

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Omics Meets Cell Biology: Applications to Human Health and Disease (B3)

February 18-23, 2014 • Sagebrush Inn and Conference Center • Taos, New Mexico, USA

Scientific Organizers: Anne-Claude Gingras, Igor Stagljar and A.J. Marian Walhout

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 16, 2013 / Abstract Deadline: November 20, 2013 / Discounted Registration Deadline: December 16, 2013

TUESDAY, FEBRUARY 18

WEDNESDAY, FEBRUARY 19

Keynote Address

Brenda J. Andrews, University of Toronto, Canada
Integrating Omics and Cell Biology: Applications to Global Protein Localization and Flux Maps in Yeast

Proteomics Technologies: Applications to Disease

Matthias Selbach, Max Delbrück Center for Molecular Medicine, Germany
From Protein-Protein Interactions to Disease Phenotypes

Anne-Claude Gingras, Samuel Lunenfeld Research Institute, Canada
Signaling Interactome Dynamics in Health and Disease

Ileana M. Cristea, Princeton University, USA
Proteomics Meets Virology

Short Talk(s) Chosen from Abstracts

Omics Meets Genetics and Gene Expression

Heng Zhu, Johns Hopkins University School of Medicine, USA
Global Analysis of DNA Methylation-Dependent Transcription Factor-Binding Activity

A.J. Marian Walhout, University of Massachusetts Medical School, USA
*Integrative Network Biology in the Nematode *C. elegans**

Frank C.P. Holstege, University Medical Center, Utrecht, Netherlands
Validation of a Gene Expression Signature for Assessment of Lymph Node Metastasis in Oral Squamous Cell Carcinoma

Short Talk Chosen from Abstracts

Poster Session 1

THURSDAY, FEBRUARY 20

From Genotype and Phenotype

Charlie M. Boone, University of Toronto, Canada
The Genetic Landscape of the Cell

Yoshi Ohya, University of Tokyo, Japan
Chemical Genetic Approaches to Elucidate Complex Cellular Processes

Giulio Superti-Furga, CeMM Center for Molecular Medicine of the Austrian Academy of Sciences, Austria
Charting and Challenging the Molecular Machinery of Human Cells

Short Talks Chosen from Abstracts

Omics Meets Drug Discovery

Stefan Knapp, University of Oxford, UK
Using Structural Proteomics as a Tool for Drug Discovery

Domagoj Vucic, Genentech, Inc., USA
Targeting Ubiquitin Ligases in Cancer and Inflammation

Gerard Drewes, Cellzome - a GSK company, Germany
Chemical Proteomics of Enzyme Families

Short Talk Chosen from Abstracts

Poster Session 2

FRIDAY, FEBRUARY 21

Computational Analysis of Systems Biology

Peer Bork, European Molecular Biology Laboratory, Germany
Systemic Analysis of the Human Gut: Learning from Bugs and Drugs

Nuno Bandeira, University of California, San Diego, USA
Towards Extensive Characterization of all Variation in Proteomics and Beyond

Olga G. Troyanskaya, Princeton University, USA
From Functional Genomics Studies to the Cell-Lineage Specific View of Human Disease

Trey Ideker, University of California, San Diego, USA
Mapping the Genetic Networks of Cancer

Short Talk(s) Chosen from Abstracts

An Integrated View of Cellular Signaling

Tony Pawson, Samuel Lunenfeld Research Institute, Canada
Signaling Networks in Cell Fate Determination

Walter Kolch, University College Dublin, Ireland
Molecular Computing: How Protein Interaction Networks Coordinate Cell Fate Decisions

Igor Stagljar, University of Toronto, Canada
Protein Interaction Networks Regulating Cell Signaling in Human Health and Disease

Short Talk Chosen from Abstracts

Poster Session 3

SATURDAY, FEBRUARY 22

Global Analysis of Metabolic and Lipidomics Networks

Markus Ralser, University of Cambridge, UK
Genetic Basis of Stability and Flexibility of Metabolic Networks

Markus R. Wenk[†], National University of Singapore, Singapore
Lipidomics

Michael Snyder, Stanford University School of Medicine, USA
Extensive Dynamic Changes in Omics Profiles during Normal and Disease States

Anne-Claude Gavin, European Molecular Biology Laboratory (EMBL), Germany
Expanding the Interaction Space: Protein-Metabolite Networks

Short Talk(s) Chosen from Abstracts

Omics and Neurodegenerative Disorders

Paola Picotti, ETH Zurich, Switzerland
Probing Generic and Specific Responses to Intracellular Protein Aggregation

Paul J. Muchowski, University of California, San Francisco, USA
Yeast-Based Models as Tools for Neurodegeneration

Tony Schapira, University College London, France
The Intersection of Biochemistry and Genomics in Parkinson's Diseases Pathogenesis

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Omics Meets Cell Biology: Applications to Human Health and Disease (B3)

February 18-23, 2014 • Sagebrush Inn and Conference Center • Taos, New Mexico, USA

Scientific Organizers: Anne-Claude Gingras, Igor Stagljar and A.J. Marian Walhout

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 16, 2013 / Abstract Deadline: November 20, 2013 / Discounted Registration Deadline: December 16, 2013

Closing Address

Rudolf H. Aebersold, Institute of Molecular Systems Biology, ETH
Zurich, Switzerland
Network Driven Protein Biomarker Discovery and Validation

SUNDAY, FEBRUARY 23