

#### PICI Guide to #AACR24



The Parker Institute for Cancer Immunotherapy (PICI) is pleased to provide this curated guide to the AACR Annual Meeting 2024, showcasing the groundbreaking research and expertise from PICI's Network of Investigators and Collaborators. We invite you to explore this comprehensive schedule of PICI-related presentations, posters, keynotes and awards, designed to help you navigate the conference and discover exciting developments in cancer immunotherapy. We encourage you to download this guide and share it with your colleagues attending #AACR24.

Note: All times in this document are listed in PDT.

#### Friday, April 5 -

Session: ED22 - Determinants and Meanings of T Cell Recognition, Exhaustion & Persistence | Ballroom 20 AB - Upper Level - Convention Center

- Welcome and Intro
  - o PICI Collaborator James Heath, PhD (Institute for Systems Biology)
  - o 3:00-4:30 PM
- T cell exhaustion and relevance in cancer immunology
  - o PICI Center Co-Director E. John Wherry, PhD (Penn)
  - o 3:03-3:21 PM
- Predicting the T cell characteristics of recognition, exhaustion & persistence:
  Limitations and opportunities
  - PICI Collaborator James Heath, PhD (Institute for Systems Biology)
  - o 3:39–3:57 PM

#### Saturday, April 6 –

Session: ED21 - A Decade of Cancer Vaccines | Ballroom 20 CD - Upper Level, Convention Center

- Dendritic cell vaccine successes and failures
  - PICI Collaborator Lisa Butterfield, PhD (UCSF)
  - o 8:00–8:21 AM

### Session: SS05 - Strategies to Effectively Communicate Science to the Public | Ballroom 6 A - Upper Level - Convention Center

- Introduction from the AACR President
  - o PICI Investigator Philip Greenberg, MD (Fred Hutch)
  - o 2:00-2:05 PM

### Session: MW08 - Clinical Trial Design Workshop, Part 2: Precision Combination Therapy | Room 30 - Upper Level - Convention Center

- Welcome & Intro
  - Chairperson: PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)
  - o 2:30-2:35 PM

#### Sunday, April 7 –

#### Session: OP01 - Opening Ceremony | Hall GH - Ground Level - Convention Center

- AACR 2024 Opening Remarks
  - PICI Investigator Philip Greenberg, MD (Fred Hutch)
  - o 8:00-9:30 AM

### Poster Session: PO.IM01.13 - Adoptive Cell Therapies 1: Tumor Antigen-Specific T-cells and TCR-T | Section 1; 1:30–5:00 PM

- 10 / 10 Non-viral engineered T cell therapy specific for the hotspot mutation p53 R175H that integrates signal 1 (TCR), signal 2 (co-stimulation) and signal 3 (cytokine) and co-opts FasL-dependent apoptosis to achieve a coordinated antitumor CD4/8 T cell response
  - PICI Investigator Philip Greenberg, MD, (Fred Hutch)
- 9 / 9 AFNT-212: A TRAC-knocked-in KRASG12D-specific TCR-T cell product enhanced with CD8αβ and a chimeric cytokine receptor for treatment of solid cancers
  - PICI Investigator Philip Greenberg, MD (Fred Hutch)
- 3 / 3 Multiomic analyses reveal functional DNA, methylation pattern changes in clinical transgenic T-cell receptor cell therapy products
  - PICI Center Director Antoni Ribas MD, PhD (UCLA)

### Poster Session: PO.IM01.14 - Adoptive Cell Therapies 2: CAR-T Cells | Section 2: 1:30–5:00 PM

- 57 / 25 Ibrutinib improves chimeric antigen receptor T cell control of leukemia by inhibiting myeloid-derived suppressor cells
  - PICI Center Co-Director Saar I. Gill, MD, PhD (Penn)

#### Poster Session: PO.CL06.05 - Tumor Immune Response 1 |

Section 47; 1:30-5:00 PM

- 1170 / 4 An off-the-shelf vaccine activates mutant KRAS-specific T cells in patients with resected pancreatic cancer
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### Poster Session: PO.IM02.07- Tumor-Induced Immune Suppression 1: Extrinsic Factors | Section 4: 1:30–5:00 PM

