

### Proffered Talks

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**P002 FLASH radiotherapy enhances immune activation and spares lymphocytes tumor draining lymph nodes.** Michael Spiotto. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**P003 Harnessing Macrophage Plasticity and Radiotherapy for Breast Cancer Immunotherapy.** Nir Ben Chetrit. Weill Cornell Medicine, New York, NY, United States.

**P004 Mapping the tumor-sentinel node immune migratome demonstrates a key role for CCR7+ dendritic cells in the successful response to immunoradiotherapy.** Robert Saddawi-Konefka. UC San Diego, La Jolla, CA, United States.

**P005 Fibroblast Activation Protein (FAP)-targeted radioligand therapy as a promising treatment for glioblastoma.** Ines Camille Azrou. University of California Los Angeles, Los Angeles, CA, United States.

**P006 Partial tumor volume irradiation by 177 Lu-PNT6555 induces diverse immune responses in a syngeneic murine tumor model.** Maya E Takashima. University of Wisconsin - Madison, Madison, WI, United States.

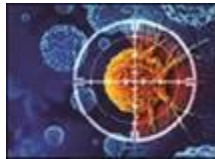
**P007 A digital pathology multimodal artificial intelligence algorithm is associated with pro-metastatic genomic pathways in oligometastatic prostate cancer.** Matthew P Deek. Rutgers Cancer Institute, New Brunswick, NJ, United States.

**P008 Evaluating associations between genomic classifier and digital pathology based mutli-modal AI biomarkers in oligometastatic castration-sensitive prostate cancer.** Philip A Sutera. University of Rochester, Rochester, NY, United States.

**P009 Gadolinium-based nanoparticles sensitize ovarian peritoneal carcinomatosis to targeted radionuclide therapy.** Clara Diaz Garcia-Prada. UCLA, Los Angeles, CA, United States.

**P010 Monitoring of cancer ferroptosis with [18F]hGTS13, a system xc- specific radiotracer.** Abraham S Moses. Stanford University, Palo Alto, CA, United States.

**P011 STN1 (OBFC1) promotes DNA double-strand break repair in a potentially CTC1-STN1-TEN1 (CST) complex-independent role in pancreatic cancer.** Tiantian Cui. City of Hope National Medical Center, Duarte, CA, United States.



**P012 PSMA-RLT and targeting the cGAS-STING pathway as a combination approach for Prostate Cancer.** Beatrice Louis. University of California at Los Angeles, Department of Molecular and Medical Pharmacology, David Geffen School of Medicine, Ahmanson Translational Theranostics Division, Los Angeles, CA, United States.

**P013 Low-dose radiation acts as a promising preconditioning regimen for dendritic cell vaccines.** Eric Kwon. Washington University in Saint Louis School of Medicine, Saint Louis, MO, United States.

**P014 Sparing Blood and Immune Rich Organs Significantly Reduces Immune Suppression During Lung SBRT: Randomized, Phase 2 Trial.** Krishna Wijesooriya. University of Virginia, Charlottesville, VA, United States.

**P015 Targeting SPP1 to Enhance CAR T Cell Therapy in Glioblastoma: Implications for Integrating Radiation therapy in Resistant Solid Tumors.** Sharareh Gholamin. City of Hope, Duarte, CA, United States.

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**P017 Circulating tumor DNA kinetics identify prodynorphin signaling as a target to radiosensitize non-small cell lung cancer.** Ziwei Wang. Stanford University, Stanford, CA, United States.

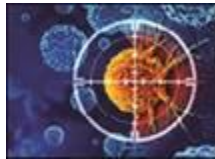
**P018 Mapping cellular and microenvironmental determinants of persister populations in pancreatic cancer following neoadjuvant chemoradiation.** Vincent Bernard. MD Anderson Cancer Center, Houston, TX, United States.

