

MPSA2004

SUNDAY, AUGUST 29, 2004

- 14:00 - 20:00 Registration/Information Open
HUB Auditorium Foyer
- 18:30 - 19:00 Welcome to MPSA: Ray Paxton, Amgen Corporation, USA
HUB Auditorium Welcome from IAPSAP: Ettore Appella, National Cancer Institute, NIH, USA
Keynote Introduction: Trisha N. Davis, University of Washington, USA
- 19:00 - 20:00 **Keynote Speaker:** Stan Fields, Howard Hughes Medical Institute, University of
HUB Auditorium Washington, USA
"Protein Interactions"
- 20:30 - 22:00 **Welcome Reception**
McMahon Hall Patio

MONDAY, AUGUST 30, 2004

- 07:30 - 19:30 Registration/Information Open
HUB Auditorium Foyer
- 08:30 - 08:45 Welcome/Introductions
HUB Auditorium Ray Paxton, Amgen Corporation, USA

I. The Interactome

Chairperson: Richard Perham

- 08:45 - 09:30 Michael Snyder, Yale University, USA
Hub Auditorium "Global Analysis of Biochemical Activities Using Protein Chips"

II. Analytical Strategies in Proteomics

Chairpersons: Norman J. Dovichi and Brigitte Wittmann-Liebold

- 09:30 - 10:15 Ulf Landegren, Uppsala University, Sweden
Hub Auditorium "Analysis of Individual and Interacting Proteins Via Proximity Ligation Reactions"
- 10:15 - 10:45 **Break:** Coffee/Exhibits Open
HUB East Ballroom
- 10:45 - 11:30 Tomas Rejtar, Barnett Institute, Northeastern University, USA
Hub Auditorium "New Approaches to Maximize the Information Content of Proteomic Samples Using LC-MALDI-TOF/TOF MS Analysis"
- 11:30 - 12:15 Richard D. Smith, Pacific Northwest National Laboratory, USA
Hub Auditorium "Advances in Quantitative High Throughput Proteomics based upon Nano-LC and Mass Spectrometry"
- 12:15 - 12:30 **Short Talk**
HUB Auditorium James R. Kraly, University of Washington, USA
"Proteomic Analysis of Barrett's Esophagus using Capillary Electrophoresis with Laser-Induced Fluorescence"

continued...

Short Talk

12:30 – 12:45

HUB Auditorium

Jeffrey A. Kowalak, National Institute of Mental Health, USA
 “An Integrated Workflow for Interpretation of Shotgun Proteomics Data”

12:45 - 14:15

HUB 106B

Lunch Workshop Presented by Applied Biosystems
 Sally Webb, Proteomics Technical Marketing Specialist
 “PTM Discovery and Biomarker Quantitation Workflows using the Applied Biosystems/MDS
 SCIEX 4000 Q TRAP(R) LC/MS/MS System”

Workshop Session 1

Chairperson: Kenneth Walsh

14:15 - 15:15

HUB Auditorium

Donald Hunt, University of Virginia
 “Proteomics: Automated Analysis of Peptides and Proteins at the
 Attomole Level in Complex Mixtures by Mass Spectrometry”

Thermo
 ELECTRON CORPORATION

15:15 - 16:15

HUB Auditorium

Philip Ross, Applied Biosystems
 “Protein and Peptide Quantitation using Novel, Multiplex
 Tagging Reagents”

**Applied
 Biosystems**
 an Applied Corporation Business

16:15 - 16:45

*HUB East Ballroom***Break:** Refreshments/Exhibits Open**Workshop Session 2**

Chairperson: Ray Paxton

16:45 - 17:40

HUB Auditorium

Jeff Silva, Waters Corporation
 “Expression Profiling of Various Metabolic Conditions of *E. coli*”

Waters 

17:40 - 18:35

HUB Auditorium

Gary Kruppa, Bruker Daltonics
 “Studies of Three-Dimensional Protein Structure using Mass
 Spectrometry (MS3D). Protein Surface Reactivity and Chemical
 Cross-linking”

**BRUKER
 DALTONICS**

18:35 - 19:30

HUB Auditorium

Sandra L. McCutchen-Maloney, Lawrence Livermore National Lab
 “From Infection to Detection via Characterization of Host Response”

