

Preliminary Daily Program

(updated 1/2/08, subject to change, not all presentation titles have been submitted)

Saturday, February 9, 2008

- 12:00 PM – 6:00 PM **REGISTRATION OPEN** – *South Foyer Lobby*
- 5:30 PM – 6:30 PM **KEYNOTE LECTURE** – *Ballroom IJ*
Dr. Howard Cash, Genecodes Inc.
- 6:30 PM - 7:15 PM **OPENING PLENARY LECTURE**– *Ballroom IJ*
Dr. Alexander W. Bell, McGill University – The Protein Microscope:
Incorporating Mass Spectrometry into Cell Biology
- 7:30 PM - 8:30 PM **WELCOME RECEPTION** – *Salt Palace Convention Center – South Foyer*

Sunday, February 10, 2008

- 7:00 AM – 5:00 PM **REGISTRATION OPEN** – *South Foyer Lobby*
POSTER VIEWING - *Exhibit Hall*
- 7:15 AM – 8:15 AM **CONTINENTAL BREAKFAST** – *South Foyer*
- 8:00 AM – 8:45 AM **PLENARY LECTURE** - *Ballroom IJ*
Dr. Philip Benfey, Duke University, Durham, NC – New Technology for Imaging
and Analyzing Organ Growth and Gene Expression
- 9:00 AM – 10:30 AM **CONCURRENT SCIENTIFIC SESSIONS**
**Phosphoproteomics, Genomics, Network Modeling and the
Discovery of New Medicines**
Ballroom A
Organizer: Preston Hensley, Pfizer Global Research & Development
Forest White, Massachusetts Institute of Technology -
Phosphoproteomic Analysis of Signaling Networks in
Insulin Resistance (S1)
Douglas Lauffenburger, Massachusetts Institute of Technology -
Computational Analysis of Signaling Network Data for
Insights Concerning Network Operation (S2)
Ernest Fraenkel, Massachusetts Institute of Technology -
Integrating High-throughput Data to Understand
Cellular Response Pathways (S3)

MS Analysis of Glycoprotein*Ballroom C*

Organizer: Ronald Orlando, University of Georgia - Novel Separation and Quantification Strategies for Glycoproteomics (S4)
 Carlito Lebrilla, University of California, Davis - Structural Methods for Profiling the Human Glycome - Implications to Disease Marker Discovery (S5)
 Yehia Mechref, Indiana University - Development of High-Throughput Quantitative Glycomic and Glycoproteomic Approaches for the Discovery of Cancer Biomarkers (S6)

Lipidomics*Ballroom E*

Organizer: Tom Brenna, Cornell University - Overview of Lipidomics (S7)
 Robert C. Murphy, University of Colorado Health Sciences Center - Analysis of Lipids by Mass Spectrometry (S8)
 Ian A. Blair, University of Pennsylvania - Chiral Analysis of Bioactive Oxidized Lipids Using LC-MS (S9)

10:00 AM - 5:00 PM

EXHIBITS OPEN - *Exhibit Hall*

10:30 AM - 11:00 AM

REFRESHMENT BREAK - *Exhibit Hall*

11:00 AM - 12:00 PM

CONCURRENT RESEARCH GROUP SESSIONS
Molecular Interactions Research Group (MIRG)*Ballroom A*

Mike Doyle, Bristol-Myers Squibb Pharma
 Satya Yadav, Cleveland Clinic Foundation Research Institute
 Simon Berqvist, Pfizer, La Jolla, CA - Molecular Interactions Research Group Session: (A) Discussion of Label-Free Technologies Survey and (B) Tutorial on Isothermal Titration Calorimetry (RG1)

Microarray Research Group (MARG)*Ballroom C*

Susan Hester, EPA, Cellular Toxicology Branch
 Chris Harrington, Oregon Health & Science University - 2008 Microarray Research Group (MARG Survey): Sensing the State of Microarray Technology (RG3)

Proteomics Research Group (PRG)*Ballroom E*

Nathan Yates, Merck & Company, Inc.