**P019 Spatiometabolic mapping of cytoarchitectural changes in lung adenocarcinoma following radiotherapy.** Gina Bouchard. University of Colorado Anschutz Medical Campus, Aurora, CO, United States.

**P020 Phase III randomized trial of Intensity-Modulated Proton Beam Therapy (IMPT) versus Intensity-Modulated Photon Therapy (IMRT) for the management of head and neck oropharyngeal cancer.** Steven Frank. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**P021 Countering adenosine (ADO) in rectal cancer to improve RT responses to immune checkpoint blockade: trial to test the safety and efficacy of PD1 (AB122) and ADO dual receptor (AB928) antagonists with chemotherapy after short-course RT.** Encouse Golden. Weill Cornell Medicine, New York, NY, United States.

**P022 Investigating the role of the tumor microenvironment in the rectal cancer response to preclinical radio-immunotherapy combinations.** Lydia Melissourgou-Syka. CRUK Scotland Institute for Cancer Research, Glasgow, Scotland.



Poster Session A : Monday, January 27 at 4:10 p.m.

**A001 Prospective study of anaemia in cancer patients undergoing chemoradiation using serial haemoglobin measurement in North Central region, Nigeria.** Simeom Chinedu AruaH. National Hospital Abuja, Abuja, Nigeria.

**A002 Flash proton re-irradiation and hypofractionation alleviate radiation-induced toxicity of the head and neck tissues in mice.** Priyanka Chowdhury. University of Pennsylvania, Philadelphia, PA, United States.

**A003 Influence of beam pauses, dose, and dose rate on the FLASH effect in two mouse models.** Danielle P Johnson Erickson. University of Washington Department of Radiation Oncology, Seattle, WA, United States.

**A004 Nodal Management in Cancer Treatment: Synergistic Potential of Immune Checkpoint Inhibitors.** Su-Jin Koh. Ulsan University Hospital, Ulsan, South Korea.

**A005 18F-Fluorothantrate PARP inhibitor PET tracer: Potential implications for theranostics.** Lilie Lin. University of Texas, MD Anderson Cancer Center, Houston, TX, United States.

**A006 Using ChatGPT to solve clinical radiobiology problems.** Yung-Shuo Kao. Taoyuan General Hospital, Ministry of Health and Welfare, Taoyuan, Taiwan.

**A007 Artificial Intelligence in Radiation Therapy: Bringing in a New Era of Cancer Therapy, Accurate and Fast.** Newton Kisia. The Nairobi Hospital, Nairobi, KENYA.

**A008 Imaging response to induction PD-1 and PARP inhibition in patients with locally advanced head and neck squamous cell carcinoma.** Xuguang S Chen. University of North Carolina at Chapel Hill, Chapel Hill, NC, United States.

**A009 Targeting DNA damage responsive pathways in cancer therapy.** Junjie Chen. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**A010 PARP1 selective inhibition sensitize triple-negative breast cancers to photon and alpha-particle therapy regardless of homologous recombination proficiency status.** Poliana C Marinello. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**A011 Activity of antibody-drug conjugates with radiation in preclinical bladder cancer models.** Kent Mouw. Dana-Farber Cancer Institute, Brigham and Women's Hospital, Boston, MA, United States.

**A012 Development of a Translational Tumoroid-Organoid Platform Revealing Tumor-Specific Radiosensitization in Rectal Cancer Using Matched Patient-Derived Models.** Paul B. Romesser. Memorial Sloan Kettering Cancer Center, New York, NY, United States.



**A013 Shikonin, a Strong Inhibitor of Phosphoinositide 3-Kinase (PI3K) and Mitogen-Activated Protein (MAP) Kinase Pathways, Induces Cell Death in UV-B Irradiated B16F10 Melanoma Cells.** AALIM MAQSOOD BHAT. CSIR-Indian Institute Of Integrative Medicine Jammu, Jammu, INDIA.

