



EpiCypher 2023

CONFERENCE

Biological and Clinical Frontiers in Epigenetics

Nov 5-10 | Grand Fiesta Americana Coral Beach | Cancún, MX

Co-Organizers:

Mark Bedford

MD Anderson
Houston, Texas, USA

Or Gozani

Stanford University
Stanford, California, USA

Brian Strahl

University of North Carolina
Chapel Hill, North Carolina, USA

Sunday, Nov 5, 2023	
4:00PM – 7:00PM	Hotel and Conference Check-in: Lobby
Welcome & Keynote Address 5:30PM – 6:30PM Grand Coral Ballroom	Conference Welcome: Or Gozani Keynote Address Introduction: Brian Strahl Inaugural C. David Allis Memorial Lecture Nada Jabado , McGill University “Oncohistones: Tell a tale of a Histone (3) tail”
Session 1: 6:30PM – 7:30PM Grand Coral Ballroom	Chromatin in Epigenetics & Cancer Regulation Session Chair: Mark Bedford , UT MD Anderson Cancer Center
6:30PM – 6:50PM	Speaker 1: Yang Shi , Oxford University & Ludwig Institute “Chromatin regulation and cancer”
6:50PM – 7:10PM	Speaker 2: Jonathan Whetstine , Fox Chase Cancer Center “Epigenetics: A gatekeeper for extrachromosomal DNA amplification and rearrangements”
7:10PM – 7:30PM	Speaker 3: Greg Wang , Duke University “Understanding chromatin modification in gene regulation and pathogenesis”
7:30PM – 10:30PM	Welcome Reception and Dinner: Sunrise Terrace
Monday, Nov 6, 2023	
7:00 AM – 9:00AM	Breakfast: On Own
Session 2: 9:00AM - 11:00AM Grand Coral Ballroom	Chromatin & Cancer Regulation I Session Chair: Yael David , Memorial Sloan Kettering Cancer Center
9:00AM – 9:20AM	Speaker 4: Scott Armstrong , Harvard Medical School & Dana Farber Cancer Institute “Mechanisms of Resistance to Menin:MLL Inhibition”
9:20AM – 9:40AM	Speaker 5: Hong Wen , Van Andel Research Institute “The histone acetylation reader ENL in cancer”
9:40AM – 10:00AM	Speaker 6: Brad Bernstein , Harvard Medical School & HHMI “Modeling and targeting epigenetic drivers of tumorigenesis”
10:00AM – 10:20AM	Speaker 7: Ji Min Lee , Korea Advanced Institute of Science and Technology “Reprogramming tumor microenvironment by designed affinity improved epigenetic reader at chromatin marks”
10:20AM – 10:40AM	Speaker 8: Ari Melnick , Weill Cornell College of Medicine “Epigenetic plasticity in the immune system”

10:40AM – 11:00AM	Speaker 9: Erin Green , University of Maryland Baltimore County <i>“Signaling functions for the protein methyltransferase SMYD3 in prostate cancer”</i>
11:00AM – 11:20AM	Coffee Break: Grand Coral Foyer
Session 3: 11:20AM – 1:00PM Grand Coral Ballroom	DNA Methylation in Epigenetics Session Chair: Scott Rothbart , Van Andel Research Institute
11:20AM – 11:40AM	Speaker 10: Peter Jones , Van Andel Research Institute <i>“Deciphering the Mechanisms and Roles of DNA Methylation in Cancer”</i>
11:40AM – 12:00PM	Speaker 11: Taiping Chen , UT MD Anderson Cancer Center <i>“DNA methylation in mammalian development”</i>
12:00PM – 12:20PM	Speaker 12: Steve Jacobsen , UCLA, HHMI <i>“Mechanisms and applications of DNA methylation and gene silencing in plants”</i>
12:20PM – 12:40PM	Speaker 13: Romualdo Ciau-Uitz , Biomodal <i>“Discriminating 5mC and 5hmC at single-base resolution”</i>
12:40PM – 1:00PM	Speaker 14: Peggy Goodell , Baylor College of Medicine <i>“Epigenetic mechanisms driving clonal hematopoiesis”</i>
1:00PM – 4:00PM	Lunch: On Own & Free Time
Session 4: 4:00PM – 6:00PM Grand Coral Ballroom	Molecular, Structural and Proteomic Regulation of Epigenetics Session Chair: Catherine Musselman , University of Colorado School of Medicine
4:00PM – 4:20PM	Speaker 15: Tanya Kutateladze , University of Colorado School of Medicine <i>“Molecular mechanisms of epigenetic regulation”</i>
4:20PM – 4:40PM	Speaker 16: Karim-Jean Armache , NYU <i>“Mechanisms of chromatin modifying complexes”</i>
4:40PM – 5:00PM	Speaker 17: Catherine Musselman , University of Colorado School of Medicine <i>“Nucleosome conformation dictates the histone code”</i>
5:00PM – 5:20PM	Speaker 18: Nick Young , Baylor College of Medicine <i>“Combinations of Histone PTMs and Truncated Histone Proteoforms”</i>
5:20PM – 5:40PM	Speaker 19: Michael Allen Caldwell , Northwestern University <i>“Determining the composition of nucleosomes by Bottom-up, Top-down and intact Nucleosome Mass Spectrometry”</i>
5:40PM – 6:00PM	Speaker 20: Xiaodong Cheng , UT MD Anderson Cancer Center <i>“CTCF-DNA complexes involving all 11 zinc fingers”</i>
6:00PM – 6:20PM	Coffee Break: Grand Coral Foyer

