A01 Fusobacterium species, microsatellite instability, and exome-wide neoantigen load in relation to immune response to colorectal cancer. Shuji Ogino, Brigham and Women’s Hospital, Boston, MA, United States.

A02 Gut microbiome controls growth of liver tumors. Tim Greten, National Cancer Institute, Bethesda, MD, United States.

A03 Activation readiness of circulating T cell from breast cancer patients and their response to different microbiota organisms. Mariana Pinho, Biomedical Sciences Institute of the University of Sao Paulo, Sao Paulo, Brazil.

A04 Microbial and immunological characterization of gastroesophageal tissue biopsy samples: a multi-parametric analysis. Chao Zhang, Weill Cornell Medicine, New York, NY, United States.


A06 Drugging the human microbiome for combination with tumor immunotherapy. David Cook, Seres Therapeutics, Cambridge, MA, United States.

A07 Changes in immune profiles of osteosarcoma dogs receiving a GD3-based vaccine concurrently with carboplatin chemotherapy and surgery. Rowan Milner, University of Florida, Gainesville, FL, United States.

A08 Combination with a novel STING agonist significantly improves efficacy of anti-PD1 therapy in mouse syngeneic tumor models. Samanthi Perera, Merck Research Laboratories, Boston, MA, United States.

A09 Impaired HLA Class I Antigen Processing and Presentation as a Mechanism of Acquired Resistance to Immune Checkpoint Inhibitors in Lung Cancer. Katherine Hastings, Yale University, New Haven, CT, United States.

A10 Cancer-germline antigens discriminate clinical outcome to CTLA4 blockade. Sachet Shukla, Dana-Farber Cancer Institute, Boston, MA, United States.

A11 Ipilimumab protects T cells from the anti-proliferative effects of dexamethasone. Amber Giles, National Cancer Institute, Bethesda, MD, United States.

A12 Identification of resistance to immune checkpoint blockade. Shengqing Stanley Gu Gu, Dana Farber Cancer Institute, Boston, MA, United States.

A14 Surgical removal of metastatic lesions increases T cell reactivity to tumor associated antigens in stage III melanoma patients. Yago Pico de Coaña, Karolinska Institute, Stockholm, Sweden.

A15 Immune-related changes in breast cancer tumor evolution. CARLOS GIL DEL ALCAZAR, Dana-Farber Cancer Institute, Boston, MA, United States.

A16 Epstein-Barr virus encoded EBNA2 alters immune checkpoint PD-L1 expression by downregulating miR-34a in B cell lymphomas. Anastasiadou Eleni, BIDMC/HMS, Boston, MA, United States.

A17 Bromodomain and extraterminal proteins regulate PD-L1/PD-1 signaling in breast cancer.. Guillaume Andrieu, Boston University School of Medicine, Boston, MA, United States.

A18 Imprime PGG, a soluble yeast β-glucan PAMP, synergizes with anti-PD-1 antibody to enhance CD8 T cell anti-tumor immunity. Ross Fulton, Biothera Pharmaceuticals, Inc., Eagan, MN, United States.

A19 PD-1 modulation promotes anti-tumor immunity by improving metabolic fitness of both PD-1+ and PD-1- CD8+ T cells in the tumor. Kristen Pauken, Harvard Medical School, Boston, MA, United States.


A22 Augmentation of a novel adenoviral vaccine strategy by checkpoint inhibitors<BR>. Erika Crosby, Duke University, Durham, NC, United States.

A23 Anti-PD-1 antibody scFv producing recombinant Bifidobacterium exerts antitumor effect in a lager fraction of the treated mice comparing to full length anti-PD-1 antibody. Li Wang, Anaeropharma Science, Inc., Tokyo, Japan.

A24 Clinical significance of PD-L1 levels in plasma-derived exosomes in Head and Neck Squamous Cell Carcinoma. Marie-Nicole Theodoraki, University of Pittsburgh, Pittsburgh, PA, United States.

A25 Pharmacodynamic and preclinical studies of SB 11285, a highly potent, and systemically bioavailable STING agonist as a novel immunotherapeutic agent. Sreerupa Challa, spring bank pharmaceuticals, Milford, MA, United States.

A26 De Novo Epigenetic Programming Restrains PD-1 Blockade-Mediated T Cell Rejuvenation. Hazem Ghoneim, St. Jude Children's Research Hospital, Memphis, TN, United States.

A27 Quantitative phosphoproteomic analysis of PD-1 signaling. Adam Mor, New York University, New York, NY, United States.

A28 Tumor Cell Intrinsic BPTF Inhibits NK Cell Activity and the Abundance of Natural Cytotoxicity Receptor Co-ligands. Joseph Landry, Virginia Commonwealth University, Richmond, VA, United States.

