AACR Special Conference in Cancer Research
INNOVATIONS IN PROSTATE CANCER RESEARCH AND TREATMENT
Jan. 20-22 | Boston, MA

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American Association for Cancer Research®

PROFFERED TALKS

PR001 A077 Immune spatial organization predicts metastasis risk in aggressive localized prostate cancer, David D Yang, Brigham and Women's Hospital, Boston, MA, United States

PR002 B031 Development and validation of a semen-RNA-based classifier for detection and risk stratification of prostate cancer, David Jarrard, University of Wisconsin, Madison, WI, United States

PR003 A047 Determining the role of IFNγ signaling in neuroendocrine prostate cancer progression and immunotherapy responses, Katherine C Murphy, UMass Chan Medical School, Worcester, MA, United States

PR004 A080 Differential coregulator usage mediates Androgen Receptor Splice Variant 7 activity in castration resistant prostate cancer, Pak Lok Ivan Yu, Vancouver Prostate Centre, Vancouver, BC, Canada

PR005 A049 Epigenetically Informed Therapeutic Strategies for DNA-Hypomethylated Prostate Cancer, Pallabi Mustafi, Fred Hutchinson Cancer Center, Seattle, WA, United States

PR006 B053 Deciphering the SWI/SNF complex: A crucial player in lineage plasticity and therapy resistance, Irene Paassen, University of Bern, Department for BioMedical Research, Bern, Switzerland

PR007 A037 Precision nutrition potentiates radiotherapy in prostate cancer, David P Labbé, McGill University, Montréal, QC, Canada

PR008 A001 Docetaxel and the Tumor Targeting Interleukin-12 (IL-12) PDS01ADC in Patients with Metastatic Castration Resistant Prostate Cancer (mCRPC), Melissa Lauren Abel, National Institutes of Health, Bethesda, MD, United States

PR009 A007 A dependency map of androgen receptor activity identifies drivers of prostate cancer growth, Arnab Bose, Fred Hutchinson Cancer Center, Seattle, WA, United States

PR010 A012 High-dimensional spatial profiling identifies distinct and targetable tumor-infiltrating lymphocyte phenotypes in localized prostate cancer, Precious Cramer, Center for Virology and Vaccine Research, Beth Israel Deaconess Medical Center, Boston, MA, United States

PR011 A017 Spatial Mapping of Accessible Chromatin Landscapes in Prostate Cancer, Leigh Ellis, Center for Prostate Disease Research, Bethesda, MD, United States

PR012 A019 Divergent FOXA1 mutations drive prostate tumorigenesis and therapy-resistant cellular plasticity, Sanjana Eyunni, University of Michigan, Ann Arbor, MI, United States

PR013 A022 Comprehensive spatial profiling of prostate cancer metastasis: Mapping clonal evolution, microenvironment dynamics, and early metastatic markers, Mengxiao He, Science for Life Laboratory, Solna, Sweden

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PR014   A028   **PARP Inhibition Beyond BRCA in Prostate Cancer: The Roles of MMS22L and NDUFAF4**, Li Jia, Brigham and Women's Hospital/Harvard Medical School, Boston, MA, United States

PR015   A039   **Super-enhancer landscape analysis reveals a HOXB13-HNF1A transcriptional axis driving hepatic reprogramming in castration-resistant prostate cancer**, Mingyu Liu, University of Massachusetts Boston, Boston, MA, United States

PR016   A050   **The temporal dynamics of the immune response to neoadjuvant androgen deprivation therapy suggest a window-of-opportunity for checkpoint inhibitor therapy in prostate cancer**, Kent L. Nastiuk, RoswellPark, Buffalo, NY, United States

PR017   A054   **Dissecting the role of CHD1 as a key regulator of pro-metastatic transcriptional reprogramming in BRCA2-mutant prostate cancer**, Jingzhu Hao, University of Massachusetts Boston, Boston, MA, United States

PR018   A055   **Enhancing androgen receptor antagonist-mediated interferon responses in prostate cancer**, Larysa Poluben, Beth Israel Deaconess Medical Center, Boston, MA, United States

PR019   A056   **Combining CBP/p300 and PARP inhibitors to enhance anti-tumor efficacy in lethal prostate cancer**, Orly I Richter, Center for Prostate Disease Research, Bethesda, MD, United States

PR020   A062   **Targeting of FOXA1 and FOXA2 by small molecules disables the oncogenic output of castration resistant prostate cancer**, Jean-Philippe P. Theurillat, Institute of Oncology Research, Bellinzona, Switzerland

PR021   A066   **A cancer vaccine for de novo metastatic prostate cancer: learning patients stratification from the UV1 trial**, Alfonso Urbanucci, Department of Tumor Biology, Institute for Cancer Research, Oslo University Hospital, Oslo, Norway, Oslo, , Norway

PR022   A067   **Polycomb dysregulation shapes chromatin bivalency critical for prostate cancer lineage plasticity**, Varadha Balaji Venkadakrishnan, Dana-Farber Cancer Institute, Boston, MA, United States

PR023   A068   **Development of a fully humanized vascularized "tumor on a chip" model for prostate cancer liver metastasis**, Katherine Vietor, University of Wisconsin-Madison, Madison, WI, United States

PR024   A070   **Circulating tumor DNA methylation captures epigenetic changes in patients induced by the PRC2 inhibitor ORIC-944**, Amber W. Wang, ORIC Pharmaceuticals, South San Francisco, CA, United States