**A014 Mitochondrial dynamics in insulin-like growth factor binding protein 3-mediated radiosensitivity of oral squamous cell carcinoma cells.** Ya-Wen Chen. National Institute of Cancer Research, National Health Research Institutes, Miaoli, Taiwan, Zhunan Town, Tawain.

**Poster Session B: Tuesday, January 28 at 6:15 p.m.**

**B001 Double targeted therapy PSCA-CAR-T cells and PSMA-radioligand in metastatic castration-resistant prostate cancer.** Iveta Fajnorova. UCLA, Los Angeles, CA, United States.

**B002 Pre-vaccine radiation and CTLA-4 blockade increase adjuvant effects of SARS-COV-2 mRNA vaccines.** Adam Grippin. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**B003 Landscape of chemoradiation plus immunotherapy trials across multiple locally advanced cancer types: The more, the better?** Bin Gui. Northwell Health, New Hyde Park, NY, United States.

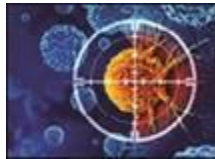
**B005 Copper-67 based targeted radioligand therapy to the somatostatin receptor 2 (SSTR2) provides added efficacy and may prime small cell lung cancer for immunotherapy.** Jaclyn L Lange. Clarity Pharmaceuticals, Melbourne, Australia.

**B006 Targeting REV-ERB/ROR $\alpha$ /IRF3 axis to enhance radiation-induced immune response in cancer Radiotherapy.** Nan Li. UT MD Anderson Cancer Center, Houston, TX, United States.

**B007 CD163+ Tumor-Associated Macrophage Evasion Contributes Radiation Resistance and Poor Prognosis in Estrogen Receptor-Negative Breast Cancer.** Danushka S. Seneviratne. Department of Radiation Oncology, Stephenson Cancer Center, Oklahoma University Health Science Center, Oklahoma City, OK, United States.

**B008 Understanding myeloid and lymphoid cell heterogeneity following radiotherapy and its impact on metastasis development in breast cancer.** Alessandra Perini. Centre for Tumour Microenvironment; Barts Cancer Institute; Queen Mary University of London (QMUL), London, United Kingdom.

**B009 Abscopal Effect in Metastatic Melanoma: Generating Clinical Insights From Radiation-Induced Immune Response.** Baovy N Phan. Union College, Schenectady, NY, United States.



**B010 Interim Report of Phase I Study of Window-of-Opportunity Fractionated Stereotactic Radiotherapy Combined with Checkpoint Blockade Prior to Surgical Resection for Newly Diagnosed Glioblastoma.** Samuel Ryu. Stony Brook University, Stony Brook, NY, United States.

**B011 Adenosine Signaling and Immune Modulation in the Tumor Microenvironment: Insights from Lung Cancer Murine Model of Radiation Therapy.** Krishan K Saini. Department of Radiation Oncology, Columbia University Irving Medical Center, New York, NY, New York, NY, United States.

**B012 Interferon-  $\gamma$  is Required for Immunotherapy Induced Radiosensitivity in Solid Tumors.** Annette Wu. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**B013 Autoimmunity mechanisms in combined radiotherapy and immune-checkpoint inhibitor therapy-induced myocarditis.** Shiguang Yu. University of Missouri, Columbia, MO, United States.

**B014 Dual checkpoint blockade mitigates the immunosuppressive effects of radiotherapy amplified by experimental liver metastasis.** Han Zang. UCSF, San Francisco, CA, United States.

**B015 PLK4 inhibition as a strategy to enhance non-small cell lung cancer radiosensitivity.** Kishore Banik. Yale University School of Medicine, New Haven, CT, United States.

**B016 Targeting the angiotensin receptor in cancer-associated fibroblasts improves tumour perfusion, oxygenation, and radiotherapy response.** Kevin L Bennewith. BC Cancer Research Institute, Vancouver, BC, United States.

