



Targeting DNA Methylation and Chromatin for Cancer Therapy

March 1-4, 2018 | Atlanta, GA

AACR
American Association
for Cancer Research

Poster Session A
Friday, March 2, 2018
4:30 p.m. – 7:00 p.m.
Grand Ballroom DEF

- A01, PR14** **Reprogramming of DNA and histone methylome by cancer-associated histone H3 mutations.** Chao Lu, Columbia University, New York, New York.
- A02** **Delineating differential transcriptional roles for the ZBTB family of methyl-CpG binding proteins in cancer.** Bethany Buck-Koehntop, University of Utah, Salt Lake city, UT.
- A03, PR01** **DNA and histone methyltransferase inhibitors cooperate to increase viral mimicry in cancer cells.** Minmin Liu, Van Andel Research Institute, Grand Rapids, Michigan.
- A04** **UHRF1 depletion and HDAC inhibition synergistically reactivate epigenetically silenced genes in colorectal cancer cells.** Hiromu Suzuki, Sapporo Medical University, Sapporo, Hokkaido, Japan.
- A05, PR02** **Investigating the mechanisms by which ZBTB38 recognizes methylated DNA and modulates transcription.** Nicholas Hudson, University of Utah, Salt Lake City, Utah.
- A07, PR03** **Mismatch repair proteins initiate epigenetic alterations during inflammation-driven tumorigenesis.** Heather O'Hagan, Indiana University School of Medicine, Bloomington, IN.
- A08** **Epigenetic characterization of cancer-associated fibroblasts: Implication for epigenetic reprogramming therapy.** Masahiro Maeda, Division of Epigenomics, National Cancer Center Research Institute, Tokyo, Japan.
- A09** **Epigenome and transcriptome analyses by Methyl-seq and RNA-seq on the protective effects of ursolic Acid against UVB-irradiated inflammation in Nrf2 knockout and wild-type C57BL/6J Mice.** Yuqing (Anne) Yang, Rutgers University, Piscataway, NJ.
- A10, PR07** **Synthetic lethal targeting of TET2 loss in myeloid malignancies by TOP1 inhibitors.** Chang-Bin Jing, Dana-Farber Cancer Institute, Boston, MA.
- A11** **Loss of hydroxymethylcytosine is an independent adverse prognostic factor in clear cell Renal Cell Carcinoma (ccRCC) and can be abrogated by Ascorbic acid mediated TET activation.** Niraj Shenoy, Mayo Clinic Rochester, Rochester, MN.
- A12, PR05** **Genome-wide 5-hydroxymethylcytosine alterations in medulloblastoma.** Hyerim Kim, Emory University, Atlanta, Georgia.
- A13** **Mutational cooperativity of TET2 in peripheral T cell lymphoma.** Yun Huang, Texas A&M University, Houston, TX.
- A14, PR08** **Identification of specific readers of epigenetic modifications in human bronchial epithelial cells using a quantitative proteomics approach.** Jenna Fernandez, Masonic Cancer Center, Minneapolis, MN.
- A16** **Safety and tolerability of guadecitabine (SGI-110) plus cisplatin in patients with platinum-refractory germ cell tumors (GCT): a phase 1 study.** Costantine Albany, Indiana University, Indianapolis, IN.