PR025   A071   **Mosaic loss of Y chromosome and risk of prostate cancer in two U.S. cohorts**, Anqi Wang, Harvard T. H. Chan School of Public Health, Boston, MA, United States

PR026   A082   **A bypass gateway from cholesterol to sex steroid biosynthesis circumnavigates CYP17A1**, Ziqi Zhu, University of Miami, Miami, FL, United States

PR027   B004   **Spatial heterogeneity atlas of prostate cancer evolution (SHAPE): Spatial and genomic landscapes of advanced prostate cancer with and without Lu-PSMA therapy**, Martin K Bakht, Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA, United States

PR028   B006   **Unveiling the metabolic profiles of prostate cancer to anticipate patient response to treatment**, Andrea Brunello, Department for BioMedical Research - University of Bern, Bern, Switzerland

PR029   B008   **Monitoring tumor evolution and phenotypic diversity in metastatic prostate cancer using liquid biopsy profiling**, Irene Casanova-Salas, Vall d'Hebron Institute of Oncology, Barcelona, Spain

PR030   B016   **Integrating multi-omic datasets investigating stress response biology decodes prostate cancer dynamic disease progression and places IRE1 activity at the epicentre of acquired treatment resistance**, Dimitrios Doultsinos, University of Oxford, Oxford, England, United Kingdom

PR031   B027   **Baseline prostate-specific antigen levels in men aged 65 to 80 and fatal prostate cancer: Implications for risk-stratified screening among older men**, Hannah E Guard, Harvard TH Chan School of Public Health, Boston, MA, United States

PR032   B047   **Therapeutic targeting of eIF4E cap-binding domain reveals control of lineage fate in prostate cancer**, Rashmi Mishra, Fred Hutch Cancer Center, Seattle, WA, United States

PR033   B064   **FOXA2 reprograms AR signaling to promote lineage plasticity in advanced prostate cancer**, David S Rickman, Weill Cornell Medicine, New York, NY, United States

PR034   B066   **NSD2 inhibition in hormone-sensitive prostate cancer synergizes with androgen deprivation therapy to improve tumor response**, Zachery D Schultz, University of Wisconsin-Madison, Madison, WI, United States

PR035   B070   **Cooperativity between DNA methylation and EZH2 activity drives neuroendocrine phenotype in advanced prostate cancer**, Richa Singh, Weill Cornell Medicine, New York City, NY, United States

PR036   B074   **The TIP60 acetyltransferase complex is a critical dependency in neuroendocrine prostate cancer through its role as a critical coactivator of MYCL downstream of ASCL1**, Zhen Sun, Memorial Sloan Kettering Cancer Center, New York, NY, United States

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Poster Session A
Tuesday, January 20, 7:30-9:30 p.m.

A001 Docetaxel and the Tumor Targeting Interleukin-12 (IL-12) PDS01ADC in Patients with Metastatic Castration Resistant Prostate Cancer (mCRPC). Melissa Abel. National Institutes of Health, Bethesda, MD, United States.

A002 From reconstruction to resolution: platform approaches to engineer the prostate cancer phenoscape and map its evolution. Marco Bezzi. The Institute of Cancer Research, Sutton, United Kingdom.

A003 Organoid–Macrophage Co-culture Model uncovers Macrophage Polarization and Chemoresistance Mechanisms in Metastatic Castration-Resistant Prostate Cancer. Kinjal Bhadresha. Molecular Pharmacology Section, Genitourinary Malignancies Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States.

A004 The landscape of genomic and transcriptomic signatures in Indian prostate cancer patients. Tanay Biswas. Indian Institute of Technology Kanpur, Kanpur, India.

A005 Investigating *FERMT2* expression as a determinant of prostate cancer progression. Victoria Blair. Queen's University Belfast, Belfast, United Kingdom.

A006 Long non-coding RNA Plasmacytoma Variant Translocation 1 Alternative Splicing in Prostate Carcinogenesis. Rachel Bonacci. Michigan State University, East Lansing, MI, United States.

A007 A dependency map of androgen receptor activity identifies drivers of prostate cancer growth. Arnab Bose. Fred Hutchinson Cancer Center, Seattle, WA, United States.

A008 Reconstructing prostate evolution with Stochastically Emergent Tumors (SETs) reveals in vivo therapeutic vulnerabilities. Rohit Bose. UCSF - University of California, San Francisco, San Francisco, CA, United States.

A009 3D Genome organization and the landscape of coordinated gene expression in metastatic prostate cancer. Khyati Chandratre. University of Texas at Dallas, Dallas, TX, United States.

A010 MBD4 regulates FOXA1 lineage-specific enhancers to promote prostate tumorigenesis and progression. Xuanrong Chen. Weill Cornell Medicine, New York, NY, United States.

A011 Interplay of AR co-activators, CBP/p300, and immune regulation in prostate cancer. Paula Cooper. Center for Prostate Disease Research, Murtha Cancer Center Research Program, Bethesda, MD, United States.

A012 **High-dimensional spatial profiling identifies distinct and targetable tumor-infiltrating lymphocyte phenotypes in localized prostate cancer.** Precious Cramer. Center for Virology and Vaccine Research, Beth Israel Deaconess Medical Center., Boston, MA, United States.

A013 **Genomic prognostic biomarkers in prostate cancer from the AACR GENIE cohort**. Pablo Cresta Morgado. Vall d'Hebron Institute of Oncology (VHIO), Barcelona, Spain.

