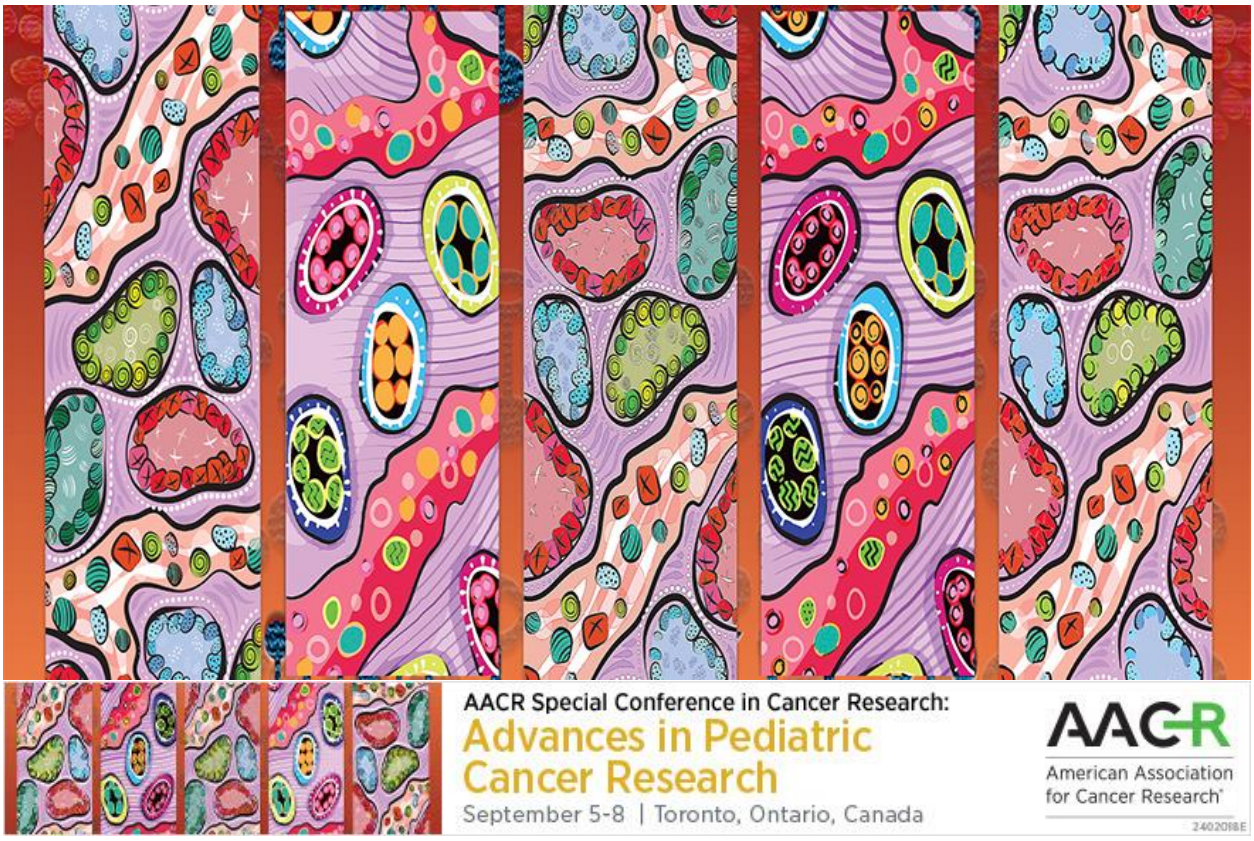
An AACR Special Conference in Cancer Research

Advances in Pediatric Cancer Research

In collaboration with the AACR Pediatric Cancer Working Group (PCWG)

September 5-8, 2024 | Sheraton Centre Toronto Hotel | Toronto, Ontario, Canada



POSTER LISTING

**As of August 12, 2024*

PROFFERED TALKS

POSTER SESSION A

POSTER SESSION B

Proffered Talks

PR001, A021 Inherited genetic variants in known cancer predisposition genes: A survey of the largest European cohort of patients under the age of 25 with whole genome sequencing data. David James Barnes, Institute of Cancer and Genomic Sciences, University of Birmingham (UK), Birmingham, United Kingdom.

PR002, A008 Somatic genetic development of Wilms tumor via normal kidneys in predisposed children. Anna Wenger, Wellcome Sanger Institute, Cambridge, United Kingdom.

PR003 Canada's path towards proteome guided therapies and advanced molecular pathology in pediatric precision oncology. Philipp F. Lange, University of British Columbia, Vancouver, British Columbia, Canada.

