

# US HUPO-2005 Scientific Program

## Mapping the Human Proteome: From Tools to Functionality

### Saturday, March 12, 2005 Holiday Inn Hotel

9am-4pm Course on Bioinformatics for Proteomics (must pre-register)  
(Location: Holiday Inn National Hotel, Shenandoah II Meeting Room)  
([www.hinationalairport.com](http://www.hinationalairport.com) / phone: 703-842-1224)

9am-4pm Course on Methods for Quantitative Proteomics (must pre-register)  
(Location: Holiday Inn National Hotel, Shenandoah VI Meeting Room)  
([www.hinationalairport.com](http://www.hinationalairport.com) / phone: 703-842-1224)

### Sunday, March 13, 2005 Holiday Inn Hotel

9am-4pm Course on Advanced Techniques for 2D Electrophoresis in Proteomics  
Sponsored by GE Healthcare  
(must pre-register) (Location: Holiday Inn National Hotel, Shenandoah II Meeting Room) ([www.hinationalairport.com](http://www.hinationalairport.com) / phone: 703-842-1224)

9am-4pm Course on Tandem Mass Spectrometry Methods for Proteomics  
Sponsored by Shimadzu  
(must pre-register) (Location: Holiday Inn National Hotel, Eisenhower Meeting Room) ([www.hinationalairport.com](http://www.hinationalairport.com) / phone: 703-842-1224)

9am-4pm Course on Sample Preparation and Fractionation for Proteomics  
Sponsored by Agilent Technologies  
(must pre-register) (Location: Holiday Inn National Hotel, Shenandoah IV Meeting Room) ([www.hinationalairport.com](http://www.hinationalairport.com) / phone: 703-842-1224)

### Sunday, March 13, 2005 Hyatt Regency Hotel

6:00-8:00pm **REGISTRATION & WELCOME RECEPTION**  
Location: Hyatt Regency Crystal City Hotel  
2799 Jefferson Davis Highway, Arlington, VA 22202  
[www.crystalcity.hyatt.com](http://www.crystalcity.hyatt.com)

**Monday, March 14, 2005**  
**Hyatt Regency Hotel Meeting Room: Regency E/F**

8:00am      **Registration Opens**

**SESSION 1: THE PLASMA PROTEOME**

Co-chairs: Aran Paulus, Bio-Rad Laboratories, and Ryuji Kobayashi,  
MD Anderson Cancer Center

8:30am      **The HUPO Plasma Proteome Project Pilot Phase: Reference Specimens, Technology Platform Comparisons, and Standardized Data Analyses.** (Abstract L-101). G.S. Omenn; D. States; D.D. Chan; R.Simpson; H. Hermjakob; and S. Hanash. University of Michigan; Johns Hopkins University; Ludwig Institute European Bioinformatics Institute; Fred Hutchinson Cancer Research Center

9:00am      **A Novel Four Dimensional Fractionation Strategy Enables Detection of Low Abundance Proteins in Human Plasma And Serum Proteomes.** (Abstract L-102). D.W. Speicher; H. -Y. Tang; N. Ali-Khan; L.A. Echan; W. -A. Joo. The Wistar Institute

9:25am      **Characterization of the Albuminome.** (Abstract L-103). R.L. Gundry; Q. Fu; J.E. Van Eyk; R.J. Cotter. Johns Hopkins University School of Medicine

9:50am      **The Importance of Study Design, Specimen Collection and Handling for Successful Proteomics Analyses.** (Abstract L-104). D.W. Chan; A.J. Rai. Johns Hopkins Medical Institutions

10:15am      **Break / Exhibits Open** (Location: Exhibit Hall A)

**Monday, March 14, 2005**  
**Hyatt Regency Hotel Meeting Room: Regency E/F**

**SESSION 2: OXIDATIVE STRESS**

Chair: Rachel E. Neal, National Eye Institute

- 10:45am **The Oxidative Stress Response, as Viewed by Proteomics.** (Abstract L-201). T. Rabilloud\*, E.Wagner+, M. Chevallet\*, S. Luche\*, A. Van Dorsselaer+, E. Leize-Wagner+; \* DRDC/ICH, INSERM U 548, Grenoble, France. +(LSMBO), UMR CNRS 7509, ECPM, Strasbourg, France
- 11:15am **Redox Regulation and Redox Proteomics of Protein Glutathionylation.** (Abstract L-202). P. Ghezzi; L. Goodwin; V. Bonetto; E. Gianazza; M. Fratelli. Istituto Mario Negri; North Shore-Long Island Jewish Research Institute; Dulbecco Telethon Institute, Istituto Mario Negri University of Milan
- 11:45am **Identification of Yeast Oxidized Proteins via Individual Oxidized Proteins Isolation.** (Abstract L-203). H. Mirzaei; F.E. Regnier, Purdue University
- 12:10pm **Proteomic Characterization of the Murine Cardiac 26S Proteasome.** (Abstract L-204). <sup>1</sup>A.V Gomes; <sup>2</sup>R.D. Edmondson; <sup>1</sup>C. Zong; <sup>1</sup>B. Berhane; <sup>1</sup>P. Ping. <sup>1</sup>Physiology and Medicine/Cardiology, UCLA ; <sup>2</sup>National Center for Toxicological Research
- 12:35pm **Break / Exhibits**
- 12:45-1:45pm **Free Vendor Seminar** on Nano-electrospray-LC/MS Using the Agilent HPLC-Chip: A New Polymer Microfluidic Device for Protein Identification, presented by Agilent Technologies  
Meeting Room: Conference Theater  
Early pre-registration required at Agilent's booth (seats limited)
- 12:45-1:45pm **Free Vendor Seminar** on New Advanced LC/MS Workflows for Biomarker Discovery and Validation, presented by Applied Biosystems  
Meeting Room: Arlington Room  
Early pre-registration required at Applied Biosystems' booth (seats limited)
- 1:30-3:30pm **POSTER SESSION 1**  
[Authors of papers in the P-100 through P-500 series will be at their posters]
- 3:00-3:30pm **Break / Exhibits** (Location: Exhibit Hall A)
- 3:30pm **Exhibits Close**

