

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Cancer Epigenetics: New Mechanisms and Therapeutic Opportunities (J4)

Scientific Organizers: Cigall Kadoch and Christopher Vakoc

Sponsored by Incyte Corporation

Gene Regulation: From Mechanisms to Disease (J3)

Scientific Organizers: Karen Adelman and Patrick Cramer

January 26-30, 2020 • Keystone Resort • Keystone, Colorado, USA

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 1, 2019 / Abstract Deadline: October 29, 2019 / Discounted Registration Deadline: November 26, 2019

SUNDAY, JANUARY 26

Arrival and Registration

MONDAY, JANUARY 27

Welcome and Keynote Address (Joint)

Shelley L. Berger, University of Pennsylvania, USA
Gene Regulation and Epigenetics in Aging

Fundamentals of Gene Regulation (Joint)

Eva Nogales, University of California, Berkeley, USA
Assembly of the General Transcription Machinery as Viewed by CryoEM

Patrick Cramer, Max Planck Institute for Biophysical Chemistry, Germany
Structural Basis of RNAPII Elongation Control

Danny F. Reinberg, HHMI/New York University, USA
Mechanisms of Polycomb Mediated Gene Silencing

Short Talk(s) Chosen from Abstracts

Workshop: Late-Breaking Abstracts (J3)

Short Talks Chosen from Abstracts

Enhancer Structure in Cancer (J4)

Ashby Morrison, Stanford University, USA
Epigenetic Regulation of Carcinogen Susceptibility

Richard A. Young, Whitehead Institute for Biomedical Research, USA
Enhancer Structure and Insulator Domain Function in Cancer

Bin Wu, Agios Pharmaceuticals Inc, USA
Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Imaging of Transcriptional Dynamics (J3)

Michael S. Levine, Princeton University, USA
Visualizing Developmental Dynamics in Drosophila Embryos

Ibrahim Cissé, Massachusetts Institute of Technology, USA
Imaging Enhancer Promoter Interactions in Single Cells

Danette L. Daniels, Promega Corporation, USA
Kinetic Monitoring of Protein Interactions and Targeted Degradation in Live Cells

Short Talk(s) Chosen from Abstracts

Poster Session 1

TUESDAY, JANUARY 28

Epigenetic Modifications of Chromatin and RNA (Joint)

Tony Kouzarides, University of Cambridge, UK
RNA Modifications and their Roles in Cancer

Asifa Akhtar, Max Planck Institute of Immunobiology and Epigenetics, Germany
Epigenetic Regulation by Histone Acetylation

Anne Brunet, Stanford University, USA
Insights into Transcriptional Control by Metabolism and Aging

Salvador Aznar Benitah, ICREA and Institute for Research in Biomedicine, Spain
Circadian Rhythms in Epigenetics

Short Talk(s) Chosen from Abstracts

Human Disease Models of Chromatin Regulation (J4)

Jennifer E. Phillips-Cremins, University of Pennsylvania, USA
Genome Misfolding in Human Neurological Disorders

Hao Zhu, University of Texas Southwestern Medical Center, USA
Mouse Models of Chromatin Remodeling Gene Mutations in GI Cancers

Paola Grandi, Cellzome AG, a GSK company, Germany
Click Chemistry and Preclinical Evaluation of Targeted Epigenetic Therapies

Short Talk(s) Chosen from Abstracts

Coupling of Transcription and RNA Processing (J3)

Yongsheng Shi, University of California, Irvine, USA
Probing 3' End Formation of Coding and Non Coding RNAs

Karla M. Neugebauer, Yale University, USA
Dynamics of Co-Transcriptional Splicing

Torben Heick Jensen, Aarhus Universitet, Denmark
New Models for RNA Surveillance and Regulated Decay

Short Talk(s) Chosen from Abstracts

Poster Session 2

WEDNESDAY, JANUARY 29

Synthetic Lethal Vulnerabilities in Cancer (J4)

Yael David, Memorial Sloan Kettering Cancer Center, USA
Revealing Cancer-Associated Epigenetic Events using Novel Chemical Tools

Ali Shilatifard, Northwestern University, USA
Targeting MLL/Compass Complexes in Cancer Using Small Molecules

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Cancer Epigenetics: New Mechanisms and Therapeutic Opportunities (J4)

Scientific Organizers: Cigall Kadoch and Christopher Vakoc

Sponsored by Incyte Corporation

Gene Regulation: From Mechanisms to Disease (J3)

Scientific Organizers: Karen Adelman and Patrick Cramer

January 26-30, 2020 • Keystone Resort • Keystone, Colorado, USA

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 1, 2019 / Abstract Deadline: October 29, 2019 / Discounted Registration Deadline: November 26, 2019