PR004, B013 Next generation pediatric precision oncology: Functional profiling of patient-derived viable tumor material to link genotype and phenotype. Eleonora J. Looze, Princess Maxima Center for Pediatric Oncology, Utrecht, Netherlands.

PR005, A032 A toolbox for the use of cfDNA in pediatric cancer patients. Godelieve Tytgat, Prinses Maxima Center, Utrecht, Netherlands, Netherlands.

PR006, A041 Liquid biopsy enables identification of mechanisms of tumor evolution in patients with newly diagnosed high-risk neuroblastoma: A report from the Children's Oncology Group. Gabriela Virdzekova, Dana-Farber Cancer Institute, Boston, Massachusetts.

PR007, B037 Persistent poverty is associated with risk of early mortality among children with cancer: An analysis of SEER data. Emma Hymel, University of Nebraska Medical Center, Omaha, Nebraska.

PR008, B041 The impact of social determinants and neuropsychological factors on healthcare transition readiness among adolescent and young adult childhood cancer survivors. Gayeong Kim, Emory University, Georgia, Georgia.

PR009, B050 Functional inhibition of natural killer cells enables surgery-induced accelerated neuroblastoma tumor growth in a mouse model. Brian T. Craig, Medical College of Wisconsin, Milwaukee, Wisconsin.

PR010, B059 Developing a safe and potent tumor-targeting gated CAR-T cell therapy for DIPG: A deadly pediatric brain tumor. Sujatha Venkataraman, University of Colorado, Anschutz Medical Campus, Aurora, Colorado.

PR011 Alectinib in children and adolescents with solid or CNS tumors harboring ALK-fusions: Updated data from the iMATRIX Alectinib phase I/II open-label, multi-center study. Francis Mussai, F. Hoffmann-La Roche Ltd, Welwyn Garden City, United Kingdom.

PR012, A059 MYOD1L122R induces chemoresistance and elevates cancer stem cell programs through WNT11-ROR2-VANGL2 signaling in aggressive rhabdomyosarcoma. Yun Wei, Harvard Medical School, Boston, Massachusetts.

Poster Session A

Friday, September 6, 2024

4:30-6:30 p.m.

A001 PAX3-FOXO1-induced transcriptional dysregulation in rhabdomyosarcoma. Brian J. Abraham, St. Jude Children's Research Hospital, Memphis, Tennessee.

A002 A transgenic zebrafish screen identifies new collaborating oncogenic drivers in acute lymphoblastic leukemia. James R. Allen, Massachusetts General Hospital, Charlestown, Massachusetts.

A003 A zebrafish model of high-risk neuroblastoma exhibits multifocal primary disease. Nicole Anderson, University of Mississippi Medical Center, Jackson, Mississippi.

A004 The ETS1-driven expression of TNS3 in Ewing sarcoma cells enhances the formation of the focal adhesions that promote cell movement. Vernon J. Ebegboni, Functional Genetics Section, Genetics Branch, Center for Cancer Research (CCR), National Cancer Institute, National Institutes of Health, Bethesda.

A005 TP53 variant clusters stratify the Li-Fraumeni spectrum and reveal an osteosarcoma-prone subgroup. Nicholas W. Fischer, The Hospital for Sick Children, Toronto, Ontario, Canada.

A006 Targeting boundary cap cells leads to mouse Smarcb1-deficient peripheral nerve tumors recapitulating human peripheral rhabdoid tumors. Zhi-Yan Han, Institut Curie, Paris, France.

A007 DNA damage response deficiency enhances neuroblastoma progression and sensitivity to combination PARP and ATR inhibition. Madeline Hayes, Hospital for Sick Children, Toronto, Ontario, Canada.

A009 Single cell transcriptomic signature of Li-Fraumeni Syndrome soft tissue sarcomas. Ashby Kissoondoyal, The Hospital for Sick Children, Toronto, Ontario, Canada.

A010 The role of TP53 on transposable elements in pediatric cancer. Brianne Laverty, The Hospital for Sick Children, Toronto, Ontario, Canada.

A011 Molecular analysis improves the diagnosis of young people with renal tumors. Sarah M. Leiter, Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom.

A012 Unravelling the role of METTL1 in Myc driven pediatric cancers using CRISPR Cas13d. Pei Y. Liu, Children's Cancer Institute, Randwick, New South Wales, Australia.

A013 Exploring the role of microbiota in cancer development in Li-Fraumeni Syndrome. Noel W.Y. Ong, University of Toronto, Toronto, Ontario, Canada.

A014 INO80-complex N-terminal module resolves replication stress in PAX3-FOXO1 positive rhabdomyosarcoma and exposes therapeutic vulnerability. Pushpendra Kumar Sahu, University of California San Francisco, San Francisco, California.