**Monday, March 14, 2005**  
**Hyatt Regency Hotel Meeting Room: Regency E/F**

**SESSION 3: POST-TRANSLATIONAL MODIFICATION**

Chair: Akhilesh Pandey, Johns Hopkins University

- 3:30pm **Study of Glycoproteins in Human Serum and Human Plasma Using Multi-Lectin Affinity Chromatography Coupled with RPLC-MS/MS.**  
(Abstract L-301). W.S. Hancock, Barnett Institute and Department of Chemistry and Chemical Biology
- 4:00pm **Qualitative and Quantitative Phosphoproteomics by Mass Spectrometry.**  
(Abstract L-302). O.N. Jensen; University of Southern Denmark
- 4:30pm **Global Analysis of Protein Phosphorylation in Yeast.** (Abstract L-303).  
J. Ptacek<sup>1\*</sup>, G. Devgan<sup>2\*</sup>, G. Michaud<sup>3\*</sup>, H. Zhu<sup>2</sup>, X. Zhu<sup>2</sup>, J. Fasolo<sup>2</sup>, H. Guo<sup>3</sup>, G. Jona<sup>2</sup>, A. Breitkreutz<sup>4</sup>, R. Sopko<sup>5</sup>, S.-J. Lee, R.R. McCartney<sup>6</sup>, M.C. Schmidt<sup>6</sup>, N. Rachidi<sup>7</sup>, M.J.R. Stark<sup>7</sup>, D.F. Stern<sup>8</sup>, M. Tyers<sup>4</sup>, C. de Virgilio<sup>8</sup>, B. Andrews<sup>5</sup>, M. Gerstein<sup>2</sup>, B. Schweitzer<sup>3</sup>, P. Predki<sup>3</sup>, M. Snyder<sup>1,2</sup>. 1) Department of Molecular Biophysics & Biochemistry and 2) Molecular, Cellular & Developmental Biology, Yale University, 3) Invitrogen Corporation, Carlsbad, CA, 4) Department of Medical Genetics and Microbiology, University of Toronto, 5) Department of Molecular and Medical Genetics, University of Toronto, Canada, 6) Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, 7) Division of Gene Regulation and Expression, University of Dundee, United Kingdom, 8) Department of Pathology, Yale University School of Medicine, 9) Département de Biochimie Médicale, Centre Médical Universitaire, Geneve, Switzerland
- 5:00pm **Direct Identification of Ubiquitination Sites on the Ubiquitin-conjugated CHIP Using MALDI Mass Spectrometry.** (Abstract L-304). D. Wang; W. Xu; S.C. McGrath; L. Neckers; R.J. Cotter; Johns Hopkins University and the NCI
- 5:25pm **Global Analysis of Protein Sumoylation in *Saccharomyces Cerevisiae*.**  
(Abstract L-305). J.A. Wohlschlegel; E.S. Johnson; S.I Reed; J.R. Yates; The Scripps Research Institute and Thomas Jefferson University
- 5:50pm **Pause**
- 8:00-10:00pm **EVENING DISCUSSION SESSIONS**
- Bioinformatics.** Led by Rolf Apweiler  
Meeting Room: Regency E/F
- Biomarkers.** Led by Joshua Labaer  
Meeting Room: Conference Theater
- Sample Preparation and Separations.** Led by Bill Hancock  
Meeting Room: Arlington Room

**Tuesday, March 15, 2005**  
**Hyatt Regency Hotel Meeting Room: Regency E/F**

**SESSION 4: FUNCTIONAL PROTEOMICS**

Chair: Michael Snyder, Yale University

- 8:30am **Harnessing the Human Proteome.** (Abstract L-401). J. LaBaer, Harvard Medical School Institute of Proteomics
- 9:00am **Interactome Networks.** (Abstract L-402). M. Vidal, Dana-Farber Cancer Institute, Harvard Medical School
- 9:30am **Comparative Genomics: Using Algae, Plants and Humans to Understand Cilia.** (Abstract L-403). S.K. Dutcher, L. Li, J.B. Li, Washington University
- 10.00am **Proteomic and Genomic Characterization of Boundary Chromatin Complexes.** (Abstract L-404). A.J. Tackett, B.T. Chait. The Rockefeller University
- 10:25am **Break / Exhibits Open** (Location: Exhibit Hall A)

**SESSION 5: NEW METHODS AND TOOLS**

Co-chairs: Carol S. Giometti, Argonne National Laboratory, and Chitra Ratnayake, Beckman Coulter, Inc.

- 10:50am **Development of Miniaturized Time-of-Flight Mass Spectrometers for Proteomics-Based Diagnostics.** (Abstract L-501). R.J. Cotter; S. McGrath, Johns Hopkins School of Medicine
- 11:20am **Reversible Covalent Binding of the Fluorophore Epicocconone to Proteins Provides a Novel Approach to the Sensitive Quantification of Proteins Across a Wide Variety of Different Platforms.** (Abstract L-502). <sup>1</sup>D.A. Veal; <sup>1</sup>J.A. Mackintosh; <sup>1</sup>D. Coghlan; <sup>1</sup>Y. Choi; <sup>2</sup>P.H. Karuso. <sup>1</sup>FLUORotechnics Pty, Ltd. and <sup>2</sup>Macquarie University
- 11:45am **Top-Down Multidimensional Separation Technologies Targeting Comprehensive Proteomics.** (Abstract L-503). Y. Wang; B.M. Balgley; P. Rudnick; D. Ren; C.S. Lee, University of Maryland and Calibrant Biosystems
- 12:10pm **Proteomics Analysis of Human Saliva: Evaluation of Sample Collection and Processing Procedures.** (Abstract L-504). C.C. Whisnant; K.B. Basham; J.L. Bundy; D.L. Talley; J.L. Stephenson, RTI International
- 12:35pm **HPLC-Chip/MS: High Performance Nano-LC/MS Using Polymer Microfluidic Devices.** (Abstract L-505). K. Killeen<sup>1</sup>, H. Yin<sup>1</sup>, R. Brennen<sup>1</sup>, K. Seaward<sup>1</sup>, T. van de Goor<sup>2</sup>, K. Kraiczek<sup>3</sup>, J. Eickhoff<sup>3</sup>; <sup>1</sup>Agilent Technologies, Palo Alto, CA, USA; <sup>2</sup>Santa Clara, CA, USA, <sup>3</sup>Waldbronn, Germany
- 1:00pm **Break / Exhibits**

**Tuesday, March 15, 2005**  
**Hyatt Regency Hotel Meeting Room: Regency E/F**

- 1:00-2:00pm **Career Networking Session**  
Meeting Room: Potomac 3/4 Conference Room
- 1:00-2:00pm **Free Vendor Seminar** on Applying a Divide and Conquer Strategy to Proteome-Based Biomarker Discovery, presented by Beckman Coulter  
Meeting Room: Conference Theater  
Early pre-registration required at Beckman's booth (seats limited)
- 1:30-3:30pm **POSTER SESSION 2**  
[Authors of papers in the P-600 through P-1000 series will be at their posters]
- 3:00-3:30pm **Break** (Location: Exhibit Hall A)
- 3:30pm **Exhibits Close**

**PLENARY LECTURE**

Chair: Peipei Ping, University of California, Los Angeles

- 3:30pm **The HUPO Brain Proteome Project.** (Abstract L-001). H. E. Meyer,  
Medical Proteome Center, Ruhr University of Bochum, Bochum, Germany

**SESSION 6: PROTEOMICS OF DISEASES**

Co-chairs: Donita Garland, National Institutes of Health, and Emanuel F. Petricoin,  
Food & Drug Administration

- 4:00pm **Proteomic Mapping & Molecular Imaging of Distinct Molecular Signatures at Luminal Endothelial Cell Surfaces and Caveolae in Organs and Solid Tumors.** (Abstract L-601). P. Oh, L. Yan, J. Testa, P. Borgstrom, J. Schnitzer,  
Sidney Kimmel Cancer Center
- 4:25pm **Proteomics of Human Breast Cancer: Plasma Markers, Profiling of Cellular Carcinogenic Transformation and TGFbeta Signalling.**  
(Abstract L-602). S. Souchelnytskyi, Ludwig Institute for Cancer Research
- 4:50pm **Energy Metabolism and Myosin Assembly Protein Changes Dominate in Human Ischemic Heart Failure.** (Abstract L-603). B.A. Stanley; P. Liu;  
L.A. Kirshenbaum ; J. E. Van Eyk. Queen's University; University of Toronto;  
University of Manitoba; Johns Hopkins University
- 5:15pm **Alterations in the Mitochondrial Proteome of Drug-resistant Cancer Cells.**  
(Abstract L-604). R.F. Strong; C. Fenselau, University of Maryland
- 5:40pm **The Use of Proteomics to Identify Mechanisms of Hormone Resistance in Breast Cancer Cells.** (Abstract L-605). <sup>1</sup>A. H. Syed; <sup>1</sup>S. Ali-Khan; <sup>1</sup>P. Gutierrez;  
<sup>2</sup>A. Brodie. <sup>1</sup>Greenebaum Cancer Center, University of Maryland; <sup>2</sup>University of  
Maryland School of Medicine
- 6:05pm **Pause**