- A17 Integrative Epigenetic Analysis Reveals Therapeutic Targets to the DNA Methyltransferase Inhibitor SGI-110 in Hepatocellular Carcinoma Cells.** Gangning Liang, C Norris Comprehensive Cancer Center, Los Angeles, California.
- A18 Rigosertib (RIG) Alone or in Combination with Azacitidine or Vorinostat has chromatin modifying effects and Epigenetically Reprograms Hematopoietic stem and progenitor cells in the Myelodysplastic Syndrome.** Lewis Silverman, Icahn School of Medicine, New York, New York.
- A19, PR06 Relapsing and refractory acute myeloid leukemia patients reveal converging genetic and epigenetic features suggesting common treatment strategies and response biomarkers..** Timothy Triche, VARI, Grand Rapids, MI.
- A20 Profiling breast cancer for decitabine response indicators reveals deoxycytidine kinase as key determinant of sensitivity.** Margaret Thomas, Dalhousie University, Halifax, NS, Canada.
- A21 Decitabine as a new therapeutic agent for T-cell acute lymphoblastic leukemia.** Morgan Thénoz, Center for Medical Genetics (CMGG), Ghent University Hospital, Cancer Research Institute Ghent (CRIG), Ghent, Belgium.
- A22 Preclinical study of epigenetic drug-based differentiation therapy for neuroblastoma.** Naoko Hattori, National Cancer Center Research Institute, Tokyo, Japan.
- A23 A phase I trial of the epigenetic regulators, oral 5-azacitidine and romidepsin, for the treatment of advanced solid tumors, with a focus on virally mediated cancers and liposarcoma.** Stephanie Gaillard, Johns Hopkins School of Medicine, Baltimore, MD.
- A24 Development of gene regulation pyrrole-imidazole polyamides targeting the epigenetic deregulation biomarkers in oral squamous cell carcinoma.** TZE-TA HUANG, Institute of Oral Medicine, National Cheng Kung University, Tainan, Taiwan.
- A25, PR17 Epigenetic regulation of noncoding RNA in cancer and its effects on the immune microenvironment.** Katherine Chiappinelli, The George Washington University, Washington, DC.
- A26 DNA methylation signatures associated with pituitary macroadenomas functional status.** Maritza Mosella, Henry Ford Health System, Detroit, MI.
- A27 Epigenetic regulation in Ewing sarcoma.** Sheetal Mitra, Children's Hospital Los Angeles, Los Angeles, California.
- A28 Using LacZ reporter to investigate L1 expression and epigenetic regulation during mouse development.** Wenfeng An, South Dakota State University, Brookings, SD.
- A29 Functional screens of tumor-specific enhancers in clear cell renal cell carcinoma.** Xiaosai Yao, IMCB, Singapore, Singapore, Singapore.
- A30 A DNA methylation Canyon in gene desert act as a regulation scaffold for HOXA genes in stem cell self-renewal and leukemia development..** Xiaotian Zhang, Van Andel Institute, Grand Rapids.
- A31 ZBTB46 is a novel oncogene that contributes to castration-resistant prostate cancer through activation of microRNA-1 DNA methylation.** Yen-Nien Liu, Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan.
- A32, PR10 Targeting CDK9 reactivates epigenetically silenced genes in cancer.** Hanghang Zhang, Fels Institute for Cancer Research, Temple University School of Medicine, Philadelphia, PA.
- A33 CTCs contribution in cancer therapy and progression.** Nise Yamaguchi, Hospital Israelita Albert Einstein, São Paulo, SP, Brazil.
- A34 Epigenetic and transcriptional regulator gene mutations in relapsed acute myeloid leukemia**. Samuli Eldfors, University of Helsinki, Helsinki, Finland.

A35 **Reversible LSD1 (KDM1A) inhibition with HCI2509 is growth inhibitory in bladder cancer cell lines and causes gene expression changes that reveal rational therapeutic partners.** Sumati Gupta, Hunstman Cancer Institute, Salt Lake City, Utah.

A36 **Epigenetic reprogramming of epithelial mesenchymal transition in triple negative breast cancer cells with SGI-110 and MS275.** Yanrong Su, Fox Chase Cancer Center-Temple University Health System, Philadelphia, Pennsylvania.



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Poster Session B
Saturday, March 3, 2018
12:30 p.m. – 3:00 p.m.
Grand Ballroom DEF

- B02, PR13 Targeted disruption of SIN3 chromatin regulator complex function inhibits metastasis and improves survival in triple negative breast cancer.** Samuel Waxman, Icahn School of Medicine at Mount Sinai, New York, NY.
- B03 Thymine DNA glycosylase as a novel target for melanoma.** Alfonso Bellacosa, Fox Chase Cancer Center, Philadelphia, PA.
- B04 Epigenome modification of prostate adenocarcinoma by the dietary phytochemical ursolic acid in prostate specific PTEN^{-/-} mice.** Chao Wang, Department of Pharmaceutics, Ernest Mario School of Pharmacy, Rutgers, The State University of New Jersey, Piscataway, New Jersey.
- B05 Sulforaphane epigenetically demethylates the CpG sites of the miR-9-3 promoter and reactivates miR-9-3 expression in human lung cancer A549 cells.** David Cheng, Rutgers University, Piscataway, NJ.
- B06 Aspirin treatment inhibits LINE-1 expression in human colon cancer cell line.** Ekavali Ekavali, South Dakota State University, Brookings, South Dakota.
- B07, PR04 DNA methylation patterns separate senescence from transformation potential and indicate cancer risk.** Hariharan Easwaran, The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, The Johns Hopkins University School of Medicine, Baltimore, MD.
- B08 DNA methylation changes at enhancers define master regulators in glioma progression.** Houtan Noushmehr, Department of Neurosurgery, Hermelin Brain Tumor Center, Henry Ford Hospital, Detroit, Michigan.
- B09 Epigenetic mechanisms drive cellular reprogramming in pancreatic carcinogenesis.** Ivonne Regel, Department of Medicine II, University Hospital, Ludwig-Maximilian University Munich, Munich, Germany.
- B10 Clinically significant subgroups of Wilms tumors are defined by genome-wide DNA methylation patterns.** Jack Brzezinski, Hospital for Sick Children, Toronto, Ontario, Canada.
- B11 DNMT3B induction at distant site promotes breast cancer metastasis through epigenetic reprogramming.** Jae Young So, NIH, Bethesda, MD.
- B12 Early loss of monoubiquitylation of Histone H2B alters key immune signaling pathways promoting the progression of high-grade serous ovarian cancer.** Jagmohan Hooda, University of Pennsylvania, Philadelphia, PA.
- B13, PR16 The role of long noncoding RNA mediated disruption of SWI/SNF in prostate cancer.** Jesse Raab, UNC Chapel Hill, Chapel Hill, NC, 27599.
- B14 Epigenetic targeting of adipocytes inhibits high-grade serous ovarian cancer cell migration and invasion.** Jessica Tang, Indiana University, Bloomington, IN.