A015 FGF8 promotes non-canonical KRAS/MAPK pathway in favorable histology Wilms' tumor. Yongdong Su, Emory University School of Medicine, Atlanta, Georgia.

A016 EWSR1 in Ewing sarcoma cells exhibits enhanced recruitment to sites of active transcription compared to that observed in non-Ewing sarcoma cells. Soumya Sundara Rajan, National Cancer Institute, National Institutes of Health, Bethesda, Maryland.

A017 Dynamic modelling of EWS::FLI1 fluctuations reveals molecular determinants of phenotypic tumor plasticity and prognosis in Ewing sarcoma. Veveeyan Suresh, St. Anna Children's Cancer Research Institute, Vienna, Austria.

A018 Transcriptional evolution from normal foetal haematopoiesis to myeloid leukaemia in Down syndrome. Mi K. Trinh, Wellcome Sanger Institute, Cambridge, United Kingdom.

A019 Genetic and epigenetic characterization of NUP98-rearranged leukemia. Masayuki Umeda, St. Jude Children's Research Hospital, Memphis, Tennessee.

A020 MYCN overexpression biases human sympatho-adrenergic development towards progenitor cells causing neuroblastoma-like tumor xenografts. Stephane Van Haver, Oregon Health and Science University, Portland, Oregon.

A022 Characterizing the cell of origin of Ewing sarcoma. Elena Vasileva, Children's Hospital Los Angeles, Los Angeles, California.

A023 Establishment of the consortium for childhood cancer predisposition and the childhood cancer predisposition study. Anita Villani, The Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada.

A024 A homozygous start-loss mutation in TERF1 causes a syndrome associated with long telomeres. Yiming Wang, The Hospital for Sick Children, Toronto, Ontario, Canada.

A025 Single cell transcriptomics reveals a non-canonical lymphoblast in refractory childhood T cell leukaemia. Holly J. Whitfield, The Wellcome Sanger Institute, Cambridge, United Kingdom.

A026 Cellular and zebrafish models for DICER1 related tumour predisposition (DRTP). Mona K. Wu, Children's Hospital Los Angeles/University of Southern California, Los Angeles, California.

A027 Investigations on association of month of birth and seasonality with chromosomal abnormalities of prognostic significance and disease incidences in pediatric acute lymphoblastic leukemia in Saudi Arabia. Khalid Aljamaan, KSAUHS & King Abdulaziz National Guard Hospital, Riyadh, Saudi Arabia.

A028 Unraveling the complex interplay of genetic, environmental, and lifestyle factors in cancer predisposition: A comprehensive review and analysis. Peter Oloche O. David, Eloi Holding, Inc., Middletown, Delaware.

A029 Investigating the role of environmental toxicant exposures and STAG2 loss in sarcomagenesis. Rachael Kohrn, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

A030 Secondary malignancies after radiotherapy treatment of pediatric cancer patients in Egypt over a six-year period. Charlotte L. Sackett, University of Southern California, Los Angeles, California.

A031 Early metastatic dissemination in a MYCN-driven zebrafish model of high-risk neuroblastoma. Kyle Woodward, University of Mississippi Medical Center, Jackson, Mississippi.

A033 Early relapse detection: The power and potential of adrenergic and mesenchymal neuroblastoma specific mRNA-based minimal residual disease detection in liquid biopsies. Godelieve Tytgat, Prinses Maxima center, Utrecht, Netherlands.

A034 LIBERTY: LIquid Biopsy for rElapsed/RefracTorY neuroblastoma - a pilot study of characterization of circulating tumor DNA alterations in patients with relapsed and refractory neuroblastoma using a clinically validated liquid biopsy platform. Sarah Cohen-Gogo, The Hospital for Sick Children, Toronto, Ontario, Canada.

A035 Characterization of circulating tumor DNA in a pediatric oncology cohort and implementation into the SickKids Cancer Sequencing (KiCS) precision oncology program. Sarah Cohen-Gogo, The Hospital for Sick Children, Toronto, Ontario, Canada.

A036 The Stratified Medicine Paediatrics programme for cancers of childhood: Cell free DNA and serial tumour sequencing identifies subtype specific evolution and epigenetic states. Sally L. George, The Institute of Cancer Research, London, United Kingdom.

A037 Changes in T-cell repertoire during high-risk neuroblastoma therapy: A report from the Children's Oncology Group. Yiyue Jiang, University of Toronto, Toronto, Ontario, Canada.

A038 Plasma exosome concentrations in healthy canines and dogs with osteosarcoma. Jaron M. Magstadt, University of Minnesota, Minneapolis, Minnesota.

A039 Circulating tumor DNA in pleuropulmonary blastoma (PPB). Kris Ann P. Schultz, Children's Minnesota, Minneapolis, Minnesota.

