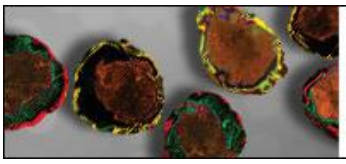

An AACR Special Conference on
Advances in Pediatric Cancer Research
September 17-20, 2019 | Montreal, QC, Canada

AACR
American Association for Cancer Research

Poster Session B

Thursday, September 19, 2019

12:50-3:15 p.m.

B01 Alternative splicing as a therapeutic vulnerability in pediatric rhabdomyosarcoma. Dawn Chandler, Nationwide Children's Hospital, Columbus, OH.

B02 5-hydroxymethylcytosine profiles in circulating cell-free DNA are biomarkers of disease burden in children with neuroblastoma. Mark Applebaum, University of Chicago, Chicago, IL.

B03 Methods for integrated analysis of RNA and DNA sequencing in pediatric cancers. Marcus Breese, University of California San Francisco, San Francisco, California.

B04 Three distinct subgroups of Wilms tumors with novel molecular features and important clinical implications are defined by genome-wide DNA methylation profiles. Jack Brzezinski, Hospital for Sick Children, Toronto, Ontario, Canada.

B05, PR01 Three-hit model of Wilms tumor formation reveals immunogenic transcriptional subtypes. Kenneth Chen, UT Southwestern, Dallas, TX.

B06 Candidate differentiation stall in epithelial mesenchymal transition in H3K27M diffuse midline glioma. Allison Cheney, Department of Molecular, Cell and Developmental Biology, UC Santa Cruz Genomics Institute, Santa Cruz, CA.

B07 Prospective germline next-generation sequencing in pediatric patients with neuroblastoma identifies frequent alterations in genes involved in DNA damage repair. Sarah Cohen-Gogo, The Hospital for Sick Children, Toronto, ON, Canada.

B08 Beyond synthetic lethality: Multiple mechanisms can explain genetic interactions within childhood cancer. Josephine Daub, Princess Máxima Center for Pediatric Oncology, Utrecht, Netherlands.

B09 Epigenetic changes mediated by H3.3 G34R mutation in a CRISPR-edited pediatric glioblastoma cell line. Shriya Deshmukh, McGill University, Montreal, QC, Canada.

B10 Rhabdomyosarcoma requires MYC family genomic events to pathogenically subvert core-regulatory circuitry. Adam Durbin, Dana-Farber Cancer Institute, Boston, MA.

B11, PR11 EP300 controls the oncogenic enhancer landscape of high-risk neuroblastoma. Adam Durbin, Dana-Farber Cancer Institute, Boston, MA.

B12 PAX3 translocations co-opt super enhancers and intrinsically disordered fusion partners in rhabdomyosarcoma. David Milewski, Genetics Branch, NCI, NIH, Bethesda, MD.

B13 Leveraging cloud based computational resources for gene fusion discovery with potential clinical implications for pediatric solid tumor patients. Alma Imamovic, Dana-Farber Cancer Institute & Broad Institute, Boston, Massachusetts.

B14 Pinpointing the origins of pediatric brain tumors using single cell transcriptomic analysis. Selin Jessa, Lady Davis Institute for Medical Research, Montreal, QC, Canada.

B15 Genomic Classification and Prognosis in Rhabdomyosarcoma: A report from the Children's Oncology Group, the Institute of Cancer Research and the National Cancer Institute. Javed Khan, NCI, Bethesda, MD.

B16 MECOM dysregulation is associated with poor outcome in pediatric therapy-related myeloid neoplasms. Tamara Lamprecht, St. Jude Children's Research Hospital, Memphis, TN.

B17 A C19MC-LIN28A-MYCN oncogenic circuit driven by hijacked super-enhancers is a distinct therapeutic vulnerability in ETMRs – a lethal brain tumor. Iqra Mumal, The Hospital for Sick Children, Toronto, Ontario, Canada.

B18 MEG3 and MEG8 aberrant methylation associated with worst prognosis in an infant with neuroblastoma. Estela Novak, Fundação Pró-Sangue Hemocentro de São Paulo, São Paulo, São Paulo, Brasil.

B19 Identification of physiologically relevant EWS-FLI1 target genes in Ewing's sarcoma via CRISPRa screening. Vadim Saratov, Children's University Hospital Zurich, Zurich, Switzerland.

