



# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## DNA and RNA Methylation (A7)

January 21-25, 2018 • Fairmont Hotel Vancouver • Vancouver, British Columbia, Canada

Scientific Organizers: Chuan He and Ting Wang

Sponsored by Cell Research

Abstract & Scholarship Deadline: September 27, 2017 / Abstract Deadline: October 27, 2017 / Discounted Registration Deadline: November 28, 2017

### SUNDAY, JANUARY 21

#### Arrival and Registration

### MONDAY, JANUARY 22

#### Welcome and Keynote Address

**Joseph R. Ecker**, The Salk Institute for Biological Studies, USA  
*Epigenomic Signatures of Neuronal Diversity in the Mammalian Brain*

#### Global DNA Methylation

**Dirk Schübeler**, Friedrich Miescher Institute for Biomedical Research, Switzerland  
*DNA Methylation and DNMTs*

**Alexander Meissner**, Max Planck Institute for Molecular Genetics, Germany  
*DNA Methylation*

**Steven E. Jacobsen**, University of California, Los Angeles, USA  
*DNA Methylation in Plants*

#### Short Talk(s) Chosen from Abstracts

#### Poster Session 1

#### Workshop 1: Epigenome and Computational Biology

\***Ting Wang**, Washington University, USA

#### Short Talks Chosen from Abstracts

#### Dynamic DNA Methylation

**Wolf Reik**, Babraham Institute, UK  
*Epigenetic Heterogeneity in Development and Aging*

**Joseph F. Costello**, University of California, San Francisco, USA  
*Evolution of the Epigenome during Tumor Progression*

**Anjana Rao**, La Jolla Institute for Allergy and Immunology, USA  
*Active DNA Demethylation*

#### Short Talk Chosen from Abstracts

### TUESDAY, JANUARY 23

#### DNA Methylation in Diseases

**Peter A. Jones**, Van Andel Research Institute, USA  
*Awakening Endogenous Retroviruses for Cancer Therapy*

**Ting Wang**, Washington University, USA  
*Transposable Elements in Normal and Cancer Epigenome*

**Margaret A. Goodell**, Baylor College of Medicine, USA  
*DNA Methylation in Leukemia*

**Dana C. Dolinoy**, University of Michigan School of Public Health, USA  
*Longitudinal Effects of Developmental Exposures on Age-Related DNA Methylation and Hydroxymethylation*

#### Short Talk(s) Chosen from Abstracts

#### Other DNA Methylation

**Yang Shi**, Children's Hospital Boston, Harvard Medical School, USA  
*DNA 6mA Methylation*

**Andrew Xiao**, Yale University, USA  
*N6-mA in Mammalian Genomes*

**Chunxiao Song**, University of Oxford, UK  
*Using Epigenetic Signatures in Cell-Free DNA for Cancer Detection*  
**Short Talk Chosen from Abstracts**

#### Poster Session 2

### WEDNESDAY, JANUARY 24

#### Dynamic RNA Methylation

**Chuan He**, University of Chicago, USA  
*RNA Methylation in Gene Expression Regulation*

**Gideon Rechavi**, Tel Aviv University, Israel  
*Biological Implications of Epitranscriptomics*

**Samie Jaffrey**, Weill Medical College of Cornell University, USA  
*Diversity and Dynamics of Methylation Marks on Adenosine in the Epitranscriptome*

**Tao Pan**, University of Chicago, USA  
*M6A Dependent RNA Interaction with a Low Complexity Protein Regulates Co-Transcriptional Gene Expression*

#### Short Talk(s) Chosen from Abstracts

#### RNA Methylation in Development and Cellular Processes

**Howard Y. Chang**, Stanford University, USA  
*Genome Regulation by Long Noncoding RNAs*

**Sohail F. Tavazoie**, Rockefeller University, USA  
*RNA Methylation Control of Nuclear Transcript Processing*

**Yunsun Nam**, University of Texas Southwestern Medical Center, USA  
*Structural Studies of RNA Methylation*

#### Short Talk Chosen from Abstracts

#### Poster Session 3

### THURSDAY, JANUARY 25

#### RNA Methylation in Diseases

**Tariq M. Rana**, University of California, San Diego, USA  
*RNA Methylation in Virus Infection*

**Stacy M. Horner**, Duke University Medical Center, USA  
*RNA Methylation in Flaviviridae Virus Infection*

**Suyun Huang**, MD Anderson Cancer Center, USA  
*RNA Methylation in Glioma*

**Yanhong Shi**, Beckman Research Institute of City of Hope, USA  
*RNA Modification in Glioblastoma*

#### Short Talk(s) Chosen from Abstracts

#### Workshop 2: DNA and RNA Methylation in Diseases

#### Short Talks Chosen from Abstracts

#### Other RNA Methylation

**Michaela Frye**, University of Cambridge, UK  
*tRNA m5C Methylation in Biological Regulation*

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**François Fuks**, Université Libre De Bruxelles, Belgium

*RNA 5hmC Methylation*

**Juan Alfonzo**, Ohio State University, USA

*Editing and Methylation at a Single Site by Functionally*

*Interdependent Activities*

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

**FRIDAY, JANUARY 26**

**Departure**