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.

A05 Involvement of Commensal Microbiota in Anti-PD-1 mAb-Mediated Anti-Tumor Activity in a Preclinical Tumor Model. Qian Shi, CrownBio Science, Inc., Santa Clara, CA, 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.

A13 Optimization of a dendritic cell-targeting MIP-antigen fusion vaccine in the B16F10 mouse melanoma model. James Gordy, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 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.

A20 BET bromodomain inhibition differentially regulates PD-L1 expression on human melanoma cells. Jeroen Melief, Karolinska Institute, Stockholm, Sweden.

**A22 Augmentation of a novel adenoviral vaccine strategy by checkpoint inhibitors
.** 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.

A29 Multimeric anti-human OX40 induces robust immune responses. Shravan Madireddi, Genentech, Inc., South San Francisco, CA, 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.

A37 Immuno-oncological efficacy of RXDX-106, a novel TAM (TYRO3, AXL, MER) family small molecule kinase inhibitor. Yumi Yokoyama, Ignyta, Inc., San Diego, CA, 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-1+ 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.

A49 The landscape of CD47 expression in tumor cells predicts macrophage-mediated phagocytosis in immune-oncology therapy. Frank Xing, Crown Bioscience, Santa Clara, CA, 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.

A52 Vaccine cells derived from cancer stem cells expressing interleukin-15 and its receptor inhibit tumor growth. John Morris, University of Cincinnati, Cincinnati, OH, 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.

A55 Vector Free Genome Editing of Immune Cells for Cell Therapy. Luke Cassereau, SQZ Biotechnologies, Boston, MA, United States.

A56 Delivering molecular subunit amphiphile vaccines for inhibition of lung metastasis. Kavya Rakhra, Massachusetts Institute of Technology, Cambridge, MA, 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.

A61 Engineered antigen presenting T cells for treatment of solid tumor cancers. LeeAnn Talarico, SQZ Biotechnologies, Watertown, MA, 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 Microenginered human lymphoid tissue on chip. Girija Goyal, Harvard University, Cambridge, MA, United States.

A77 Cripto-1 vaccination elicits protective immune response to metastatic breast cancer and breast cancer stem cells. Kristina Witt, Karolinska Institutet, Stockholm, Sweden.

A78 Analysis of ROR1 protein expression in mice with reconstituted human immune system components. Carol Leung, UCL, London; University of Oxford, Oxford, United Kingdom.

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.

B01 Breaking down barriers restricting myeloid cell differentiation and infiltration in the tumor microenvironment with a first-in-class antibody targeting Semaphorin4D, and rational combination therapies. Elizabeth Evans, Vaccinex, Rochester, NY, United States.

B02 Targeting CSK kinase activity to enhance anti-tumor immunity. Susan Wee, Bristol-Myers Squibb, Princeton, NJ, United States.

B03 RNAi-mediated α-catenin inhibition sensitizes non-inflamed tumors to immune checkpoint blockade. Shanthi Ganesh, Dicerna Pharmaceuticals, Inc, Cambridge, MA, United States.

B04 CDK4/6 inhibition triggers an anti-tumor immune response. Molly DeCristo, Brigham & Women's Hospital, Boston, MA, United States.

B05 Adenosine generation limits the ability of radiation therapy to induce anti-tumor immunity by abrogating recruitment and activation of CD103+ DCs. Erik Wennerberg, Weill Cornell Medicine, New York, NY, United States.

B06 Enhancement of checkpoint inhibitor efficacy by combination treatment with a novel COX2/sEH Dual Inhibitor. Maike Zimmermann, UC Davis School of Medicine, Sacramento, CA, United States.

B07 Immunostimulatory Gene Therapy Enhances PD-1 Blockade Antibody Therapy in Experimental Lung Cancer. Angelica Loskog, Uppsala University, Uppsala, Sweden.

B08 Pharmacological reactivation of MYC-dependent apoptosis induces immune activation in breast cancer. Heidi Haikala, Translational cancer biology research program, University of Helsinki, Helsinki, Finland.

