

Virtual Symposium and Exhibit Hall

The Genome and Beyond

BioTechniques®

*The Latest in Genomics, Proteomics, and Cell Biology:
How New Technology and Methods Are Changing Our Understanding*

October 5, 2011, 8:30 AM – 5:30 PM EDT – Free Registration



Morning Sessions

Session 1: Accelerating Genome Discovery through the Use of Next-Generation Sequencing - 9:00 AM - 10:30 AM

This session will provide participants with a better understanding of the varied uses for next-generation sequencing when it comes to deciphering gene structure and organization.

Keynote Speaker: Jay Shendure, University of Washington

Main Session Speakers: Ira Hall, University of Virginia ■ Srikumar Sengupta, Morgridge Institute for Research

Topics: An overview on next-generation sequencing applications in human genetics. Using next-generation sequencing to decipher and understand copy number variations. How RNA-seq approaches are being applied to understand transcription regulation in a variety of cell types.

Session 2: Understanding the Role of Epigenetic Change in Gene Regulation - 11:00 AM - 12:30 PM

This session will examine the impact of histone/protein modifications and DNA methylation patterns on gene expression as well as the roles epigenetic modifications play in stem cell and cancer biology.

Keynote Speaker: Brian Strahl, University of North Carolina, Chapel Hill

Main Session Speakers: Mitchell Guttman, Eric Lander Lab, MIT and Broad Institute ■ Donncha Dunican, MRC Human Genetics Unit

Topics: An overview of the latest research on histone modifications and the role they play in gene regulation. Recent findings on the roles large non-coding RNAs play in the regulation of gene expression and chromatin structure. New approaches being used for the study of global DNA methylation patterns, chromatin structure, and gene regulation.

Afternoon Sessions

Session 3: Recent Advances in Proteomics - 1:00 PM - 2:30 PM

This session will examine the tools currently driving the field of proteomics, including antibody generation technologies, mass spectrometry analysis of proteins and their modifications, and assays such as FRET and BiFC that enable researchers to dissect how proteins interact.

Keynote Speaker: Joshua J. Coon, University of Wisconsin, Madison

Main Session Speaker: David Rimm, Yale University

Topics: Quantitative proteomics and the use of mass spectrometry in protein analysis. The use of various fluorescence-based methods to study protein interactions. Advances in antibody generation and validation technologies and their impact on techniques such as immunohistochemistry.

Session 4: Frontiers in Cell Analysis - 3:00 PM - 4:30 PM

This session will examine the latest approaches for analysis of cell structures and cell identification, as well as tools that enable the study of how cells interact with their extracellular environments.

Keynote Speaker: John Masters, University College, London

Main Session Speakers: Lonnie Shea, Northwestern University ■ Mark Siegal, New York University

Topics: Challenges associated with cell line authentication and descriptions of the latest techniques and methods being used to curb the problem of non-authenticated cell lines in basic research. Advances in three-dimensional cell culture methodologies and possible applications in tissue engineering. Cellular signaling networks and recent studies using live-cell imaging to look at variation in growth strategies in yeast.

Registration, Exhibit Hall, Poster Hall, and Networking Lounge open 8:30 AM EDT to 5:30 PM EDT

All Content Will Be Available on Demand Beginning Thursday, October 6.

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Free to Register, Attend, and View on Demand: Visit www.BioTechniques.com/Symposium

The Genome and Beyond Virtual Exhibition Hall

Just like at any other conference, The Genome and Beyond features an interactive exhibit hall highlighting the latest products and services from exhibitors including:

- **ATCC**
- **BioTechniques**
- **Enzo Life Sciences**
- **Leica Microsystems**
- **Mirus Bio**
- **Pall Life Science**
- **PerkinElmer**
- **R&D Systems**

The Genome and Beyond Virtual Poster Hall

The virtual poster hall features poster presentations related to each session, including the following posters:

- An Arrayed Human Genomic Library Constructed in the PAC Shuttle Vector pJCPAC-Mam2 for Genome-wide Association Studies and Gene Therapy
- Array Tape Platform Provides HTP Screening with Reduced Plastic, Reagent and Energy Consumption
- Automated Multi-step Purification of Histidine-tagged Proteins from Unclarified Cell Lysates
- Detection of Prostate Cancer Biomarkers by Expression Microarray Analysis of TransPlex® WTA2 Amplified FFPE Tissue RNA
- Development of a Novel Cell-based ELISA for Analysis of Intracellular Proteins of Phosphorylation of Signaling Molecules
- Gene Expression Profiling of Formalin-fixed Paraffin Embedded Colon Tumor and Normal Adjacent Samples by Next Generation Sequencing with the Ovation RNA -Seq FFPE system
- High Throughput Pressure-Enhanced Protein Extraction and Enzymatic Digestion with Pressure Cycling Technology (PCT) and PCT MicroTubes
- High-throughput Screening of Substrates for Tyrosine Kinases Using PEPscreen Custom Peptide®
- HisTrap™ FF Crude for Faster Purification of His-tagged Proteins
- HTRF Ligand Binding Assay for the Chemokine Receptor CXCR4
- Inhibitor Screening Utilizing Human Kinase Multiplex Arrays
- Investigation Into the Influence of the P13Ka (H1047R) Mutation on the Bioenergetic Dependency of a Cell
- Maximizing Protein Expression in CHO Suspension Cells Through Transient Transfection
- Micro RNA (miRNA): A Novel Biomarker for Therapeutic Target in Cancer
- Multiplexed Microsphere-Based Diagnostic Assay for Simultaneous Detection of Avian Influenza, Mycoplasma Gallisepticum, and Mycoplasma Synoviae Infection
- Multiplexed Sandwich Assay for Quantification of Transgenic Proteins in Genetically Modified Plants Using the Luminex Flexmap 3D System
- Plasmid Purification
- Power Next-Generation Sequencing with Innovative Sample Preparation Solutions from NuGEN®
- Purification of MBP-tagged Proteins Using Prepacked Columns
- Purification of Strep-tag™ II Proteins using Prepacked Columns
- Rapid Protein Analysis and Screening of Membrane Protein Buffer Conditions by Gel Filtration
- Streamlined Purification of Plasmid DNA from Prokaryotic Cultures
- Structural Destabilization of Y Chromosomes in Interspecific Backcrosses is Consistent with Variations in Epigenetic Modifications
- TransPlex® WTA2 Whole Transcriptome Amplification of RNA from Low-Cell Number Samples
- Utility of Automated Drug Transport Assays in 96 Well Format Using Permeable Support Systems

Giveaways

BioTechniques is sponsoring several giveaways during the event. Make sure to visit each booth in the Exhibit Hall to participate in giveaways sponsored by the individual exhibitors.

Exhibition Hall Giveaway

Exploring the Exhibit Hall can earn you points toward a drawing to win one of two \$100 Amazon.com giftcards. Each booth you enter is worth 1 point, downloading content is worth 2 points, and exchanging your personal v-card contact information with an exhibitor is worth 3 points. Reach 25 points and you will be automatically entered to win.

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