12:00 PM - 1:45 PM

MINGLE & MUNCH – *Exhibit Hall*

Complimentary foods and refreshments will be provided in the Exhibit Hall for you to enjoy while wandering through the exhibit booths and posters.

POSTER SESSION #1 – Exhibit Hall

1:45 PM - 2:45 PM

JBT AWARD PRESENTATION & LECTURE – Ballroom IJ

Outstanding Scientist Award
Student/Post Doc Awards
Research Group Member of the Year

3:00 PM - 4:30 PM

CONCURRENT TUTORIALS & ROUNDTABLE SESSIONS

Ion Mobility Mass Spectrometry

Ballroom A

Organizer: David Clemmer, Indiana University - New MS-Technologies for Characterizing Complex Protein Mixtures that are based on Ion Structure (S10)
Yehia Mechref, Indiana University

Protein Purification

Ballroom C

Organizer: Rebecca Page, Brown University
Julian Vasilescu, Proteomics Resource Centre Ottawa Institute of Systems Biology - Mapping Protein-Protein Interactions by Mass Spectrometry (S11)

Molecular Interactions on Biosensors

Ballroom E

Organizer: David Myszka, University of Utah
Rebecca Rich, University of Utah - Using SPR to Optimize GPCR Isolation and Activity (S12)
Tony Giannetti, Roche Palo Alto, LLC - Pharmaceutical Lead Identification of Low Affinity, Low Molecular Weight Small Molecule Fragments Using Surface Plasmon Resonance Based Biosensors (S13)

Guidelines for Including Facility Staff as Authors

Ballroom G

Organizer: Nancy Denslow, University of Florida - Guidelines for Authorship for Core Facility Personnel (S14)
Thomas Neubert, Skirball Institute of Biomolecular Medicine
Laurey Steinke, University of Nebraska Medical Center
Tony Yeung, Fox Chase Cancer Center
Steve Bobin, Dartmouth College

4:30 PM - 5:00 PM

REFRESHMENT BREAK - Exhibit Hall

5:00 PM – 6:30 PM

CONCURRENT SCIENTIFIC SESSIONS

Microarray Technologies, Today & Tomorrow

Ballroom A

Organizer: Susan Hester, Environmental Protection Agency, Cellular Toxicology Branch
Leming Shi, Food & Drug Administration – The MicroArray Quality Control (MAQC) Project: An FDA-led Effort Toward Personalized Medicine
Shawn Levy, Vanderbilt University Medical Center – Microarrays: The Next Generation

Proteomics in Agriculture*Ballroom C*

Organizer:

Alberto Nunez – USDA – ARS

Bret Cooper – USDA – ARS - Quantitative Proteomic Analysis of Bean Plants Infected with Virulent and Avirulent Strains of an Obligate Rust Fungus (S16)

Rebecca Larson – Syngenta - Sugarbeet Protein Changes and Interactions Associated with Resistance and Susceptibility to *Beet necrotic yellow vein virus* (S17)Clifton Fagerquist – USDA – ARS - Composite Sequence Proteomic Analysis (CSPA) of Bacterial Protein Biomarkers: Proteomic Evidence of Lateral Gene Transfer Across *Campylobacter* Species? (S18)

6:30 PM – 7:30 PM

FACILITY POSTER SESSION RECEPTION - *Ballroom FH*

7:00 PM – 8:00PM

EXHIBITOR PRESENTATIONS**Monday, February 11, 2008**

7:00 AM – 5:00 PM

REGISTRATION OPEN – *South Foyer***POSTER VIEWING - *Exhibit Hall***

7:15 AM – 8:15 AM

CONTINENTAL BREAKFAST – *South Foyer*

8:00 AM – 8:45 AM

PLENARY LECTURE - *Ballroom IJ*

Dr. John Asara, Beth Israel Deaconess Medical Center, Boston, MA - Dinosaur Molecules and their Evolutionary Tale (PL1)

9:00 AM – 10:30 AM

CONCURRENT SCIENTIFIC SESSIONS**Disruptive Technologies in Life Sciences***Ballroom A*

Organizer:

Jack Henion, Advion Biosciences, Inc.