B20 Integrative analysis of whole-genome and RNA sequencing in high-risk pediatric malignancies. Avanthi Shah, UCSF, San Francisco, CA.

B21 Childhood Cancer Molecular Map (C2M2) to define medulloblastoma heterogeneity and predict treatment response. Huwate Yeerna, Stanford University School of Medicine, Stanford, CA.

B22 Cell state and lineage specification are controlled by epigenetic landscapes regulating the core transcriptional regulatory circuitry in pediatric neuroblastoma. Mark Zimmerman, Dana-Farber Cancer Institute, Boston, MA.

B23 EWS-FLI1 partners with EWSR1 to regulate transcription in Ewing sarcoma. Nasiha Ahmed, The University of Arizona, Tucson, AZ.

B24 EWSR1-FLI1 expression heterogeneity and the impact on BRCA1 dependent metabolism and metastasis. Alexander Bishop, GCCRI, UT-H SA, San Antonio, Texas.

B25 HNRNPH1-dependent splicing of the fusion oncogene EWS-FLI1 reveals a targetable RNA G-quadruplex interaction. Natasha Caplen, Genetics Branch, CCR, NCI, Bethesda, MD.

B26 Pro-metastatic effect of ICG-001, a β-catenin/CBP dependent transcription inhibitor, in osteosarcoma. Geoffroy Danieau, Nantes University, Nantes, France.

B27 A link between small non coding RNAs and mRNA translation elongation: The let7-eEF2K axis in pediatric tumor adaptation to nutrient deprivation. Alberto Delaidelli, BC Cancer Research Centre, Vancouver, BC, Canada.

B28 A cross-species enhancer activity analysis approach to identify the Ewing sarcoma cell-of-origin. Martin Distel, CCRI, Vienna, Vienna, Austria.

B29 Validation of a model of pedriatric leukemia based on pluripotent stem cells using mass cytometry. Joan Domingo Reines, Gene Regulation, Stem Cells and Development Group, GENYO - Centre for Genomics and Oncological Research - Pfizer/University of Granada/Junta de Andalucía, Granada, Spain.

B30 ARID1A is a haploinsufficient tumor suppressor for N-Myc transformation of neural crest cells. Kevin Freeman, University of Tennessee Health Science Center, Memphis, Tennessee.

B31, PR12 IL6 Mediated Self-Seeding Functions to Prevent Osteosarcoma Metastasis. Amy Gross, Nationwide Children's Hospital, Columbus, Ohio.

B32 ASAP1 regulates differentiation in myoblasts and PAX-FOXO1 fusion-negative rhabdomyosarcoma. Katie Hebron, National Cancer Institute, National Institutes of Health, Bethesda, MD.

B33, PR08 Lactate dehydrogenase A is a pharmacologically tractable EWS-FLI1 transcriptional target that regulates the glycolytic dependence of Ewing sarcoma. Christine Heske, National Cancer Institute, Bethesda, MD.

B34 Cord blood CD34+ HSPCs: An in vitromodel system for characterizing NUP98 fusions. Ryan Hiltenbrand, St. Jude Children's Research Hospital, Memphis, TN.

B35 Liaison between SNAI2 and MYOD enhances oncogenesis and suppresses differentiation in Fusion-Negative Rhabdomyosarcoma. Myron Ignatius, Greehey Children's Cancer Research Institute, Department of Molecular Medicine, UT Health Sciences Center, San Antonio, TX.

B36 A Novel Model of Osteosarcomagenesis Reveals Dysregulation of Oxidative Phosphorylation. Brittany Jewell, MD Anderson UTHealth Graduate School of Biomedical Sciences, Houston, Texas.

B37 Menin and EWS/FLI1 activate serine biosynthesis via ATF4 in Ewing sarcoma. Jennifer Jiménez, University of Michigan, Ann Arbor, Michigan.

B38, PR13 Surgical excision of the primary tumor in osteosarcoma model results in enhanced metastatic growth by modulating the lung immune microenvironment. Michelle Kallis, The Elmezzi Graduate School of Molecular Medicine, Northwell Health,Karches Center for Oncology, The Feinstein Institute for Medical Research and Donald and Barbara Zucker School of Medicine at Hofstra/Northwell,Department of Surgery, Donald and Barbara Z, Manhasset, NY.