A014 **Making invisible tumor truths visible: CHIMERA-DDR score unmasks clonal complexity and concurrent DNA repair deficiencies in advanced prostate cancer**. Navonil De Sarkar. Medical College of Wisconsin, Milwaukee, WI, United States.

A015 **Epigenetic Drivers of Localised Prostate Cancers Reveal Neuronal and Microenvironmental Reprogramming and inform Liquid Biopsy Biomarkers**. Harveer Dev. University of Cambridge, Cambridge, United Kingdom.

A016 **Prostate cancer–derived extracellular vesicles reprogram bone microenvironment cells to enhance monocyte migration**. Kate Duffy. University College Dublin, Dublin, Ireland.

A017 **Spatial Mapping of Accessible Chromatin Landscapes in Prostate Cancer**. Leigh Ellis. Center for Prostate Disease Research, Bethesda, MD, United States.

A018 **INPP4B Downregulation and AKT1 Dependence as Emerging Therapeutic Vulnerabilities in TMPRSS2:ERG Fusion Prostate Cancer**. Betul Ersoy-Fazlioglu. Beth Israel Deaconess Medical Center, Boston, MA, United States.

A019 **Divergent FOXA1 mutations drive prostate tumorigenesis and therapy-resistant cellular plasticity**. Sanjana Eyunni. University of Michigan, Ann Arbor, MI, United States.

A020 **Utilization of liquid biopsy in metastatic castrate resistant prostate cancer (mCRPC): patient characteristics, treatment selection, and mutational status**. Matthew Hall. ConcertAI, Cambridge, MA, United States.

A021 **Dissecting the role of CHD1 as a key regulator of pro-metastatic transcriptional reprogramming in BRCA2-mutant prostate cancer**. Jingzhu Hao. University of Massachusetts Boston, Boston, MA, United States.

A022 **Comprehensive spatial profiling of prostate cancer metastasis: Mapping clonal evolution, microenvironment dynamics, and early metastatic markers**. Mengxiao He. Science for Life Laboratory, Solna, Sweden.

A023 **Differential Patterns of Immune Infiltration in the Tumor Immune Microenvironment Associate with Therapeutic Response in Primary Prostate Cancer Following Chemohormonal Therapy**. Erika Heninger. University of Wisconsin-Madison, Madison, WI, United States.

A024 **Prolonged Androgen Exposure** *in vitro* **as a Model to Identify Mechanistic Differences Contributing to Racial Disparities in Prostate Cancer.** Robert Holt. University of Illinois Chicago, Chicago, IL, United States.

A025 NCI-**LYM-1 molecularly and phenotypically recapitulates aggressive variant prostate cancer**. Ana Jaramillo. National Institute of Health, Bethesda, MD, United States.

A026 **The neuron-specific LSD1+8a isoform promotes neuroendocrine differentiation and lineage plasticity in prostate cancer**. Jaeweon Jeong. University of Massachusetts Boston, Boston, MA, United States.

A027 **CHK1/2 inhibition with prexasertib reveals therapeutic vulnerabilities in advanced prostate cancer**. Jiachen Ji. McGill University, Montreal, QC, Canada.

A028 **PARP Inhibition Beyond BRCA in Prostate Cancer: The Roles of MMS22L and NDUFAF4**. Li Jia. Brigham and Women's Hospital/Harvard Medical School, Boston, MA, United States.

A029 **Patterns of ERG and GR protein expression in localized prostate cancer**. Sumeyra Kartal. National Institutes of Health, Bethesda, MD, United States.

A030 **Lossless altered histone modification analysis system to investigate patient derived cancer organoids and circulating tumor cells from patients with prostate cancer**. Zachary Kauffman. University of Wisconsin-Madison, Madison, WI, United States.

A031 **Targeting prostate cancer bone metastasis with iNKT immunotherapy**. Sheena Kerr. University of Wisconsin-Madison, Madison, WI, United States.

A032 **Elevated *RAD21* levels promote immune evasion in prostatic malignancies.** Faith Kim. Center for Prostate Disease Research, The Henry M Jackson Foundation, Bethesda, MD, United States.

A033 **Plasma cell-free DNA methylation-based prognosis in metastatic castrate-resistant prostate cancer**. Manish Kohli. University of Utah-Huntsman Cancer Institute, Salt Lake City, UT, United States.

A034 **Multi-layer stratified oncology platform utilizing transcriptomics, prostate cancer organoids, and modeling of drug response**. Marianna Kruithof-de Julio. University of Bern, Bern, Switzerland.

A035 **Tumor PTEN-Loss is Associated with Club-Like Cells Phenotype and CD4 T-Cell Infiltration in High-Risk Localized Prostate Cancer**. Anson Ku. NCI, Bethesda, MD, United States.

A036 **Multi-Omic Profiling Clarifies Mechanisms of Therapy-Induced Prostate Cancer Lineage Plasticity**. Anbarasu Kumaraswamy. University of Michigan, Ann Arbor, MI, United States.

A037 **Precision nutrition potentiates radiotherapy in prostate cancer**. David Labbé. McGill University, Montréal, QC, Canada.

A038 **Mechanisms of resistance to PD-L1/PARP1-targeted therapy in metastatic castration-resistant prostate cancer inferred by liquid biopsy**. Chennan Li. National Cancer Institute, Bethesda, MD, United States.

