An AACR Special Conference on

Cancer Epigenomics

October 6-8, 2022 | Renaissance Washington DC | Washington, D.C.

CONFERENCE COCHAIRS:

Scott A. Armstrong, Dana-Farber Cancer Institute, Boston, MA
Howard Y. Chang, Stanford University, Stanford, CA
Arul M. Chinnaiyan, University of Michigan, Ann Arbor, MI
Margaret A. Goodell, Baylor College of Medicine, Houston, TX

CONFERENCE PROGRAM

***** - Short Talk selected from Proffered Abstracts

THURSDAY, OCTOBER 6

5:30 p.m. – 6:30 p.m.	**WELCOME AND OPENING KEYNOTE ADDRESS** *Rock Creek Ballroom BC*
5:30 p.m. – 5:45 p.m.	**Welcome from conference cochairs** Scott A. Armstrong, Dana-Farber Cancer Institute, Boston, MA Howard Y. Chang, Stanford University, Stanford, CA Arul M. Chinnaiyan, University of Michigan, Ann Arbor, MI Margaret A. Goodell, Baylor College of Medicine, Houston, TX
	Introduction of opening keynote speaker Howard Y. Chang, Stanford University, Stanford, CA
5:45 p.m. – 6:30 p.m.	**Structure and function of ATP-dependent chromatin remodelers in human cancer** Cigall Kadoch, Dana-Farber Cancer Institute, Boston, MA

6:30 p.m. – 9:00 p.m.	**POSTER SESSION A / OPENING RECEPTION** *Rock Creek Ballroom A*

FRIDAY, OCTOBER 7

7:00 a.m. – 8:00 a.m.	**CONTINENTAL BREAKFAST** *Meeting Rooms 2 and 3 (Meeting Room Level)*
8:00 a.m. – 9:30 a.m.	**PLENARY SESSION 1: STRUCTURAL AND CHEMICAL BIOLOGY OF CHROMATIN COMPLEXES** *Rock Creek Ballroom BC* **Session Chair/Institution: Cynthia Wolberger,** Johns Hopkins University, Baltimore, MD
8:00 a.m. – 8:30 a.m.	**Structural basis of chromatin transcription** Lucas Farnung, Harvard Medical School, Boston, MA
8:30 a.m. – 9:00 a.m.	**Catalytic and noncatalytic mechanisms of chromatin modifiers** Karim-Jean Armache, New York University Langone Health, New York, NY
9:00 a.m. – 9:30 a.m.	**Novel inhibitors of histone H2B deubiquitinating enzymes** Cynthia Wolberger, Johns Hopkins University, Baltimore, MD
9:30 a.m. – 10:00 a.m.	**BREAK** *Rock Creek Ballroom Foyer*

10:00 a.m. – 11:30 a.m.	**PLENARY SESSION 2: EPIGENETIC DRIVER MUTATIONS AND MALIGNANT TRANSFORMATION** *Rock Creek Ballroom BC* **Session Chair/Institution: Margaret A. Goodell,** Baylor College of Medicine, Houston, TX
10:00 a.m. – 10:30 a.m.	**DNMT3A in normal and malignant hematopoiesis** Margaret A. Goodell, Baylor College of Medicine, Houston, TX
10:30 a.m. – 11:00 a.m.	**Systematic functional screening of chromatin factors identifies strong lineage and disease dependencies in normal and malignant haematopoiesis** Brian Huntly, Wellcome-MRC Cambridge Stem Cell Institute, Cambridge, England, United Kingdom
11:00 a.m. – 11:30 a.m.	**Transforming chromatin: Oncohistone mutations in pediatric high-grade glioma** Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN
11:30 a.m. – 1:00 p.m.	**LUNCH ON OWN**
1:00 p.m. – 2:30 p.m.	**PLENARY SESSION 3: CHROMATIN ASSOCIATED RNA AND ITS MODIFICATIONS IN DEVELOPMENT AND DISEASE** *Rock Creek Ballroom BC* **Session Chair/Institution: Chuan He,** University of Chicago, Chicago, IL
1:00 p.m. – 1:30 p.m.	**Chromatin regulation by reversible chromatin-associated RNA methylation**

Chuan He, University of Chicago, Chicago, IL

1:30 p.m. – 2:00 p.m. **Dynamic roles for transfer RNAs in gene regulation and cancer**
Sohail Tavazoie, The Rockefeller University, New York, NY

2:00 p.m. – 2:30 p.m. **The lncRNA Firre functions as a transcriptional activator from a distance**
John L. Rinn, University of Colorado Boulder, Boulder, CO

2:30 p.m. – 3:00 p.m. **BREAK**
Rock Creek Ballroom Foyer

3:00 p.m. – 4:30 p.m. **PLENARY SESSION 4: HISTONE MODIFICATIONS IN DEVELOPMENT AND DISEASE**
Rock Creek Ballroom BC
Session Chair/Institution: Christopher R. Vakoc, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

3:00 p.m. – 3:30 p.m. **Transcriptional dependencies of tuft cell lung tumors**
Christopher R. Vakoc, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

3:30 p.m. – 4:00 p.m. **Epigenetic pathways in human health and disease**
Shelley L. Berger, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

4:00 p.m. – 4:30 p.m. **Quantitative proteomics for understanding epigenetics cancer mechanisms**

Benjamin A. Garcia, Washington University School of Medicine in St. Louis, St. Louis, MO

4:30 p.m. – 5:00 p.m. **BREAK**
Rock Creek Ballroom Foyer

5:00 p.m. – 6:00 p.m. **PROFFERED TALKS I**
Rock Creek Ballroom BC
Session Chair/Institution: Howard Y. Chang, Stanford University, Stanford, CA