B39 Modulation of insulin receptor alternative splicing to develop cancer therapeutics. Safiya Khurshid, Nationwide Children's Hospital, Columbus, OH.

B40 EWS-FLI1 orchestrates Ewing sarcoma plasticity through a post-translational modification cascade regulating FOXM1 stability. Heinrich Kovar, St. Anna Children´s Cancer Research Institute, Vienna, Austria.

B41 Genomic landscape of somatic mutations in osteosarcomas. Ana Krepischi, Human Genome and Stem-Cell Research Center, Department of Genetics and Evolutionary Biology, Institute of Biosciences, University of São Paulo, São Paulo, Brazil.

B42 Mutant RAS represses CASZ1, a novel regulator of MYOD and MYOG to inhibit embryonal rhabdomyosarcoma differentiation. Zhihui Liu, National Cancer Institute, Bethesda, Maryland.

B43 The c-Myc/AKT1/TBX3 axis is important to target in the treatment of embryonal rhabdomyosarcoma. Hapiloe Mabaruti Maranyane, University of Cape Town, Cape Town, Western Cape, South Africa.

B44 Role of EMT transcription factors in the metastatic potential of osteosarcoma. Sana Mohiuddin, MD Anderson Cancer Hospital, Houston, Texas.

B45 Therapeutic potential of splicing in RMS: SRSF2 binding modulation controls MDM2 alternative splicing. Matias Montes, Nationwide Children's Hospital, Columbus, OH.

B46 CATACOMB: an endogenous inducible gene that antagonizes H3K27 methylation activity of Polycomb Repressive complex 2 via a H3K27M-like mechanism. Andrea Piunti, Northwestern University, Chicago, Illinois.

B47 Overexpression of TLX3 or HOXA9 in association mutant IL7Rα are sufficient to generate T-ALL in vivo. Gisele Rodrigues, Cancer and Inflammation Program, National Cancer Institute, Frederick, Maryland.

B48 A LIN28B-PDZ Kinase Axis Promotes Neuroblastoma Metastasis. Robert Schnepp, Aflac Cancer and Blood Disorders Center, Department of Pediatrics, Division of Pediatric Hematology, Oncology, and Bone Marrow Transplant, Emory University School of Medicine, Atlanta, GA.

B49 Modeling a pathogenic SAMD9 mutation in human induced pluripotent stem cells. Jason Schwartz, St. Jude Children's Research Hospital, Memphis, TN.

B50 Targeting EWS/FLI fusion oncoprotein stability/degradation in Ewing sarcoma. Bo Kyung Alex Seong, Dana-Farber Cancer Institute, Boston, MA.

B51 Adaptation to oncogene-induced metabolic stress by MondoA (MLXIP) drives common Acute Lymphoblastic Leukemia (cALL) malignancy. Alexandra Sipol, Children’s Cancer Research Center, Department of Pediatrics, Technische Universität München, Munich, Germany.

B52 Ewing Sarcoma: A Case Study of Clonal Aneuploidy and DNA Damage Repair in Pediatric Cancer. Xiaofeng Su, Koch Institute, Massachusetts Institute of Technology, Cambridge, MA.

B53, PR09 STAG2 mutations alter topological organization of the genome and cis-mediated interactions. Didier Surdez, Institut Curie, Paris, France.

B54 Enhancer reprogramming by ASPSCR1-TFE3 in alveolar soft part sarcoma. Miwa Tanaka, The Cancer Inst, Japanese Foundation for Cancer Research, Tokyo, Japan.

B55 MYCN promotes m6a dependent translation of eEF2K mRNA during adaptation to ER stress. Andrii Vislovukh, Department of Molecular Oncology, BC Cancer Research Centre, Vancouver, BC, Canada.

B56 A CRISPR/Cas9 domain screen identifies a small motif in the PAX3-FOXO1 transactivation domain relevant for tumor maintenance in alveolar rhabdomyosarcoma. Marco Wachtel, University Children`s Hospital Zurich, Zurich, Switzerland.

B57 A combination of IL7Rα and NRAS mutations sheds light on the oncogenesis of T-cell acute lymphoblastic leukemia in a murine model. Hila Winer, NIH/NCI, Frederick, MD.

