P001 The gut microbiome-prostate tumour crosstalk is modulated by dietary polyunsaturated fatty acids. Jalal Laaraj, Laboratoire d’Uro-Oncologie Expérimentale, Oncology Axis, Centre de recherche du CHU de Québec-Université Laval, Québec, QC, Canada.

P002, PR03 Immuno-reactive cancer organoid models to examine microbiome metabolite effects on immune checkpoint blockade efficacy. Ethan Shelkey, Wake Forest Graduate School of Arts and Sciences, Winston-Salem, NC, United States.

P003 Efficacy results of a novel vaccine composed of stimulated and haptenized tumours cells in Balbc mice grafted with murine colon adenocarcinoma CT26 cells. Céline Gongora, Institut de Recherche en Cancérologie de Montpellier, Montpellier, France.

P004, PR04 CRISPR-mediated PTPN2 deletion in CAR T cells enhances anti-tumour efficacy. Xin Du, Peter MacCallum Cancer Centre, Melbourne, Victoria, Australia.

P005 GEN-011: A neoantigen-targeted peripheral blood-derived T cell therapy that has broad neoantigen specificity and high T cell purity while avoiding pro-tumor T cells. Jessica B. Flechtner, Genocea Biosciences, Cambridge, MA, United States.

P006 Intratumoral electroporation of IL-12 and SARS-Cov-2 spike plasmids drives a coordinated vaccine response and elicits robust anti-tumor immunity. Mia Han, OncoSec Medical Incorporated, San Diego, CA, United States.

P007, PR07 Quiescent cancer cells form immunotherapy resistant reservoirs by forming an immune suppressive niche. Judith Agudo, Dana-Farber Cancer Institute, Boston, MA, United States.

P008 Effect of route of Bacillus Calmette Guérin administration on the tumor immune microenvironment in a mouse model of non-muscle invasive bladder cancer. Aline Atallah, Queen’s University, Kingston, ON, Canada.

P009 Correlation between immune modulation of macrophage recruitment and new blood vessel formation in a subcutaneous murine mouse model of colorectal cancer. Shelby N. Bess, University of Arkansas, Fayetteville, AR, United States.

P010 Antigen dominance hierarchies shape CD8 T cell phenotypes and immunotherapy response in tumors. Megan L. Burger, David H. Koch Institute for Integrative Cancer Research, Cambridge, MA, United States.

P011 B cell subsets that correlate with anti-PD-1 resistance in a preclinical model of HPV+ oropharyngeal cancer. Stephanie M. Dorta-Estremera, University of Puerto Rico Medical Sciences Campus, San Juan, Puerto Rico.

P012 Investigation of interleukin-34 dependent regulation of renal carcinoma tumor microenvironment. Andrea Emanuelli, University of Bordeaux - INSERM U1029, Bordeaux, France.

P014  Driving immune-dependent metabolic vulnerabilities in the breast tumor microenvironment.  John Heath, McGill University, Montréal, QC, Canada.

P015  Characterization and prognostic impact of DC-HIL in advanced colorectal cancer.  Jude Khatib, University of Texas Southwestern, Dallas, TX, United States.

P016  Circulation immune landscape in canonical pathogenesis of colorectal cancer by CyTOF analysis.  Ke-Feng Ding, Zhejiang University, Hangzhou, China (Mainland).

P017  Intra-tumoral infiltration of GZMK high CD8 + T effector memory cells is associated with poor clinical outcome in early-stage colorectal cancer.  Teresa Manzo, IEO- European Institute of Oncology, Milano, MI, Italy.

P018  Gut microbiota-driven alterations in tumor immunity can modulate the growth of metastatic brain tumors.  Golnaz Morad, The University of Texas MD Anderson Cancer Center, Houston, TX, United States.

P019  Intra-tumoral nerves regulate the local immune response at the tumor bed.  Anthony C. Restaino, Sanford Research, Sioux Falls, SD, United States.

P020, PR05  Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance.  Nathan E. Reticker-Flynn, Stanford University, Stanford, CA, United States.

P021  Highly multiplexed spatial analysis of the HCC tumor immune microenvironment using CODEX imaging.  Benjamin Ruf, National Cancer Institute (NCI), National Institutes of Health (NIH), Bethesda, MD, United States.

P022  Reciprocal influence of immune response and tumor hypoxia during glioblastoma progression.  Anirudh Sattiraju, Icahn School of Medicine at Mount Sinai, New York, NY, United States.

P023  Mismatch repair deficiency is not sufficient to increase tumor immunogenicity.  Peter M K. Westcott, MIT, Cambridge, MA, United States.