GE Healthcare

19:30 – 21:00

HUB East Ballroom

Poster Session I: Pizza and Posters
 Sponsored by Applied Biosystems and Bruker Daltonics

TUESDAY, AUGUST 31, 2004

08:00 - 18:00

HUB Auditorium Foyer

Registration/Information Open

III. Computational Biology and Protein Families

Chairpersons: William Noble and Stephen Altschul

08:30 - 09:15

HUB Auditorium

David Eisenberg, University of California, Los Angeles, USA
 “Protein Interactions”

09:15 - 10:00

HUB Auditorium

David Baker, University of Washington, Seattle, USA
 “Prediction and Design of Protein Structures and Protein-Protein Interactions”

10:00 - 10:30

*HUB East Ballroom***Break:** Coffee/Exhibits Open

10:30 - 11:15 Anna Tramontano, University of Rome "La Sapienza", Italy
HUB Auditorium "Current Status and Perspectives of Protein Structure Prediction Methods"

11:15 - 12:00 Keith Dunker, Indiana University School of Medicine, USA
HUB Auditorium "Intrinsic Disorder and Protein Function"

Short Talks

Chairpersons: Jan Johansson and Theodora Choli-Papadopoulou

12:00 – 12:15 Juan Astorga-Wells, Karolinska Institutet, Sweden
HUB Auditorium "Microfluidic Electrocapture Technology in Protein and Peptide Analysis"

12:15 – 12:30 Kris Gevaert, Ghent University, Belgium
HUB Auditorium "Protein Identification and Characterization by Diagonal Reverse-Phase Chromatography"

12:30 – 12:45 Yu Lu, University of Washington/Institute for Systems Biology, USA
HUB Auditorium "A Novel Method to Quantify Serum Biomarkers via Visible Isotope-Coded Affinity Tags and Tandem Mass Spectrometry"

12:45 – 13:00 Kazuyasu Sakaguchi, Hokkaido University, Japan
HUB Auditorium "Amyloid-like Fibril Formation of Mutant p53 Tetramer Peptide at Physiological pH and Temperature"

13:00 – 13:15 David Arnott, Genentech, Inc., USA
HUB Auditorium "Proteomic Contributions to the Elucidation of c-jun and p53 Ubiquitin Ligases"

13:15 - 14:30 Lunch Break

IV. Protein Posttranslational Modifications and Cell Signaling

Chairpersons: Lowell Ericsson and Hans Jörnvall

14:30 - 15:15 Steven A. Carr, Broad Institute of MIT and Harvard, USA
HUB Auditorium "Biomarker Discovery by Proteomics and its Role in Drug and Diagnostic Development"

15:15 - 16:00 Jeff J. Gorman, Institute For Molecular Bioscience, University of Queensland, Australia
HUB Auditorium "Post-Translational Modifications of Transcription Factors Regulate Responses to Environmental Stimuli"

16:00 - 16:30 **Break:** Refreshments/Exhibits Open
HUB East Ballroom

Protein Posttranslational Modifications and Cell Signaling, continued

Chairperson: David R. Morris

16:30 - 17:15 Gerald W. Hart, Johns Hopkins University Medical School, USA
HUB Auditorium "Dynamic Protein Glycosylation by O-GlcNAc is a Metabolic Sensor Modulating Transcription, Signaling and Stress Responses in all Multi-Cellular Organisms"

Programs in Proteomics at the National Institutes of Health

Chairperson: Christine Colvis

17:15 – 18:00 Douglas M. Sheeley, National Center for Research Resources
HUB Auditorium "Understanding Complex Systems using Proteomics Approaches: Ongoing Programs and Current Funding Opportunities at NIH"

18:00 - 19:30 **Poster Session II: Wine and Cheese**
HUB East Ballroom

continued...