B09 TLR1/2 ligand promotes Fc gamma RIV mediated depletion of tumor-infiltrating treg by anti-CTLA-4 antibody and its anti-tumor efficacy. Naveen Sharma, The UT MD Anderson Cancer Center, Houston, TX, United States.

B10 HDAC inhibition modulates immune checkpoint pathway in triple negative breast cancer. Manuela Terranova Barberio, University of California San Francisco, San Francisco, CA, United States.

B11 Low-dose HMGN1 synergistically enhances anti-tumor immunity in CD4 depleting antibody-treated mice. Chang-Yu Chen, Department of Molecular Preventive Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan.

B12 Temozolomide combined with blockade of cytoprotective ion transport proteins NKCC1 or NHE1 reduces glioma growth and prolongs animal survival. Xiudong Guan, UNIVERSITY OF PITTSBURGH, Pittsburgh, PA, United States.

B13 New drug repositioning of low-dose pegylated IFN-alpha in combination with BH3 interacting domain death agonist gene and radiation therapy as a cancer treatment regimen. Takaya Tsuno, Kochi Medical Sciences Center, Kochi, Japan.

B14 TCR transgenic T cells improve the anticancer potential of oncolytic Vesicular stomatitis virus as cell carriers and as synergistic therapeutics. Michael Melzer, Klinikum rechts der Isar, Munich, Germany.

B15 Combination immunotherapy of murine prostate cancer using a Listeria-based PSA vaccine: Immune correlates of efficacy and resistance development. Emily Bongiorno, Thomas Jefferson University, Philadelphia, PA, United States.

B16 Preclinical evaluation of niraparib in combination with anti-PD1/anti-PDL1 in mouse-derived syngeneic transplant models. Sarah Wang, TESARO Inc., Waltham, MA, United States.

B17 FOXO1 is transcriptional regulator of malignant B-cell surface antigen CD20, the target for therapeutic monoclonal antibodies. Beata Pyrzynska, Medical University of Warsaw, Warsaw, Poland.

B18 Novel treatment of cutaneous T cell lymphoma: Targeting TNFR2, an oncogene and marker of potent Tregs, with anti-TNFR2 antibodies. Denise Faustman, Massachusetts General Hospital/Harvard Medical School, Boston, MA, United States.

B19 Modulation of cytotoxic effects of vemurafenib by chloroquine in malignant melanoma cells G-361: role of dermcidin. Jose Belizario, Department of Pharmacology, Institute of Biomedical Sciences, Univeristy of Sao Paulo, Sao Paulo, Brazil.

B20 Single-cell RNA sequencing analyses of syngeneic mouse tumor models identify critical ligand-receptor interaction for macrophage recruitment by tumor cells. Jinyan Du, Merrimack Pharmaceuticals, Inc., Cambridge, MA, United States.

B21 Loss of transcriptional fidelity in a subset of cancers confers immunotherapy resistance. Kakajan Komurov, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States.

B22 Lymphocytes inhibits the tumor metastasis in 4D cellular lung model by reducing the number of live CTCs in circulation. Dhruva Mishra, Houston Methodist Research Institute, Houston, TX, United States.

B23 Genetic mechanisms of immune evasion in colorectal cancer. Marios Giannakis, Dana-Farber Cancer Institute and Harvard Medical School, Boston, MA, United States.

B24 Digital signatures of T cell dysfunction predict immunotherapy response. Peng Jiang, Dana Farber Cancer Institute, Boston, MA, United States.

B25 Exosomal transcriptomic signatures tracks and predicts response to checkpoint blockade immunotherapy. Alvin Shi, MIT, Cambridge, MA, United States.

B26 Genomic analysis of the virus-induced tumor microenvironment in six cancer types. Frederick Varn, Geisel School of Medicine at Dartmouth, Hanover, NH, United States.

B27 B-cell lymphoma response to anti-CD20 antibodies based therapies is tightly modulated by FOXO1 mediated MS4A1 gene transcription. Abdessamad Zerrouqi, Medical University of Wrasaw, Warsaw, Poland.

B28 Validation and Characterization of MiXeno™ Humanized Mouse Models for Immuno-Oncology. WenQing Yang, CrownBio Science, Inc., Taicang, China.