A040 Tumor educated platelets in detecting pediatric central nervous system tumors. Markus Talka, Helsinki University Hospital, Helsinki, Finland.

A043 Plasma circulating proteomic markers are associated with metastatic spread and outcome in osteosarcoma. Baptiste Gael, Gustave Roussy, Palaiseau, France.

A044 Enhanced disease detection using single cell RNAseq in children with brain cancer. Marion K. Mateos, Children's Cancer Institute, Lowy Cancer Research Centre, UNSW Sydney, New South Wales, Australia.

A045 Implementing ultra-sensitive, ctDNA-based liquid biopsy for disease monitoring in paediatric tumours. Robert Salomon, Children's Cancer Institute, Sydney, New South Wales, Australia.

A046 Expression of novel immune checkpoints HHLA2 and B7x on circulating tumor cells (CTCs) of pediatric, adolescent and young adult solid tumors. Ziqiang Yuan, Rutgers Cancer Institute of New Jersey, New Brunswick, New Jersey.

A047 Synergy between polarized dendritic cells, radiation and PD-1 blockade in effective treatment of rhabdomyosarcoma. Ajay Gupta, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

A048 SR59230A-induced ferroptosis sensitization of Ewing sarcoma cells via Beta-3 adrenergic receptor modulation: A novel therapeutic target. Maria Ascone, Meyer Children's Hospital IRCCS, Italy, Florence, Italy.

A049 A Wnt5a dependent feedback loop contributes to Ewing sarcoma cell motility. Alissa C. Baker, Albert Einstein College of Medicine, Bronx, New York.

A050 DNMT3B DNA methyltransferase acts as a major player and therapeutic target in rhabdoid tumors. Céline Chauvin, Institut Curie, Paris, France.

A051 Genome-wide CRISPR/Cas9 library screening identified TP53 as a critical driver for resistance to EZH2 inhibitor in rhabdoid tumors. Céline Chauvin, Institut Curie, Paris, France.

A052 Project HOPE: A spatiotemporal single-cell landscape of high-grade gliomas in children, adolescents and young adults. Sara G. Danielli, Dana-Farber Boston Children's Cancer and Blood Disorders Center, Broad Institute of MIT and Harvard, Boston, Massachusetts.

A053 Investigating mechanisms responsible for MAP kinase pathway resistance in RAS-altered neuroblastoma cells. Subhra Dash, National Institutes of Health, Bethesda, Maryland.

A054 A genome-derived cell state reporter permits dissection and control of intratumoral heterogeneity and chemoresistance. Adam D. Durbin, St. Jude Children's Research Hospital, Memphis, Tennessee.

A055 YAP/TAZ induce a noradrenergic to mesenchymal transition through a core regulatory circuitry including FOSL2, TEAD4 and RUNX1 promoting invasion and chemoresistance in neuroblastoma. Margot Gautier, Institut Curie, Paris, France.

A056 Intertumoral epigenetic heterogeneity in response to a novel therapy in Ewing sarcoma. Emily Isenhart, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

A057 Molecular iodine reduces the invasiveness of neuroblastoma xenografts in zebrafish. Edgar R. Juvera, National Autonomous University of Mexico Queretaro, Querétaro, Mexico.

A058 Response of neuroblastoma patient-derived xenografts to cyclophosphamide + topotecan enables identification of gene expression patterns associated with drug resistance. Min H. Kang, Texas Tech University Health Sciences Center, Lubbock, Texas.

A060 Investigating underlying efficacy and mechanism of action of the KIF11 inhibitor filanesib in Ewing and clear cell sarcomas. Nicole Londono, Moffitt Cancer Center, Tampa, Florida.

A061 Overcoming chemotherapic resistance caused by β3-AR in Ewing's sarcoma with the receptor's antagonist. Megan Lotti, Meyer Children's Hospital IRCCS, Italy, Florence, Italy.

A062 Therapeutic targeting of the SAGA KAT module impairs MYCN-amplified neuroblastoma growth through reduction of the MYCN oncogenic gene expression program. Nathaniel W. Mabe, Purdue University, West Lafayette, Indiana.

A063 Selective targeting of BET family epigenetic regulators in metastatic alveolar rhabdomyosarcoma. Anna Mandel, Sinai Health System, Toronto, Canada.

A064 Characterizing the immune microenvironment and examining the effect of tumour-targeted MRgHIFU mediated hyperthermia in combination with thermosensitive liposomal doxorubicin in a mouse model of embryonal rhabdomyosarcoma. Julia Nomikos, Lunenfeld-Tanenbaum Research Institute, Toronto, Canada.