A039 **Super-enhancer landscape analysis reveals a HOXB13-HNF1A transcriptional axis driving hepatic reprogramming in castration-resistant prostate cancer**. Mingyu Liu. University of Massachusetts Boston, Boston, MA, United States.

A040 **Interrogating the Genomic Co-Evolution of the Immune System and Prostate Cancer Along the Time and Treatment Continuum**. John Lozada. University of Minnesota, Minneapolis, MN, United States.

A041 **Comprehensive Evaluation of Recurrent microRNA Gene Variants in Prostate Cancer: Integrative Association with Risk, Predicted Function, and Clinical Outcome**. Shawn Lupold. Johns Hopkins University School of Medicine, Baltimore, MD, United States.

A042 **Modeling CAF-mediated therapy resistance in 3D prostate cancer systems using STACKs and LumeNEXT**. Nikolett Lupsa. Carbone Cancer Center, School of Medicine and Public Health, University of Wisconsin-Madison, Madison, WI, Madison, WI, United States.

A043 **Functional PTEN loss rewires AR-AKT crosstalk and alters therapeutic response in a novel AR-positive prostate cancer model.**Shauna McClelland. Johnston Cancer Research Centre, Queen's University Belfast, Belfast, United Kingdom.

A044 **Strategic chromatin remodelling by class I HDAC inhibition restores apoptotic competence in androgen-sensitive and resistant prostate cancer**. Rachel McCole. Johnston Cancer Research Centre, Queen's University Belfast,, Belfast, United Kingdom.

A045 **G9a blockade uncovers therapeutic vulnerabilities in advanced prostate cancer, leading to tumor growth delay**. Filipa Moreira-Silva. University of Bern, Bern, Switzerland.

A046 **Integrated scRNAseq and spatial RNAseq analysis of aggressive prostatic adenocarcinoma identifies *TIGIT-NECTIN 2/3* and *TIGIT/PVR* immunosuppressive interactions**. Carlos Moreno. Emory University, Atlanta, GA, United States.

A047 **Determining the role of IFNγ signaling in neuroendocrine prostate cancer progression and immunotherapy responses**. Katherine Murphy. UMass Chan Medical School, Worcester, MA, United States.

A048 **The Northern Ireland Fatal Intermediate Risk (FIR) prostate cancer study; a population-based case-cohort resource**. Jack Murphy. Queen's University Belfast, Belfast, United Kingdom.

A049 **Epigenetically Informed Therapeutic Strategies for DNA-Hypomethylated Prostate Cancer**. Pallabi Mustafi. Fred Hutchinson Cancer Center, Seattle, WA, United States.

A050 **The temporal dynamics of the immune response to neoadjuvant androgen deprivation therapy suggests a window-of-opportunity for checkpoint inhibitor therapy in prostate cancer.** Kent Nastiuk. RoswellPark, Buffalo, NY, United States.

A051 **Spontaneous Remission & Abscopal Responses in Prostate Cancer, a marker of "coldness"?.** Tim Oliver. QMUL Barts Cancer Institute, London, United Kingdom.

A052 **DNMT1 inhibition suppresses EMT-driven invasion and migration in docetaxel-resistant prostate cancer**. Carmen Ortiz-Sánchez. Ponce Health Sciences University, Ponce, Puerto Rico.

A053 **Somatic mutations and outcomes of salvage radiation and hormonal therapy for prostate cancer recurrence after prostatectomy**. Keisuke Otani. Massachusetts General Hospital, Charlestown, MA, United States.

A054 **Dissecting the role of CHD1 as a key regulator of pro-metastatic transcriptional reprogramming in BRCA2-mutant prostate cancer**. Jingzhu Hao. University of Massachusetts Boston, Boston, MA, United States.

A055 **Enhancing androgen receptor antagonist-mediated interferon responses in prostate cancer**. Larysa Poluben. Beth Israel Deaconess Medical Center, Boston, MA, United States.

A056 **Combining CBP/p300 and PARP inhibitors to enhance anti-tumor efficacy in lethal prostate cancer**. Orly Richter. Center for Prostate Disease Research, Bethesda, MD, United States.

A057 **Integrated proteogenomics uncovers ancestry-specific and shared molecular drivers in localized prostate cancer**. Cara Schafer. Center for Prostate Disease Research, Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, MD, United States.

A058 **Evaluation of *KLRC2* deletion in a racially diverse cohort of prostate cancer patients**. Laila Scroggins. Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, MD, United States.

A059 **Benchmarking SpatialCNV in Prostate Cancer: tools, reference strategies, and workflows across simulated and real spatial transcriptomics**. Jintong Shi. Scilifelab, Stockholm, Sweden.

A060 **Characterizing aneuploid tumor heterogeneity in prostate cancer through single-cell DNA sequencing**. Chloe Springer. Center for Prostate Disease Research, Bethesda, MD, United States.

A061 **Genomic Correlates of Survival in Prostate Small Cell Carcinoma: An Analysis from the AACR Project GENIE Database.** Nishanth Thalambedu. UAMS, Littlerock, AR, United States.

A062 **Targeting of FOXA1 and FOXA2 by small molecules disables the oncogenic output of castration resistant prostate cancer**. Jean-Philippe Theurillat. Institute of Oncology Research, Bellinzona, Switzerland.

A063 **Targeting calreticulin acetylation to enhance tumor immunogenicity in prostate cancer**. Courtney Thomas. South Carolina State University, Orangeburg, SC, United States.

