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

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**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** Nimboiline 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.  

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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.


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.

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


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.


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.**

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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.

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.


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


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


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.


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