Alan Rockwood, ARUP Laboratories (S19A) – Mass Spectrometry and other Disruptive Technologies in the Future of Laboratory Medicine

Dan Luo, Cornell University - DNA and DNA Gel: A New Material in Life Sciences and Beyond (S19)

Brian Warrington, University of Cambridge, UK. and BB Consultants Ltd. - Microfluidics as a Disruptive Technology for the Synthesis of New Pharmaceutically Important Compounds (S20)

Analytical Methods to Characterize Proteins

Ballroom C

Organizers:

Rachel Loo, University of California, Los Angeles

David Arnott, Genetech Inc.

Paul Motchnik, Genetech, Inc. - Structural Characterization Requirements for Therapeutic Monoclonal Antibodies (S21)

Cathy Costello, Boston University - Multiply-pronged Approaches to Extract the Fascinating Details of Protein Structures (S22)

Joseph Loo, University of California, Los Angeles - Proteins Can Reveal Much Information After Removing its Water (in a mass spectrometer) (S23)

RT PCR in the Clinic

Ballroom E

Organizer:

Mark W. Pandori, San Francisco Department of Public Health – Introduction to Real Time PCR as a Diagnostic Tool

Danny Wiedbrauk, Warde Medical Laboratories - Real-Time PCR in the Clinical Laboratory (S24)

David Schnurr, California Department of Health Services Laboratory

10:00 AM - 5:00 PM

EXHIBITS OPEN - *Exhibit Hall*

10:30 AM - 11:00 AM

REFRESHMENT BREAK - *Exhibit Hall*

11:00 AM - 12:00 PM

CONCURRENT RESEARCH GROUP SESSIONS

Proteomics Standards Research Group (sPRG)

Ballroom A

Rachel Loo, University of California at Los Angeles - Inferring Protein Quantities from Peptides: Considerations in Selecting Peptide Sequences for Synthesis as Stable Isotope Labeled Standards (RG4)

Alexander Ivanov, Harvard School of Public Health

James Farmar, New York Blood Center

Edman Sequencing Research Group (ESRG)

Ballroom E

Brian Hampton, University of Maryland

Wendy Sandoval, Genentech Inc. - ESRG Study 2008: Investigation into Poly-amino Acid N-terminal Tags and their Effects on automated Edman Degradation (RG7)

Steve Smith, University of Texas Medical Branch (RG8-M)

Peter Hunziker, University of Zurich

Fragment Analysis Research Group (FARG)

Ballroom G

Christian Lytle, Dartmouth College

Robert Welch, National Cancer Institute - What is Genotyping, and why is the definition different for so many laboratories? Results From the FARG 2007 Survey (RG13) and (RG14-S)

Brewster Kingham, University of Delaware

12:00 PM - 1:45 PM

MINGLE & MUNCH – *Exhibit Hall*

Complimentary foods and refreshments will be provided in the Exhibit Hall for you to enjoy while wandering through the exhibit booths and posters.

1:45 PM - 2:45 PM

POSTER SESSION #2**ABRF AWARD PRESENTATION & LECTURE – Ballroom J***Sponsored by Agilent Technologies*

Dr. Ruedi Aebersold, ETH-Zürich and University of Zürich

3:00 PM - 4:30 PM

CONCURRENT TUTORIALS & ROUNDTABLE SESSIONS**Practical Considerations in Implementing Next Generation Sequencing Technologies as Shared Research Resources***Ballroom A*

Organizer: George Grills, Cornell University - Practical Considerations in Implementing Next Generation Sequencing Technologies as Shared Research Resources (S25)