A064 **Identification and phenotypical evaluation of androgen receptor indifferent phenotype in treatment-naïve primary prostate cancer cases.**Tessa Tolson. University of Utah, Salt Lake City, UT, United States.

A065 **The oncogenic role of PVT1 exon 9 overexpression in prostate Cancer is mediated by DNA methylation and CDX1**. Chinedum Udekwu. Michigan State University, East Lansing, MI, United States.

A066 **A cancer vaccine for de novo metastatic prostate cancer: learning patients stratification from the UV1 trial**. Alfonso Urbanucci. Department of Tumor Biology, Institute for Cancer Research, Oslo University Hospital, Oslo, Norway, Oslo, Norway.

A067 **Polycomb dysregulation shapes chromatin bivalency critical for prostate cancer lineage plasticity**. Varadha Balaji Venkadakrishnan. Dana-Farber Cancer Institute, Boston, MA, United States.

A068 **Development of a fully humanized vascularized "tumor on a chip" model for prostate cancer liver metastasis**. Katherine Vietor. University of Wisconsin-Madison, Madison, WI, United States.

A069 **Radiotherapy remodels the tumor microenvironment via a TREM2-associated macrophage program that can be therapeutically targeted with TREM2 blockade**. Janny Villa-Pulgarin. Department of Urology, NewYork-Presbyterian/Weill Cornell Medical Center, New York, NY, New York, NY, United States.

A070 **Circulating tumor DNA methylation captures epigenetic changes in patients induced by the PRC2 inhibitor ORIC-944**. Amber Wang. ORIC Pharmaceuticals, South San Francisco, CA, United States.

A071 **Mosaic loss of Y chromosome and risk of prostate cancer in two U.S. cohorts**. Anqi Wang. Harvard T. H. Chan School of Public Health, Boston, MA, United States.

A072 **Dissecting the mechanisms of dependency of stem-cell-like castration resistant prostate cancer on FOS proto-oncogenes and MAPK signaling**. Hongsu Wang. Memorial Sloan Kettering Cancer Center, New York, NY, United States.

A073 **Identification of a potential intermediate cell state in the treatment-induced lineage transition from AR-driven prostate cancer to neuroendocrine prostate cancer**. Ruihong Wang. Fred Hutchinson Cancer Center, Seattle, WA, United States.

A074 **Defining and targeting drivers of lineage plasticity in stem cell-like prostate cancer**. Chen Khuan Wong. Memorial Sloan Kettering Cancer Center, New York, NY, United States.

A075 **HER2 as an Ancestry-associated Therapeutic Target in Prostate Cancer**. Leanne Woods-Burnham. Morehouse School of Medicine, Atlanta, GA, United States.

A076 **Proteomics Classification of Prostate Cancer Bone Metastases**. Dennis Xie. University of British Columbia, Vancovuer, BC, Canada.

A077 **Immune spatial organization predicts metastasis risk in aggressive localized prostate cancer**. David Yang. Brigham and Women's Hospital, Boston, MA, United States.

A078 **Transcription and DNA replication collisions lead to large tandem duplications and expose targetable therapeutic vulnerabilities in CDK12-mutant prostate cancer**. Lixing Yang. University of Chicago, Chicago, IL, United States.

A079 **A single-cell RNA expression atlas of metastatic prostate cancer: tumor cell evolution from AR sensitive to castration resistance**. JuanJuan Yin. NIH/NCI, Bethesda, MD, United States.

A080 **Differential coregulator usage mediates Androgen Receptor Splice Variant 7 activity in castration resistant prostate cancer**. Pak Lok Ivan Yu. Vancouver Prostate Centre, Vancouver, BC, Canada.

A081 **FOXA1 Lysine methylation remodels its chromatin binding and restrains oncogenic reprogramming in prostate cancer**. Songqi Zhang. University of Massachusetts Boston, Boston, MA, United States.

A082 **A bypass gateway from cholesterol to sex steroid biosynthesis circumnavigates CYP17A1**. Ziqi Zhu. University of Miami, Miami, FL, United States.

A083 **A Conceptual Framework for Communicating AI-Based Prostate Cancer Risk Predictions**. Tingyu Zou. Mayo Clinic, Jacksonville, FL, United States.

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Poster Session B
Wednesday, January 21, 7:00-9:00 p.m.

B001 **Genetic and clinical profiles of early-onset prostate cancer in Puerto Rican men: A preliminary characterization**. Gustavo Alayón-Rosario. Ponce Health Sciences University, Ponce, Puerto Rico.

B002 **Innovative targeted therapy for metastatic prostate cancer using non-statin *HMGCR* inhibitor: insights from patient-derived organoids and clinical data in Hong Kong**. Salida Ali. The University of Hong Kong, Hong Kong, Hong Kong SAR.

B003 **Targeting Minor Splicing Disrupts DNA Repair and Overcomes Therapy Resistance in Prostate and Breast Cancer.**Anke Augspach. University of Bern, Bern, Switzerland.

B004 **Spatial heterogeneity atlas of prostate cancer evolution (SHAPE): Spatial and genomic landscapes of advanced prostate cancer with and without Lu-PSMA therapy**. Martin Bakht. Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA, United States.

B005 **RSAD2-CMPK2 signaling mediates PVT1 exon 9 action in an AR-independent manner in PVT1 exon 9 overexpressing neuroendocrine prostate cancers**. Rachel Bonacci. Michigan State University, East Lansing, MI, United States.