**Wednesday, March 16, 2005**  
**Hyatt Regency Hotel Meeting Room: Regency E/F**

**SESSION 7: SIGNALING AND MODEL SYSTEMS**

Co-chairs: Jennifer E. Van Eyk, Department of Medicine, Johns Hopkins University, and Paul Tempst, Memorial Sloan-Kettering Cancer Center

- 8:00am **Analysis of Interaction Proteomics Data in the PIN Database.** (Abstract L-701). P. Tempst; P.-V. Luc; M. Yaneva, Memorial Sloan-Kettering Cancer Center
- 8:30am **2D Gel Proteomics Analysis of Protein Changes Induced by Grape Seed in a Transgenic Model of Dementia.** (Abstract L-702). H. Kim; J. Deshane; P. Hall; S. Barnes; S. Meleth, University of Alabama at Birmingham
- 8:55am **Isotope-Coded Reductive Amination for Quantitation Applied to Phosphoproteins Obtained from a LPS Stimulated Mouse Macrophage Cell Line.** (Abstract L-703). R.S. Johnson; M. Shen; C. Farnsworth; Al.Taylor, Amgen Corporation
- 9:20am **Proteomic Mapping and Quantitation of Plasma Membrane Proteins from Distinct Compartments of Mouse Brain.** (Abstract L-704). <sup>1</sup>P. Nielsen; <sup>2</sup>J. Olsen; <sup>1</sup>A. Podtelejnikov; <sup>2</sup>M. Mann; <sup>3</sup>J. Wisniewski. <sup>1</sup>MDS Inc.; <sup>2</sup>Center for Experimental Bioinformatics (CEBI), University of Southern Denmark; <sup>3</sup>Protana Inc. Analytical Services
- 9:45am **Break**

**SESSION 8: THE FUTURE**

Co-chairs: Thierry Rabilloud, DRDC/ICH, INSERM, and Sanford Markey, National Institutes of Health

- 10:15am **Novel Time-Resolved Proteomics to Discover Hidden Targets in Cystic Fibrosis Lung Epithelial Cells.** (Abstract L-804). M. Srivastava; O. Eidelman; C. Jozwik; W. Huang; H.B. Pollard, Uniformed Services University
- 10:45am **Comparative Analysis of Post-Translationally Modified Proteins and Peptides by Mass Spectrometry: New Technology, Cell Migration, The Histone Code, and Candidates for a Cancer Vaccine.** (Abstract L-802). D. F. Hunt, University of Virginia, Charlottesville
- 11:15am **The Human Salivary Proteome: From Discovery to Translational Research.** (Abstract L-803). J.A. Loo; D. Geffen, University of California, Los Angeles
- 11:45am **Annotating the Human Proteome.** (Abstract L-801). R. Apweiler. EMBL-EBI

**PLENARY LECTURE**

Chair: Catherine Fenselau, University of Maryland

- 12:15pm **Proteomic Global Profiling for Biomarker Discovery.** (Abstract L-002). S. Hanash, F. Hutchinson Cancer Research Center

**CLOSING REMARKS**

- 12:45pm Catherine Fenselau, University of Maryland

Monday, March 14, 2005

Poster Session 1: 1:30-3:30 PM

[Authors of papers in the P-100 through P-500 series will be at their posters]

## PLASMA

- P-101. Investigating Protein Diversity in Human Populations.** R.W Nelson; D.Nedelkov; U. A. Jiernan; E.E. Niederkofler; K. A. Tubbs. Intrinsic Bioprobes, Inc.
- P-102. Tandem Mass Spectrometry of Peptides Fractionated from Human Plasma.** J. M. Koomen; D.I. Li; K. R. Coombes; J. L. Abbruzzese; R. Kobayashi. UT MD Anderson Cancer Center.
- P-103. Human Serum and Plasma Proteome Fractionation by IgY Antibodies to Abundant Proteins Coupled with Multidimensional Chromatography.** J. Zhang; E. Betgovargez; M. H. Simonian; L. Huang; X. Fang. Beckman Coulter, Inc. and GenWay Biotech, Inc.
- P-104. Multidimensional Fractionation and Analysis of Human Plasma Proteome.** M. H. Simonian; V. F. Knudson; E. Betgovargez. Beckman Coulter, Inc.
- P-105. Enhanced High Capacity Affinity Depletion of the Top Six Proteins from Human Serum.** P. Mrozinski; N. Zolotarjova; H. Chen; G. Nicol; J. Martosella. Agilent Technologies.
- P-106. Analysis of Mass Spectral Serum Profiles Using Particle Swarm Optimization.** H. Resson; R.S. Varghese; D. Saha; C. Loffredo; R. Goldman. Georgetown University.
- P-107. Biomarker Proteins in Diabetic and Normal Serum Samples Using Both Chromatographic and Preparative Electrophoretic Fractionation with 2D Gels.** A. Paulus; S. Freeby; T. Wehr; K. Academia; A. Posch. Bio-Rad Laboratories.
- P-108. Serum Proteome of Turner Syndrome Provides Biochemical Evidence of Parental Imprinting of the X Chromosome.** J. K. Killian<sup>1</sup>, C. Bondy<sup>2</sup>, C. Liu<sup>3</sup>, L. Lasebikan<sup>3</sup>, A. R. Zinn<sup>4</sup>, S. Ross<sup>3</sup>, N. Shea<sup>3</sup>, L. Harvey<sup>3</sup>, Vi. Espina<sup>1</sup>, D. Johann<sup>3</sup>, M. Lowenthal<sup>1</sup>, G. Whiteley<sup>3</sup>, V. Bakalov<sup>2</sup>, E. Petricoin<sup>5</sup>, L. Liotta<sup>1</sup>, D. H. Geho<sup>1</sup>. 1: NIH/NCI, Bethesda, MD; 2: NIH/NICHD. Bethesda, MD; 3: Clinical Proteomics Reference Laboratory, Gaithersburg, MD; 4: Univ. Texas, Southwestern Medical School; 5: NCI/FDA, Bethesda, MD.
- P-109. Inter-Individual Proteomic Profiling of Blood Monocytes Reveals Biological Insights.** Ming Jin; Tran Bourgeois; Charis Eng; Clay B Marsh; Haifeng M. Wu; Ohio State University
- P-110. Proteomic Analysis of Fractionated Plasma from Patients with Sickle Cell Disease.** Susan Yuditskaya; Gerard Hoehn, Ph.D.; Anthony Suffredini, MD; Mark Gladwin, MD; Gregory Kato, MD; Critical Care Medicine Department, Clinical Center, National Institutes of Health; National Heart, Lung and Blood Institute, National Institutes of Health; Critical Care Medicine Department, Clinical Center; and National Heart, Lung and Blood Institute, National Institutes of Health.



