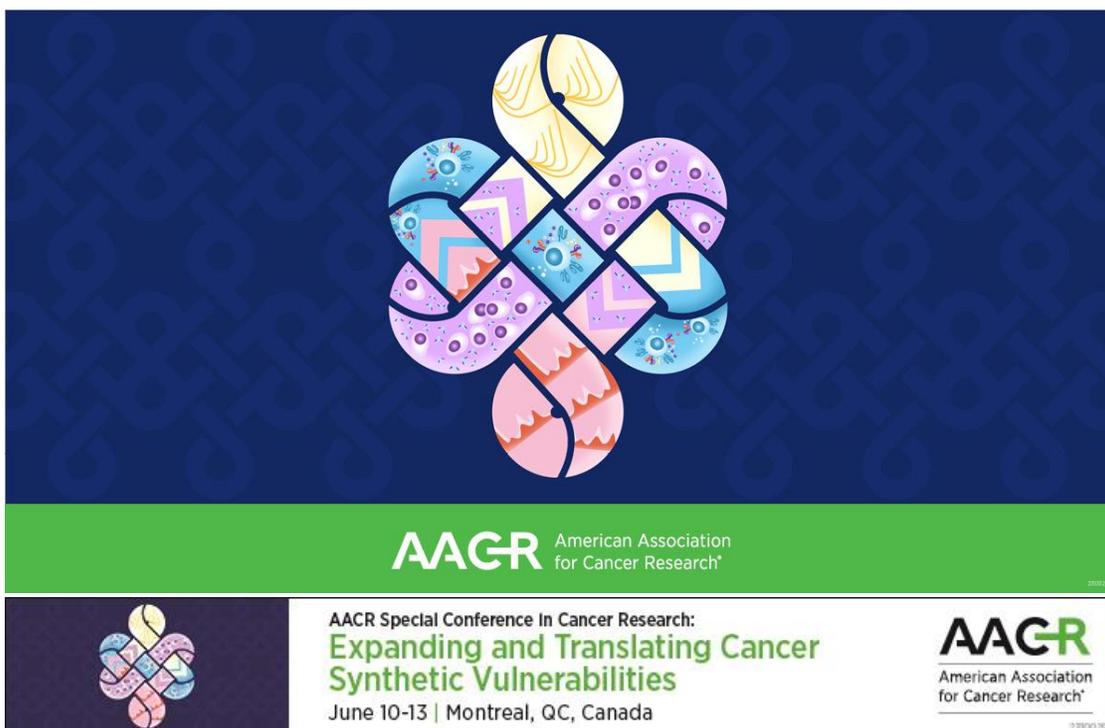


An AACR Special Conference in Cancer Research

# Expanding and Translating Cancer Synthetic Vulnerabilities

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



## POSTER LISTING

*\*current as of May 10, 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.

**PR016, B018 Investigating vulnerabilities associated with chromosome arm aneuploidy in cancer.** Nadja Zhakula, Columbia University Vagelos College of Physicians and Surgeons, New York, New York.



## 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 Isenhardt, 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 Francisco, 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 Mazzearella, 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.