A30 Ron kinase inhibition to improve immunotherapy for breast cancer metastasis. Shu Chin Lai, Huntsman cancer institute/University of Utah, Salt Lake City, UT, United States.

A31 Re-programming of tumor-associated macrophages by anti-Program Death Ligand 1 (PDL1). Huizhong Xiong, Genentech, South San Francisco, CA, United States.

A32 eIF4F controls antitumor immune response through induced-PDL1 regulation. Ramdane GUEMIRI, Université Paris Saclay, Orsay, France.

A33 Tumor derived T cell clones for evaluation of check point inhibitor therapeutics. Robert Shields, Merck Research Labs, Palo Alto, CA, United States.

A34 Understanding mechanisms of Checkpoint Blockade in EGFR-driven Glioblastoma. Alan Yeo, Sackler School of Graduate Studies, Tufts University School of Medicine, Boston, MA, United States.

A35 BRAF inhibition increases exosomal PD-L1 protein expression in melanoma. Gyulnara Kasumova, Massachusetts General Hospital, Harvard Medical School, Boston, MA, United States.


A38 Blood-based T cell biomarkers and soluble PD-L1 predict responses and immune-related toxicity to PD-1 blockade in melanoma and lung cancer. Haidong Dong, Mayo Clinic, Rochester, MN, United States.

A39 Viral response markers in immune-competent solid tumors by immunohistochemistry. Galen Hostetter, Van Andel Research Institute, Grand Rapids, MI, United States.

A40 Prevalence of TIGIT expression in normal tissues, inflammation, and cancer. Ronald Simon, Institute of Pathology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany.

A41 Analytic validation & clinical feasibility of a next-generation sequencing assay to assess tumor mutational burden from blood (bTMB) as a biomarker for anti-PD-L1 response in NSCLC. Daniel Lieber, Foundation Medicine, Cambridge, MA, United States.

A42 CD8+PD-L1+ cells population were associated with the superiority of DC/CIK cell immunotherapy combined S-1 in patients with advanced pancreatic and gastric cancer. Guoliang Qiao, Capital Medical University, Beijing, China.

A43 Induction of systemic immune response by oxaliplatin-based neoadjuvant therapy and survival without metastatic progression in high-risk rectal cancer. Erta Kalanxhi, Akershus University Hospital, Lørenskog, Norway.

A44 No tumor or very small tumor burden in on-treatment biopsies is significantly associated with response to Pembrolizumab. Coya Tapia, Department of Molecular Pathology, UT MD Anderson Cancer Center, Houston, TX, United States.

A45 Preliminary results of a Phase 1 clinical trial of a PSA, IL-2, GM-CSF containing prostate cancer vaccine in PSA defined biochemical recurrent prostate cancer patients. Jonathan Head, Oncbiomune Pharmaceuticals, Baton Rouge, LA, United States.

A46 Targeting multiple myeloma with universal SLAMF7-specific CAR T-cells. Rohit Mathur, UT MD ANDERSON CANCER CENTER, Houston, TX, United States.
A47 Superior expansion of central memory CD8+ T cells using NKG2D-targeted delivery of IL-2: Implications for adoptive T cell immunotherapy. Alexander Krupnick, University of Virginia, Charlottesville, VA, United States.

A48 Targeted Granzyme B immunotherapy: A novel approach delivering GrB to Fn14-positive solid tumors. Ana Alvarez-Cienfuegos, MD Anderson Cancer Center, Houston, TX, United States.


A50 Trivalent CAR T cells mitigate CD19-negative relapse and improve tumor control in primary pre-B cell acute lymphoblastic leukemia (B-ALL). Kristen Fousek, Baylor College of Medicine, Houston, TX, United States.

A51 High throughput method identifies rare, high-affinity, thymus-vetted T cell receptors (TCRs) for clinical translation. Thomas Schmitt, Fred Hutchinson Cancer Research Center, Seattle, WA, United States.


A53 Mechanistic model predicts effects of altering CD3ζ immuno-tyrosine activating motif (ITAM) structure in chimeric antigen receptor- (CAR-) engineered T cells. Jennifer Rohrs, University of Southern California, Los Angeles, CA, United States.

A54 FGFR4 specific Chimeric Antigen Receptor (CAR) T cell therapy against Rhabdomyosarcoma. Nityashree Shivaprasad, National Institute of Health, Bethesda, MD, United States.


A57 Adoptive T cell therapy for ovarian cancer: Application of a surgically relevant model. Christopher Morse, Fred Hutchinson Cancer Research Center, Seattle, WA, United States.

A58 Genetic engineering of tumour-infiltrating monocytes to improve the outcome of immunotherapy in primary and metastatic breast cancer. Sara Chiaretti, University of Queensland Diamantina Institute, TRI, Brisbane, Qld, Australia.