## SAMPLE PREP

- P-201. Multidimensional Fractionation and Analysis of the Bovine Skeletal Muscle Proteome.** I. D. Cruzado-Park; E. Betgovargez; C. Ratnayake; M. H. Simonian. Beckman Coulter, Inc.
- P-202. Effect of Anticoagulants and Storage on Blood Plasma Proteome Identification.** E. Park; K. Choi; E. Kong; C. Ambrosone; Y. Park. Roswell Park Cancer Institute.
- P-203. Prevention of Proteolytic Digestion of Human Plasma Proteins by Protease Inhibitors.** J. Yi; N. Sengupta; C. A. Gelfand. BD Diagnostics, Preanalytic Systems.
- P-204. Study of the Effectiveness of Endogenous Protease Inhibitors on the Stability of Human Plasma Against Proteolytic Cleavage.** M.D. Schuchard; A.S. Crawford; R.J. Mehig; S.L. Cockrill; G.B.I. Scott. Sigma-Aldrich.
- P-205. Paper withdrawn.**
- P-206. Microtechnologies Enabling Microdissection-Based Clinical Proteomics.** Y. Wang; B.M. Balgley; P. Rudnick; Z. Zhuang; C.S. Lee. University of Maryland; Calibrant Biosystems; National Institute of Neurological Disorders and Stroke.
- P-207. Proteomic Analysis of Heterogeneous Cytological Samples Using Laser Capture Microdissection, Saturation DIGE and Antibody Microarrays.** C. Jozwik; Q. Fan; M. Srivastava; T. Darling; H.B. Pollard, Uniformed Services University and Johns Hopkins University.

## CANCER

- P-301. Serum Proteomics of Breast Cancer.** <sup>1</sup>Q. Ru; <sup>1</sup>L. Zhu; <sup>1</sup>J. Silberman; <sup>1</sup>M. Liebman; <sup>2</sup>C. Shriver. 1) Windber Research Institute; 2) Walter Reed Army Medical Center.
- P-302. A Reevaluation of Annexin I Expression in Normal Breast and Breast Carcinoma.** <sup>1</sup>R. Speer; <sup>1</sup>J.D Wulfkuhle; <sup>2</sup>V.S Calvert; <sup>1</sup>L.A Liotta; <sup>2</sup>E.F. Petricoin. 1) FDA-NCI Clinical Proteomics Program, National Cancer Institute; 2) FDA-NCI Clinical Proteomics Program, Food and Drug Administration.
- P-303. Biomarkers for Breast Cancer in Nipple Aspiration and Ductal Lavage Fluid.** J. Li, Johns Hopkins University.
- P-304. A Proteomic Approach to Biomarker Detection in Breast Cancer.** B. Timischl; P. J. Oefner, Stanford Genome Technology Center.
- P-305. Proteomic Analysis of Serum Proteins for the Diagnosis of Breast Cancer Disease.** T. Maity; K. Kolli; H. Brzeski; C.D. Shriver; M.N. Liebman. Windber Research Institute; Walter Reed Army Medical Center.
- P-306. Protein Microarray Profiling Identifies 4EBP1 and Phosphorylated eIF4E as Prognostic Indicators in Childhood Rhabdomyosarcoma.** <sup>1</sup>V.A Espina; <sup>1</sup>C. Yeung; <sup>1</sup>B. Midura; <sup>2</sup>E.F Petricoin; <sup>1</sup>L.A Liotta. 1) National Cancer Institute; 2) Food and Drug Administration.
- P-307. In Vivo Molecular Signal Profiling of Human Lung Adenocarcinoma using Protein Microarrays.** <sup>1</sup>A.S. Rodriguez; <sup>1</sup>E. Bowman; <sup>1</sup>J. Jen, <sup>1</sup>C.C. Harris; <sup>1</sup>V. Espina, <sup>2</sup>E.F. Petricoin III; <sup>1</sup>L.A Liotta. 1) National Cancer Institute; 2) Food and Drug Administration.
- P-308. Molecular Network Analysis of Metastatic Colorectal Carcinoma Using Reverse Phase Protein Microarray Based Phosphoproteomic Portraits.** <sup>1</sup>V.S. Calvert; <sup>2</sup>K.M. Sheehan; <sup>3</sup>E. Mammano; <sup>3</sup>C. Belluco; <sup>1</sup>E.F. Petricoin. 1) Food & Drug Administration; 2) National Cancer Institute; 3) University of Padova.
- P-309. Detection of Low Abundant Proteomic Biomarkers through LC-MS/MS Sequencing of Albumin Bound Serum Fragments.** <sup>1</sup>K.M. Frogale; <sup>2</sup>A. Mehta; <sup>1</sup>M. Lowenthal; <sup>1</sup>L. Liotta; <sup>1</sup>E. Petricoin. 1) National Institutes of Health; 2) Tufts University.

- P-310. Signal Pathway Profiling of Metastatic Epithelial Ovarian Carcinoma Using Protein Microarrays: Identification of New Drug Targets.** <sup>1</sup>K.M. Sheehan; <sup>2</sup>D.A. Fishman; <sup>1</sup>L.A. Liotta; <sup>3</sup>E.F. Petricoin; <sup>1</sup>J.D. Wulfkuhle. 1) NCI-FDA Clinical Proteomics Program, National Cancer Institute; 2) New York University Cancer Institute; 3) NCI-FDA Clinical Proteomics Program, FDA.
- P-311. Melanosome Proteomics: I. Purification and Identification of Melanosome Proteins.** A. Chi; <sup>2</sup>J. Valencia; <sup>2</sup>V. J. Hearing; <sup>2</sup>E. Appella; <sup>1</sup>D. F. Hunt. 1) University of Virginia; 2) NCI, NIH.
- P-312. Melanosome Proteomics: II. Identification of Trafficking Molecules Present in Early and Late Melanosomes.** <sup>1</sup>Julio C Valencia; <sup>2</sup>An Chi; <sup>1</sup>Ettore Appella; <sup>2</sup>Donald F Hunt; <sup>1</sup>Vincent J Hearing. 1) Laboratory of Cell Biology, NCI; 2) University of Virginia.
- P-313. A Display Thiol-Proteomics Approach to Characterize Global Redox Modification of Proteins in Prostate Cancer Cells by Hypoxia.** E.-M. Park; K.-S. Choi; H. Zhang; C. Ip; Y.-M. Park, Roswell Park Cancer Institute.
- P-314. Comprehensive Profiling of Liver Cancer Cell Surface Proteins Based on Affinity Capture.** B. Deng, H. Wang, Q. Zhang, S. Shang, L. Beretta, S.M. Hanash. Public Health Sciences Division, Fred Hutchinson Cancer Research Center.
- P-315. Target Identification for Tumor Immunotherapy.** T. He, Celera Genomic.
- P-316. Expression, Purification and Characterization on Human Papillomavirus 86E7 Originated from a 37-year-Old Hispanic Woman with Cervical Intraepithelial Neoplasia.** M. Sun; R.D. Burk; M.R. Chance, Albert Einstein College of Medicine.
- P-317. Large-Scale Identification of Surface Proteins in Lung Adenocarcinoma Cells.** V.M. Faca; B. Deng; D. Phanstiel; L.F. Newcomb; S. Hanash, Fred Hutchinson Cancer Research Center.
- P-318. Multi-Dimensional Protein Separation/Western Blot Based Approach for Identification of Antigenic Glycoproteins in Lung Cancer.** S.R. Pereira-Faca; J. Qiu; L.F. Newcomb; A. Krasnoselsky; S. Hanash, Fred Hutchinson Cancer Research Center.
- P-319. Real Time In Vivo Proteomic Signaling Profiles of Metastatic Human Tumors, Pre- and Post-Intrahepatic Perfusion With Chemotherapy.** K.R. Calvo; E.F. Petricoin; R.H. Alexander; L.L. Liotta; J. Pingpank. NIH/NCI, FDA and NIH/NCI/Surgery Branch.
- P-320. Enrichment of Low Molecular Weight (LMW) Serum Fraction for MALDI-TOF Detection of Hepatocellular Carcinoma (HCC).** R. Goldman; H.W. Ransom; E. Orvisky; D.T. Saha; S.K. Drake. Georgetown University; National Institutes of Health.
- P-321. Defining Profiles for Reverse Phase Protein Microarrays to Monitor Signaling Events in Chronic Myelogenous Leukemia.** R.C. Ireton; J. Qiu; L.F. Newcomb; S. Hanash, Fred Hutchinson Cancer Research Center.
- P-322. Paper withdrawn**
- P-323. Proteomic Analysis of Mouse Melanoma Tumor Progression.** D. Culp; R. Neal; R. Massey; P. Pisa; D. Garland. National Eye Institute, National Institutes of Health; Karolinska Institute.
- P-324. Proteomic Profiles Predict Outcome and Identify Potential Therapeutic Targets in Human Follicular Lymphoma.** C. Gulmann<sup>a</sup>, V. Espina<sup>b</sup>, E. Petricoin III<sup>a</sup>; E.S. Jaffe<sup>a</sup>, T. Knutsen<sup>c</sup>; L. Liotta<sup>b</sup>; A.L. Feldman<sup>b</sup>. <sup>a</sup>NCI-FDA Clinical Proteomics Program, National Cancer Institute. <sup>b</sup>Laboratory of Pathology, National Cancer Institute. <sup>c</sup>Cancer Genetics Branch, National Cancer Institute.
- P-325. Identification of Haptoglobin Isoelectric Variants as Ovarian Cancer Biomarkers.** A.J. Rai; L.J. Sokoll; D.W. Chan, The Johns Hopkins University School of Medicine.
- P-326. Differential Proteomic Analysis of Pancreatic Cancer Secretome.** M. Gronborg; T.Z. Kristiansen; N. Sato; A. Maitra; A. Pandey; Johns Hopkins University.