WEDNESDAY, SEPTEMBER 1, 2004

8:00 am - 18:00 Registration/Information Open
HUB Auditorium Foyer

V. High Throughput Technologies for Cloning, Protein Production and Folding
Chairpersons: Hisashi Hirano and Agnes Henschen-Edman

08:30 - 09:15 Frank R. Collart, Argonne National Laboratory, USA
HUB Auditorium “High Throughput Expression Strategies for Structural and Functional Genomics”

09:15 - 10:00 Mark T. Fisher, University of Kansas Medical Center, USA
HUB Auditorium “Designing a High Throughput Refolding Array Using a Combination of the GroEL Chaperonin and Osmolytes”

10:00 - 10:30 **Break:** Coffee/Exhibits Open
HUB East Ballroom

VI. Protein-Protein Interactions and Analysis of Macromolecular Complexes
Chairpersons: Rachel Klevit and Harald Tschesche

10:30 - 11:15 Jeff Ranish, Institute for Systems Biology, USA
HUB Auditorium “The Study of Macromolecular Complexes by Quantitative Proteomics”

11:15 - 12:00 Min Li, Johns Hopkins University School of Medicine, USA
HUB Auditorium “Random Peptide Display and Selection – for Interaction and Function”

12:00 - 12:45 Jill Trehwella, University of Utah, USA
HUB Auditorium “Conformational Changes in Second Messenger Mediated Signaling as Seen by Neutrons”

12:45 - 13:00 **Short Talk:** Jon C. D. Houtman, National Institutes of Health, USA
HUB Auditorium “Binding Specificity of Multiprotein Signaling Complexes is Determined by Both Cooperative Interactions and Affinity Preferences”

13:00 - 14:00 Lunch Break

VII. Chemical Proteomics and Imaging Methods
Chairpersons: Michael H. Gelb and Daniel T. Chiu

14:00 - 14:45 pm Ben Cravatt, Scripps Institute, USA
HUB Auditorium “Activity-Based Protein Profiling: Chemical Approaches for Functional Proteomics”

14:45 - 15:30 pm Mark H. Ellisman, Center for Research in Biological Structure, University of California, San Diego, USA
HUB Auditorium “Multi-scale Imaging of the Nervous System”

15:30 - 16:00 pm **Break:** Refreshments/Exhibits Open
HUB East Ballroom

VIII. Protein Engineering and Biotechnology
Chairperson: Fumio Sakiyama

16:00 - 16:45 pm John R. Desjarlais, Director, Protein Engineering, Xencor, Monrovia, CA, USA
HUB Auditorium “Rational Engineering of Protein Drugs”

Pehr Edman Awards**Introduction: Winona C. Barker**

- 16:45 – 17:25 Stephen Altschul, National Center for Biotechnology Information, NIH, USA
HUB Auditorium “The Compositional Adjustment of Amino Acid Substitution Matrices”
- 17:25 – 18:05 Amos Bairoch, Swiss Institute of Bioinformatics, Switzerland
HUB Auditorium “From Edman to Madness: How to Survive in a Flood of Protein Sequence Data”

Young Investigator Award**Introduction: Jay W. Fox**

- 18:05 – 18:45 Niro Ramachandran, Harvard Medical School, USA
HUB Auditorium “Self Assembling Protein Microarray”

Museum of Flight Banquet

- 19:30 Buses depart from Memorial Way near Denny Hall
22:30 Buses return to campus and University District hotels

THURSDAY, SEPTEMBER 2, 2004

- 08:00 - 13:00 Registration/Information Open
HUB Auditorium Foyer

IX. Cell Pathways Regulation and Metabonomics**Chairpersons: Kristine Swiderek and Martin J. Kushmerick**

- 08:30 – 09:15 Trisha N. Davis, University of Washington, USA
HUB Auditorium “The Lattice Structure of the Yeast Spindle Pole Body Probed by Fluorescence Resonance Energy Transfer”
- 09:15 - 10:00 Jeremy Nicholson, Imperial College, London, England
HUB Auditorium *title to be announced*
- 10:00 - 10:15 **Short Talk:** Jennifer H. Granger, Waters Corporation, USA
HUB Auditorium “Ultra Performance Liquid Chromatography-MS(TOF): New Separations Technology for High Throughput Metabonomics”
- 10:15 - 10:30 **Coffee Break**
HUB Auditorium Foyer

X. Systems Biology**Chairperson: Amos Bairoch**

- 10:30 - 11:15 Trey Ideker, University of California, San Diego, USA
HUB Auditorium “Mapping, Validating and Comparing Biological Networks”
- 11:15 - 12:00 Leroy Hood, Institute for Systems Biology, USA
HUB Auditorium “Systems Approaches to Development and Physiology”
- 12:00 - 12:45 Business/Announcements/Closing
HUB Auditorium Kenneth Walsh, University of Washington, USA
Carl W. Anderson, Brookhaven National Laboratory, USA