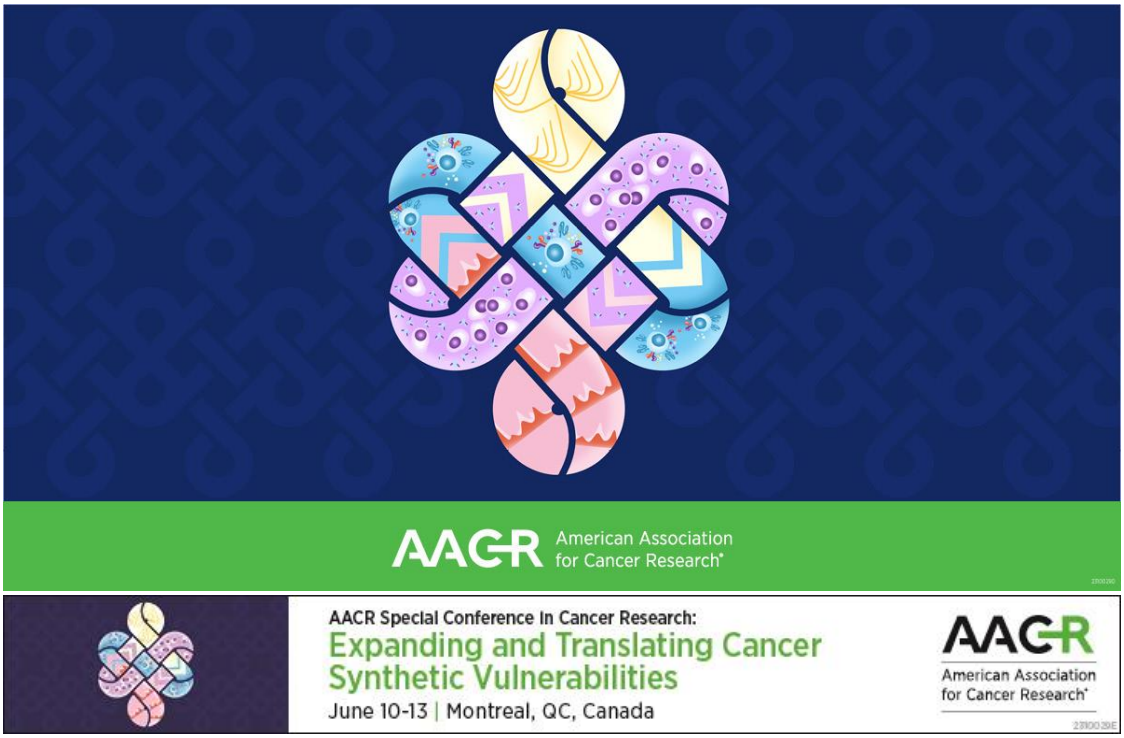
An AACR Special Conference in Cancer Research

Expanding and Translating Cancer Synthetic Vulnerabilities

June 10-13, 2024 | Doubletree by Hilton Montreal | Montreal, Quebec, Canada



POSTER LISTING

**current as of May 30, 2024*

PROFFERED TALKS

POSTER SESSION A

POSTER SESSION B

Proffered Talks

**current as of May 10, 2024*

PR001, A001 KIF18A inhibition, via ATX020, leads to mitotic arrest and robust anti-tumor activity through a synthetic lethal interaction with chromosome instability. Laura Ghisolfi, Accent Therapeutics, Lexington, Massachusetts.

PR002, B023 Nimbolide targets RNF114 to induce the trapping of PARP1 and synthetic lethality in BRCA-mutated cancer. Yonghao Yu, Columbia University Vagelos College of Physicians and Surgeons, New York, New York.

PR007, A006 Delineating functional drivers of esophageal adenocarcinoma to identify synthetic lethal interactions. Julia V. Milne, Peter MacCallum Cancer Centre, Melbourne, Australia.

PR009, B001 Cytidine diphosphate diacylglycerol synthase 2 is a synthetic lethal target in mesenchymal cancers. Tim Arnoldus, Netherlands Cancer Institute, Amsterdam, Netherlands.

PR011, A014 Inhibiting eIF4E phosphorylation sensitizes triple-negative breast cancer to CDK4/6 inhibition. Qiyun Deng, McGill University, Montreal, Quebec, Canada.

PR012, A025 KAT6A/B and Menin-MLL complexes coordinately regulate estrogen receptor-driven gene expression programs in breast cancer. Sarah Naomi Olsen, Dana-Farber Cancer Institute, Boston, Massachusetts.