P027 Extending & intratumoral therapeutic durability using a multivalent immunotherapy platform. Livia W. Brier, Valitor, Inc, Berkeley, CA, United States.

P028 Effects of histone deacetylase inhibition on major histocompatibility compatibility complex (MHC) class I expression, growth, and migration of cancer cells. Gabrielle L. Brumfield, University of Nebraska Medical Center, Omaha, NE, United States.

P029 Expression of galectin-3 and pro-inflammatory cytokines in gliomas: Implications and therapeutic potential. John Caniglia, University of Illinois College of Medicine, Peoria, IL, United States.

P030 Making cold tumors hot: Multi-faceted immune ignition by USP6. Margaret M. Chou, Children's Hospital of Philadelphia/University of Pennsylvania School of Medicine, Philadelphia, PA, United States.

P031 Enrichment of photodynamically-primed anti-tumor immune infiltrates in pancreatic cancer: Enabling enhanced immunotherapy. Pushpamali De Silva, Harvard Medical School and Massachusetts General Hospital, Boston, MA, United States.

P032 Expression of an IL-15 receptor fusion protein enhances the persistence of TRuC-T cells. Michelle Fleury, TCR2, Cambridge, MA, United States.

P033 Bone microenvironment-suppressed T cells increase osteoclast formation and the development of osteolytic bone metastases in mice. Pierrick G.J. Fournier, Biomedical Innovation Department, Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), Ensenada, Mexico.

P034 Tumour-targeted interleukin-12 and entinostat combination therapy improves cancer survival by reprogramming the tumour immune cell landscape. Sofia R. Gameiro, NCI/CCR/LTIB, Bethesda, MD, United States.


P036 A high-throughput customized cytokinome screen of colon cancer cell responses to small-molecule oncology drugs. Kelsey E. Huntington, Brown University, Providence, RI, United States.

P037 Interleukin-10 is a dominant and reversible mechanism of immune evasion in human colorectal cancer liver metastasis. Teresa S. Kim, University of Washington, Seattle, WA, United States.

P038 Identification and functional evaluation of monoclonal antibodies specifically targeting human carbonic anhydrase IX. Anne E.G. Lenferink, National Research Council Canada, Montreal, QC, Canada.
P039 The immune profile of colorectal and pancreas adenocarcinomas: Differences between central and peripheric tumor regions. Andreia Maia, Champalimaud Foundation, Lisbon, Portugal.

P040 Harness the immune-modulatory activities of Toxoplasma gondii to improve lymphocyte infiltration into brain tumors. Yen Nguyen, University of Virginia, School of Medicine, Charlottesville, VA, United States.

P041 Simultaneous checkpoint inhibition and immune cell activation that is safely localized to solid tumors. Missag H. Parseghian, Rubicon Biotechnology, Irvine, CA, United States.

P042 Chemokine dysregulation creates the immunosuppressive tumor microenvironment and promotes human papillomavirus-associated head and neck cancer. Dohun Pyeon, Michigan State University, East Lansing, MI, United States.

P043 Extracellular matrix modulates T cell clearance of malignant cells in vitro. Claire Robertson, Lawrence Livermore National Lab, Livermore, CA, United States.

P044 Real-time visualization of tumor cell phenotype and microenvironmental heterogeneity enabled by a hyperspectral fluorescence microendoscope. Mohammad A. Saad, Massachusetts General Hospital, Boston, MA, United States.

P045 Preclinical transcriptome-based evaluation of the translatable potential of new treatments in triple-negative breast cancer. Ammar Salkini, University of Ottawa, Ottawa, Canada.

P046 NKG2A and HLA-E define a novel alternative immune checkpoint axis in bladder cancer. Bérengère Salomé, Department of Oncological Sciences, Precision Immunology Institute, Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, New York, NY, United States.

P047 Inactivation of IFN signaling drive immunosuppressive MDSC function and can be therapeutically targeted. Emilio Sanseviero, AstraZeneca, Gaithersburg, MD, United States.

P048 Steatosis promote liver cancer development by inducing chemokine production from Kupffer cells. Bangyan L. Stiles, University of Southern California, Los Angeles, CA, United States.

P049 ONM-501 — A synthetic polyvalent STING agonist for cancer immunotherapy. Qingtai Su, OncoNano Medicine, Inc., Southlake, TX, United States.

P050 Oncogenic kinase therapy restricts CD8 T cell differentiation and clonal expansion. Andrew Tieniber, University of Pennsylvania, Philadelphia, PA, United States.