- 109 / 13 Identification of tumor-intrinsic and extrinsic mechanisms of T cell exclusion in estrogen receptor-positive (ER+) breast cancer through integration of bulk and single-cell transcriptome and spatial analysis
  - o PICI Center Co-Director Elizabeth A. Mittendorf, MD, PhD (DFCI)

### Session: CTMS01 - Cancer Vaccines: Ready for Prime Time? | Ballroom 20 AB - Upper Level - Convention Center

- CT022 Mutant KRAS peptide-based vaccine in patients at high risk of developing pancreatic cancer: Preliminary analysis from a phase I study
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)
  - o 3:20-3:30 PM
- CT134 Safety and immunologic impact of neoadjuvant/adjuvant
  GM-CSF-secreting allogenic pancreatic tumor cell vaccine (GVAX) combined with cyclophosphamide, pembrolizumab, and macrophage-targeting CSF1R inhibitor IMC-CS4 in pancreatic adenocarcinoma
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)
  - o 4:05-4:15 PM

# Session: LE01 - Presidential Address: Engineering T Cells to Eradicate Tumors - Identifying & Overcoming the Obstacles | Ballroom 20 CD - Upper Level - Convention Center

- Engineering T cells to eradicate tumors: Identifying and overcoming the obstacles
  - PICI Investigator Philip Greenberg, MD (Fred Hutch)
  - o 5:30–6:15 PM

#### Monday, April 8 -

#### Session: PL03 - Profiling Tumor Ecosystems in Native Tissue Context $\mid$ Hall GH

- Ground Level Convention Center
  - Spatial encoding of immune response and clinical outcome in the breast cancer tumor microenvironment
    - PICI Investigator Michael Angelo, MD, PhD (Stanford Medicine)
    - o 8:00-10:00 AM

### Poster Session: PO.CTP01.01 - Phase I Clinical Trials in Progress 1 | Section 49; 9:00 AM-12:30 PM

- CT082 / 9 Phase I study of autologous CD8+ and CD4+ transgenic T cells expressing high-affinity KRAS G12V mutation-specific T cell receptors (FH-A11KRASG12V-TCR) in patients with metastatic pancreatic, colorectal and non-small cell lung cancers with KRAS G12V mutations
  - PICI Investigator Philip Greenberg, MD (Fred Hutch)

#### **Poster Session: PO.CL01.07 - Predictive Biomarkers 1** | Section 43; 9:00 AM-12:30 PM

- 2490 / 7 Quantification of tumor fraction and outcomes association in a real-world non-small cell lung cancer (NSCLC) cohort using a tissue agnostic epigenomic circulating tumor DNA (ctDNA) assay
  - PICI Alliances and Collaboration Director Sam Liang, PhD and PICI Chief Scientific Officer John Connolly, PhD

### Poster Session: PO.IM01.02 - Immune Checkpoints and Inhibitory Molecules 1 | Section 3: 9:00 AM-12:30 PM

- 1354 / 5 Anti-CTLA-4 generates memory T-cells with greater expansion and functionality than anti-PD-1
  - PICI Center Director James P. Allison, PhD (MD Anderson)

#### **Poster Session: PO.IM02.03 - Inflammation and Cancer in Metastasis** | Section 4; 9:00 AM-12:30 PM

- 1384 / 4 Highly metastatic PDAC adopts mesenchymal morphology and spatially coordinates endothelial cells with macrophages
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

#### Poster Session: PO.TB11.12 - Pancreatic Cancer Microenvironment | Section 11; 9:00 AM-12:30 PM

- 1577 / 2 Cancer associated fibroblast tumor cell crosstalk enhances epithelial to mesenchymal transition and promotes a classical to basal switch in human pancreatic ductal adenocarcinoma
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### Poster Session: PO.BCS02.04 - Liquid Biopsy & Precision Oncology | Section 36; 9:00 AM-12:30 PM