B29 Multiplex Three-Dimensional Optical Mapping of Tumor Immune Microenvironment. Steve Seung-Young Lee, The University of Chicago, Chicago, IL, United States.

B30 Digital multiplex immunofluorescens analysis identifies immune profiles in the tumor stroma associated with clinical outcome. Artur Mezheyeuski, Uppsala University, Uppsala, Sweden.

B31 Autofluorescence imaging of macrophage metabolism during tumor-mediated 3D migration. Tiffany Heaster, University of Wisconsin-Madison, Madison, WI, United States.

B32 Microfluidics to study solid tumor-NK cell interactions: from migration and cytotoxicity to therapeutic antibodies. Jose Ayuso, University of Wisconsin-Madison, Madison, WI, United States.

B33 Co-expression and frequency of immune checkpoint proteins in the tumor microenvironment analyzed via multiplex immunohistochemistry. Jennifer Ziello, Cell Signaling Technology, Inc, Danvers, MA, United States.

B34 The emerging role of tissue-resident memory T (Trm) cells in antitumor immunity and cancer immunotherapy. Fathia MAMI-CHOUAIB, INSERM U1186, Gustave Roussy Cancer Center, Villejuif, France.

B35 Class IIa HDAC inhibition promotes an anti-tumor macrophage phenotype that induces breast tumor regression and inhibits metastasis. Jennifer Guerriero, Dana-Farber Cancer Insitute, Boston, MA, United States.

B36 Preventing the recurrence of breast cancer at the metastatic niche using resolution-phase macrophages. Dalit Barkan, University of Haifa, Haifa, Israel.

B37 Clinical relevance of tumor-infiltrating immune cells in neuroblastoma. Doriana Fruci, Bambino Gesù Children Hospital, Rome, Italy.

B38 Increasing tumor infiltrating CD8$^+$ T cell response and checkpoint inhibitor efficacy by enzymatic reduction of tumor hyaluronan in a murine syngeneic pancreatic cancer model. Jisook Lee, Halozyme Therapeutics, Inc., San Diego, CA, United States.

B39 Understanding the association of gut microbiota and tumor microenvironment in gastric and esophageal cancer. Prashant Thakkar, Weill Cornell Medicine, New York, NY, United States.

B41 Neutrophils modulate T-cell recruitment and promote hepatic metastases in lung cancer. Roni Rayes, McGill University Health Center, Montreal, QC, Canada.

B42 MDSCs accumulation within metastatic liver is modulated by CXCR4/CXCL12 axis after HSCs interaction with C26 in the ICAM-1 regulated inflammatory milieu. Aitor Benedicto, University of the Basque Country, Leioa (Bilbao), Bizkaia, Spain.

B43 Novel small molecule human STING agonists generate robust Type I interferon responses in tumors. Monali Banerjee, Curadev Pharma, Noida, India.

B44 Regulation of macrophage activation by vascular niche in glioblastoma. Yi Fan, University of Pennsylvania, Philadelphia, PA, United States.

B45 Defining the interaction of tumor promoting galectin-9 with macrophages via the CD206 receptor. Elizabeth Ann Enninga, Mayo Clinic, Rochester, MN, United States.

B46 Roles for LKB1 at the immune synapse during B cell activation and anti-tumor responses. Laura Jimenez, University of California Los Angeles, Los Angeles, CA, United States.

B47 Potent anti-tumor immunity is induced by activation of the STING pathway within the tumor microenvironment using synthetic cyclic dinucleotides. LETICIA CORRALES, Aduro Biotech, Berkeley, CA, United States.

B48 Prognostic and functional significance of a Treg signature derived from a genetic mouse model of lung adenocarcinoma. Amy Li, Koch Institute for Integrative Cancer Research at MIT, Cambridge, MA, United States.

B49 Proteomic profiling of breast cancer-derived exosomes reveals differential expression of key metastatic factors associated with macrophage polarization. Hyewon Chung, Department of Microbiology and Immunology, Institute of Endemic Disease, College of Medicine, Seoul, Korea, Republic Of.