Session 5: 6:20PM – 7:20PM
Grand Coral Ballroom

Epigenetic and Chromatin Frontiers I
Session Chair: **Chao Lu**, Columbia University

6:20PM – 6:40PM

Speaker 21: **Chao Lu**, Columbia University
“The interplay between histone and DNA methylation in development and disease”

6:40PM – 7:00PM

Speaker 22: **Robert Schneider**, Helmholtz Institute
“Novel Players in chromatin”

7:00PM – 7:20PM

Speaker 23: **Scott Rothbart**, Van Andel Research Institute
“Molecular mechanisms of chromatin signaling and epigenetic regulation”

7:20PM

Dinner: On Own / Pre- or Post-dinner drinks at lobby bar

Tuesday Nov 7, 2023

7:00AM – 9:00AM

Breakfast: On Own

Session 6: 9:00 AM – 11:00AM
Grand Coral Ballroom

Target Discovery & Drugging the Epigenome
Session Chair: **Jian Jin**, Icahn School of Medicine at Mount Sinai

9:00AM – 9:20AM

Speaker 24: **Raghuvir Sengupta**, Pfizer
“BRPF1 Alters the Substrate Preference of KAT6A from H3K14 to H3K23”

9:20AM – 9:40AM

Speaker 25: **Stephane Richard**, McGill University
“Targeting PRMT7 for cancer therapy”

9:40AM – 10:00AM

Speaker 26: **Elisabeth Martinez**, UT Southwestern
“Jumonji histone demethylases at the crossroads of transcriptional maladaptation”

10:00AM – 10:20AM

Speaker 28: **Ryan Kruger**, Anagenex
“Drugging Challenging Targets using DNA Encoded Library powered Machine Learning”

10:20AM – 10:40AM

Speaker 29: **Jian Jin**, Icahn School of Medicine at Mount Sinai
“Novel Approaches to Target Undruggable Proteins”

10:40AM – 11:00AM

Speaker 30: **Pawel Mazur**, UT MD Anderson Cancer Center
“Therapeutic Targeting of NSD2 for the Treatment of Solid Tumors”

11:00AM – 11:20AM

Coffee Break: Grand Coral Foyer

Session 7: 11:20AM – 1:00PM
Grand Coral Ballroom

Chromatin & Cancer Regulation II
Session Chair: **Cihangir Duy**, Fox Chase Cancer Center

11:20AM – 11:40AM

Speaker 31: **Ho Man Chan**, AstraZeneca
“Discovery of MTA-cooperative PRMT5 inhibitor for MTAP-deleted cancers”

11:40AM – 12:00PM	Speaker 32: Wei Xu , U. of Wisconsin, McArdle laboratory for Cancer Research <i>“CARM1 is a therapeutic vulnerability in human breast cancer”</i>
12:00PM – 12:20PM	Speaker 33: Nicolas Reynoird , University of Grenoble Institute for Advanced Biosciences <i>“Cytoskeleton remodeling induced by SMYD2 methyltransferase drives breast cancer metastasis”</i>
12:20PM – 12:40PM	Speaker 34: Sung Hee Baek , Seoul National University <i>“Epigenetic regulation in regeneration and cancer”</i>
12:40PM – 1:00PM	Speaker 35: Ernesto Guccione , Icahn School of Medicine at Mount Sinai <i>“Precision Medicine in Solid Tumors: New Tools and (some) New Ideas”</i>
1:00PM – 7:30PM	Lunch: On Own & Free Time
Poster Session 7:30PM – 10:30PM Grand Coral Foyer	Dinner: Buffet & Bar Odd numbered posters: 7:30PM – 9:00PM Even numbered posters: 9:00PM – 10:30PM

