

Poster Session A
Monday, December 4, 2017
12:30 p.m. – 3:00 p.m.
Grand Ballroom D&E

PR10, A01 Selective gene dependencies in MYCN-amplified neuroblastoma include the core transcriptional regulatory circuitry..

Adam D Durbin, Mark W Zimmerman, Neekesh V Dharia, Brian J Abraham, Amanda Balboni-Iniguez, Nina Weichert-Leahey, Shuning He, J Michael Krill-Burger, David E Root, Francisca Vazquez, Aviad Tsherniak, William C Hahn, Todd R Golub, Richard A Young, A. Thomas Look, Kimberly Stegmaier.

A02 Targeting EWS-FLI1 dose-dependent epithelial to mesenchymal transition. Anna M Katschnig, Maximilian O Kauer, Raphaela Schwentner, Eleni M Tomazou, Dave NT Aryee, Heinrich Kovar.

A03 EWS-FLI1 dysregulated biology in Ewing sarcoma and therapeutic opportunities. Aparna Gorthi, Liesl Lawrence, Carolina Romero, Yidong Chen, Alexander Bishop.

A04 Unique Raman spectroscopic fingerprints of Burkitt non-Hodgkin lymphoma. Natalie Kamada, Robert Oda, Tiffany Shieh, Melissa Agsalda-Garcia, Tayro Acosta-Maeda, Anupam Misra, So Yung Choi, Eunjung Lim, Bruce Shiramizu.

A05 DeltaNp73/ETS2 complex drives Angiopoietin-1 and Tie2 expression to promote angiogenesis in glioblastoma.. Maren Cam, Alessandra Welker, Manish Charan, Piyush Dravid, Adam Studebaker, Jeffrey Leonard, Ichiro Nakano, Christine Beattie, Hakan Cam.

A06 Inhibition of CD99 activity by clofarabine as a novel therapeutic for Ewing sarcoma involves a novel molecular mechanism that is different than cytarabine.. Haydar Çelik, Marika Sciandra, Maria Cristina Manara, Jeffrey Torestky, Katia Scotlandi, Aykut Üren.

A07 In vivo identification of active drugs for refractory neuroblastoma using zebrafish models. Shuning He, Megan W. Martel, Daniel Debiasi, Mark W. Zimmerman, A. Thomas Look.

A08 TGFβ inhibition improves oncolytic herpes viroimmunotherapy in murine models of rhabdomyosarcoma. Brian Hutzen, Chun-Yu Chen, Pin-Yi Wang, Les Sprague, Swain M Hayley, Julia Love, Joe Conner, Louis Boon, Timothy P Cripe.

A09 GPR64-specific CAR-transgenic T cells selectively kill Ewing Sarcoma in vivo . David Schirmer, Isabel Storz, Karin Wisskirchen, Regina Feederle, Oxana Schmidt, Hinrich Abken, Ulrike Protzer, Stefan

Burdach, Guenther HS Richter.

PR13, A10 Targeting p-TEFb as well as the EWS-ETS-specific transcriptional program in Ewing Sarcoma synergistically block tumor growth . Tim Hensel, Chiara Giorgi, Oxana Schmidt, Hsi-Yu Yen, Katja Steiger, Simone Fulda, Felix K Niggli, Wilko Weigert, Shudong Wang, Beat W Schäfer, Stefan Burdach, Günther HS Richter.

A11 A pediatric ETV6-ABL1-positive acute lymphoblastic leukemia case with ETV6-ABL1-indepent resistance to tyrosine kinase inhibitor. Suguru Uemura, Daiichiro Hasegawa, Akemi Shono, Khin Kyae Mon Thwin, Nanako Nino, Satoru Takafuji, Takeshi Mori, Akihiro Tamura, Nobuyuki Yamamoto, Atsuro Saito, Kenji Kishimoto, Toshiaki Ishida, Yoshiyuki Kosaka, Kazumoto Iijima, Noriyuki Nishimura.

A12 Tumorigenic proteins up-regulated in pediatric neuroblastoma MYCN-amplified tumorspheres confer radio-therapy resistance. Tamara Mary Abou-Antoun, Jad Helmi Abdallah, George Antoun Khazen, Zeina Nasr, Anthony Sandler.