B50 The tumor immune microenvironment following acute liver injury in mice with genetic predisposition for cholangiocarcinoma. Nathania Figueroa, University of Rochester Medical Center, Rochester, NY, United States.

B51 Quantitative multiplex immunofluorescence reveals that chemoradiation therapy favorably modulates the tumor immune microenvironment of pancreatic cancer. Thomas Enzler, Columbia University Medical Center, New York, NY, United States.

B52 Effects of tissue site and antigenicity on KPC-derived pancreatic tumor growth and response to combination immunotherapy. Casey Ager, MD Anderson UTHealth Graduate School of Biomedical Sciences, Houston, TX, United States.

B53 Intra-tracheal delivery of low dose bacterial lipopolysaccharides protects against tumor formation in the KP lung adenocarcinoma model. Ganapathy Sriram, Massachusetts Institute of Technology, Cambridge, MA, United States.

B54 Dissecting immune cell heterogeneity in human cancer by single-cell RNA-sequencing. Ido Yofe, Weizmann Institute of Science, Rehovot, Israel.

B55 Knockdown of Na/H exchanger isoform 1 (NHE1) reduces glioma-associated microglia/macrophage infiltration and activation, suppresses T-cell activation and PD-1/PD-L1 expression in mouse glioma model. Nabiul Hasan, University of Pittsburgh, Pittsburgh, PA, United States.

B56 CXCR2 blockade reduces granulocytic myeloid cell compensation in response to macrophage targeted therapy and further enhances the efficacy of chemotherapy in pancreatic ductal adenocarcinoma. Booyeon Han, University of Rochester, Rochester, NY, United States.

B57 Effect of ADAM17 inhibition on the release of IFN-y during natural killer cell mediated antibody dependent cellular cytotoxicity in cancer. Hemant Mishra, University of Minnesota, St. Paul, MN, United States.

B58 The role of EphA2 receptor tyrosine kinase in anti-tumor immunity mediated through programmed death ligand 2 (PD-L2) in non-small cell lung cancer (NSCLC). Eileen Shiuan, Vanderbilt University Medical Center, Nashville, TN, United States.

B59 Survival benefit of Tumor Infiltrating Lymphocytes in Ovarian Cancer is dependent on Major Histocompatibility Complex class I expression after primary surgery and not after neoadjuvant chemotherapy. Kim Brunekreeft, University Medical Center Groningen, Groningen, Netherlands.

B60 The interplay between CLL cells and the dendritic cells in their bone marrow microenvironment. Avital Barak, Weizmann Institute of Science, Rehovot, Israel.

B61 Heavy and Light Chain Reconstruction of Tumor-infiltrating B Cell Receptors from RNA-seq data. Xihao Sherlock Hu, Dana Farber Cancer Institute, Boston, MA, United States.

B62 Immune gene expression profiling identifies predictors of relapse in childhood acute myeloid leukemia. Sergio Rutella, Nottingham Trent University, Nottingham, United Kingdom.

B63 Bitter sweet symphony: How tumor-associated glycan structures orchestrate immune evasion. Lenneke Cornelissen, VU University medical center, Amsterdam, Netherlands.

B64 Characterizing the tumor immune microenvironment of metastatic and non-metastatic renal clear cell carcinomas and colorectal carcinomas using computational methods. Yasmin Kamal, Geisel School of Medicine, Lebanon, NH, United States.

B65 Characterizing the immune cellular components of the tumor microenvironment to identify suitable syngeneic breast cancer models for pre-clinical investigations using immunomodulators. Jessica Castrillon, Dana-Farber Cancer Institute, MA, United States.

B66 Targeted activation of innate immune adaptors MAVS and STING promotes anti-tumor responses in colorectal cancer models. Li-Chung Tsao, Duke University, Durham, NC, United States.

B67 Regulation of a novel cell surface protein in macrophage activity in tumor microenvironment. Rashmi Ray, Institute of Life Sciences, Bhubaneswar, Odisha, India.

B68 Targeted inhibition of Tgfαr2 reduces IL-6 production from cancer-associated fibroblasts, suppresses Stat3 activation in pancreatic cancer cells and reverses immunosuppression. Huocong Huang, University of Texas Southwestern Medical Center, Dallas, TX, United States.

