycoproteins on 2D Gel**; Mohammed Kajjout; Clément Roux; Séverine Le Gac; Christian Rolando; Cecile Cren-Olive; *University of Sciences and Technologies of Lille, Lille, France*
- WP 563 **Selective Identification and Quantitative Analysis of Methionine Containing Peptides by Charge Derivatization and Data Dependant Neutral Loss Tandem Mass Spectrometry**; Gavin E. Reid; Jennifer M. Froelich; Mahasilu Amunugama; James J. Sierakowski; Gwynyth Scherperel; Kade D. Roberts; *Michigan State University, East Lansing, MI*
-
- PROTEOMICS: QUANTITATION - GENERAL**
-
- WP 564 **Stimulation and Inhibition of Oxidative Burst in Macrophages using Multivariable DIGE and MS**; Clare K. Carney; Corbin A. Whitwell; David W. Wright; David B. Friedman; *Vanderbilt University, Nashville, TN*
- WP 565 **Label-Free Quantification of Differential Expression Resulting from Hormonal Treatment of a Human Cell Line**; Terry Zhang; Reiyo Kiyonami; Tim Schlabach; Ken Miller; *Thermo Electron, San Jose, CA*
- WP 566 **A Study to Link the Abundance of C-terminal Lysine in an Antibody Drug in Blood to Changes in Bioavailability**; Baojen Shyong; Cindy Quan; Galahad Deperalta; Victor Ling; *Genentech, Inc., South San Francisco, CA*
- WP 567 **High Throughput and Sensitivity Peptide Quantitation using Capillary LC/MS/MS**; Sahana Mollah; Birendra Pitamah; Charles Liu; *Applied Biosystems, Foster City, CA*
- WP 568 **Quantitation of Transferrin in Human Serum using MALDI-TOF-MS**; Nathan G. Dodder; Michael J. Welch; *National Institute of Standards and Technology, Gaithersburg, MD*
- WP 569 **Quantification of C-Reactive Protein in Human Serum by LC/MS/MS**; David M Bunk; *National Institute of Standards and Technology, Gaithersburg, MD*
- WP 570 **Target Identification Studies: Application of a New LC-MS and Data Analysis Software System to Identify Drug-Induced Changes in Mycobacteria**; Minerva A. Hughes¹; Jeffery C. Silva²; Craig A. Dorschel²; Scott J. Geromanos²; Craig A. Townsend¹; ¹*Johns Hopkins University, Baltimore, MD*; ²*Waters Corporation, Milford, MA*
- WP 571 **High-Throughput Proteome Screening using a LC-MALDI TOF/TOF Platform**; Sheng Pan¹; Hui Zhang¹; John Rush²; Jimmy Eng³; Ning Zhang³; Dale Patterson⁴; Michael J. Comb²; Ruedi Aebersold²; ¹*Institute for Systems Biology, Seattle, WA*; ²*Cell Signaling Technology,*