A13 Genome-wide association study identifies multiple new loci associated with Ewing sarcoma susceptibility. Mitchell J Machiela, Thomas G.P Grünewald, Didier Surdez, Stephanie Reynaud, Olivier Mirabeau, Eric Karlins, Rebeca Alba Rubio, Sakina Zaidi, Sandrine Grossetete-Lalami, Stelly Ballet, Eve Lapouble, Valérie Laurence, Jean Michon, Gaele Pierron, Heinrich Kovar, Nathalie Gaspar, Udo Kontny, Anna González-Neira, Piero Picci, Javier Alonso, Ana Patino-Garcia, Nadège Corradini, Neal D Freedman, Nathaniel Rothman, Casey L Dagnall, Laurie Burdett, Kristine Jones, Michelle Manning, Kathleen Wyatt, Weiyin Zhou, Meredith Yeager, David G Cox, Robert N Hoover, Javed Khan, Gregory T Armstrong, Wendy M Leisenring, Smita Bhatia, Leslie L Robison, Uta Dirksen, Markus Metzler, Wolfgang Hartmann, Konstantin Strauch, Thomas Kirchner, Andreas E Kulozik, Lindsay M Morton, Lisa Mirabello, Margaret A Tucker, Franck Tirede, Stephen Chanock, Olivier Delattre.

A14 Therapeutic targeting of KDM1A/LSD1 in Ewing sarcoma. Kathleen I Pishas, Sunil Sharma, Stephen L Lessnick.

PR02, A15 Undifferentiated sarcomas harbor frequent oncogenic fusions and prognostic copy number alterations: A report from the Children's Oncology Group (COG) Soft Tissue Sarcoma Committee. Theodore W Laetsch, Angshumoy Roy, Lin Xu, Jennifer O Black, Cheryl M Coffin, Yueh-Yun Chi, Sheri L Spunt, Douglas S Hawkins, Julia A Bridge, Donald W Parsons, Stephen X Skapek.

A16 The in-vitro and in-vivo activity of the pyrrolomycin marinopyrrole RL71 alone and combined with temsirolimus (TEM) in MYCN amplified neuroblastoma (NB). Timothy R McGuire, Donald W Coulter, Yan Liu, Yashpal S Chhonker, Daryl J Murry, Gracey R Alexander, Erin M McIntyre, Jason A Sughroue, Graham J Sharp, Rongshi Li.

A17 Metronomic topotecan causes MYCN inactivation and impedes tumor growth selectively in MYCN-amplified neuroblastoma cells in vitro and in vivo by therapy induced senescence. Sabine Taschner-Mandl, Teresa Gerber, Magdalena Schwarz, Johanna Blaha, Maximilian Kauer, Florian Kromp, Nelli Frank, Fikret Rifatbegovic, Tamara Weiss, Ruth Ladenstein, Martin Hohenegger, Inge M Ambros,

Peter F Ambros.

A18 Netrin-1/Neogenin-1 promotes neuroblastoma cell migration via activation of Integrin β 1

. [Andrea A Villanueva](#), Carlos Cubo, Vicente A Torres, Sanchez-Gomez Pilar, Veronica Palma.

A19 Human models of multilineage leukemia induced by NUP98-KDM5A chimeric fusion

oncogene. [Sophie Cardin](#), Melanie Bilodeau, Louise Laramée, Loubna Jouan, Mathieu Roussy, R. Keith Humphries, Josee Hebert, Brian T. Wilhelm, Sonia Cellot.

PR14, A21 Mutations in microRNA processing genes dysregulate a miR-16/34 - PLAG1 - IGF2 axis in

Wilms tumors. [Kenneth S Chen](#), Emily K Stroup, Albert Budhipramono, Joshua T Mendell, James F Amatruda.

A22 Identification of gene expression differences between primary pediatric tumors and their PDX

models. [Jacob J Pfeil](#), Alex G Lee, Leanne C Sayles, Ellen T Kephart, Holly C Beale, Lauren M Sanders, Olena Morozova, Sofie R Salama, Alejandro Sweet-Cordero, David Haussler.

PR09, A23 Cancer-specific retargeting of BAF complexes by a prion-like domain. [Gaylor Boulay](#),

Gabriel J Sandoval, Nicolo Riggi, Sowmya Iyer, Rémi Buisson, Beverly Naigles, Mary E Awad, Shruthi Rengarajan, Angela Volorio, Matthew J McBride, Liliane C Broye, Lee Zou, Ivan Stamenkovic, Cigall Kadoch, Miguel N Rivera.