B006 **Unveiling the metabolic profiles of prostate cancer to anticipate patient response to treatment,** Andrea Brunello. Department for BioMedical Research - University of Bern, Bern, Switzerland.

B007 **Unravel the role of extracellular NNMT (eNNMT) in the modulation of prostate cancer (PC) tumour immune microenvironment (TIME)**. Agata Carreira. University of Oxford - Nuffield Department of Surgical Sciences, Oxford, United Kingdom.

B008 **Monitoring tumor evolution and phenotypic diversity in metastatic prostate cancer using liquid biopsy profiling**. Irene Casanova-Salas. Vall d'Hebron Institute of Oncology, Barcelona, Spain.

B009 **Targeting HDAC7 to Overcome Enzalutamide Resistance in Prostate Cancer**. Buse Cevatemre. (1) Koç University School of Medicine - (2) Koç University Research Center for Translational Medicine - (3) Department of Radiation Oncology, Massachusetts General Hospital, Harvard Medical School - (4) Krantz Family Center for Cancer Research, Mass General, Boston, MA, United States.

B010 **Targeting *SSTR1* to overcome resistance to androgen receptor signaling inhibition in prostate cancer**. Shu Chen. University of California, San Francisco, San Francisco, CA, United States.

B011 **Iron Metabolism as a Therapeutic Vulnerability in Stem Cell-Like Castration-Resistant Prostate Cancer**. Wanli Cheng. Department for Biomedical Research, Urology Research Laboratory, University of Bern, Switzerland, Bern, Switzerland.

B012 **Anti-tumor activity of the METAP2 inhibitor evexomostat (SDX-7320) in multiple stage-specific models of prostate cancer, including treatment refractory and neuroendocrine (AVPC) phenotypes**. Peter Cornelius. SynDevRx, Inc, Cambridge, MA, United States.

B013 **Mitochondrial dysfunction reprograms aggressive prostate cancer metabolism**. Jessica Damanski. Rutgers New Jersey Medical School, Newark, NJ, United States.

B014 **Interplay of Circadian Cryptochrome 1 (CRY1) and DNA Repair in Prostate Cancer (PCa)**. Stefan DiFazio. Center for Prostate Disease Research, Uniformed Services University of the Health Sciences, Bethesda, MD, United States.

B015 **Characterization of periprostatic adipose tissue in 27,748 Men: Links to visceral fat, aging, and factors relevant to prostate cancer**. Jade Dorrian. Queen's University Belfast, Belfast, United Kingdom.

B016 **Integrating multi-omic datasets investigating stress response biology decodes prostate cancer dynamic disease progression and places IRE1 activity at the epicentre of acquired treatment resistance.** Dimitrios Doultsinos. University of Oxford, Oxford, United Kingdom.

B017 **Multiomic single-cell profiling of a novel MYC-driven mouse prostate cancer model**. Kathryn Echandía-Monroe. Center for Prostate Disease Research, The Henry M. Jackson Foundation, Bethesda, MD, United States.

B018 **Impact of 13q.14 loss in prostate cancer progression and sensitivity to targeted agents**. Victor Esquefa. VHIO, Barcelona, Spain.

B019 **Discern the Impact of Cryptochrome 1 (CRY1) on Metabolic Rewiring in PCa**. Arwa Fallatah. Center for Prostate Disease Research, Bethesda, MD, United States.

B020 **Role of IKKε in resistance to second-generation hormonal therapy in prostate cancer**. Annab Fayrouz. University of Montreal, CRCHUM, Institut of Cancer of Montreal, Montreal, Canada.

B021 **Modeling Human Immune Competent Patient-Derived Metastatic Prostate Cancer in Vivo**. John Fenimore. National Cancer Institute, Bethesda, MD, United States.

B022 **LuCaP189.4_CL: a novel 2D model of *AR*-high, *CDK12*-mutant mCRPC suitable for studies of genetic and therapeutic vulnerabilities**. Sander Frank. Fred Hutch Cancer Center, Seattle, WA, United States.

B023 **Identifying therapeutic vulnerabilities in metastatic prostate cancer transcriptional phenotypes**. David Gallo. University of Wisconsin, Madison, Madison, WI, United States.

B024 **Novel therapeutics targeting BET-mediated oncogenesis in lethal prostate cancer**. Allen Gao. University of California Davis, Sacramento, CA, United States.

B025 **Integrated proteomic and molecular profiling reveals race-associated RNA splicing and metabolic reprogramming in prostate cancer**. Manas Ranjan Gartia. Department of Mechanical and Industrial Engineering, Louisiana State University, Baton Rouge, LA, United States.

B026 **Dual inhibition of mitochondrial complex I and GLUT-1 exerts a synergistic effect in advanced prostate cancer models**. Spencer Gaut. Molecular Pharmacology Section, Genitourinary Malignances Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States.

B027 **Baseline prostate-specific antigen levels in men aged 65 to 80 and fatal prostate cancer: Implications for risk-stratified screening among older men**. Hannah Guard. Harvard TH Chan School of Public Health, Boston, MA, United States.

B028 **Global shRNA screen to identify factors that are involved in MYC/MYCN-dependent growth of prostate cancer.**Saskia Haarmann. CHAIR OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, Würzburg, Germany.

B029 **Citron kinase-driven alternative splicing controls prostate cancer growth**. Hannelore Heemers. Cleveland Clinic, Cleveland, OH, United States.