Peter Schweitzer, Cornell University - Implementing Next Generation Sequencing Technologies as Facility Resources: Results from the Cornell University Life Sciences Core Laboratories Center (S26)

Savita Shanker, University of Florida at Gainesville - Taking the Leap: Implementing NextGen DNA Sequencing Services at University of Florida (S27)

Ken Dewar, Ph.D. McGill University & Genome Quebec Innovation Centre – The Good the Bad and the Unexpected: The Experiences of the Genome Quebec Innovation Center with the Next Generation DNA Sequencing Technology

Flow Cytometry*Ballroom C*

Organizer: Joanne Lannigan, University of Virginia - Establishing a Successful Cytometry Core Facility: A Grass Roots Approach (S28)

Alan Saluk, The Scripps Research Institute – Managing a Successful Flow Cytometry Core: A Grassroots Approach

ECD/ETD*Ballroom E*

Organizer: Melinda McFarland, NIH/NIMH

Joshua Coon, University of Wisconsin - Implementation of Electron Transfer Dissociation on a Hybrid Linear Ion Trap-orbitrap Mass Spectrometer (S29)

Kristina Hakasson, University of Michigan - Tricks for Extending the Utility of ECD (S30)

Information Technology*Ballroom G*

Organizer: Anton Federkiewicz, Biomedical Engineering, Wyeth Research IS

Daniel DeHoney, Wyeth Research - A Methodology for the Development of a Comprehensive Lab Information Technology Strategy (S31)

4:30 PM - 5:00 PM

REFRESHMENT BREAK - Exhibit Hall

5:00 PM – 6:30 PM

CONCURRENT SCIENTIFIC SESSIONS

Homogeneous DNA Analysis

Ballroom A

Organizer: Carl Wittwer, University of Utah - High Resolution Melting Analysis for Mutation Scanning and Genotyping (S32)
Russell Higuchi, Roche Molecular Systems

Open Source MS Search Algorithms

Ballroom C

Organizer: Paul Rudnick, National Institute of Standards and Technology - Combining MS/MS Sequence and Spectral Library Search Algorithms (S33)
David Tabb, Vanderbilt University - *Ceteris paribus*: Problems in Comparing Database Search Algorithms (S34)
Nuno Bandeira, University of California, San Diego - Spectral Alignment Approaches to the Blind Discovery of Post-translational Modifications (S35)

6:30 PM – 7:30 PM

FACILITY POSTER SESSION RECEPTION - Ballroom FH

7:00 PM – 8:00PM

EXHIBITOR PRESENTATIONS

Tuesday, February 12, 2008

7:00 AM – 3:00 PM

REGISTRATION OPEN – South Foyer
POSTER VIEWING - Exhibit Hall

7:15 AM – 8:15 AM

CONTINENTAL BREAKFAST – South Foyer

8:00 AM – 8:45 AM

PLENARY LECTURE - Ballroom IJ
Dr. Richard McCombie, Cold Spring Harbor Laboratory

9:00 AM – 10:30 AM

CONCURRENT SCIENTIFIC SESSIONS

Disruptive DNA Sequencing Approaches

Ballroom A

Organizer: Susan Hardin, VisiGen Biotechnologies, Inc. - Real-time DNA Sequencing (S36)
Xiaohua Huang, University of California, San Diego - Microfabricated Arrays for Genome Sequencing (S37)
Andre Marzali, University of British Columbia - Genotyping Using Nanopore Force-Spectroscopy (S38)

Light Microscopy & Imaging

Ballroom C

Organizer: Richard Cole, Wadsworth Center - Optical Projection Tomography - 3D Imaging of Whole Organs/Organisms (S39)
Jennifer C. Waters, Harvard Medical School - Evaluating Performance in 3D Fluorescence Microscopy (S40)
Peter K. Hepler, University of Massachusetts Amherst - Imaging Exocytosis and Endocytosis during Oscillatory Pollen Tube Growth (S41)