Wednesday, Nov 8, 2023

7:00AM – 9:00AM	Breakfast: On Own
Session 8: 9:00AM – 11:00AM Grand Coral Ballroom	The Nucleosome & Chromatin Remodeling in Health & Disease Session Chair: Emily Bernstein , Icahn School of Medicine at Mount Sinai
9:00AM – 9:20AM	Speaker 36: David Shechter , Albert Einstein College of Medicine <i>“Glutamate-glutamylation of histone chaperone acidic disordered regions increases DNA mimicry to enhance their efficiency”</i>
9:20AM – 9:40AM	Speaker 37: Emily Bernstein , Icahn School of Medicine at Mount Sinai <i>“Histone variant regulation of the melanoma tumor microenvironment”</i>
9:40AM – 10:00AM	Speaker 39: David Lahr , Foghorn Therapeutics <i>“Investigation of FHD-609, a potent degrader of BRD9, in preclinical models of acute myeloid leukemia (AML)”</i>
10:00AM – 10:20AM	Speaker 40: Andres Blanco , University of Pennsylvania <i>“Identification and interrogation of MOZ complex subunits driving differentiation arrest in AML”</i>
10:20AM – 10:40AM	Speaker 41: Capucine Van Rechem , Stanford School of Medicine <i>“From mSWI/SNF’s roles in protein synthesis to new therapeutic opportunities”</i>
10:40AM – 11:00AM	Coffee Break: Grand Coral Foyer

Session 9: 11:00AM – 12:40PM
Grand Coral Ballroom

Chromatin Regulation of DNA-Templated Processes
Session Chair: **Marc Timmers**, Albert-Ludwigs-Universität Freiburg

11:00AM – 11:20AM

Speaker 42: **Sriharsa Pradhan**, New England Biolabs
“Integrative Visual and Functional Genomics Using Novel Bifunctional Nicking Enzyme Reveals NPM1 as a Transcription Factor”

11:20AM – 11:40AM

Speaker 43: **Marc Timmers**, Albert-Ludwigs-Universität Freiburg
“Basal transcription factor TFIID in neurodevelopment and neurodegeneration”

11:40AM – 12:00PM

Speaker 44: **Jacques Côté**, Laval University Cancer Research Center
“The Myst-family of Acetyltransferase complexes in epigenetic cross-talk linked genome expression and maintenance”

12:00PM – 12:20PM

Speaker 45: **Tamaki Suganuma**, Stowers Institute for Medical Research
“Association of the ATAC histone acetyltransferase complex with MPTAC (the molybdopterin synthase associating complex) links alkylation damage signaling to sterol biosynthesis”

12:20PM – 12:40PM

Speaker 46: **Jessica Tyler**, Weill Cornell Medical School
“Multivalent binding of the tardigrade Dsup protein to chromatin promotes yeast survival and longevity upon exposure to oxidative damage”

12:40PM – 4:00PM

Lunch: On Own & Free Time

Session 10: 4:00PM – 6:00PM
Grand Coral Ballroom

The Epigenome in Health and Disease
Session Chair: **Matt Lorincz**, University of British Columbia

4:00PM – 4:20PM

Speaker 47: **Yael David**, Memorial Sloan Kettering Cancer Center
“Thinking outside the chromosome: interrogating epigenetic mechanisms in noncanonical chromatin species”

4:20PM – 4:40PM

Speaker 48: **John Rinn**, University of Colorado Boulder
“RNA Mediated Epigenetic and Transcriptional Regulation”

4:40PM – 5:00PM

Speaker 49: **Lukasz Jaremko**, KAUST
“ASH1L activation and inhibition - structural dynamics and drug design”

5:00PM – 5:20PM

Speaker 50: **Evan Cornett**, Indiana University
“Regulation of Neuronal Differentiation by the lysine methyltransferase activity of ASH1L”

5:20PM – 5:40PM

Speaker 51: **Justin Brumbaugh**, University of Colorado
“H3K36 methylation regulates intestinal epithelial cell fate and regeneration”

5:40PM – 6:00PM

Speaker 52: **Kristian Helin**, Institute of Cancer Research
“Interrogating the functional roles of histone methylation in transcription”