A24 Tumor immune profiling suggests synovial sarcoma but not desmoplastic small round cell tumor may respond to cancer immunotherapies. [Mary Frances Wedekind](#),

Kellie Haworth, Michael Arnold, Joseph Stanek, Timothy Cripe.

A25 Prevalence of Klinefelter syndrome among males aged 0-19 years diagnosed with germ cell

tumors: A report from the Children's Oncology Group. [Lindsay A Williams](#), Nathan Pankratz, John Lane, Michelle Roesler, Michaela Richardson, A. Lindsay Frazier, James Amatruda, Jenny N Poynter.

A26 Allorepertoire-derived HLA-A*02:01/peptide-specific T cell receptor transgenic CD4+ T cells

redirect a local and polyvalent T cell-mediated antitumor response in Ewing sarcoma . [Sebastian J Schober](#), Melanie Thiede, David Schirmer, Dirk Wohlleber, Guenther HS Richter, Dirk H Busch, Stefan EG Burdach, Uwe Thiel.

A27 Ewing sarcoma partial regression without GvHD by chondromodulin-I/HLA-A*02:01 specific

allorestricted T cell receptor transgenic T cells. Uwe Thiel, [Sebastian J Schober](#), Ingo Einspieler, Andreas Kirschner, Melanie Thiede, David Schirmer, Katja Gall, Franziska Blaeschke, Oxana Schmidt, Susanne Jabar, Andreas Ranft, Rebeca Alba Rubio, Uta Dirksen, Thomas GP Grünewald, Poul H Sorensen, Guenther HS Richter, Irene Teichert von Luettichau, Dirk H Busch, Stefan EG Burdach.

A28 Donor lymphocyte infusion after allogeneic stem cell transplantation is a feasible therapy option with acceptable toxicity rates in patients with refractory Ewing's sarcoma and

rhabdomyosarcoma. [Sebastian J Schober](#), Maximilian Steinhauser, Angela Wawer, Irene Teichert-von Luettichau, Christoph Salat, Rolf D Issels, Wolfgang Schwinger, Marek Ussowicz, Petar Antunovic, Luca

Castagna, Hans-Jochem Kolb, Stefan EG Burdach, Uwe Thiel.

PR16, A29 Whole genome analysis of the epigenetic mark 5-Hydroxymethylcytosine reveals differential profiles in low-, intermediate-, and high-risk Neuroblastomas. [Mark A Applebaum](#), Erin Barr, Ji Nie, Sakshi Uppal, Wei Zhang, Alexandre Chlenski, Helen Salwen, Marija Dobratic, Barbara Stranger, Lucy Godley, Chuan He, Susan L Cohn.

A30 Novel T cell engaging antibodies against L1CAM for neuroblastoma. [Maya Suzuki](#), Hong Xu, Hongfen Guo, Brandon Nemieboka, Zhihao Wu, Jason Lewis, Nai-Kong V. Cheung.

A31 A distinctive genomic and immunohistochemical profile for NOTCH3 and PDGFRB in infantile myofibroma with diagnostic and therapeutic implications. Selene C Koo, Calicchio Monica, Benjamin Ferland, Marian H Harris, Jon C Aster, Katherine A Janeway, Alyaa Al-Ibraheemi, [Alanna J Church](#).

A32 Therapeutically targeting PRC2 expression and dynamics in rhabdoid tumor . [Maggie H Chasse](#), Elissa A Boguslawski, Katie M Sorensen, Courtney E Wernette, Susan M Goosen, Patrick J Grohar.

A33 The Data Refinery: a resource of harmonized public gene expression data sets. Kurt Wheeler, Jaclyn Taroni, [Casey S Greene](#).

A34 Gene editing with CRISPR-Cas9: Investigating novel therapeutic targets for the treatment of paediatric high grade glioma.. [Alison Howarth](#), Dylan Jones, Daniel Ebner, Anbarasu Lourdusamy, Ruman Rahman, Geoff Pilkington, Richard Hill.

A35 MERTK and BCL-2 as Potential Therapeutic Targets in Early T-Precursor Acute Lymphoblastic Leukemia. [Ryan J Summers](#), Katherine A Minson, Xiaodong Wang, Stephen V Frye, H. Shelton Earp, Deborah DeRyckere, Douglas K Graham.