P051 Function of shp-1 and shp-2 phosphatases in T cell-mediated anti-tumor response. Pedro Ventura, IRB - Bellinzona, Bellinzona, Switzerland.
P052  Functional ADORA2A antibodies demonstrates the antagonistic and tumor suppression activities.  Linya Wang, Twist Bioscience, South San Francisco, CA, United States.

P053  Ablation of CCR1 relieves immunosuppression in pancreatic cancer.  Yaqing Zhang, University of Michigan, Ann Arbor, MI, United States.

P054  Immune determinants of the association between tumor mutational burden and immunotherapy response across cancer types.  Neelam Sinha, Cancer Data Science Lab, National Cancer Institute, Bethesda, MD, United States.

P055  Evaluation of an immunoPET tracer for IL-12 in a preclinical model of inflammatory immune responses.  James E. Glassbrook, Wayne State University, School of Medicine, Detroit, MI, United States.

P056  Rapid serial immunoprofiling of the tumor immune microenvironment by fine needle sampling.  Juhyun Oh, Massachusetts General Hospital, Boston, MA, United States.

P057  Targeting Treg cells with GITR activation alleviates resistance to immunotherapy in murine glioblastomas.  Zohreh Amoozgar, MGH, Boston, MA, United States.

P058  Tumor-targeted IL-2 by engineered mesenchymal stem cells reinvigorates CD8+ T cells.  Joonbeom Bae, UT Southwestern Medical Center, Dallas, TX, United States.

P059  An increase in eosinophils is associate with response to chemo-immunotherapy in metastatic triple negative breast cancer.  Hazem Ghebeh, King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia.

P060  Identification of host-intrinsic resistance mechanisms to immune checkpoint inhibitors (ICI) in Diversity Outbred mice.  Justin Hackett, Wayne State University, Detroit, MI, United States.

P061  Dendritic cell paucity in mismatch repair-proficient colorectal cancer liver metastases limits the efficacy of immune checkpoint blockade.  William W. Ho, Massachusetts General Hospital, Boston, MA, United States.

P062  PI3Kγδ inhibitor plus radiation enhances the antitumor immune effect of PD-1 blockade in syngeneic murine breast cancer and humanized patient-derived xenograft model.  In Ah Kim, Seoul National University, Seoul, Korea, Republic of.

P063  Tumor cell-derived lactic acid inhibit anti-tumor immunity in the immune checkpoint blockade resistant tumor.  Wonkyung Oh, Purdue University, West Lafayette, IN, United States.

P064  Dual effect of epigenetic inhibitor and CAR-NK cell therapy in bladder cancer.  Lucia Morales, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT), Madrid, Spain.

P065  Effects of targeted radiotherapy on tumor immune landscape in diverse murine tumor models.  Tristan Wirtz, Pfizer Inc, San Diego, CA, United States.
P066  Prognostic and predictive value of pre-treatment T-Cell receptors (TCR) repertoire in non-small cell lung cancer (NSCLC) patients treated with single agent immunotherapy.  Afaf Abed, Edith Cowan University, Joondalup, WA, Australia.


P068  Automated cell type specific PD-L1 quantification by artificial intelligence using high throughput bleach & stain 15-marker multiplex fluorescence immunohistochemistry in human cancers.  Niclas C. Blessin, Institute of Pathology, University Medical Center Hamburg-Eppendorf, Germany, Hamburg, Germany.

P069  Semi-automated validation and quantification of CTLA-4 in 90 different Tumor entities using multiple antibodies and artificial intelligence.  Niclas C. Blessin, Institute of Pathology, University Medical Center Hamburg-Eppendorf, Germany, HAMBURG, Germany.

P070  The safety and efficacy of Durvalumab and Paclitaxel combination in metastatic triple-negative breast cancer: An open-label phase I/II trial with 2-years follow-up.  Hazem Ghebeh, King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia.

P071  Gemcitabine augments HLA class I expression in pancreatic cancer cells through alterations in transcript production and surface stability.  Alaina C. Larson, University of Nebraska Medical Center, Omaha, NE, United States.


P073  Gut microbiota shift in melanoma patients undergoing immunotherapy is associated with clinical response.  Luigi Nezi, Istituto Europeo di Oncologia, Milan, Italy.


P075  NTX-1088, a potent first-in-class, anti-PVR mAb, restores expression and function of DNAM1 for optimal DNAM1-mediated antitumor immunity.  Pini Tsukerman, Nectin Therapeutics, Jerusalem, Israel.

P077  Composition of CD4 T cell subsets and impact on tumor growth control across mouse syngeneic tumor models. Chunxiao Xu, EMD Serono Research and Development Institute, Billerica, MA, United States.