Laser Capture Micro Dissection

Ballroom E

Organizer: Patrick Schnable, Iowa State University - Transcriptomic Analyses of Laser Captured Plant Cells (S42)
 Norman Lewis, Washington State University - Building the Vascular Plant Cell Wall through Laser Microscope Dissection and Proteomic Analyses
 Virginia Espina, George Mason University - LCM Coupled with Proteomic Applications: Tips, Tricks and Troubleshooting

10:00 AM - 3:00 PM

EXHIBITS OPEN - *Exhibit Hall*

10:30 AM - 11:00 AM

REFRESHMENT BREAK - *Exhibit Hall*

11:00 AM - 12:00 PM

CONCURRENT RESEARCH GROUP SESSIONS

DNA Sequencing Research Group (DSRG)

Ballroom A

Peter Schweitzer, Cornell University (RG10) and (RG9-T)

Proteome Informatics Research Group (iPRG)

Ballroom C

Sean Seymour, Applied Biosystems - ABRF iPRG2008 Study: Assessing the Quality and Consistency of Protein Reporting on a Common Data Set (RG11)

Protein Expression Research Group (PERG)

Ballroom E

Francis Rajamohan, Pfizer Inc.

John Hawes, Miami University - Evaluation of Expression and Purification Strategies to Maximizing the Yield of a Recombinant Protein in *E. coli*. (RG12)

Nucleic Acids Research Group (NARG)

Ballroom G

Tim Hunter, Vermont Cancer Center (RG5) and Kevin Knudtson, University of Iowa (RG6-S) – Nucleic Acid Research Group 2007-2008 study: A Comparison of Different Priming Strategies for cDNA synthesis by Reverse Transcriptase as Measured by Real-Time RT-qPCR
 Gregory Shipley, University of Texas Health Science Center – Information about the Second Part of the NARE Reverse Transcription-Primer Study

12:00 PM - 1:45 PM

MINGLE & MUNCH – *Exhibit Hall*

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POSTER SESSION #3

1:45 PM – 3:00 PM

POSTER AWARD PRESENTATION & LECTURE – *Ballroom IJ*

3:15 PM - 4:45 PM

CONCURRENT TUTORIALS & ROUNDTABLE SESSIONS

Next Generation Sequencing : The Instruments

Ballroom A

- Organizer: George Grills, Cornell University – Next Generation Sequencing Technologies Currently Used in Core Facilities
- Tim Harkins, Roche Applied Sciences - Next Generation Sequencing on the Roche Genome Sequencer FLX (S43)
- Gary Schroth, Illumina - Enabling Genome Biology with the Illumina Genome Analyzer (S44)
- Robert Nutter, Applied Biosystems – Enabling Key Applications Using the SOLiD™ System

Microarray Tutorial Roundtable

Ballroom C

- Organizer: Laura Reid, Expression Analysis, Inc. - Moving Microarrays into the Clinic (S45)
- Cynthia French, Affymetrix

Science Policy Forum

Ballroom E

- Organizer: Mark Lively, Wake Forest University
- Janet Lynch Lambert, Invitrogen Inc.
- Carrie Wolinetz, Federation of American Society for Experimental Biology - From Inside the Lab to Inside the Beltway: Becoming an Advocate for Science (S46)

Guidelines for the Publication of Proteomics Data

Ballroom G

- Organizer: Katalin F. Medzihradzsky, University of California at San Francisco - The Trials and Tribulations of Producing Manuscripts Compliant with Journal Publication Guidelines (S47)
- Robert Chalkley, University of California at San Francisco

5:00 PM – 6:30PM

ABRF BUSINESS MEETING & OPEN FORUM - *Ballroom IJ*

All attendees are encouraged to attend. Refreshments will be served.

7:00 PM – 10:00 PM

CLOSING SOCIAL – Casino Night @ the 23rd Floor Event Center, Wells Fargo Center, 299 South Main, 23rd Floor.
ph: 801-961-4050

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At-A-Glance

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