PR013, B011 Detecting pairwise and higher-order antagonistic epistatic effects among somatic cancer genotypes to discover synthetic lethality. Jorge A. Alfaro-Murillo, Yale University, New Haven, Connecticut.

PR014, B015 Combinatorial genetic screens to map synthetic lethal interactions and identify new cancer drug targets in KRAS mutant cancers. Rand Arafeh, Dana Farber Cancer Institute, Harvard Medical School, Boston, Massachusetts.

Poster Session A

Tuesday, June 11

4:30-7:00 p.m.

**current as of May 10, 2024*

A002 Understanding mechanisms of resistance to WRN small molecule inhibitors. Faith C. Fowler, Calico Life Sciences LLC, South San Francisco, California.

A003 Unwinding the complexities of helicases as compelling drug targets in oncology. Yael Mamane, Sygnature Discovery - NuChem Sciences, Montreal, Quebec, Canada.

A004 Radiotherapy sensitizes preclinical models to DNA damage response agents. Yael Mamane, Sygnature Discovery, Alderley Edge, United Kingdom.

A005 A live cell PRMT5 NanoBRET™ target engagement assay querying competitive and uncompetitive modes of inhibition. Kelly A. Teske, Promega, Co., Madison, Wisconsin.

A007 Assessment of metabolic vulnerabilities of breast cancer brain metastasis. Keene L. Abbott, MIT, Cambridge, Massachusetts.

A008 Pre-diabetic D-glucose exposure promotes EOC progression and cisplatin resistance: Role of BAD associated pathway and potential therapeutic strategy. Jing Huang, Tsinghua University, Shenzhen, China (Mainland).

A009 Synthetic lethality in the context of STAG2-mutant Ewing sarcoma. Lieke Mous, Balgrist University Hospital, Faculty of Medicine, University of Zurich (UZH), Zurich, Switzerland.

A010 Proteasome inhibitors induce a BAX and BAK independent, non-canonical apoptosis. Tresor O. Mukiza, Saint Jude Children's Research Hospital, Memphis, Tennessee.

A011 Enhancing chaperone-mediated autophagy to impede glioblastoma growth. Wanjun Tang, The University of Hong Kong, Hong Kong.

A012 Targeting proteasome vulnerabilities for the treatment of monosomy 7 associated blood disorders. Haijiao Zhang, Knight Cancer Institute, Oregon Health & Science University, Portland, Oregon.

A013 NF1 loss is syntetic lethal with Trastuzumab emtansine. Luca Mazzarella, IEO - European Institute of Oncology, Milan, Italy.

A015 Exploiting endogenous replication stress with a novel targeted therapy in Ewing sarcoma. Emily Isenhart, Roswell Park, Buffalo, New York.

A016 Companion diagnostics (CDx) to identify hallmarks of alternative lengthening of telomeres (ALT). Ganesh Kadamur, Tessellate Bio, Stevenage, United Kingdom.

A017 Characterizing intratumoral heterogeneity of CCNE1 amplification in ovarian cancer using digital pathology. Adam Petrone, Repare Therapeutics, Cambridge, Massachusetts.

A018 STRIDE as a technology platform for accurate measurement of DNA breaks and breaks-associated repair proteins. Anna Uherek, intoDNA, Krakow, Poland.

A019 Inhibition of nicotinamide adenine dinucleotide (NAD) production is a potent therapeutic strategy to inactivate homologous recombination in cancer cells. Sadaf Valeh Sheida, CHU de Québec Research Center, HDQ Pavilion, Oncology Division, Quebec City, Quebec, Canada.

A020 TP53 mutation and prediction of platinum response in BRCA-mutated ovarian cancer: A prospective case-series analysis. Clelia Madeddu, Medical Oncology Unit, University Hospital and University of Cagliari, Cagliari, Italy.

A021 Hunting for synthetic lethal partners in DNA damage response-altered endometrial cancer. Julie Zhou, The Institute of Cancer Research, Sutton, United Kingdom.

A022 Synthetic lethality of ERBB2 and CCND1 in breast cancer at scale. Rishi Nair, Burnett Honors College, University of Central Florida, Orlando, Florida.

A023 Determining genetic interaction from double knockout CRISPR screening. John Paul Shen, MD Anderson Cancer Center, Houston, Texas.

A024 SOX11: An Achilles heel of mantle cell lymphoma enhancing sensitivity to DNA damaging agents by impairing DNA repair. Mohammad H. A. Morsy, Karolinska Institute, Stockholm, Sweden.

A026 Single-cell landscape deciphering cancer cell-of-origin and cellular heterogeneity in malignant transformation of 13 major tissues. Ruihan Luo, The University of Texas Health Science Center at Houston, Houston, Texas.