## OTHER SYSTEMS

- P-401. Defining the Mononuclear Phagocyte Proteome in Health and Disease.** P. Ciborowski; Y. Enose; G. E. Howard, University of Nebraska Medical Center.
- P-402. Combinatorial Proteome Analysis to Identify Neural Stem Cell Surface Proteins.** C.S. Giometti; S.L. Tollaksen; L. Chen, Argonne National Laboratory.
- P-403. Normal Human Kidney Proteome: Database of Glomerular Proteome, Differential Protein Expression in Glomerulus, Cortex, and Medulla, and 2-DE Profiling of Glomeruli Isolated from Biopsy Tissues.** <sup>1</sup>Y. Yoshida; <sup>2</sup>K. Miyazaki; <sup>2</sup>A. Tsugita; <sup>1</sup>E. Yaoita; <sup>1</sup>T. Yamamoto. 1) Niigata University Graduate School of Medical and Dental Sciences; 2) NEC Corp.
- P-404. Identification of Neural Progenitor Cell Proteins by 2D Gel Electrophoresis and Mass Spectrometry.** P.C. Guest; J.G. Bilsland; H. A. Skynner; T.P. Bonnert; I. Munoz-Sanjuan, Merck Sharp & Dohme.
- P-405. Discovery of Serum Biomarkers Indicating Radiation Exposure.** <sup>1</sup>D. J Johann; <sup>3</sup>C. Menard; <sup>2</sup>C.N. Coleman; <sup>1</sup>L.A. Liotta; <sup>2</sup>K. Camphausen. 1) NIH/NCI-FDA Clinical Proteomics Program; 2) NIH/Radiation Oncology Branch; 3) Princess Margaret Hosp, Univ. of Toronto.
- P-406. Advanced LC/MS Workflows for Protein Biomarker Discovery and Validation.** <sup>1</sup>S. Webb; <sup>2</sup>M. Siu; <sup>3</sup>M. Hardt; <sup>4</sup>R. Jenkins; <sup>1</sup>C. Hunter. 1) Applied Biosystems; 2) York University; 3) UCSF; 4) University of Liverpool.
- P-407. Identification of Proteins in HIV-1 and HTLV-1 Infected Cells Associated with Transcription and Membranes.** C. de la Fuente<sup>1</sup>, K. Kehn<sup>1</sup>, R. Berro<sup>1</sup>, A. Pumfery<sup>1</sup>, L. Parvin<sup>2</sup>, A. Vertes<sup>2</sup>, E. Kashanchi<sup>1,2,3</sup>. 1) Department of Biochemistry and Molecular Biology, 2) Institute for Proteomics Technology and Applications, 3) The Institute for Genomic Research, George Washington University.
- P-408. Dysfunctional Changes in the Cytoskeletal Proteome Occur in CF Lung Epithelial Cells Challenged With Pseudomonas Aeruginosa.** C. Jozwik; Y. Eudy; B. McGowan; D.M. Jacobowitz; H.B. Pollard. Department of Anatomy, Physiology and Genetics, Uniformed Services University; Department of Microbiology, Uniformed Services University.
- P-409. High Abundance Protein Profiling of Cystic Fibrosis Lung Epithelial Cells.** X. Ji; C. Jozwik; X. Zhang; D.M. Jacobowitz; H.B. Pollard. Departments of Anatomy, Physiology and Genetics, Uniformed Services University.
- P-410. Identification of Urinary Protein Biomarkers in Acute Renal Failure.** J.M. Arthur; J.S. Almeida; A. Bland; R. Stanislaus; S. Varghese. Medical University of South Carolina.
- P-411. The Post-translational Modifications of  $\beta$ B1-Crystallin from Normal and Cataractous Human Lens Nucleus: Domain Specific Modifications.** R.E. Neal; E. An; M. Datiles; N. Congdon. National Eye Institute; Johns Hopkins University.
- P-412. Clinical Proteomics: Analysis of Post-Translational Modification and Variants of Hemoglobin.** H. Huang; D.H. Perlman; B. Budnik; C.E. Costello; M.E. McComb. Cardiovascular Proteomics Center, BUSM.
- P-413. Human Proteome Resource.** C.A. Szgyarto<sup>1</sup>, F. Sterky<sup>1</sup>, A. Persson<sup>1</sup>, J. Ottosson<sup>1</sup>, H. Wernerus<sup>1</sup>, P. Nilsson<sup>1</sup>, A.-C. Andersson<sup>2</sup>, C. Kampf<sup>2</sup>, K. Wester<sup>2</sup>, E. Björling<sup>1</sup>, S. Hober<sup>1</sup>, F. Pontén<sup>2</sup>, M. Uhlén<sup>1</sup>; 1) Department of Molecular Biotechnology, Royal Institute of Technology, SE-10691 Stockholm, Sweden, 2) Department of Genetics and Pathology, The Rudbeck Laboratory, Uppsala University, SE-75185 Uppsala, Sweden.
- P-414. Paper withdrawn**
- P-415. Specific Identification of c-Src Substrates Using the Stable Isotope Labeling with Amino Acid in Cell Culture (SILAC) Approach.** Akiko Iwahori; Henrik Molina; Mads Gronborg; Akhilesh Pandey; Johns Hopkins University.