A59 Expression of membrane-bound IL-15/IL-15Rα complex in chimeric antigen receptor-engineered natural killer cells for enhanced efficacy against solid tumors. Elizabeth Siegler, University of Southern California, Los Angeles, CA, United States.

A60 A Poliovirus based cancer vaccine activates antigen presenting cells and elicits an anti-tumor T-cell response. Mubeen Mosaheb, Duke University, Durham, NC, United States.


A62 NKG2D RNA CAR is effective in treating peritoneal carcinomatosis in a mouse model. Zhendong Li, National University of Singapore, Singapore, Singapore.
A63 Targeting of regulatory T cells by IL-2 functionalized nanocapsules for tumor immunotherapy. Matthias Domogalla, Department of Dermatology, Mainz, Germany.

A64 Dual-switch GoCAR-T cells: Dual molecular switches to control activation and elimination of CAR-T cells to target CD123+ cancer. J. Bayle, Bellicum Pharmaceuticals, Houston, TX, United States.

A65 A dual-switch platform to orthogonally control CAR-T cell efficacy and safety with two non-immunosuppressive chemical inducers of protein dimerization. Matthew Collinson-Pautz, Bellicum Pharmaceuticals, Houston, TX, United States.

A66 Analysis of dendritic cell derived exosomes that suppressed tumor growth. Masakatsu Takanashi, Tokyo Medical University, Tokyo, Japan.

A67 Bi-phasic metabolic responses to in situ macrophage activation. Yoonseok Kam, Agilent Technologies, Lexington, MA, United States.

A68 Targeting metabolic vulnerabilities of MDSCs to enhance the anti-tumor activity of PD-1 blockade. bin zheng, Massachusetts General Hospital, Charlestown, MA, United States.

A69 Mutagenicity of urea cycle dysregulation and its implications for cancer immunotherapy. Joo Lee, University of Maryland, College Park, MD, United States.

A70 Post-translational regulation of enolase 1 restrains the metabolic activity of tumor infiltrating CD8+ T cells. Lelisa Gemat, University of Virginia, Charlottesville, VA, United States.

A71 Metabolic adaptations establish immunotherapy resistance in melanoma. Ashvin Jaiswal, MD Anderson Cancer Center, Houston, TX, United States.

A72 Inhibition of liver X receptors enhances anti-tumor immunity in breast and colorectal cancer. Katherine Carpenter, Saint Louis University, Saint Louis, MO, United States.

A73 Optogenetic regulation of T cell metabolism in the tumor microenvironment. Andrea Amitrano, University of Rochester, Rochester, NY, United States.

A74 T cell activation standardization for therapeutic assay development. Shilan Dong, Enable Life Sciences LLC, Cambridge, MA, United States.

A75 A Radiosensitivity Gene Signature and PD-L1 Expression are Predictive of the Clinical Outcomes of Patients with Lower Grade Glioma in The Cancer Genome Atlas Dataset. In Ah Kim, Seoul National University, Seoul, Korea, Republic Of.

A76 Microengineered human lymphoid tissue on chip. Girija Goyal, Harvard University, Cambridge, MA, United States.


A79 Cancer immunotherapy with recombinant poliovirus induces IFN-dominant activation of antigen presenting cells and tumor antigen-specific CTLs. Michael Brown, Duke University Medical Center, Durham, NC, United States.

A80 Opposing signals from TCF1 and type I interferon regulates T cell stemness and exhaustion. Tuoqi Wu, National Institutes of Health, Bethesda, MD, United States.
A81 Early TLR-mediated killing of leukemia in bone marrow is correlated with durable protection against B cell precursor acute lymphoblastic leukemia. Sumin Jo, BC Children’s Hospital Research Institute, University of British Columbia, Vancouver, BC, Canada.

A82 Evaluation of novel immune target in hematological malignancies. Maiko Matsushita, Keio University Faculty of Pharmacy, Tokyo, Japan.

A83 Accurate prediction of patient response to checkpoint inhibitors in melanoma. Noam Auslander, University of Maryland, College Park, MD, United States.

A84 MIP-1α secreting, but poorly cytotoxic terminally differentiated CD56−CD16+ NK cells accumulate in children with endemic Burkitt’s lymphomas and high EBV loads. CATHERINE FORCONI, University of Massachusetts, Medical School, Worcester, MA, United States.

A85 Molecular mechanisms underlying the Roles of Globo H Ceramide as an Immune Checkpoint and an Angiogenic factor. John Yu, Institute of Stem Cell and Translational Cancer Research, Chang Gung Memorial Hospital, Taoyuan, Taiwan.

A86 Lymph node colonization promotes systemic tumor metastasis through induction of immune tolerance. Nathan Reticker-Flynn, Stanford University, Stanford, CA, United States.