A36 Integrated sequencing of pediatric thyroid carcinoma reveals frequent targetable alterations. [Samara L Potter](#), Jacquelyn Reuther, Ilavarasi Gandhi, Faith Hollingsworth, Hadi Sayeed, Horatiu Voicu, Nipun Kakkar, Koel Sen Baksi, Stephen F. Sarabia, Monica E. Lopez, Daniel C. Chelius, Ioanna D. Athanassaki, Rajkumar Venkatramani, Norma M Quintanilla, Dolores Lopez-Terrada, Angshumoy Roy, Donald Williams Parsons.

A37 Self-seeding resulting from tumor-tumor IL-6 signaling protects lungs from osteosarcoma metastasis. [Amanda J Saraf](#), Helene Le Pommellet, Amy Gross, Sarah Winget, Ryan D Roberts.

A38 RNA-Seq of diagnostic and relapse disseminated tumor cells (DTCs) in stage M neuroblastoma patients and first steps towards DTC-derived xenografts in zebrafish embryos. [Fikret Rifatbegovic](#), Sabine Taschner-Mandl, Martin Distel, M. Reza Abbasi, Christian Frech, Andrea Ziegler, Inge M. Ambros, Peter F. Ambros.

A39 Characterizing the epigenetic effects of the histone 3.3 G34W mutation in giant cell tumors of bone. [Shriya Deshmukh](#), Sima Khazaei, Dylan Marchione, Ashot Harutyunyan, Benjamin Garcia, Nada Jabado.

A40 Screening for novel therapeutic agents for the treatment of aggressive childhood hepatoblastoma. Kristi George MD, Josep-Maria Peralba Ph.D, Matthew Hart Ph.D, Hima Bansal Ph.D, Gail Tomlinson MD, Ph.D.

A41 Role of UHRF1 in tumorigenesis and metastasis of osteosarcoma. Stephanie C Wu, Claudia A Benavente.

A42 Prexasertib (LY2606368) is highly active as a monotherapy or in combination with chemotherapy in preclinical models of pediatric bone and soft tissue sarcoma. Caitlin D Lowery, Wayne Blosser, Michele Dowless, Matthew Renschler, Jennifer Stephens, Richard Beckmann, Louis Stancato.

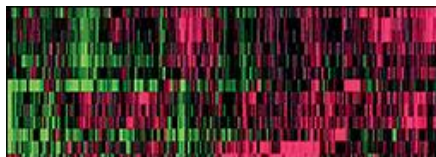
A43 Deficiency of PTPRH in pediatric solid tumors identifies a high-risk phenotype that can be overcome by combinatorial tyrosine kinase inhibition. Kathleen A Scorsone, Siddhartha Tyagi, Mayra C Orellana, Sonal Gahlawat, Amritha Nair, Tingting Sun, Thomas F Westbrook, Ronald J Bernardi.

PR05, A44 Genomic analysis of osteosarcoma reveals opportunities for targeted therapy. Leanne Sayles, Marcus Breese, amanda Koehne, krystal straessler, Stanley Leung, Aviv Spillinger, Doug Hawkins, steven dubois, Alex Lee, Bogdan Tanasa, Kim miok, avanthi shah, sheri spunt, neyssa marina, kim hazard, Alejandro sweet-cordero.

A45 Tumor suppressor miR-584-5p regulates MYC and sensitizes MYC-amplified medulloblastoma to vincristine and ionizing radiation. Nourhan Abdelfattah, Subapriya Rajamanickam, Santosh Timilsina, Panneerdoss Subbarayalu, Benjamin Onyeagucha, Manjeet Rao.

A46 Heterotypic nucleosomes and PRC2 role in diffuse intrinsic pontine gliomas. Andrea Piunti.

A47 Inhibition of Histone Methyltransferase with Novel Epipolythiodioxopiperazines (ETP) Alkaloids in Pediatric High Grade Glioma. Stephen Dombrowski, Thamara Abou-Antoun, Anthony Mansour, Rewa Arar, Mohammad Movassaghi, Erin Murphy, Shuvojit Banerjee, Xiao-Nan Li, Peter Houghton, Darell Bigner, Angel Montero Carcaboso, Jeremy Rich, Violette Recinos.