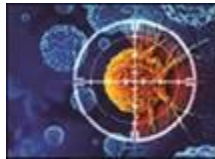
**B017 Combining baseline microenvironment biomarkers with hypoxia imaging to predict radiochemotherapy outcomes in head and neck cancer.** Maria J. Besso. German Cancer Research Center (DKFZ) Heidelberg, Division of Radiooncology Radiobiology, Germany, Heidelberg, Germany.

**B018 GSK3 $\beta$  inhibition synergizes with radiation therapy to stimulate type-I interferon and anti-tumor effects in lung cancer.** Chen Braun. University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**B019 Mathematical modeling-based optimization of gamma knife surgery after checkpoint blockade in melanoma brain metastases.** Joseph D. Butner. The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

**B020 Quercetin sensitizes PDAC cells to radiation therapy in vitro and in vivo.** Vishwa Gandhi. University of Pittsburgh, Pittsburgh, PA, United States.

**B021 FTO inhibition enhances the therapeutic index of radiation therapy in head and neck cancer.** Lu Ji. Stanford University School of Medicine, Stanford, CA, United States.



**B022 Systematic Analysis of Tumor and Immune EV Subset Changes with Radiation Therapy.** Jennifer C Jones. NIH, Bethesda, MD, United States.

**B023 Deep mutational scanning of KEAP1 to identify mutations resistant to radiation therapy and oxidative stress.** Noah Kastelowitz. Stanford University School of Medicine, Stanford, CA, United States.

**B024 CRISPR-Cas9 screening reveals a novel JAK1 dependent mechanism of radioresistance in Head and Neck Squamous Cell Carcinoma.** Vanessa M Kelley. Yale University, New Haven, CT, United States.

**B025 Identifying and Exploiting a Novel Role of FTO in Promoting Cysteine Metabolism for NSCLC Therapy.** Nishanth Kuganesan. Stanford University, Stanford, CA, United States.

**B026 Development of a novel theranostic agent targeting MET in lung and head and neck cancer.** Rachel L Minne. University of Wisconsin School of Medicine and Public Health, Madison, WI, United States.

**B027 Investigating NRF2-mediated radioresistance in HPV-negative head and neck squamous cell carcinoma preclinical models.** Aakshi Puri. Princess Margaret Cancer Centre, Toronto, ON, CANADA.

**B028 Multimodal approach to characterization of metabolism and immune modulation with insights from spatial metabolomics and transcriptomics.** Chelsea L. Rahiman. Columbia University Irving Medical Center, New York, NY, United States.

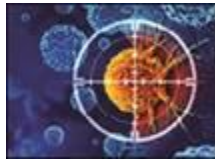
**B029 TWIST1 Associates with Resistance to Treatment and Twist1 Drives Tumor Progression in vivo for Small Cell Lung Cancer.** Phuoc T. Tran. University of Maryland School of Medicine, Baltimore, MD, United States.

**B030 Novel strategy to improve response of high risk HPV+ HNSCC to radiation therapy.** Sri Vemulamanda. Lineberger Comprehensive Cancer Center, Cary, NC, United States.

**B031 Proteomic profiling of oligometastatic castration-sensitive prostate cancer treated with stereotactic ablative radiotherapy.** Jarey Wang. Johns Hopkins University School of Medicine, Ellicott City, MD, United States.

**B032 Concurrent mutant KRAS inhibition and Stereotactic Body Radiation Therapy (SBRT) for preclinical KRAS G12D-Driven Pancreatic Ductal Adenocarcinoma (PDAC) treatment.** Tianyu Wang. The University of Texas MD Anderson Cancer Center UT Health Science Center at Houston Graduate School of Biomedical Sciences, Houston, TX, United States.

**B033 Long-Term Quality of Life and Hearing Preservation after Stereotactic Radiosurgery for Vestibular Schwannoma.** Shayzal Siddiqui. Oakland University William Beaumont School of Medicine, Rochester, MI, United States.



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