## MODEL SYSTEMS

- P-501. Two-Pronged Approach to Proteomic Databasing of Mouse Embryonic Stem Cells: Expanding the Known Proteome to Over 1100 Non-Redundant, Separated and Identified Proteins.** <sup>1</sup>S.T. Elliott; <sup>1</sup>S. Sheng; <sup>2</sup>D.G Crider; <sup>2</sup>K.R Boheler; <sup>1</sup>J.E. Van Eyk. 1) Johns Hopkins University. 2) National Institute on Aging, NIH/NIA.
- P-502. Paper withdrawn**
- P-503. SELDI-TOF MS Profiling of Fractionated Plasma from Retinol-Deficient Rats : A Novel Tool for Biomarker Discovery in Nutrition Research.** T. Linke; C.A. Ross; E.H. Harrison. USDA-ARS, BHNRC, Phytonutrients Laboratory; and the Pennsylvania State University.
- P-504. A Novel Sample Preparation Technique for the Proteomic Study of the Effect of Aging on Rat Liver Subcellular Proteins.** K.L. Drahos; H. Tran; W. Lan; D.K. McRorie; M.J. Horn. Alfa Wassermann Proteomics Technologies, LLC.
- P-505. Analysis of the Spermatozoa Proteome by MDLC Coupled to Tandem MS.** D. Fenyo; J. Samskog; M.A. Baker; R. John Aitken; J. Flensburg. GE Healthcare; University of Newcastle.
- P-506. Characterization of Alteration in Protein Expression Profiles by Gastric Epithelial Cells in Response to *Helicobacter pylori* Infection.** S. Das<sup>‡</sup>, J.C. Sierra<sup>‡</sup>, K.V. Soman<sup>§</sup>, G. Suarez<sup>‡</sup>, A.A. Mohammad<sup>‡</sup>, T.A.T. Dang<sup>¶</sup>, B.A. Luxon<sup>§</sup>, V.E. Reyes<sup>‡\*<sup>¶</sup>#</sup>. Department of Pediatrics, <sup>‡</sup>Department of Microbiology and Immunology, <sup>§</sup>Bioinformatics Program, and Department of Human Biological Chemistry and Genetics; <sup>‡</sup>Department of Pathology, University of Texas Medical Branch; <sup>¶</sup>Ciphergen Biosystems.
- P-507. The Plasticity of Global Proteome and Genome Expression Analysis in a Well Studied Closely Related Model Organism - Escherichia coli.** C. Vijayendran; T. Polen; V.F. Wendisch; K. Friehs; K. Niehaus; E. Flasche. International NRW Graduate School in Bioinformatics and Genome Research; Institute of Biotechnology 1; Fermentation Engineering Group; Faculty of Biology.

Tuesday, March 15, 2005

Poster Session 2: 1:30-3:30 PM

[Authors of papers in P-600 through P-1000 series will be at their posters]

## METHODS

- P-601. Micromachined Ultrasonic Electrospray Microarray for High Throughput Multiplexed Mass Spectrometry of Proteins.** S. Aderogba; J.M. Meacham; F.M. Fernandez; Levent Degertekin; Andrei G. Fedorov. Georgia Institute of Technology
- P-602. The Open2Dgel Project for N-Dimensional Proteomic Data Analysis.** P.F. Lemkin; G.C. Thornwall. LECB, CCR, NCI-Frederick; SAIC-Frederick.
- P-603. Solution Isoelectric Focusing of Peptides.** <sup>1</sup>Y. An; <sup>1</sup>Z. Fu; <sup>2</sup>P. Gutierrez; <sup>1</sup>C. Fenselau. 1) University of Maryland; 2) University of Maryland, Greenebaum Cancer Center.
- P-604. Characteristics and Biological Variation of Plasma Microparticle Proteomes.** M. Jin; H.M. Wu, Ohio State University.
- P-605. Isotope Coded Quaternary Amine Tags (ICQAT) for Quantification and Selection of CysteinyI Peptides from Tryptic Digests.** S. Julka; F.E. Regnier. Purdue University.
- P-606. Immunoaffinity Separation of Plasma Proteins by IgY Microbeads: Meeting the Needs of Proteomic Sample Preparation and Analysis.** <sup>1</sup>W.-W. Zhang; <sup>2</sup>D.A. Herold; <sup>2</sup>M.R. Pisano; <sup>4</sup>M.H. Simonian; <sup>1</sup>X. Fang. 1) GenWay Biotech, Inc. 2) VA San Diego Healthcare System; 3) Proteomic Research Services, Inc. 4) Beckman Coulter, Inc.
- P-607. Internal 2D PAGE Standards: Concepts, Caveats, and Customer.** G. Vásquez; D.J. Vanderah, National Institute of Standards and Technology.
- P-608. Quantitative DIGE Analysis and High Protein Loading Using Contiguous IPG Strip Segments for Two-Dimensional Electrophoresis on Mini-Gels.** R. Diez; W.J. Bengtsson; T. Boronina; D.Z. Chen; R.N. Cole, Johns Hopkins University.