Poster Session B
Tuesday, December 5, 2017
4:30 p.m. – 7:00 p.m.
Grand Ballroom D&E

B01 Development of an in vitro drug-profiling platform for functional guidance of treatment decisions and identification of vulnerabilities in chemo-resistant relapsed Rhabdomyosarcoma tumors. Beat W Schaefer, Gabriele Manzella, Michaela Roemmele, Luduo Zhang, Joëlle Tchinda, Felix Niggli, Marco Wachtel.

B02 Distinct CD8+ T cell recognition profiles driven by conformational plasticity of recurrent neuroblastoma neoepitopes. Sofie R Salama, Jugmohit S Toor, Arjun A Rao, Andrew C McShan, Mark Yarmarkovich, Sarvind Tripathi, Santrupti Nerli, Ada A Madejska, Son Nguyen, Karissa Yamaguchi, John M Maris, David Haussler, Nikolaos G Sgurakis.

B03 Single Cell RNAseq of MYCN-amplified and non-amplified Neuroblastoma reveals intratumoral heterogeneity.. Kimal Rajapakshe, Qin M Wang, Julie Tomolonis, Cristian Coarfa, Jason M Shohet.

B04 Direct down-regulation of MYC in AML cells using promoter G-quadruplex interacting small molecules. Megan A Turnidge, Daniel H Wai, Apurvi Patel, Justin J Montoya, David W Lee, Laurence H Hurley, Vijay Gokhale, Robert J Arceci, David O Azorsa.

B05 Mechanisms of PPM1D-mediated tumorigenesis in diffuse intrinsic pontine glioma (DIPG). Mwangala P Akamandisa, Kai Nie, Jing Wen, Rita Nahta, Dolores Hambardzumyan, Robert C Castellino.

B06 Overcoming hypoxia-induced resistance is essential for effective survivin targeting in acute myeloid leukemia. David W. Lee, Justin Montoya, Kieran Finch, Jack Wilkinson-Dix, Robert J. Arceci, Daniel H Wai, Eiman Aleem.

B07 The EWS-FLI1 oncoprotein level modulates SDF-CXCR4/CXCR7-NF-kB signaling in Ewing sarcoma.. Kelly M Bailey, Claire M Coogan, Elizabeth R Lawlor, Linda McAllister-Lucas.

PR15, B08 Comprehensive analysis of hypermutation in human cancer reveals drivers that can be traced to the germline. Brittany B Campbell, Nicholas Light, David Fabrizio, Matthew Zatzman, Fabio Fuligni, Richard de Borja, Scott Davidson, Melissa Edwards, Julia A Elvin, Karl P Hodel, Walter J Zahurancik, Zucui Suo, Tatiana Lipman, Katharina Wimmer, Christian P Kratz, Daniel C Bowers, Theodore W Laetsch, Gavin P Dunn, Tanner M Johanns, Matthew R Grimmer, Ivan V Smirnov, John M Maris, Eric Bouffet, Cynthia Hawkins, Joseph F Costello, M Stephen Meyn, Zachary F Pursell, David malkin, Uri Tabori, Adam Shlien.

B09 IL6 and CXCL8 mediate redundant tumor-host signaling pathways that facilitate osteosarcoma lung metastasis. Ryan D Roberts, Hakan Cam, Amy C Gross, Sarah Winget, Doris Phelps, Peter J Houghton.

PR11, B10 Synthetic lethality between ATRX mutations and MYCN amplification in neuroblastoma. Maged Zeineldin, Sara M Federico, Lyra Griffith, Jongyre Jeon, Xiang Chen, John Easton, Jianrong Wu, Shenghua Mao, Yanling Liu, Arlene Naranjo, Alberto S Pappo, Michael D Hogarty, Michael A Dyer.

B11 The MuSiC2 system for discovery and visualization of coding and non-coding cancer drivers. Matthew A Wyczalkowski, Matthew H Bailey, Carolyn Lou, Felix Hu, Justin Y Chen, Prag Batra, Michael D McLellan, Li Ding, Michael C Wendl.

PR08, B12 Overexpression and mutations of CXorf67 in infant-type posterior fossa type-A ependymomas. Ji Wen, Jens-Martin Hübner, Wilda Orisme, Gang Wu, Bo Tang, Sujuan Jia, John Easton, Kelly Hauptfear, Brian D. Freibaum, Hong Joo Kim, Anthony High, Junmin Peng, Ruth G. Tatevossian, J. Paul Taylor, Stefan M. Pfister, Jinghui Zhang, Kristian W. Pajtler, Marcel Kool, David W. Ellison.

