

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

DNA Methylation (Z1)

Scientific Organizers: Alexander Meissner and Dirk Schübeler

Supported by the Directors' Fund

Epigenomics (Z2)

Scientific Organizers: Bing Ren and Daniel Zilberman

March 29-April 3, 2015 • Keystone Resort • Keystone, Colorado, USA

Supported by the Directors' Fund

Abstract & Scholarship Deadline: December 3, 2014 / Abstract Deadline: January 8, 2015 / Discounted Registration Deadline: January 29, 2015

SUNDAY, MARCH 29

Registration

MONDAY, MARCH 30

Keynote Address (Joint)

Adrian P. Bird, University of Edinburgh, UK

Genome-Wide DNA Methylation I (Joint)

Bradley R. Cairns, HHMI/University of Utah, USA

Talk Title to be Announced

Steven E. Jacobsen, HHMI/University of California, Los Angeles, USA

DNA Methylation in Flowering Plants

Alexander Meissner, Harvard University, Broad Institute, USA

Epigenetic Regulation of Mammalian Embryonic Development

Short Talk(s) Chosen from Abstracts

Workshop 1: Roadmap Epigenomic Tutorial (Z2)

DNA Methylation in Early Development (Z1)

Matthew C. Lorincz, University of British Columbia, Canada

Epigenetic Regulation of LTR Retrotransposons in Primordial Germ Cells

Speaker to be Announced

Deborah Bourc'his, Institut Curie, France

Short- and Long-Term Effects of Oocyte-Inherited DNA Methylation

Short Talk Chosen from Abstracts

Nucleosome Dynamics (Z2)

Steven Henikoff, Fred Hutchinson Cancer Research Center, USA

Genome-Wide Mapping of Nucleosome Turn-Over

B. Franklin Pugh, Pennsylvania State University, USA

Genome-Wide Organization of Chromatin

Jason Lieb, Princeton University, USA

Competition between Transcription Factors and Nucleosomes

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, MARCH 31

Regulation and Reading of DNA Methylation (Z1)

Timothy H. Bestor, Columbia University College of Physicians and Surgeons, USA

Transcriptional Regulation by DNA Methylation

Xiaodong Cheng, Emory University, USA

Regulation of Dnmts

Sriharsa Pradhan, New England Biolabs, USA

Writer, Reader and Eraser of Methyl-Lysine Choreograph DNMT1 Stability

Robert Martienssen†, Cold Spring Harbor Laboratory, USA

Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Functional Chromatin Domains (Z2)

Bradley E. Bernstein, Massachusetts General Hospital, Harvard Medical School, USA

Epigenetic Regulation and Heterogeneity in Cancer

Barbara J. Meyer, University of California, Berkeley, USA

Restructuring the X Chromosome by Condensin to Achieve Dosage Compensation

Manolis Kellis, Massachusetts Institute of Technology, USA

Interplay between Chromatin State, Regulator Binding and Regulatory Motifs

Iestyn Whitehouse, Memorial Sloan-Kettering Cancer Center, USA

Chromatin Assembly: A View from the Lagging Strand

Short Talk(s) Chosen from Abstracts

Workshop 2: Computational Toolboxes in Epigenomic Research (Z2)

Intermediate and Allele-Specific DNA Methylation (Z1)

Joseph F. Costello, University of California, San Francisco, USA

Talk Title to be Announced

Marisa S. Bartolomei, University of Pennsylvania Perelman School of Medicine, USA

Maternal Imprinting at the H19-Igf2 Locus

Anne C. Ferguson-Smith, University of Cambridge, UK

Genomic Imprinting and Parental-Origin Effects

Short Talk Chosen from Abstracts

Chromatin Regulation of Development (Z2)

Laurie A. Boyer, Massachusetts Institute of Technology, USA

Dynamic and Coordinated Epigenetic Regulation of Development Transitions in the Cardiac Lineage

John A. Stamatoyannopoulos, University of Washington, USA

Encoding Epigenesis

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Joanna Wysocka, Stanford University School of Medicine, USA

Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Poster Session 2

WEDNESDAY, APRIL 1

Perturbations of DNA Methylation in Disease (Z1)

Margaret A. Goodell, Baylor College of Medicine, USA

DNA Methyltransferases in Hematopoietic Development and Disease

Amos Tanay, Weizmann Institute, Israel

Single Cell Approaches to Epigenetic Memory in Cancer

Peter A. Jones, University of Southern California, USA

Cancer Therapy

Jeanne F. Loring, The Scripps Research Institute, USA

DNA Methylation in Stem Cells and Disease

Short Talk(s) Chosen from Abstracts

Higher Order Chromatin (Z2)

Job Dekker†, University of Massachusetts Medical School, USA

The Long-Range Interaction Landscape of Gene Promoters

Edith Heard, Institut Curie, France

Spatial Partitioning of the Regulatory Landscape of the X-Inactivation Center

Bas van Steensel, Netherlands Cancer Institute, Netherlands

Single-Cell Dynamics of Genome-Nuclear Lamina Interactions

Peter Fraser, Babraham Institute, UK

Single Cell Hi-C

Short Talk(s) Chosen from Abstracts

Workshop: Modeling DNA Methylation (Z1)

Short Talks Chosen from Abstracts

DNA Methylation as a Biomarker (Z1)

Stephan Beck, University College London, UK

Epigenome-Wide Association Studies (EWAS) in Cancer

Peter W. Laird, University of Southern California, Keck School of Medicine, USA

Cancer Methylomes

François Gaudet†, Janssen - Johnson & Johnson, USA

DNA Methylation in Cancer

Short Talk Chosen from Abstracts

Small RNA (Z2)

Amy E. Pasquinelli, University of California, San Diego, USA

Talk Title to be Announced

Craig S. Pikaard, HHMI/Indiana University, USA

Functions of RNA Polymerases IV and V in siRNA-Directed DNA Methylation

Haifan Lin, Yale University, USA

Talk Title to be Announced

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, APRIL 2

Genome-Wide DNA Methylation II (Joint)

Joseph R. Ecker, HHMI/The Salk Institute, USA

Patterns of Population Epigenomic Diversity

Bing Ren, University of California, San Diego, USA

Talk Title to be Announced

Daniel Zilberman, University of California, Berkeley, USA

DNA Methylation and Chromatin Regulation Across Eukaryotes

Dirk Schübeler, Friedrich Miescher Institute for Biomedical Research, Switzerland

Methylation-Dependent and -Independent Genomic Targeting

Principles of the MBD Protein Family

Short Talk(s) Chosen from Abstracts

Workshop 3: Large-Scale Genomic Approaches in Epigenomic Research (Z2)

DNA Methylation Turnover (Z1)

Wolf Reik, Babraham Institute, UK

The Role of DNA Modifications in Epigenetic Reprogramming and Signaling

Chuan He, University of Chicago, USA

Genome-Wide Profiling of 5-Formylcytosine Reveals its Roles in Epigenetic Priming

Anjana Rao, La Jolla Institute for Allergy and Immunology, USA

DNA Demethylation Pathways

Short Talk Chosen from Abstracts

Long Noncoding RNA (Z2)

Mitchell Guttman, California Institute of Technology, USA

lncRNAs: Function and Mechanism in Controlling Cellular Identity

Speaker to be Announced

John L. Rinn, Harvard University, USA

Talk Title to be Announced

Short Talk Chosen from Abstracts

FRIDAY, APRIL 3

Departure