- P-609. A Robust, Streamlined and Reproducible Method for Proteomic Analysis of Serum by Delipidation, Albumin and IgG Depletion, and 2-Dimensional Gel Electrophoresis.** Q. Fu; C.P. Garnham; S.T. Elliott; D.E. Bovenkamp; J.E. Van Eyk, Johns Hopkins University.
- P-610. Protein Expression in Targeted Gene RNAi Knockdown Experiments Utilizing Isotopic Labeling with <sup>18</sup>O Water and AQUA Peptides.** R.J. Mehig; J.J. Porter; B.K. Ewing; S.E. Cockrill; G.B.I. Scott, Sigma-Aldrich Biotechnology.
- P-611. Screening Method for Assessing Protein Binding Characteristics of Candidate Protein Microarray Substrates Manufactured from Silicon.** <sup>2</sup>J. Nijdam, <sup>1</sup>R. Fedele, <sup>2</sup>M. Ming-Cheng, <sup>3</sup>E. Petricoin, <sup>2</sup>M. Ferrari, <sup>1</sup>L. Liotta, <sup>1</sup>D. Geho. 1) Laboratory of Pathology, National Cancer Institute; 2) The Ohio State University; 3) Food and Drug Administration.
- P-612. Fractionation of Serum Components Using Nanoporous Substrates.** <sup>2</sup>M. M.-C. Cheng, <sup>2</sup>A.J. Nijdam, <sup>1</sup>K. Killian, <sup>1</sup>R. Fedele, <sup>1</sup>N. Lahar, <sup>1</sup>S. Ross, <sup>1</sup>M. Lowenthal, <sup>1</sup>K. Frogale, <sup>1</sup>P. Herrmann, <sup>1</sup>D. Johann, <sup>2</sup>M. Ferrari, <sup>3</sup>E. Petricoin, <sup>1</sup>L. Liotta, <sup>1</sup>D. Geho. 1) National Cancer Institute, 2) The Ohio State Univ., Dept. of Internal Medicine, 3) Food and Drug Administration, 4) Dorothy M. Davis Heart and Lung Research Inst., The Ohio State Univ..
- P-613. Rapid Covalent Binding of Fusion Proteins to Fluorescent Dyes and Surfaces.** M. Urh; G.V. Los; N. Nath; D.H. Klaubert; K.V. Wood, Promega Corporation; Promega Biosciences, Inc.
- P-614. Identification of Proteins in Flagellar Rotor Assembly of Salmonella: Optimization of Efficiency of Tryptic Digestion.** M. Gucek; J.A. Kowalak; S. Subramaniam; S. Misra; S.P. Markey. Laboratory of Neurotoxicology, NIMH, National Institutes of Health Laboratory of Cell Biology, NCI, National Institutes of Health; Department of Molecular Cardiology, Lerner Research Institute, The Cleveland Clinic Foundation
- P-615. Identification of Proteins Using Enhanced Sensitivity Capillary Electrophoresis-Tandem Mass Spectrometry.** C.K. Ratnayake; M.H. Simonian, Beckman Coulter, Inc.
- P-616. Development of a High-Throughput Method for Removal of Albumin from Serum and Plasma Samples.** G.T. Hoehn; H. Wang; S.R. Kenney; K. Li; A. Suffredini. NIH Clinical Center; Critical Care Medicine Department; and Diagnostic Radiology.
- P-617. Fractionation of Complex Protein Samples with a High Recovery Macroporous Reversed Phase Column.** C. Szafranski; P. Mrozinski; W. Barrett; J. Martosella; N. Zolotarjova, Agilent Technologies.
- P-618. Ion-Pair Assisted Recovery of MALDI Mass Spectral Signals of Surfactant-Containing Proteins and Peptides.** R.V. Rajnarayanan; K. Wang, NIAMS, National Institutes of Health.
- P-619. Parallel PSD Analysis of 2D-Gel Spots from E.Coli.** M. Snel; E. Claude; D. Kenny; R. Christian; J. Langridge. Waters Corporation, MS Technologies Centre.
- P-620. Preparative IEF as third dimension to 2D Gel Separations.** A. Paulus; K. Academia; A. Posch; S. Freeby. Bio-Rad Laboratories.
- P-621. Selection of Precast Gel Sizes and Staining Methods for 2D Gel Based Proteomics.** A. Paulus; S. Freeby; A. Posch; K. Academia, Bio-Rad Laboratories.
- P-622. Dual Gradient Nano HPLC System for Multidimensional Separations and Increased Sensitivity.** D.W. Neyer; J.E. Rehm; K.M. Hahnenberger, Eksigent Technologies.
- P-623. Identification of Phosphopeptides by MALDI Q-TOF Mass Spectrometry in Positive and Negative Ion Modes After Methyl Esterification.** C.-F. Xu; Y. Lu; J. Ma; M. Mohammadi; T.A. Neubert. New York University School of Medicine.
- P-624. High Fidelity Proteomics via Immobilized pH Gradient Isoelectric Focusing of Peptides.** J.L. Bundy; B.J. Cargile; J.R. Sevinsky; A.S. Essader; J.L. Stephenson Jr. Research Triangle Institute.
- P-625. Epicocconone, a New Cell-Permeable Fluorophore for Staining Cytoplasmic Constituents of Live Cells.** <sup>1</sup>D.A. Veal; <sup>1</sup>Y. Choi; <sup>2</sup>P.H. Karuso. 1) Fluorotechnics; 2) Macquarie University.
- P-626. A Spinning-Disk Interferometry Detection System for Monitoring Antigen: Antibody Complex Formation on Protein Arrays.** M.M. Varma<sup>1</sup>, H.D. Inerowicz<sup>2</sup>, F.E. Regnier<sup>2</sup>, D.D. Nolte<sup>1</sup>. <sup>1</sup>Dept. of Physics, Purdue University; <sup>2</sup>Dept. of Chemistry, Purdue University.

- P-627. Stable Isotope Labeling by Amino Acids in Cell Culture (SILAC) for Qualitative and Quantitative Phosphoproteomics.** R. Amanchy; D.E. Kalume; A. Pandey; Johns Hopkins University.
- P-628. Multidimensional Liquid Phase Separations of Intact Proteins as an Alternative to 2D Gel Electrophoresis for Proteomics.** A. Apffel; A. Adler; J. Garcia; R. Kincaid; T. Sana; Agilent Laboratories.
- P-629. Nanoliter ELISA Assays in a High Density Array Format for Identification of Tyrosine Kinase Inhibitors.** Colin Brenan; Steve Smith; Tom Morrison; BioTrove Inc.
- P-630. Correlation Network Analysis of Proteomic Data Generated by Immunoprecipitation/Pull-Down Followed by Mass Spectrometry.** <sup>1</sup>Z. Zhang; <sup>1</sup>J. Song; <sup>1</sup>A. Ray; <sup>2</sup>E. Fung; <sup>1</sup>L-M. Shih; <sup>1</sup>D.W. Chan. 1) Johns Hopkins University School of Medicine, 2) CIPHERGEN Biosystems, Inc.
- P-631. High Resolution Plasma Proteome Mapping with Ion Mobility-Mass Spectrometry Techniques.** Stephen J. Valentine, Manolo D. Plasencia, Xiaoyun Liu, and David E. Clemmer. Department of Chemistry, Indiana University. Bloomington, IN.

### GLYCOPROTEINS

- P-701. Targeted Glycoproteomics: Jacalin as a Selector of O-Glycosylation Sites on Proteins from the Human Blood Proteome.** M.O. Durham; F.E. Regnier, Purdue University.
- P-702. Use of Multidimensional Lectin Affinity Chromatography in Differential Glycoproteomics.** R. Qiu; F. Regnier, Purdue University.

### FUNCTIONAL PROTEOMICS

- P-801. Screening of Immunostimulatory Oligosaccharides by Using a New HPLC-Chip/MS Technology.** <sup>1</sup>R. Grimm; <sup>1</sup>H. Yin; <sup>2</sup>M. N. inoneuvo; <sup>1</sup>K. Killeen; <sup>2</sup>C. Lebrilla. 1) Agilent Technologies; 2) UC Davis.
- P-802. CodeLink Protein Bioarrays.** M. Bull; A. Agrawal; T. Giesler; A. Jinsi-Parimoo; S. Sundaram, GE Healthcare
- P-803. Comparative Analysis of Cytokines in Human Blood Plasma and Serum Using Protein Microarrays.** H.H. Quek<sup>1</sup>; T.M. Finocchio<sup>2</sup>; C.A. Gelfand<sup>2</sup>. <sup>1</sup>Applied Science School, Temasek Polytechnic, Singapore; <sup>1,2</sup>BD Diagnostics, Preanalytical Systems, 1 Becton Drive, NJ 07417, USA.
- P-804. US National Heart Lung and Blood Institute Proteomics Initiative.** M.P. Schachte, Medical University of South Carolina

### STIMULUS-RESPONSE

- P-901. Supra-Additive Growth Inhibition By a Celecoxib Analog and Carboxyamidotriazole is Primarily Mediated Through Apoptosis.** <sup>1</sup>M.E. Winters; <sup>2</sup>A. Mehta; <sup>1</sup>E.C. Kohn; <sup>3</sup>E.F. Petricoin; <sup>1</sup>L.A. Liotta. 1) National Cancer Institute, Center for Cancer Research, Laboratory of Pathology; 2) Howard Hughes Medical Institute; 3) Food and Drug Administration, Center for Biologics Evaluation and Research, Office of Cellular and Gene Therapy
- P-902. Ion-Pair Assisted Recovery of MALDI Mass Spectral Signals of Surfactant-Containing Proteins and Peptides.** R.V. Rajnarayanan; K. Wang, NIAMS, National Institutes of Health.
- P-903. Expression of Human Beta Defensin 1, 2 and 3 in Thermal Injury.** Bhat S., Buja M., Poindexter B.J., Bick R.J., Milner S.M. Southern Illinois University School of Medicine.