A065 Immunoliposome for Ewing sarcoma. Daniel E. Panosyan, University of California, Los Angeles: UCLA College of Letters & Science, Los Angeles, California.

A066 Acquired resistance to temozolomide in the Th-MYCN mouse as a clinically-relevant platform to evaluate novel therapeutic strategies against high-risk neuroblastoma. Evon Poon, Division of Clinical Studies, The Institute of Cancer Research, London, United Kingdom.

A067 Unlocking asparaginase resistance: MondoA's role in pediatric B-ALL's adaptation to nutrient scarcity. Constantin Segner, Translational Pediatric Cancer Research Action - Institute of Pathology, Munich, Germany, Munich, Germany.

A068 Emerging therapies for the treatment of the fusion protein driven cancer, fibrolamellar carcinoma. Mahsa Shirani, Rockefeller University, NYC, New York.

A069 The role of ABCB1 in doxorubicin resistant SMARCB1-deficient cancers. Katie T. Skinner, Emory University, Atlanta, Georgia.

A070 Identifying therapeutic vulnerabilities in desmoplastic small round cell tumor through multi-omics analyses. Danh Truong, MD Anderson Cancer Center, Houston, Texas.

A071 Mechanisms of radiation resistance in medulloblastoma. Bethany Veo, University of Colorado Anschutz Medical Campus, Aurora, Colorado.

A072 The PIK3CA/AKT pathway drives therapy resistance in rhabdomyosarcoma. Yueyang Wang, Massachusetts General Hospital Research Institute, Charlestown, Massachusetts.

A073 Epigenetic control of neuroblastoma differentiation through inhibition of the histone acetyltransferases KAT6A and KAT6B. Nina Weichert-Leahey, DFCI, Boston, Massachusetts.

A074 Uncovering chemoresistance mechanisms in CIC-DUX4 sarcoma using a novel xenograft model. Masoumeh Aghababazadeh, McGill, Montreal, Canada.

A075 GD2-SADA, a bispecific fusion protein that forms self-assembling and disassembling (SADA), GD2-avid tetramers with high affinity for chelated radiolanthanides. Brian Horacio Santich, CMC Development, Y-mAbs A/S, Hørsholm, Denmark.

A076 Inhibiting iron-sulfur cluster export activates ferroptosis and potentiates cisplatin response in pediatric group 3 medulloblastomas. Sidharth Mahapatra, University of Nebraska Medical Center, Omaha, Nebraska.

A078 Targeted ferroptosis induction enhances chemotherapy and natural killer cell immunotherapy in neuroblastoma. Adriana Mañas, Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy, IdiPAZ Research Center, University Hospital La Paz, Madrid, Spain.

A079 Mechanisms of chemotherapy resistance in rhabdomyosarcoma. Sabateeshan Mathavarajah, Massachusetts General Hospital, Boston, Massachusetts.

A080 PRC1/BMI1 activity alters chromatin accessibility to regulate differentiation in atypical teratoid rhabdoid tumors. Gillian Murdock, University of Colorado Anschutzmedical Campus, Aurora, Colorado.

A081 Biomarker-driven targeting of NAD metabolism in rhabdomyosarcoma. Juan C. Vasquez, Yale School of Medicine, Department of Pediatric Hematology/Oncology, New Haven, Connecticut.

A082 Understanding the role of CDK8 in protein synthesis for treating MYC-driven medulloblastoma. Dong Wang, University of Colorado Anschutz Medical Campus, Aurora, Colorado.

Poster Session B

Saturday, September 7, 2024

6:00-8:00 p.m.

B001 Timing the development of chemoresistance in relapsed pediatric cancer with mutational signatures. Sasha Blay, The Hospital for Sick Children, Toronto, Ontario, Canada.

B002 A novel NTRK2-activating internal tandem duplication characterizes a new mechanism of receptor tyrosine kinase activation. Lauren M. Brown, Children's Cancer Institute, UNSW Sydney, New South Wales, Australia.

B003 Expanding therapeutic horizons: Unleashing the untapped potential of MEK inhibitor treatment in pediatric cancers. M. Emmy M. Dolman, Children's Cancer Institute, Sydney, New South Wales, Australia.

B004 Putting function back into paediatric cancer genomics – modelling the therapeutic implications of novel genomic features. Paul G. Ekert, Children's Cancer Institute, Sydney, New South Wales, Australia.

B005 BMP signaling determines neuroblastoma sensitivity to retinoic acid by directing cell fate. Paul Geeleher, St. Jude Children's Research Hospital, Memphis, Tennessee.

B006 An integrated single-cell RNA-seq map of human neuroblastoma tumors and preclinical models uncovers divergent mesenchymal-like gene expression programs. Paul Geeleher, St. Jude Children's Research Hospital, Memphis, Tennessee.