B69 A new E3 ubiquitin ligase regulates the immune response in colon cancer. Camille Spinner, Institut de Pharmacologie et de Biologie Structurale, IPBS, Université de Toulouse, CNRS, UPS, Toulouse, France.

B70 Oncogenic Kras controls T cells in pancreatic adenocarcinoma. Elena Rodriges Blanko, MD Anderson Cancer Center, Houston, TX, United States.

B71 CXCR3 is expressed by infiltrating T-cells and dendritic cells and is required for tumor development in a mouse model of plexiform neurofibroma. Jonathan Fletcher, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States.

B72 Secretory autophagy in tumor-associated fibroblasts alter effector function of natural killer cells against HNSCC. Jonathan Enders, Kansas University Medical Center, Kansas City, KS, United States.

B73 Pleiotrophin drives a pro-malignant macrophage phenotype in preclinical models of breast cancer. Noah Sorrelle, University of Texas Southwestern Medical Center, Dallas, TX, United States.

B74 High-dimensional profiling of immune checkpoints and their ligands in a glioblastoma and pancreas cancer mouse model. Yvette van Kooyk, VU medical centre, Amsterdam, Netherlands.

B75 Loss of cross-presentation by tissue resident DC1 in lung adenocarcinomas is an early event that correlates to exhaustion of endogenous anti-tumor CD8+ T cell responses. Federica Benvenuti, International Centre for Genetic Engineering and Biotechnology, Trieste, Italy.

B76 Tumor microenvironment immunosuppression: "Role of neglected molecules iron and HLA-G". Robert Elliott, Sallie Astor Burdine Breast Foundation, Baton Rouge, LA, United States.

B77 Low density neutrophils (LDN) in circulating blood of postoperative patients may participate in the development of distant recurrence through the production of neutrophil extracellular traps (NETs). JOJI KITAYAMA, Department of Gastrointestinal Surgery, Jichi Medical University, Shimotsuke, Tochigi, Japan.

B78 Irreversible electroporation (IRE) acts as an "in situ vaccine" and induces anti-tumor immune responses in pancreatic cancer. Jayanth Narayanan, University of California San Diego, La Jolla, CA, United States.

B79 Identification and analysis of tumor reactive CTLs in ovarian and cervical cancer tissues for developing a personalized immunotherapy. Kazuto Nosaka, National Cancer Center, Kashiwa City, Japan.

B80 Mass Spectrometric Characterization of Peptides Associated with Molecules of the Major Histocompatibility Complex. Michael Ford, MS Bioworks LLC, Ann Arbor, MI, United States.

B81 Development of Personalized, Live-attenuated Double Deleted *Listeria monocytogenes* (pLADD) Cancer Immunotherapy Targeting Tumor-Specific Neoantigens. Weiwen Deng, Aduro Biotech, Berkeley, CA, United States.

B82 Identification of tumor neoantigens for combination therapy in murine tumor models. Karin Lee, National Cancer Institute, Bethesda, MD, United States.

B83 Intratumoral T cell receptor α repertoire as a biomarker in Head and Neck Squamous Cell Carcinoma. Lara McGrath, AstraZeneca, Waltham, MA, United States.

B84 Functional analysis of neoantigens identified by NGS, bioinformatics and mass spectrometry. Stina wickström, Karolinska Institutet, Stockholm, Sweden.

B85 Identification of breast cancer neoantigens exposed by radiation therapy. Claire Lhuillier, Weill Cornell Medical College, NY, United States.

B86 Circulating cytokines, chemokines, and small molecules follow distinct expression patterns in acute myeloid leukemia. Mirazul Islam, Dana-Farber Cancer Institute, Boston, MA, United States.

B87 Exosomal histones as potential regulators of melanoma metastasis.. Roman Alpatov, Massachusetts General Hospital, Harvard Medical School, Boston, MA, United States.

B88 Activation of 4-1BB on liver myeloid cells triggers hepatitis via an interleukin-27 dependent pathway. Ashvin Jaiswal, MD Anderson Cancer Center, Houston, TX, United States.