Conference Program

Thursday, September 24

7:00 p.m.-8:00 p.m. Opening Keynote Session

Ellington Ballroom

Session Chairperson: Charles W.M. Roberts, St. Jude Children's Research Hospital,

Memphis, TN

Welcome remarks

Charles W.M. Roberts

Keynote Address

Epigenetic mechanisms of tumor initiation and evolution

Bradley E. Bernstein, Massachusetts General Hospital, Harvard Medical School, Boston, MA

8:00 p.m.-9:30 p.m. Welcome Reception

Overlook

Friday, September 25

7:00 a.m.-8:00 a.m. Continental Breakfast

Terrace and Ellington Prefunction

8:00 a.m.-10:00 a.m. Plenary Session 1: Epigenetic Regulation of Transcription Initiation

Ellington Ballroom

Session Chairperson: Peter A. Jones, Van Andel Research Institute, Grand Rapids, MI

8:00 a.m. Genomic organization of yeast chromatin and gene regulatory complexes

B. Franklin Pugh, Penn State University, University Park, PA

8:30 a.m. Elucidating and targeting dichotomous roles of the PRC2 complex in cancer

Karen M. Cichowski, Brigham and Women's Hospital, Boston, MA

9:00 a.m. How DNA methylation organizes the cancer epigenome

Peter A. Jones

9:30 a.m. Structural mechanism of sequence-specific 5-methylcytosine (5mC) recognition by AP-1

transcription factors*

Samuel Hong, Emory University, Atlanta, GA

9:45 a.m. Transcriptional regulation mediated by biochemically distinct forms of SWI/SNF*

Jesse R. Raab, University of North Carolina at Chapel Hill, Chapel Hill, NC

10:00 a.m.-10:30 a.m. Break

Ellington Prefunction

10:30 a.m.-12:30 p.m. Plenary Session 2: Enhancers, Epigenetics, and Cancer

Ellington Ballrrom

Session Chairperson: Charles W.M. Roberts, St. Jude Children's Research Hospital,

Memphis, TN

10:30 a.m. Genome-wide views into the mechanisms of transcription regulation

John T. Lis, Cornell University, Ithaca, NY

11:00 a.m. SWI/SNF chromatin remodeling complex mutations in cancer: Mechanisms and potential

therapeutic insights

Charles W.M. Roberts

11:30 a.m. Decoding the cancer regulome

John Stamatoyannopoulos, University of Washington, Seattle, WA

12:00 p.m. Exploring the link between Kras and histone acetylation*

Alessandro Carrer, Abramson Family Cancer Research Institute, Philadelphia, PA

12:15 p.m. Targeting super-enhancer driven oncogene transcription through cyclin-dependent

kinase inhibitors*

Rani E. George, Dana-Farber Cancer Institute, Boston, MA

12:30 p.m.-2:30 p.m. Poster Session A with Lunch

Overlook

2:30 p.m.-4:30 p.m. Plenary Session 3: Control of Transcription and Elongation

Ellington Ballroom

Session Chairperson: Karen Adelman, Laboratory of Epigenetics and Stem Cell Biology, National Institute of Environmental Health Sciences, Research Triangle Park,

NC

2:30 p.m. An epigenome perspective of human tumor evolution

Joseph F. Costello, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco,

CA

3:00 p.m. Nucleosome barriers to transcription

Steven Henikoff, Fred Hutchinson Cancer Research Center, Seattle, WA

3:30 p.m. Regulating transcription elongation at stimulus responsive genes

Karen Adelman

4:00 p.m. Using epigenetic profiling and CRISPR screens to understand cancer progression

X. Shirley Liu, Dana-Farber Cancer Institute, Boston, MA

4:30 p.m.- Evening on Own

7:00 a.m.-8:00 a.m. Continental Breakfast

Terrace and Ellington Prefunction

8:00 a.m.-10:00 a.m. Plenary Session 4: Chromatin Organization

Ellington Ballroom

Session Chairperson: Sharon Y.R. Dent, The University of Texas MD Anderson Cancer

Center, Smithville, TX

8:00 a.m. Long-range gene regulation in the context of chromatin domains

Job Dekker, University of Massachusetts Medical School, Worcester, MA

8:30 a.m. Structure and function of BAF complexes in human cancer

Cigall Kadoch, Dana-Farber Cancer Institute, Boston, MA

9:00 a.m. A SAGA of GCN5 and USP22 in development and disease

Sharon Y.R. Dent

9:30 a.m. Mechanisms of ATP-dependent chromatin remodeling

Geeta Narlikar, University of California at San Francisco, San Francisco, CA

10:00 a.m.-10:30 a.m. Break

Ellington Prefunction

10:30 a.m.-12:30 p.m. Plenary Session 5: ncRNAs and Cancer

Ellington Ballroom

Session Chairperson: Ramin Shiekhattar, University of Miami Miller School of

Medicine, Miami, FL

10:30 a.m. The impact of cohesin mutations in tumor initiation: One ring, many functions

lannis Aifantis, HHMI/NYU School of Medicine, New York, NY

11:00 a.m. Biogenesis and mechanism of action of enhancer RNAs

Ramin Shiekhattar

11:30 a.m. Functional characterization of the tumor suppressor lysine-specific methyltransferase