B13 Perineural invasion in Ewing sarcoma - a novel mechanism and new therapeutic opportunities. Susana Galli, Sung-Hyeok Hong, Jason U Tilan, Mina Adnani, Shiya Zhu, Yassi Fallah, Yi-Chien Lee, Olga Rodriguez, Chris Albanese, Ewa Izycka-Swieszewska, Joanna Kitlinska.

B14 Establishment and characterization of in vitro models of alternative lengthening of telomeres (ALT) in pediatric high grade glioma. Jacqueline A Brosnan-Cashman, Mindy K Graham, Anthony J Rizzo, Kaylar Myers, Rebecca Zhang, Ezgi Göger, Reza Zarinshenas, Christine Davis, Ming Yuan, Dinesh Rakheja, Eric H Raabe, Charles G Eberhart, Christopher M Heaphy, Alan K Meeker.

B15 DIFFERENT STRUCTURAL FEATURES OF EWS ARE REQUIRED FOR DISTINCT MODES OF EWS/FLI-MEDIATED ONCOGENIC GENE REGULATION. Emily R Theisen, Kyle R Miller, Stephen L Lessnick.

B16 Evaluation of LDH inhibition as a treatment strategy in Ewing Sarcoma. Christine M Heske, Anna E Gibson, Josh T Baumgart, Choh Yeung, Sameer H Issaq, A Mendoza, Michelle S Johnson, Guiseppe L Squadrito, Lillian Culp, Victor M Darley-Usmar, Len M Neckers.

B17 ADGRB3 is a novel tumor suppressor epigenetically silenced in WNT medulloblastoma. Debanjan Bhattacharya, Dan Zhu, Narra Devi, Erwin G Van Meir.

B18 Modeling renal medullary carcinomas identifies druggable vulnerabilities in SMARCB1 deficient cancers. Andrew L Hong, Yuen-Yi Tseng, Bryan D Kynnap, Mihir B Doshi, Jeremiah Wala, Gabriel Sandoval, Alanna J Church, Elizabeth Mullen, Cigall Kadoch, Charles W.M. Roberts, Rameen Beroukhim, Jesse S Boehm, William C Hahn.

B19 ARID1A is a 1p36 tumor suppressor that collaborates with N-Myc in neuroblastoma.. Jesus Garcia-Lopez, Kirby Wallace, Joel Otero, Rachelle Olsen, David Finkelstein, Jerold Rehg, Yongdong Wang, Kevin Freeman.

B20 Deciphering heterogeneity and plasticity in neuroblastoma. Simon Durand, Valentina Boeva,

Caroline Louis-Brennetot, Agathe Peltier, Cécile Pierre-Eugène, Sylvain Baulande, Olivier Delattre, [Isabelle Janoueix-Lerosey](#).

B21 Epigenetic modifiers MLL1 and JMJD3 regulate neuroblastoma tumorigenicity by maintaining a cancer stem cell-like population.. [Saurabh Agarwal](#), Julie Tomolonis, Sanjeev Vasudevan, Jason Shohet.

B22 Antitumor effects of selective PRMT1 inhibitors on neuroblastoma in vitro and in vivo. Jeanne N Hansen, Louis T Lotta, Allison Eberhardt, Yujun George Zheng, Sen Ji, Shengyong Yang, Nina F Schor, [Xingguo Li](#).

PR01, B23 PAX3-FOXO1 transgenic zebrafish models identify HES3 as a mediator of tumorigenesis. [Genevieve C Kendall](#), Sarah Watson, Lin Xu, Whitney Murchison, Franck Tirode, Olivier Delattre, James F Amatruda.

B24 Characterization of somatically-acquired regulatory mutations in high-risk neuroblastoma. [Jo Lynne Harenza](#), Gregory Chen, John M Maris.

B25 Integrative analysis of whole-genome and RNA sequencing in high-risk pediatric malignancies. [Marcus R Breese](#), Avanthi T Shah, Bogdan Tanasa, Alex G Lee, Stanley G Leung, Aviv Spillinger, Heng-Yi Liu, Florette K Hazard, Alejandro Sweet-Cordero.

B26 Novel lncRNA Regulates PAX3/FOXO1 Expression and is Essential for RMS Tumorigenesis. Xiang Chen, Mireya Herrera-Herrera, [Justina McEvoy](#).