- P-904. Characterization of Alteration in Protein Expression Profiles by Gastric Epithelial Cells in Response to *Helicobacter pylori* Infection.** S. Das<sup>‡</sup>, J. C Sierra<sup>‡</sup>, K. V Soman<sup>§</sup>, G. Suarez<sup>‡</sup>, A.A. Mohammad<sup>‡</sup>, T. Anh. T Dang<sup>¶</sup>, B.A. Luxon<sup>§</sup>, V.E. Reyes<sup>‡</sup> <sup>‡</sup>Department of Pediatrics, <sup>¶</sup>Department of Microbiology and Immunology, <sup>§</sup> Bioinformatics Program, and Department of Human Biological Chemistry and Genetics; <sup>‡</sup> Department of Pathology, University of Texas Medical Branch, Galveston, <sup>¶</sup> CIPHERgen Biosystems, Inc.
- P-905. Serum Proteome of Turner Syndrome Provides Biochemical Evidence of Parental Imprinting of the X Chromosome.** J.K. Killian<sup>1</sup>, V. Bakalov<sup>2</sup>, C. Liu<sup>3</sup>, L. Lasebikan<sup>3</sup>, S. Ross<sup>3</sup>, N. Shea<sup>3</sup>, L. Harvey<sup>3</sup>, V. Espina<sup>1</sup>, D. Johann<sup>3</sup>, M. Lowenthal<sup>1</sup>, G. Whiteley<sup>3</sup>, C. Bondy<sup>2</sup>, E. Petricoin<sup>4</sup>, L. Liotta<sup>1</sup>, D.H. Geho<sup>1</sup>. 1) NIH/NCI/Laboratory of Pathology; 2) NIH/NICHD Developmental Endocrinology Branch; 3) Clinical Proteomics Reference Laboratory, Gaithersburg, MD; 4) NCI/FDA Clinical Proteomics Program.

## BIOINFORMATICS

- P-1001. PRIDE: A Public Repository for Proteomics Identifications.** <sup>1</sup>P. Jones; <sup>2</sup>L. Martens; <sup>1</sup>C. Taylor; <sup>1</sup>H. Hermjakob; <sup>1</sup>R. Apweiler. 1) EMBL Outstation - European Bioinformatics Institute (EBI), Hinxton; 2) Ghent University, Rommelaere Institute.
- P-1002. Building and Using Reference Libraries of Peptide Ion Fragmentation Spectra.** S. E Stein. NIST.
- P-1003. Data Pre-Processing in LC-MS Based Proteomics.** <sup>1</sup>X. Zhang; <sup>2</sup>J. M Asara; <sup>1</sup>J. Adamec; <sup>3</sup>M. Zhang. 1) Bindley Bioscience Center, Purdue University; 2) Beth Israel Deaconess Medical Center; 3) Department of Computer Science, Purdue University.
- P-1004. AFFYMEX: A Bioinformatics Online Tool for Optimizing Abundant Protein Depletion and Mass Spectrometry Analysis.** K. Gramatikoff; X. Fang; W-W. Zhang, GenWay Biotech, Inc.
- P-1005. Johns Hopkins University Protein Database - PROTEIN DB2.** S.J. Granite; R. L Winslow. Johns Hopkins University.
- P-1006. A Bioinformatics Workbench Designed to Maximize Information from Shotgun Proteomics Data.** <sup>1</sup>W. Shi; <sup>2</sup>M. Xu; <sup>2</sup>L.Y. Geer; <sup>1</sup>S.P. Markey; <sup>1</sup>J.A. Kowalak. 1) National Institute of Mental Health 2) National Library of Medicine.
- P-1007. Intra-Calibration of Mass Spectrometry.** C.N. White; D.W. Chan; Z. Zhang, Johns Hopkins Medical Institutions.
- P-1008. A Knowledge Base and Expert System for 2D Gel Electrophoresis.** J. A Epstein; J.S. Gordin; D.L. Garland; G.G. Giulian. National Institute of Child Health and Human Development; National Eye Institute; National Institute of Mental Health.
- P-1009. Quantitative Analysis of Complex Peptide Mixtures from Tandem Mass Spectra.** J.D. Venable; M.-Q. Dong; J. Wohlschlegel; J.R. Yates. The Scripps Research Institute.
- P-1010. A Novel Qualitative and Quantitative LC-MS Based Approach to Protein Profiling and Biomarker Discovery.** J. Langridge; T. Riley; R. Christian; S. Geromanos; R. Martin. Waters Corporation, MS Technologies Centre.
- P-1011. An Automated Method for Scanning LC-MS Data Sets for Biologically Significant Peptides and Proteins Including Quantitative Profiling and Interactive Confirmation.** D. Fenyo; H. Pettersen; A. Kaplan; S. Taylor; L. Bjorkestén. GE Healthcare; Amylin Pharmaceuticals.
- P-1012. The Development of Genome Fingerprint Scanning as a Multi-exon Gene Finder.** M.C. Giddings; M. Wisz. The University of North Carolina at Chapel Hill.
- P-1013. PROCLAME: A Fuzzy-Logic-Based Tool for Predicting Protein Cleavages and Posttranslational Modifications Using Top-Down Mass Spectrometric Data.** M.R. Holmes; S.R. Jefferys; M.C. Giddings. School of Medicine, UNC at Chapel Hill.
- P-1014. Faster, More Sensitive Peptide Identification from Tandem Mass Spectra by Sequence Database Compression.** N.J. Edwards, University of Maryland.

- P-1015. Effects of Delay in Tissue Processing/Fixation on Protein Expression Profiles of Normal and Malignant Colon Tissue.** J.A. Aquino<sup>1</sup>, E. Castellano Sanchez<sup>2</sup>, J.D. Wulfkuhle<sup>1</sup>, C. Zornig<sup>3</sup>, K. David<sup>4</sup>, H. Juhl<sup>4</sup>, L.A. Liotta<sup>1</sup>, E.F. Petricoin III<sup>5</sup>. 1) National Cancer Institute; 2) Centro de Investigacion del Cancer; 3) Israelitic Hospital, Dept. of Surgery; 4) Indivumed, Center for Cancer Research at the Israelitic Hospital; 5) Food and Drug Administration.
- P-1016. Paper withdrawn**
- P-1017. Protein Microarray Analysis of Lymphangiogenesis.** <sup>3</sup>L.V Leak; <sup>2</sup>L.A Liotta; <sup>3</sup>V.S. Calvert; <sup>2</sup>J. Wulfkuhle; <sup>3</sup>E.E. Petricoin, III. 1) Howard University; 2) National Cancer Institute, NIH; 3) FDA.
- P-1018. Application of a Comprehensive Biomarker Discovery Platform to Alzheimer's Disease.** <sup>1</sup>S.A. Kuzdzal; <sup>1</sup>M. Lopez; <sup>1</sup>A. Mikulskis; <sup>2</sup>G. Cioppa; <sup>2</sup>W.M. Gershon. 1) PerkinElmer Life & Analytical Sciences; 2) Predictive Diagnostics.
- P-1019. Improving the Performance of Proteomics Studies via Sound Experimental Design.** G.P. Page; D.B. Allison; S. Barnes, University of Alabama.
- P-1020. Protein Information Resource (PIR): An Integrated Bioinformatics Resource for Functional Proteomics.** P. McGarvey; Z.-Z. Hu; C.H. Wu; Protein Information Resource, Department of Biochemistry & Molecular Biology, Georgetown University Medical Center.
- P-1021. Genome Annotation Using Mass Spectrometry-derived Data.** D.E. Kalume; R. Reddy; M. Okulate; N. Kumar; A. Pandey; Johns Hopkins University.