B030 *In vitro* **tumor hypoxia model enables induction and real-time detection of polyaneuploid cancer cells (PACCs) in prostate cancer**. Noreen Hosny. Princeton University, Princeton, NJ, United States.

B031 **Development and validation of a semen-RNA-based classifier for detection and risk stratification of prostate cancer**. David Jarrard. University of Wisconsin, Madison, WI, United States.

B032 **Induction of the unfolded protein response unveils a vulnerability of advanced prostate cancer cells to BH3 mimetics**. Juan Jiménez-Vacas. The Institute of Cancer Research, London, United Kingdom.

B033 **Proteomic and i**n *silico* **insights reveal novel targets of β-hydroxybutyrate in prostate cancer cells**. Omowumi Kayode. Mountain Top University, Ibafo, Nigeria.

B034 **Association of Neighborhood-Level Food Environment with Prostate Cancer-Specific Mortality Among Men in Georgia**. Samuel Kennedy. Department of Urology, Medical College of Georgia at Augusta University, Augusta, GA, United States.

B035 **CCT as a Driver of Prostate Cancer Invasion and Resistance: A New Therapeutic Target**. Annette Khaled. University of Central Florida, Orlando, FL, United States.

B036 **Identifying the regulatory network of stem-like prostate epithelial cells through scRNA-seq**. Hunain Khawaja. University of Arizona, Tucson, AZ, United States.

B037 **Neighborhood Food Swamps and High-Risk Prostate Cancer Among Men in Georgia**. Katherine Kim. Medical College of Georgia at Augusta University, Augusta, GA, United States.

B038 **High-throughput drug screening identifies a novel synergistic therapeutic strategy co-targeting nuclear export and translation initiation in prostate cancer**. Jessica Kindrick. Molecular Pharmacology Section, Genitourinary Malignancies Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States.

B039 **Clinico-Genomic Risk Score-Based Biomarker Enrichment Clinical Trial Designs in Poor Prognosis Metastatic Castrate Resistant Prostate Cancer**. Manish Kohli. University of Utah-Huntsman Cancer Institute, Salt Lake City, UT, United States.

B040 **Development of an immunocompetent murine model of PSMA-positive metastatic prostate cancer to study the impact of PSMA-targeted therapies on the immune response.** Thomas Kryza. AdvanCell, Brisbane, Australia.

B041 **Deciphering the Mechanisms of Action of ^{212}Pb-based PSMA-targeting Radioligand Therapies**. Thomas Kryza. AdvanCell, Brisbane, Australia.

B042 **Enhancing ferroptosis in supraphysiologic androgen–treated prostate cancer through GPX4 inhibition.** Rajendra Kumar. The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, MD, United States.

B043 **The role of GATA2 and TWIST1 in disrupted differentiation during prostate cancer tumorigenesis**. Carina Magdaleno. University of Arizona, Tucson, AZ, United States.

B044 **Exploring cannabidiol's anticancer effect and uptake in prostate cancer: bridging *in vitro* and *ex vivo* models**. Rianna Magee. University College Dublin, Dublin 4, Ireland.

B045 **Single cell spatial transcriptomics identifies unique cell populations driving muscle invasive prostate adenocarcinoma**. Saptarshi Mallick. University of Arizona, Tucson, AZ, United States.

B046 **AZD9750, a novel androgen receptor proteolysis targeting chimera (AR-PROTAC) with monotherapy and combination activity in prostate cancer**. Chrysiis Michaloglou. AstraZeneca, Cambridge, United Kingdom.

B047 **Therapeutic targeting of eIF4E cap-binding domain reveals control of lineage fate in prostate cancer**. Rashmi Mishra. Fred Hutch Cancer Center, Seattle, United States.

B048 **Tolinapant sensitizes PTEN-deficient prostate cancer to radiotherapy by targeting anti-apoptotic pathways**. Letitia Mohamed-Smith. Queen's University Belfast, Belfast, United Kingdom.

B049 **Hypertension is significantly associated with better outcomes in high-risk patients with prostate cancer**. Niamh Murphy. Ulster University, Coleraine, United Kingdom.

B050 **STATE OF PROSTATE CANCER IN CAMEROON in 2025.** BLAISE NKEGOUM. UNIVERSITY OF YAOUNDE 1, YAOUNDE, Cameroon.

B051 **Targeting the IGF1–CYR61 Axis: A Novel Therapeutic Strategy for Aggressive Prostate Cancer**. Greisha Ortiz-Hernández. City of Hope, Duarte, CA, United States.

B052 **Exosomal microRNAs as epigenetic biomarkers of disease progression in Hispanic men with metastatic castration-resistant prostate cancer**. Carmen Ortiz-Sánchez. Ponce Health Sciences University, Ponce, Puerto Rico.

B053 **Deciphering the SWI/SNF complex: A crucial player in lineage plasticity and therapy resistance**. Irene Paassen. University of Bern, Department for BioMedical Research, Bern, Switzerland.

B054 **Phase 1 study of 61Cu-NU101 in patients with prostate cancer**. Ben Pais. Nuclidium AG, Basel, Switzerland.

B055 **Development of a novel kinesin KIF20A inhibitor that selectively blocks aggressive prostate cancer growth**. Morgan Pantone. University of Miami Miller School of Medicine, Miami, FL, United States.

B056 **TBX10 is a super-enhancer–driven tumor suppressor defining a less aggressive subtype of prostate cancer**. Nolan Patten. University of Massachusetts Boston, Boston, MA, United States.