B27 Anaplastic lymphoma kinase addicted neuroblastoma cell lines are associated with growth upon treatment with MEK inhibitor trametinib.. [bengt hallberg](#), Ganesh Umapathy, Jikui Guan, Dan Gustafsson, Niloufar Javanmardi, Diana Cervantes-Madrid, anna djoos, tommy martinsson, ruth Palmer.

PR04, B28 GD2-directed chimeric antigen receptor T cells mediate potent anti-tumor effect and cure in xenograft models of diffuse intrinsic pontine glioma. [Robbie G Majzner](#), Christopher Mount, Shree Sundaresh, Evan Arnold, Meena Kadapakkam, Louai Labanieh, Pamelyn Woo, Michelle Monje, Crystal L Mackall.

PR12, B29 Hedgehog pathway drives fusion-negative rhabdomyosarcoma initiated from non-myogenic endothelial progenitors. Catherine J. Drummond, Jason A. Hanna, Matthew R. Garcia, Daniel J. Devine, Alana J. Heyrana, David Finkelstein, Jerold E. Rehg, [Mark E. Hatley](#).

B30 Dianhydrogalactitol (VAL-083) has the potential to overcome major challenges in the treatment of DIPG. Anne Steino, Beibei Zhai, Beibei Zhai, [Jeffrey Bacha](#), Dennis Brown, Shaun Fouse, Joe Costello, Mads Daugaard, Mads Daugaard, Sabine Mueller.

B31 Multi-parameter Profiling of Abscopal Effect (AbE) in a Pediatric Fibrosarcoma with EML4-NTRK3 Fusion. [Robyn D Gartrell](#), Jennifer S Sims, Sunjay M Barton, Angela Kadenhe-Chiweshe, Filemon Dela Cruz, Andrew T Turk, Andrew L Kung, Jeffrey N Bruce, Yvonne M Saenger, Darrell J Yamashiro, Eileen P Connolly.

B32 A novel role for the EWS portion of EWS/FLI in binding GGAA-microsatellites required for

oncogenic transformation in Ewing sarcoma. K. M. Johnson^{1,2,3}, S. L. Lessnick^{1,2,3}. ¹Center for Childhood Cancer and Blood Disorders, Columbus, OH, ²The Research Institute at Nationwide Children's Hospital, Columbus, OH, ³Biomedical Sciences Graduate Program, The Ohio State University, Columbus, OH.

B33 Ectonucleotide pyrophosphatase/phosphodiesterase is a potential driver of metastasis in a subset of human osteosarcoma. Amanda L Koehne, Leanne C Sayles, Alex Lee, Stanley G Leung, Aviv Spillinger, Raffi S Avedian, David G Mohler, Alejandro Sweet-Cordero.

B34 PD-0332991/palbociclib facilitates the physical interaction between RB1 and BIN1 to increase the vulnerability of pediatric osteosarcoma cells to PARP inhibition. Watson P. Folk, Kelly Homlar, Daitoku Sakamuro.

B35 Reactivation of p53 signaling in hepatoblastoma with a stapled peptide dual inhibitor of MDM2 and MDM4. Sarah E Woodfield, Roma H Patel, Aryana M Ibarra, Zhenghu Chen, Sanjeev A Vasudevan.

B36 Targeting MDM4 in neuroblastoma to reactivate p53 signaling. Sarah E Woodfield, Roma H Patel, Aryana M Ibarra, Zhenghu Chen, Sanjeev A Vasudevan.

B37 Assessing DNA damage response pathway proteins ATM and p53 in fibrolamellar hepatocellular carcinoma with PRKACA-DNAJB1 fusion protein. Anju Karki, Khashayar Vakili, Antonio R Perez-Atayde.

B38 Tetraivalent Bispecific Antibodies Specific for HER2 and Disialoganglioside GD2 to Engage polyclonal T-cells for osteosarcoma therapy. Jeong A Park, Hong Xu, Irene Cheung, Nai-Kong V. Cheung.

B39 Osteosarcoma cells interact with bronchial cells in lung to drive production of pro-metastatic cytokines. John Hinckley, Amy Gross, Ryan Roberts.

B40 Perturbation of proteostasis is lethal in SMARCB1 deficient tumors. Melinda Soeung, Alessandro Carugo, Frederick Scott Robinson, Rosalba Minelli, Federica Carbone, Anirban Maitra, Andrea Viale, Charles W.M. Roberts, Nizar Tannir, Giulio F Draetta, Giannicola Genovese.