KMT2D in lymphoma

Hans-Guido Wendel, Memorial Sloan Kettering Cancer Center, New York, NY

12:00 p.m. "Viral mimicry" as a mechanism of action for DNA-demethylating agents*

Daniel De Carvalho, Princess Margaret Cancer Centre, Toronto, ON, Canada

12:15 p.m. Analysis of enhancer transcription reveals novel gene regulatory networks in breast

cancer*

Hector L. Franco, The Cecil H. and Ida Green Center for Reproductive Biology Sciences, UT

Southwestern Medical Center, Dallas, TX

12:30 p.m.-2:30 p.m. Lunch on own/Free Time

2:30 p.m.-4:30 p.m. Plenary Session 6: Cancer Genomics and Epigenomics

Ellington Ballroom

Session Chairperson: Suzanne J. Baker, St. Jude Children's Research Hospital, Memphis, TN

2:30 p.m. Integrative epigenomic analysis across cancer types

Peter W. Laird, Van Andel Research Institute, Grand Rapids, MI

3:00 p.m. The oncogenic role of histone H3 mutations in pediatric high-grade gliomas

Suzanne J. Baker

3:30 p.m. The cell-type specific effect of epigenomic features on cancer mutation

Shamil Sunyaev, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

4:00 p.m. The oncogenic BRD4-NUT chromatin regulator drives aberrant transcription within large

topological domains*

Erica M. Walsh, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

4:15 p.m. GC skew defines distinct RNA polymerase pause sites in CpG island promoters*

Joshua S.K. Bell, Emory University, Atlanta, GA

4:30 p.m.-6:30 p.m. Poster Session B and Reception

Overlook

6:30 p.m.- Evening on Own

^{*}Short talks from proffered papers

Sunday, September 27

7:00 a.m.-8:00 a.m. Continental Breakfast

Terrace and Ellington Prefunction

8:00 a.m.-10:00 a.m. Plenary Session 7: Epigenetic Cancer Therapies 1

Ellington Ballroom

Session Chairperson: Stephen B. Baylin, Johns Hopkins University School of

Medicine, Baltimore, MD

8:00 a.m. Targeting DNA methylation abnormalities as a cancer therapy strategy

Stephen B. Baylin

8:30 a.m. Multiple targetable pathways for epigenetic therapy

Jean-Pierre Issa, Fels Institute for Cancer Research and Molecular Biology, Temple University,

Philadelphia, PA

9:00 a.m. Discovery of novel epigenetic targets

Frank Stegmeier, Novartis, Cambridge, MA

9:30 a.m. EZH2 inhibitors reveal broad EZH2 dependencies in multiple myeloma*

Shilipi Arora, Constellation Pharmaceuticals, Cambridge, MA

This talk is not not accredited for CME credit to permit the free flow of information of the

commercial interest employees participating.

9:45 a.m. A DNA hypomethylation signature predicts novel anti-tumor activity of LSD1 inhibition in

SCLC*

Helai Mohammad, GlaxoSmithKline, Collegeville, PA

This talk is not not accredited for CME credit to permit the free flow of information of the

commercial interest employees participating.

10:00 a.m.-10:15 a.m. Break

Ellington Prefunction

10:15 a.m.-12:15 p.m. Plenary Session 8: Epigenetic Cancer Therapies 2

Ellington Ballroom

Session Chairperson: Ari M. Melnick, Weill Cornell Medical College of Cornell

University, New York, NY

10:15 a.m. Epigenetics switches enabling transformation of B cells

Ari M. Melnick

10:45 a.m. Next-generation bromodomain inhibitors

James E. Bradner, Dana-Farber Cancer Institute, Boston, MA

11:15 a.m. Tazemetostat, an EZH2 Inhibitor and potential therapeutic for non-Hodgkin lymphoma

Jesse J. Smith, Epizyme, Inc., Waltham, MA

11:45 a.m. A bromodomain cassette exchange strategy establishes that on-target chemical inhibition

of BRD9 limits leukemia cell proliferation*

Anja F. Hohmann, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

12:00 p.m. MED12 methylation by CARM1 sensitizes human breast cancer cells to chemotherapy

drugs*

Wei Xu, University of Wisconsin, Madison, WI

^{*}Short talks from proffered papers