B58, PR14 Ewing sarcoma cells exploit the IL1RAP-CTH axis to drive oxidative stress adaptation and lung metastasis. Haifeng Zhang, University of British Columbia, Vancouver, BC, Canada.

B59 Cardiometabolic complications after pediatric cancer: associations with chemotherapeutic agents and body-mass-index fluctuations. Veronique Belanger, Research Center of Sainte-Justine UHC and Université de Montréal, Montreal, Quebec, Canada.

B60 Exposure assessment among an adult population on radiation therapy, chemotherapy and other cancer therapies in childhood. Lara Kim Brackmann, Leibniz Institute for Prevention Research and Epidemiology – BIPS, Bremen, Bremen, Germany.

B61 Improvement of Physical Activity Training in Childhood Acute Lymphoblastic Leukemia Survivors: New Specific Equation to Predict the Peak Oxygen Uptake from the Six-Minute Walk Test. Maxime Caru, Université de Montréal, Montréal, Canada.

B62 The Need to Improve Exercise Prescriptions to Support Care in Pediatric Oncology. Maxime Caru, Université de Montréal, Montréal, Canada.

B63 Survivorship, vision and eye salvage following pars plana vitrectomy for residual active or recurrent retinoblastoma. Zhao Xun Feng, University of Ottawa, Ottawa, Ontario, Canada.

B64, PR15 Acting at a distance: Medulloblastoma secreted ligands disrupt normal neural stem cell function. Alexander Gont, Hospital for Sick Children, Toronto, Ontario, Canada.

B66 Nutritional intakes are associated with HDL-cholesterol levels in survivors of childhood acute lymphoblastic leukemia. Sophia Morel, Research Center of Sainte-Justine UHC and Université de Montréal, Montreal, Quebec, Canada.

B67 EGFR as a target in Pediatric Solid Tumors. Catherine Albert, Seattle Children's Research Institute, Seattle, WA.

B68 Spatial and temporal conditions for Smarcb1 deletion determines mouse AT/RT (Atypical teratoid/Rhabdoid tumor) subtype. Zhi-Yan Han, institut Curie, Paris, France.

B69 Epigenomics and Single-cell Sequencing Define a Developmental Hierarchy in Langerhans Cell Histiocytosis. Caroline Hutter, St. Anna Children's Cancer Research Institute, Vienna, Austria, Austria.

B70 Clonal Evolution of chemotherapy resistant rhabdomyosarcoma via multifocal genomic analysis of pre-treatment and treatment-resistant autopsy specimens. Michael Kinnaman, Memorial Sloan Kettering Cancer Center, New York, NY.

B71 Molecular heterogeneity and novel oncogenic fusions in RELA- and YAP1-negative supratentorial ependymoma. David Norali Ghasemi, Hopp- Children's Cancer Center Heidelberg (KiTZ), Heidelberg, Germany.

B72 Dissecting the heterogeneity of metastatic neuroblastoma cells by single-cell RNA-seq. Alice Shan, University of Toronto, Toronto, Canada.

B73 Second-generation molecular subgrouping of medulloblastoma: an international meta-analysis of Group 3 and Group 4 subtypes. Tanvi Sharma, Hopp Children's Cancer Centre at National Centre for Tumour Diseases Heidelberg (KiTZ), German Cancer Research Center (DKFZ), Heidelberg, Baden-Württemberg, Germany.

B74 Investigating the role of tumor:bone microenvironment crosstalk in Ewing sarcoma progression. Kelsey Temprine, University of Michigan Medical School, Ann Arbor, MI.

B75, PR16 Comprehensive transcriptomic characterization of 1,400 sarcomas for diagnosis and immune contexture. Julien Vibert, Institut Curie, Paris, France.

B76 Characterizing vascular invasion in hepatoblastoma. Sarah Woodfield, Baylor College of Medicine, Houston, TX.

B78 Role of noradrenergic core regulatory circuitry transcription factors in neuroblastoma cell identity. Agathe Peltier, Institut Curie, SIREDO Oncology Center (Care, innovation and research for children and AYA with cancer), Inserm U830, PSL Research University, Equipe labellisée Ligue Nationale contre le cancer, Paris, France.