Poster Session B

Wednesday, June 12

4:30-7:00 p.m.

**current as of May 10, 2024*

B002 POLB knockout is synthetic lethal with PARP inhibition leading to complete and durable responses in BRCA-mutant tumor xenografts. Madhavi Bandi, Tango Therapeutics, Holliston, Massachusetts.

B003 Identification of novel genes that regulate aneuploidy tolerance by attenuating aneuploidy-induced stresses. Yonatan Eliezer, Tel-Aviv University, Tel-Aviv, Israel.

B004 An isogenic CRISPR screen identifies novel MYC-driven vulnerabilities. Peter Lin, University of Toronto, Toronto, Ontario, Canada.

B005 Regulation of replication-induced PARP1/PARP2 activation by base excision repair: Implications for PARP and PARG inhibitor resistance. Robert W. Sobol, Brown University, Providence, Rhode Island.

B006 Data-driven discoveries of molecular mechanism and therapeutic vulnerabilities of CDK12 mutant tumors. Lixing Yang, University of Chicago, Chicago, Illinois.

B007 Unexpected synthetic lethality mechanisms in eIF4A-targeted therapy. Na Zhao, Baylor College of Medicine, Houston, Texas.

B008 Utilizing pathway incompatibility for synthetic lethality: A therapeutic strategy for B-cell lymphoma. Lai Chan, Cleveland Clinic, Cleveland, Ohio.

B009 Exploring the putative Kras-p53 mutational interface for vulnerability. Ahmad Mazin M. Safar, UAMS and CAVHS, Little Rock, Arkansas.

B010 Drug tolerant persister cancer cells escape therapy-induced senescence. Anne-Marie Fortier, Rosalind and Morris Goodman Cancer Institute, Montreal, Quebec, Canada.

B012 Predicting targetable paralog synthetic lethalities and functional redundancies in cancer genomes. Rohan Dandage, Concordia University, Montreal, Quebec, Canada.

B013 Deep learning-based prediction of synthetic essentialities in CTNNB1-mutated hepatocellular carcinoma. Tyler M. Yasaka, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

B014 Unveiling the future: Exploring cutting-edge technologies for synthetic lethality discovery. Peter Oloche David, Eloi Holding, Inc., Middletown, Delaware.

B016 Discovering novel synthetic lethal relationships with large-scale cellular simulations. Oliver Purcell, DeepOrigin, San Franciso, California.

B017 Loss of UXS1 selectively kills KEAP1 mutant cancer cell lines by depleting pyrimidines and inducing replication stress. Timothy Hoffman, Calico Life Sciences LLC, South San Francisco, California.

B019 Stearoyl-CoA desaturase is a synthetic lethal target in SMAD4-deficient cancers. Alvin Z. Lu, Tango Therapeutics, Boston, Massachusetts.

B020 Novel WRN helicase inhibitors selectively target microsatellite unstable cancer cells. Gabriele Picco, Sanger Institute, Sawston, United Kingdom.

B021 CFLAR targeting selectively exploits extrinsic apoptosis signaling in triple-negative breast cancer. Victor Quereda, GSK, Collegeville, Pennsylvania.

B022 TEAD inhibition overcomes YAP/TAZ-driven resistance to RAS(ON) inhibitors. Vidyasiri Vemulapalli, Revolution Medicines, Redwood City, California.

B024 Leveraging synthetic lethality across EP300-mutant solid cancers through selective CBP degradation. Molly M. Wilson, Foghorn Therapeutics, Cambridge, Massachusetts.

B025 A genome-wide CRISPR screen identifies synthetic lethality of double-stranded RNA with BRCA1 loss. Luca Mazzarella, IEO-IRCCS, Milan, Italy.

B026 Screening non-small cell lung cancer patient-derived organoids with epigenetic probes reveals PRMT5 as an oncogenic target. Khadija Jafarova, Princess Margaret Cancer Research Tower, Toronto, Ontario, Canada.

B027 A pathway-informed framework to infer synthetic lethal relationships in pediatric cancer. Anastasia Spinou, Princess Máxima Center for Pediatric Oncology, Utrecht, Netherlands.

B028 Expression of NOTCH1 in head and neck tumours at selected hospitals in ghana. Precious Barnes, University of Cape Coast, Cape Coast, Ghana.

B029 Assessing gene expression and methylation of KMT2D and IGF2 genes in patients with non-small cell lung cancer. Alireza Tavakolpournegari, University of Kentucky, Lexington, Kentucky.

B030 Expression patterns of miR181a and miR30d in patients with breast cancer. Alireza Tavakolpournegari, University of Kentucky, Lexington, Kentucky.