6:00PM – 6:20PM	Coffee Break: Grand Coral Foyer
Session 11: 6:20PM – 7:20PM Grand Coral Ballroom	Trainee Talks Session Chair: Kanishk Jain , University of North Carolina
6:20PM – 6:32PM	Speaker 53: Abid Khan , Postdoctoral Fellow, University of North Carolina <i>“SETD2 maintains nuclear lamina stability to safeguard the genome”</i>
6:32PM – 6:44PM	Speaker 54: Wajih Jawhar , Graduate Student, McGill University <i>“EZHIP Blocks Mesenchymal Development and Drives Aggressive Osteosarcoma”</i>
6:44PM – 6:56PM	Speaker 55: Jon Markert , Postdoctoral Fellow, Harvard Medical School <i>“Characterizing the co-transcriptional deposition of H3K36me3 by SETD2”</i>
6:56PM – 7:08PM	Speaker 56: Claudia Gentile , Postdoctoral Fellow, Dana-Farber Cancer Institute <i>“Phosphorylation-dependent targeting of mSWI/SNF chromatin remodeling complexes promotes oncogenic EGFR and BRAF signaling in human cancer”</i>
7:08PM – 7:20PM	Speaker 57: Edwin Neumann , Graduate Student, MIT <i>“Engineering a Compact Epigenome Editor for Biological Discovery and Therapeutic Intervention in the Brain”</i>
7:20PM	Dinner: On Own / Pre- or Post-dinner drinks at lobby bar

Thursday, Nov 9, 2023	
7:00AM – 9:00AM	Breakfast: On Own
Session 12: 9:00AM – 11:00AM Grand Coral Ballroom	Epigenomic Frontiers Session Chair: Bing Ren , UCSD
9:00AM – 9:20AM	Speaker 58: Bing Ren , UCSD <i>“Comparative single cell epigenomic analysis of gene regulatory programs in the rodent and primate neocortex”</i>
9:20AM – 9:40AM	Speaker 59: Nadiya Khyzha , Fred Hutchinson Cancer Center <i>“Profiling RNA At Chromatin Targets In Situ By Antibody-Targeted Tagmentation”</i>
9:40AM – 10:00AM	Speaker 60: Issac Hilton , Rice University <i>“Epigenome editing technologies for in situ dissection of epigenetic regulatory mechanisms.”</i>
10:00AM – 10:20AM	Speaker 61: Chris Hartl , Epigenome Technologies <i>“Paired-Tag and Droplet Paired-Tag: Unravelling Cell-Type-Specific Epigenetic Landscapes in the Human Brain”</i>
10:20AM – 10:40AM	Speaker 62: Winston Timp , Johns Hopkins University

10:40AM – 11:00AM	<p><i>“Single Molecule Epigenetics: at large and small scale”</i> Speaker 63: Alex Ruthenburg, University of Chicago <i>“Quantitative evaluation of nucleosomal bivalency in early development”</i></p>
11:00AM – 11:20AM	Coffee Break: Grand Coral Foyer
Session 13: 11:20AM – 1:00PM Grand Coral Ballroom	Epigenetic and Chromatin Frontiers II Session Chair: Justin Brumbaugh , University of Colorado
11:20AM – 11:40AM	Speaker 64: Xiaobing Shi , Van Andel Research Institute <i>“Histone acetylation: reading, writing, and beyond”</i>
11:40AM – 12:00PM	Speaker 65: Matthew Lorincz , University of British Columbia <i>“Crosstalk between histone methylation, DNA methylation and transcription: Lessons from mouse models of chromatin factor deficiencies”</i>
12:00PM – 12:20PM	Speaker 66: Fei Lan , Fudan University <i>“Extending the importance of lysine methylation to mRNA translation”</i>
12:20PM – 12:40PM	Speaker 67: Douglas Phanstiel , University of North Carolina <i>“Chromatin loop dynamics during cellular differentiation are associated with changes to both anchor and internal regulatory features.”</i>
12:40PM – 1:00PM	Speaker 68: Danesh Moazed , Harvard Medical School & HHMI <i>“How epigenetic memory is propagated”</i>
1:00PM – 5:00PM	Lunch: On Own & Free Time
Session 14: 5:00PM – 6:20PM Grand Coral Ballroom	Epigenetic Frontiers Session Chair: Steve Josefowicz , Weill Cornell Medical School
5:00PM – 5:20PM	Speaker 69: Genevieve Almouzni , Curie Institute <i>“Shaping chromatin and cell fate, a choreography involving histones and partners”</i>
5:20PM – 5:40PM	Speaker 70: Maria Elena Torres-Padilla , Helmholtz Institute <i>“Epigenetic mechanisms of cell fate”</i>
5:40PM – 6:00PM	Speaker 71: Steve Josefowicz , Weill Cornell Medical School <i>“Signaling to chromatin for rapid transcription and epigenetic memory”</i>
6:00PM – 6:20PM	Speaker 72: Hiten Madhani , UCSF <i>“Targeted high throughput mutagenesis of the human spliceosome reveals its in vivo operating principles.”</i>
6:20PM – 7:00PM	Free Time
7:00PM	Closing Reception and Dinner: Sunrise Terrace