B007 High-risk pediatric cancer models in zebrafish, mouse and short-term culture predict individual patient responses to therapy. Michelle Haber, Children's Cancer Institute; University of New South Wales, Sydney, New South Wales, Australia.

B008 Decoding the primary site-specific regulation of rhabdomyosarcoma metastasis. Katie E. Hebron, National Cancer Institute, Frederick, Maryland.

B009 The Dutch childhood cancer genome project: Data-driven precision medicine and research. Patrick Kemmeren, Princess Maxima Center for Pediatric Oncology, Utrecht, Netherlands.

B010 Biological consequences of neural signatures in fusion-positive rhabdomyosarcoma. Genevieve C. Kendall, Nationwide Children's Hospital / The Ohio State University, Columbus, Ohio.

B011 Whole genome sequencing can reproduce all standard-of-care diagnostics for childhood cancer: Results from two national systems. Jonathan Kennedy, Cambridge University Hospitals, Cambridge, United Kingdom.

B012 Clinical utility of real-time comprehensive molecular profiling in childhood brain tumors. Loretta M.S. Lau, Children's Cancer Institute, Sydney, New South Wales, Australia.

B014 Increasing the clinical utility of transcriptome analysis in high-risk childhood precision oncology. Chelsea Mayoh, Children's Cancer Institute, Kensington, Australia.

B015 Transcriptome-based assessment of immune infiltration for molecular selection of pediatric patients with solid tumors for combination immune checkpoint inhibitor therapy. Chelsea Mayoh, Children's Cancer Institute, Lowy Cancer Research Centre, UNSW, Kensington, Australia.

B016 Unravelling personalized drug vulnerabilities in pediatric solid tumors—functional precision medicine approach. Vilja M. Pietiäinen, Institute for Molecular Medicine Finland, FIMM, University of Helsinki, Helsinki, Finland.

B017 Aberrant translation of microproteins as a source of new cancer dependencies in medulloblastoma. John Prensner, University of Michigan, Ann Arbor, Michigan.

B018 Development of DNA methylation signature predictive of response to neoadjuvant chemotherapy in osteosarcoma. Joanna Przybyl, Department of Surgery, McGill University and Cancer Research Program, McGill University Health Centre, Montreal, Quebec, Canada.

B019 Characterization of the extracellular vesicle proteome in Li-Fraumeni Syndrome. Paula R. Quaglietta, University of Toronto/SickKids, Toronto, Ontario, Canada.

B020 Improved outcome for patients with alternative lengthening of telomeres (ALT) neuroblastoma randomized to tandem myeloablative therapy on COG ANBL0532. C Patrick Reynolds, Cancer Center, School of Medicine, Texas Tech University Health Sciences Center, Lubbock, Texas.

B021 Enhancing clinical decision-making: The role of ex vivo drug sensitivity profiling in pediatric precision medicine. Marlinde C. Schoonbeek, Princess Máxima Center, Utrecht, Netherlands.

B022 Precision medicine for the fusion protein driven cancer, fibrolamellar carcinoma (FLC): Beyond sequencing. Sanford Simon, Rockefeller University, New York, New York.

B023 Multicenter histology image integration and multiscale deep learning for pediatric sarcoma subtype classification. Adam H. Thiesen, UCONN School of Medicine, The Jackson Laboratory for Genomic Medicine, Farmington, Connecticut.

B024 Single cell transcriptomics and patient-derived tumoroids reveal that hepatobiliary lineage programs cooperate with Wnt pathway mutations to drive cell proliferation in hepatoblastoma. Peng V. Wu, Stanford University School of Medicine, Stanford, California.

B025 Genome-wide study identifies novel genes associated with bone toxicities among children with acute lymphoblastic leukemia. Song Yao, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

B026 Infant ALL without KMT2A rearrangements harbor clinically relevant alterations and share common origins with childhood ALL. Matthew Zatzman, Memorial Sloan Kettering Cancer Center, New York, New York.

B027 Software for gene expression-based classification of pediatric BCP-ALL subtypes robustly predicts cases as members of subclass although they lack subtype-defining rearrangements. Caroline Brorsson, Qlucore AB, Lund, Sweden.

B028 Deep mutational scanning of SMARCB1 identifies missense mutants that destabilize SWI/SNF complex stability and diminish remodeling activity. Garrett Cooper, Emory University, Atlanta, Georgia.

B029 Studies in human bone cell co-cultures reveal a potential mechanism underlying bone fractures in children treated with entrectinib and suggest a positive association with vitamin D. Sabrina Ehnert, Siegfried Weller Institute, BG Trauma Center Tübingen, University of Tübingen, Tübingen, Germany.