Scott A. Armstrong, Dana-Farber Cancer Institute, USA
Targeting Dependencies in MLL and other Pediatric Cancers

Christopher Vakoc, Cold Spring Harbor Laboratory, USA
Methods for Identifying Synthetic Lethal Dependencies in Cancer

Short Talk(s) Chosen from Abstracts

Communication between Promoters and Enhancers (J3)

Karen Adelman, Harvard Medical School, USA
Mapping Enhancers and Transcription Regulatory Networks in Development

Eileen E.M. Furlong, European Molecular Biology Laboratory, Germany
Promoter Enhancer Communication during Drosophila Development

Alexander Stark, Research Institute of Molecular Pathology - IMP, Austria

Decoding Regulation: Global Screens to Uncover how Sequence Dictates gene Activity

Clodagh C. O'Shea, The Salk Institute for Biological Studies, USA
Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Meet the Editors (J3)

Developmental Epigenetics and Transcription (J4)

Edith Heard, Institut Curie, France
Epigenetic Abnormalities in Development and Cancer

Adrian P. Bracken, Trinity College Dublin, Ireland
PRC2 Complexes in Development and Disease

Marcus Buschbeck, Josep Carreras Leukaemia Research Institute, Spain

Histone Variants Linking Metabolism and 3D Chromatin Architecture

Short Talk(s) Chosen from Abstracts

Defining Regulation in Single-Cell Cells (J3)

Nikolaus Rajewsky, Max Delbrück Center for Molecular Medicine, Germany
Insights into Principles of Gene Regulation by Single Cell Sequencing in Space and Time

Rickard Sandberg, Karolinska Institutet, Sweden
Decoding Transcriptional Regulation and Kinetics Using Single-Cell Transcriptomics

William J. Greenleaf, Stanford University, USA
Single Cell ATAC Seq Reveals Transcription Factor Networks

Short Talk(s) Chosen from Abstracts

Poster Session 3

THURSDAY, JANUARY 30

Chromatin Regulatory Modulation: Novel Small Molecule-Based Approaches (J4)

Eric R. Olson, Syros Pharmaceuticals, USA
Targeting Enhancers in Cancer

Frank P. Stegmeier, KSQ Therapeutics, USA
Synthetic Lethal Screening Efforts across Cancers

Rab K. Prinjha, GlaxoSmithKline, UK
Epigenetic Inhibition in Cancer: Emerging Strategies and Approaches

Jane A. Skok, New York University School of Medicine, USA
CTCF and its Impact on Gene Regulation and Interplay with CTCF Function

Short Talk(s) Chosen from Abstracts

Gene Control in Development (J3)

Emma Farley, University of California San Diego, USA
Enhancer Grammar in Development and Disease

François Fuks, Université Libre de Bruxelles, Belgium
Signaling and Epigenetics in Cell Growth and Cancer

Robert A. Martienssen, Cold Spring Harbor Laboratory, USA
Small Non-Coding RNAs in Epigenetic Regulation of Germ Cells

Kathrin Plath, University of California, Los Angeles, USA
Gene Regulation in Reprogramming Processes

Short Talk(s) Chosen from Abstracts

Chromatin Structure and Function in Cancer (J4)

Cigall Kadoch, Dana-Farber Cancer Institute, Harvard Medical School, USA

Mammalian SWI/SNF Complexes in Cancer

Luciano Di Croce, CRG - Center for Genomic Regulation, Spain
PRC1 Complexes in Development and Disease

Jikui Song, University of California, Riverside, USA
Structural Studies in DNA Methylation and Links to Human Cancer

Short Talk Chosen from Abstracts

Higher Order Interactions in Transcription Regulation (J3)

Steven L. McKnight, University of Texas Southwestern Medical Center, USA

Low Complexity Sequences in Gene Regulation

Geeta J. Narlikar, University of California, San Francisco, USA
Phase Transition in the Spreading of Heterochromatin

Shasha Chong, University of California, Berkeley, USA
Live-Cell Single-Molecule Imaging of Low-Complexity Domain Interactions

Short Talk Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J4)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J3)

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Cancer Epigenetics: New Mechanisms and Therapeutic Opportunities (J4)

Scientific Organizers: Cigall Kadoch and Christopher Vakoc

Sponsored by Incyte Corporation

Gene Regulation: From Mechanisms to Disease (J3)

Scientific Organizers: Karen Adelman and Patrick Cramer

January 26-30, 2020 • Keystone Resort • Keystone, Colorado, USA

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 1, 2019 / Abstract Deadline: October 29, 2019 / Discounted Registration Deadline: November 26, 2019

FRIDAY, JANUARY 31

Departure