5:00 p.m. – 5:15 p.m. **Mutant NPM1 hijacks transcriptional hub to maintain pathogenic gene programs and block differentiation in acute myeloid leukemia***
Xiaotian Zhang, University of Michigan, Ann Arbor, MI

5:15 p.m. – 5:30 p.m. **Insights into the histone code recognition by the ATAD2B bromodomain***
Margaret Phillips, University of Vermont, Burlington, VT

5:30 p.m. – 5:45 p.m. **Lineage plasticity dictates responsiveness to anti-GD2 therapy in neuroblastoma***
Nathaniel W. Mabe, Dana-Farber Cancer Institute, Boston, MA

5:45 p.m. – 6:00 p.m. **High-density CRISPR screens reveal mechanisms of chromatin regulation of stemness networks in acute myeloid leukemia***
Karina O. Barbosa Guerra, Sanford Burnham Presbys Medical Discovery Institute, La Jolla, CA

6:00 p.m. – 8:00 p.m.	**POSTER SESSION B / RECEPTION** *Rock Creek Ballroom A*

SATURDAY, OCTOBER 8

7:00 a.m. – 8:00 a.m.	**CONTINENTAL BREAKFAST** *Meeting Rooms 2 and 3 (Meeting Room Level)*
8:00 a.m. – 9:30 a.m.	**PLENARY SESSION 5: CHROMATIN COMPLEXES IN CANCER** *Rock Creek Ballroom BC* **Session Chair/Institution: Ali Shilatifard,** Northwestern University Feinberg School of Medicine, Chicago, IL
8:00 a.m. – 8:30 a.m.	**SWI/SNF complexes in development and disease** Diana C. Hargreaves, Salk Institute, La Jolla, CA
8:30 a.m. – 9:00 a.m.	**Principles of epigenetics and chromatin in development and human disease** Ali Shilatifard, Northwestern University Feinberg School of Medicine, Chicago, IL
9:00 a.m. – 9:30 a.m.	**Characterization of the protein-protein interactions involved in DOT1L epigenetic regulation on biochemical, structural and functional level towards developing new therapeutic intervention** Zaneta Nikolovska-Coleska, University of Michigan, Ann Arbor, MI
9:30 a.m. – 9:45 a.m.	**BREAK** *Rock Creek Ballroom Foyer*

9:45 a.m. – 10:45 a.m.	**PROFFERED TALKS II** *Rock Creek Ballroom BC* **Session Chair/Institution: Scott A. Armstrong,** Dana-Farber Cancer Institute, Boston, MA
9:45 a.m. – 10:00 a.m.	**Targeting EP300 and CBP for therapeutic benefit in pediatric solid tumors*** Adam D. Durbin, St. Jude Children's Research Hospital, Memphis, TN
10:00 a.m. – 10:15 a.m.	**Single-molecule and single-cell epigenetics: Decoding the epigenome for cancer research and diagnostics*** Efrat Shema, Weizmann Institute of Science, Rehovat, Israel
10:15 a.m. – 10:30 a.m.	**A local tumor microenvironment acquired super-enhancer induces an oncogenic driver for efficient growth under oxidative conditions in colorectal carcinoma*** Royce Zhou, Icahn School of Medicine at Mount Sinai, New York, NY
10:30 a.m. – 10:45 a.m.	**An epigenetic memory of inflammation controls context-dependent lineage plasticity and KRAS-driven tumorigenesis in the pancreas*** Rohit Chandwani, Weill Cornell Medicine, New York, NY
10:45 a.m. – 11:00 a.m.	**BREAK** *Rock Creek Ballroom Foyer*
11:00 a.m. – 12:30 p.m.	**PLENARY SESSION 6: 3D GENOME AND EXTRACHROMOSOMAL DNA**

Rock Creek Ballroom BC
Session Chair/Institution: Howard Y. Chang, Stanford University, Stanford, CA

11:00 a.m. – 11:30 a.m. **Modeling epigenetic lesions that cause glioma**
Bradley E. Bernstein, Dana-Farber Cancer Institute, Boston, MA

11:30 a.m. – 12:00 p.m. **Reading and writing extrachromosomal DNA**
Howard Y. Chang, Stanford University, Stanford, CA

12:00 p.m. – 12:30 p.m. **Ectopic levels of low-complexity domain interactions repress endogenous oncogenic transcription**
Shasha Chong, California Institute of Technology, Pasadena, CA

12:30 p.m. – 1:00 p.m. **BREAK**
Rock Creek Ballroom Foyer

12:45 p.m. – 2:15 p.m. **PLENARY SESSION 7: NOVEL THERAPEUTIC APPROACHES TO TARGET CHROMATIN/TRANSCRIPTION**
Rock Creek Ballroom BC
Session Chair/Institution: Arul M. Chinnaiyan, University of Michigan, Ann Arbor, MI

12:45 p.m. – 1:15 p.m. **Therapeutic targeting of MLL complexes in cancer**
Scott A. Armstrong, Dana-Farber Cancer Institute, Boston, MA

1:15 p.m. – 1:45 p.m.	**Targeting epigenetic regulators of oncogenic transcription factors** Arul M. Chinnaiyan, University of Michigan, Ann Arbor, MI
1:45 p.m. – 2:15 p.m.	**Aberrant transcriptional condensates in cancer: Mechanisms and implications** Liling Wan, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA
2:15 p.m.	**CLOSING REMARKS AND DEPARTURE** *Rock Creek Ballroom BC*
2:15 p.m.	**Closing remarks** Arul M. Chinnaiyan, University of Michigan, Ann Arbor, MI