B030 Whole genome sequencing provides practice-changing benefits when performed on consecutive, unselected children with suspected cancer. Angus Hodder, Wellcome Sanger Institute, Great Ormond Street Hospital, London, United Kingdom.

B031 Isolation and characterization of extracellular vesicles and nanoparticles from osteosarcoma cell lines: Unveiling supermeres and exomeres for therapeutic insights. Marjan Khatami, McGill University, Montreal, Quebec, Canada.

B033 Characterizing the spatial transcriptomic landscape of Osteosarcoma from diagnosis to relapse. Gaël Moquin-Beaudry, Institut Gustave Roussy, Villejuif, France.

B034 A transcriptional atlas provides a universal diagnostic platform for mesenchymal tumors and validation of preclinical models. Joshua O. Nash, The Hospital for Sick Children, Toronto, Ontario, Canada.

B035 Stratified Medicine Paediatrics2 – advancing precision medicine in paediatric cancer. Aditi Vedi, Cambridge University Hospital, Cambridge, United Kingdom.

B036 Integrating gene expression evaluation in molecular diagnostics for pediatric AML molecular classification. Lu Wang, St. Jude Children's Research Hospital, Memphis, Tennessee.

B038 RT-PCR and Interphase FISH reveal high frequencies of BCR-ABL in pediatric ALL patients in South-East Asia. Sarah Almukhaylid, King Saud Bin Abdulaziz University of Health Sciences & Johns Hopkins Healthcare, Al-Ahsa, Saudi Arabia.

B039 Investigations on ethnographic disparities in molecular epidemiology of pediatric ALL and its impact on clinical outcome as well as cancer management planning strategies. Sarah Al-Mukhaylid, National Guard Health Affairs, KSAU-HS, COAMS-A & John's Hopkins Healthcare, Al-Ahsa, Saudi Arabia.

B040 Rural-urban differences in multiple symptoms occurrence in pediatric cancer survivors after treatment completion in Nebraska, United States. Krishtee Napit, Department of Epidemiology, College of Public Health, University of Nebraska Medical Center, Omaha, Nebraska.

B042 Socioeconomic and racial disparities in pediatric cancer outcomes in the Ghanaian health sector: Challenges and strategies for equitable care. Mavis Agyapomaa, Eastern Region Hospital, Koforidua, Ghana.

B043 The MedSupport multilevel intervention to improve pediatric medication adherence: Results from a pilot study. Kara Kelly, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

B044 Dosimetric association between critical brain structure dose and scholastic achievement in pediatric brain tumor survivors. Raymond B. Mailhot Vega, University of Florida College of Medicine, Jacksonville, Florida.

B045 Addressing pediatric cancer disparities in Ghana, Sub-Saharan Africa: A call to action. Obed Ofosu-Appiah, Komfo Anokye Teaching Hospital, Kumasi, Ghana.

B046 Addressing inequities in pediatric solid tumors: Insights from Hispanics in Puerto Rico. Carolyn M. Ruiz-Perez, UPR Comprehensive Cancer Center, San Juan, Puerto Rico.

B047 Transcriptional signatures associated with persisting CD19 CAR-T cells in children with leukemia. Nathaniel D. Anderson, Wellcome Sanger Institute, Cambridge, United Kingdom.

B048 Galectin-3 regulation of immunosuppression in Ewing sarcoma. Kelly M. Bailey, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

B049 Oncolytic HSV1716-GMCSF combination strategies to remodel the immunosuppressive osteosarcoma tumor-microenvironment and promote anti-tumor immunity. Tyler K. Barr, University of Leeds, Leeds, United Kingdom.

B051 Marrow and peripheral blood cytokine architecture differences between pediatric patients receiving CD19- and CD22-directed CART. Caroline Diorio, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania.

B052 IKAROS mediates antigen escape following CD19- or CD22-targeted immunotherapies in r/r B-ALL. Pablo Domizi, Stanford University, Stanford, California.

B053 Tumor-associated macrophages diminishes IL1RAP-targeting CAR-T cell therapy efficacy in Ewing sarcoma. Yue Zhou (Joe) Huang, BC Cancer Research Center, Vancouver, British Columbia, Canada.

B054 Intratumoral injection with stimulator of interferon genes (STING) agonist increases T- and B-cell infiltrates in canine osteosarcoma. Brian H. Ladle, Johns Hopkins University, Baltimore, Maryland.

B055 Disease control in patients treated with naxitamab for refractory/relapsed high-risk neuroblastoma. Daniel A. Morgenstern, The Hospital for Sick Children, Toronto, Ontario, Canada.