B41 Modeling bone development and cancer predisposition in Diamond Blackfan Anemia (DBA). Jimmy Hom, Brian Dulmovits, Luanne Peters, Adrianna Vlachos, Jeffrey M Lipton, Lionel Blanc.

B42 The properties of ex vivo expanded $\gamma\delta$ T cells provide for the rational use of combination therapies. Jaquelyn T Zoine, Kathryn S Sutton, Kristopher A Knight, Kelly C Goldsmith, Christopher B Doering, H. Trent Spencer.

B43 The CDK4 and 6 inhibitor abemaciclib induces both epigenetic and immunogenic responses in preclinical models of Ewing's sarcoma. Michele Dowless, Caitlin Lowery, Matthew Renschler, Wayne Blosser, Jennifer Stephens, Robert Flack, Kelly Credille, Mia Chen, Frank Dorsey, Lillian Sams, Philip Ebert, Jonathan Olsen, Terry Shackelford, Peter Houghton, Louis Stancato.

B44 Identification of epigenomic changes induced by H3 K27M mutation in glioblastoma using patient-derived and CRISPR/Cas9 edited cell lines. Ashot S Harutyunyan, Brian Krug, Simon Papillon-Cavanagh, Haifen Chen, Shriya Deshmukh, Warren A Cheung, Rui Li, Jad Belle, Denise Bechet, Nicolas De Jay, Michele Zeinieh, Tenzin Gayden, Caterina Russo, Leonie Mikael, Damien Faury, Claudia Kleinman, Tomi Pastinen, Jacek Majewski, Nada Jabado.

B45 Development of a next-generation sequencing (NGS) assay for pediatric, childhood and young adult cancer research with comprehensive DNA and RNA variant detection. Nickolay A Khazanov, Chaitali Parikh, Habib Hamidi, Scott P Myrand, Efren Ballesteros-Villagrana, Jingwei Ni, Paul D Williams, Karen L Clyde, Dinesh Cyanam, Armand Bankhead, Manimozhi Manivannan, Mark Tomilo, Susan Ewald, Jon K Sherlock, Janice K Au-Young, Jaclyn Biegel, Jonathan Buckley, Matthew Hiemenz, Dejerianne Ostrow, Alex Judkins, Xiaowu Gai, Tracy Busse, Alan Wayne, Deepa Bhojwani, Raca Gordana, Matthew Oberley, David Parham, Seth Sadis, Timothy Triche.

B46 Genome-scale CRISPR-Cas9 screen identifies druggable dependencies in TP53 wild-type Ewing sarcoma. Björn Stolte^{1,2}, Amanda Balboni Iniguez^{1,4}, Neekesh V. Dharia^{1,4}, Amy Saur Conway¹, Ann M. Morgan³, Gabriela Alexe^{1,4,5}, Gregory H. Bird³, Aviad Tsherniak⁴, Francisca Vazquez⁴, Loren D. Walensky^{1,3}, Kimberly Stegmaier^{1,4}. ¹Department of Pediatric Oncology, Dana-Farber Cancer Institute and Boston Children's Hospital, Harvard Medical School, Boston, MA, ²Ludwig-Maximilians-University of Munich, Munich, Germany, ³Department of Pediatric Oncology and the Linde Program in Cancer Chemical Biology, Dana-Farber Cancer Institute, Boston, MA, ⁴The Broad Institute of MIT and Harvard, Cambridge, MA, ⁵Bioinformatics Graduate Program, Boston University, Boston, MA.

B48 Inhibition of Ubiquitin-specific protease 14 suppresses neuroblastoma cell proliferation. Yang Yu, Jianhua Yang, Jed Nuchtern.

B49 Quantitating circulating tumor DNA in translocation-positive sarcoma patients using CAPP-Seq. Avanthi Tayi Shah, Tej D. Azad, Jake J Chabon, Marcus Breese, Bogdan Tanasa, Aviv Spillinger, Stanley G Leung, Maximilian Diehn, Ash A Alizadeh, E. Alejandro Sweet-Cordero.

B50 The In Vitro and In Vivo Effects of Granulocyte Colony Stimulating Factor on Metastatic Neuroblastoma. Wesley E Barry, Grace Asuelime, Larry Wang, Eugene S Kim.