- B15** **The histone methyltransferase DOT1L is a potential therapeutic target in multiple myeloma.** Kazuya Ishiguro, Department of Gastroenterology and Hepatology, Sapporo Medical University School of Medicine, Sapporo, Hokkaido, Japan.
- B16, PR11** **p16 epimutation: Function in intestinal tumorigenesis and as a target for therapy.** Lanlan Shen, Baylor College of Medicine, Houston, TX.
- B17** **Methylation status at the SMPD3 promoter in hepatocellular carcinoma correlates with SMPD3 gene expression and liver function markers.** Maarit Tiirikainen, University of Hawaii Cancer Center, Honolulu, HI.
- B18** **A Trichostatin A/Sp1 mediated mechanism for the regulation of SALL2 tumor suppressor in Jurkat T leukemia cells.** Matias Hepp, Universidad de Concepcion, Concepcion, BioBio, Chile.
- B19** **Deregulation of DNA demethylation in inflammation and cancer.** Natalia Tretyakova, University of Minnesota, Minneapolis, MN.
- B20, PR15** **CRISPR screening to assess genetic vulnerabilities in mutant IDH1-dependent models of different lineages.** Lindsey Rodrigues, Novartis Institutes for Biomedical Research, Cambridge, Massachusetts.
- B21** **Combining enhancer DNA methylation and RNA-seq to identify gene regulatory network changes in cancer.** Nicole Yeager, Cedars-Sinai Medical Center, Los Angeles, CA.
- B22** **The histone methyltransferase Suv420h2 prevents the epithelial-to-mesenchymal transition (EMT) by restraining the mesenchymal program in luminal breast cancer cells.** Priya Kapoor, Emory University, Atlanta, GA.
- B23** **Epigenetic and genetic modification of tumor necrosis factor alpha and associated biomarkers on human prostate cancer LNCaP, PC-3 and DU145 cells induced by ursolic acid and sulforaphane.** Ran Yin, Rutgers, the State University of New Jersey, Piscataway Township, NJ.
- B24** **Epigenome Modification and Cancer Prevention by Curcumin in Colitis-accelerated Colon Cancer in Mice.** Renyi Wu, Rutgers University, Piscataway, New Jersey.
- B25, PR09** **Discovery of selective, non-covalent small molecule inhibitors of DNMT1.** Melissa Pappalardi, GlaxoSmithKline, Collegeville, PA.
- B26** **Potential role of the splicing factor SF3B1 in epigenetic regulation.** Sandra Deliard, Temple University School of Medicine, Philadelphia, PA.
- B27** **Identification of epigenetically silenced breast cancer driver genes.** Shoghag Panjarian, Fels Institute, Temple University, Philadelphia, PA.
- B28** **Epigenetic changes mediated by Ring1b are an important prerequisite for acinar-to-ductal metaplasia and pancreatic carcinogenesis.** Simone Benitz, Department of Internal Medicine II, University Hospital, Ludwig-Maximilian University Munich, Munich, Bavaria, Germany.
- B29** **Genome-wide methylation profiling of matched glioblastoma, patient-derived neurospheres, and xenograft models.** Tathiane Malta, Henry Ford Hospital, Detroit, Michigan.
- B30** **Aggressive glioma G-CIMP subtype is defined by loss of 5-hydroxymethylcytosine associated with genomic enhancers.** Thais Sabedot, Henry Ford Hospital, Detroit, MI.
- B31** **Combination effect of sulforaphane and epigenetic alternations reagents for metastatic melanoma treatment.** Tung-chin Chiang, University of Arkansas for Medical Sciences, Little Rock, AR.
- B32** **Tumor-suppressive miR-145 co-repressed by TCF4- β -catenin and PRC2 complexes forms double-negative regulation loops with its negative regulators in colorectal cancer.** Wei Wang, State Key Laboratory of Cancer Biology, Department of Immunology, Fourth Military Medical University, Xi'an, Shaanxi, China.

- B33** **MYSM1 inhibits human colorectal cancer tumorigenesis by facilitating the expression of the miR-200 family and blocking PI3K/AKT signaling.** Wei Wang, State Key Laboratory of Cancer Biology, Department of Immunology, Fourth Military Medical University, Xi'an, Shaanxi, PR China.
- B34** **Epigenetic characteristics of ovarian cancer stem cells.** Yinu Wang, Department of Obstetrics and Gynecology, Feinberg School of Medicine, Northwestern University, Chicago, IL.
- B35, PR12** **Inhibition of histone methyltransferases EHMT1 and EHMT2 reduces PARP inhibitor resistance in high grade serous ovarian cancer.** Zachary Watson, University of Colorado, Aurora, CO.