B056 Unveiling the temporal impact: Exploring dynamic changes in the pediatric solid tumor microenvironment through time. Virgile Raufaste-Cazavieille, CHUQ Research Center, Québec, Québec, Canada.

B057 Dual-omic characterization of pediatric solid tumors identified a subset of tumors with epigenetically altered immune phenotype. Raoul Santiago, CHUQ Research Center, Quebec City, Quebec, Canada.

B058 Clusterin overexpression in therapeutic T cell induces resistance to exhaustion. Constantin Segner, Technical University of Munich, Munich, Germany.

B060 Clonal composition of αβ and γδ T cells in primary human neuroblastoma tumors – is every child unique? Bronte Manouk Verhoeven, Karolinska Institutet, Stockholm, Sweden.

B061 Dissecting pediatric sarcoma microenvironment using single-cell and spatial multi-omics. Zhan Zhang, University of Pennsylvania, Philadephia, Pennsylvania.

B062 VCAN+ macrophages promote neuroblastoma cell growth, migration, and adrenergic to mesenchymal transition via the HB-EGF/ERBB signaling axis. Rumeysa Biyik-Sit, Center for Childhood Cancer Research, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania.

B063 Unveiling the immune landscape of recurrent, MYC-driven medulloblastoma. Laura K. Donovan, UCL Great Ormond Street Institute of Child Health, London, United Kingdom.

B064 Uncovering the lineage state specific regulation of STING in neuroblastoma. Matthew Shapiro, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania.

B065 A phase 1 study of abemaciclib, a CDK 4/6 inhibitor, with radiation in children with newly diagnosed diffuse intrinsic pontine glioma (DIPG). Thomas Cash, Aflac Cancer and Blood Disorders Center, Children's Healthcare of Atlanta, Emory University School of Medicine, Atlanta, Georgia.

B066 Bridging patient reported outcomes and CTCAE to improve supportive care and trial design: The PROptimise initiative. Sarah Cohen-Gogo, The Hospital for Sick Children, Toronto, Ontario, Canada.

B068 NL-4C: The Dutch Comprehensive Childhood Commons, a resource to tackle pediatric cancer worldwide. Karina C. Borja Jiménez, Princess Maxima Oncology Center, Utrecht, Netherlands.

B069 ACCESS: Advancing childhood cancer experience, science and survivorship in Canada. Stephanie A. Grover, The Hospital for Sick Children, Toronto, Ontario, Canada.

B070 Chemotherapy is a major mutagen in relapsed childhood cancer. Mehdi Layeghifard, The Hospital for Sick Children, Toronto, Ontario, Canada.

B071 Automated extraction and provision of electronic health record data from children with cancer to National Childhood Cancer Center (NCCR) cancer registries. Tamara P. Miller, Emory University/Children's Healthcare of Atlanta, Atlanta, Georgia.

B072 Cell alterations that drive vascular invasion and dissemination in pediatric liver cancer. Priyanka Rao, Baylor college of medicine, Houston, Texas.

B073 Radiotherapy dosing in intracranial ependymoma using the National Cancer Database. Melanie L. Rose, Dartmouth Cancer Center, Lebanon, New Hampshire.

B074 Clonal decomposition and DNA replication states defined by scaled single-cell DNA and RNA sequencing suggest clone-specific therapeutic vulnerabilities in neuroblastoma. Gudrun Schleiermacher, Institut Curie, Paris, France.

B075 The Open Single-cell Pediatric Cancer Atlas project: Collaborative analysis of pediatric tumor data. Joshua A. Shapiro, Alex's Lemonade Stand Foundation, Wynnewood, Pennsylvania.

B076 ROME, a novel membrane protein in vertebrates, enhances metastatic phenotype of Ewing sarcoma cells. Aykut Uren, Georgetown University, Washington, District of Columbia.

B077 M&M: An RNA-seq based pan-cancer classifier for pediatric tumors. Fleur S.A. Wallis, Princess Máxima Center, Utrecht, Netherlands.

B078 Rapid PTEFb-dependent transcriptional reorganization underpins the glioma adaptive response to radiotherapy. Nathan A. Dahl, University of Colorado, Aurora, Colorado.

B079 Development of model systems to investigate the roles of canonical and reciprocal EWSR1 fusion proteins in sarcomagenesis. Sarah Gawlak, Roswell Park Comprehensive Cancer Center, Buffalo, New York.

B080 Survivorship care models for childhood cancer survivors in low- and middle-income countries: A scoping review. Celine Lecce, University of Toronto, Toronto, Ontario, Canada.

B081 EWS::FLI1 alters DNA damage induced protein dynamics at the RNAPII CTD. Aiola Stoja, University of Texas Health San Antonio, San Antonio, Texas.