B057 **Pathway-Level Molecular Evolution and Composite Molecular Genomic Risk following Lu-177-PSMA-617 in Metastatic Castration-Resistant Prostate Cancer**. Ruth Pe Benito. ConcertAI LLC, Cambridge, MA, United States.

B058 **Development of a potent and selective orally available AVPR1A antagonist for castration resistant prostate cancer**. Nahuel Peinetti. University of Miami, Miami, FL, United States.

B059 **3D spatial mapping of developing human prostate glands**. Emmanouela Perisynaki. Scilifelab, Stockholm, Sweden.

B060 **Rewiring the serum response factor interactome to overcome treatment resistance in prostate cancer.** Maria Prencipe. University College Dublin, Dublin, Ireland.

B061 **Prostate specific membrane antigen (PSMA) directed small molecule and dendrimer conjugates for targeted therapy in prostate cancer**. Anunay Pulukuri. Washington State University, Pullman, WA, United States.

B062 **Interactions between prostate cancer lineage plasticity drivers and the RB1/E2F axis in AR-independent acquired resistance to AR-pathway inhibitors**. Connor Purcell. Brown Univeristy, Providence, RI, United States.

B063 **Novel sequential *in vitro* model to study prostate epithelial transformation**. Hanna Rauhala. Tampere University, Tampere, Finland.

B064 **FOXA2 reprograms AR signaling to promote lineage plasticity in advanced prostate cancer**. David Rickman. Weill Cornell Medicine, New York, NY, United States.

B065 **Hypoxia-induced centrosome elimination as a driver of chromosomal instability in prostate cancer**. John Ryniawec. University of Arizona, Tucson, AZ, United States.

B066 **NSD2 inhibition of hormone-sensitive prostate cancer synergizes with androgen deprivation therapy to improve tumor response**. Zachery Schultz. University of Wisconsin-Madison, Madison, WI, United States.

B067 **Investigating the implications of AGE-RAGE overexpression in cancer-associated fibroblasts**. Krithika Senthil. Virginia Commonwealth University School of Medicine, Richmond, VA, United States.

B068 **Post-diagnostic dietary fat intake and long-term survival among patients with stage T1-T3 prostate cancer**. Megan Shanahan. Harvard TH Chan School of Public Health, Boston, MA, United States.

B069 **Understanding tumorigenesis and identifying therapeutic targets in; CDK12-mutant prostate cancer.** Shipra Shukla. Memorial Sloan-Kettering Cancer Center, New York, NY, United States.

B070 **Cooperativity between DNA methylation and EZH2 activity drives neuroendocrine phenotype in advanced prostate cancer**. Richa Singh. Weill Cornell Medicine, New York City, NY, United States.

B071 **Monitoring the evolution of treatment resistance by transcriptional profiling of circulating tumor cells with RNAseq**. Jamie Sperger. Department of Medicine and Carbone Cancer Center, University of Wisconsin, Madison, WI, United States.

B072 **A novel selective glycolysis inhibitor, SGI-1553, targets adenosine kinase in advanced prostate cancer**. Cynthia Sprenger. University of Washington, Seattle, WA, United States.

B073 **Circulating Tumor Cell (CTC) single cell protein quantification reveals inter-patient heterogeneity in PSMA expression associated with LuPSMA response in a Metastatic Castration Resistant Prostate Cancer (mCRPC) patient cohort.** William Stump. Department of Medicine, University of Wisconsin, Madison, Madison, WI, United States.

B074 **The TIP60 acetyltransferase complex is a critical dependency in neuroendocrine prostate cancer through its role as a critical coactivator of MYCL downstream of ASCL1**. Zhen Sun. Memorial Sloan Kettering Cancer Center, New York, NY, United States.

B075 **Transcriptional reprogramming mediates ARSi resistance in Rb-deficient CRPC**. HyeonYeong Sun. University of Massachusetts Boston, Boston, MA, United States.

B076 **TRIM24 degradation counteracts adaptation to androgen receptor inhibition in prostate cancer**. Jean-Philippe Theurillat. Institute of Oncology Research, Bellinzona, Switzerland.

B077 **Unsupervised computational characterization of circulating microRNA networks defines plasma-based tumor phenotypes**. Gobi Thillainadesan. Sunnybrook Health Sciences, Sunnybrook Research Institute, Toronto, ON, Canada.

B078 **MYCL drives lineage plasticity and resistance to androgen receptor inhibition in castration-resistant prostate cancer**. Nicole Traphagen. Dana-Farber Cancer Institute, Boston, MA, United States.

B079 **Persist: a molecular signature for prostate cancer patients with preexisting treatment-persistent cells associated with aggressive disease**. Alfonso Urbanucci. Tampere University, Tampere, Finland.

B080 **A patient-derived metastasis model with spontaneous neuroendocrine transformation**. Dana Vargas Solivan. NCI, Bethesda, MD, United States.

B081 **Targeting Tryptophan Hydroxylase 1 in Neuroendocrine Prostate Cancer**. Jing Wei. Washington State University, spokane, WA, United States.

B082 **FOXJ1 mediates taxane resistance through regulation of microtubule dynamics**. Fang Xie. Harvard Medical School/Beth Israel Deaconess Medical Center, Boston, MA, United States.

B083 **O-GlcNAcylation of RNA polymerase II regulates transcription initiation**. Shivani Yalala. University of Helsinki, Helsinki, Finland.