- 2312 / 23 Integrating spatial multi-omics data with spatial quantitative pharmacology (spQSP) model to simulate human neoadjuvant immunotherapy clinical trial of hepatocellular carcinoma
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### Session: MG07 - Meet the Editors-in-Chief of Cancer Immunology Research | AACR Publications Booth 4043 - Hall AF

- PICI Investigators Robert Schreiber, PhD (WashU) and Philip Greenberg, MD (Fred Hutch)
  - o 9:15–10:15 AM

### Session: SY01 - Presidential Select Symposium: Cancer Immunotherapy - Where Do We Go from Here? | Hall GH - Ground Level - Convention Center

- Session chair: PICI Investigator Philip Greenberg, MD (Fred Hutch)
  - 10:15 AM –12:00 PM
- Immune checkpoint blockade in cancer therapy: Historical perspective, new opportunities, and prospects for cures
  - o PICI Center Director James P. Allison, PhD (MD Anderson)
  - o 10:20–10:40 AM
- Decoding and reprogramming T cell circuits with CRISPR
  - PICI Center Director Alexander Marson, MD, PhD (Gladstone Institutes)
  - o 11:10–11:30 AM

#### Poster Session: PO.CT01.03 - Phase 0 & Phase I Clinical Trials | Section 49; 1:30–5:00 PM

- CT138 / 17 Evaluating nivolumab (nivo) plus ipilimumab (ipi) in patients with metastatic castration-resistant prostate cancer (mCRPC): Clinical and translational results from the AMADEUS prostate expansion cohort
  - PICI Chief Medical Officer Ute Dugan, MD, PhD, PICI Center
    Co-Director Padmanee Sharma, MD, PhD (MD Anderson) and PICI
    Senior Director, Network Clinical Research, Chris Cabanski, PhD

### Session: SY43 - New Models of CAR-T Cells | Hall GH - Ground Level - Convention Center

- New approaches to enhance CAR-T cell efficacy for solid cancers
  - PICI Center Director Crystal Mackall, MD (Stanford Medicine)
  - o 1:25–1:45 PM

### Poster Session: PO.MCB10.02 - microRNA- and Other Non-coding RNA-Based Translational Medicine | Section 16; 1:30–5:00 PM

- 2986 / 3 Germline signatures predicting toxicity & response to CTLA4 inhibitors
  - PICI Senior Director, Network Clinical Research, Chris Cabanski, PhD

#### Poster Session: PO.CL06.04 - Tumor Immune Response 2 | Section 47; 1:30–5:00 PM

- 3846 / 7 The obesity paradox in immune checkpoint blockade: A pan-tumor analysis
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### **Session: LE02 - NCI Director's Address and Fireside Chat** | *Ballroom 6 A - Upper Level - Convention Center*

- Welcome & intro
  - PICI Investigator Philip Greenberg, MD (Fred Hutch)
  - o 2:15-2:20 PM

#### **Session: CTMS02 - Advances in Immunotherapy** | Hall GH - Ground Level - Convention Center

- Randomized placebo-controlled, biomarker-stratified phase 1b microbiome modulation trial for metastatic melanoma demonstrates impact of antibiotic pre-conditioning regimen on the microbiome and immunity
  - o PICI Senior Director, Network Clinical Research, Chris Cabanski, PhD
  - o 2:50-3:00 PM

# Session: F008 - Optimizing Cancer Vaccines through Advances in Immunogenomics and Immunopeptidomics | Hall GH - Ground Level - Convention Center

- Welcome & intro
  - PICI Collaborator Nina Bhardwaj, MD, PhD (MSSM)
  - o 5:00-5:05 PM
- Improvement of tumor neoantigen detection by high field asymmetric waveform ion mobility (mass) and spectroscopy (FAIMS)
  - PICI Investigator Robert Schreiber, PhD (WashU)
  - o 5:05-5:20 PM

#### Tuesday, April 9 –

## Poster Session: PO.CL06.06 - Chemotherapy, Radiation, and Vaccine Mediated Immunity | Section 39; 9:00 AM-12:30 PM

- 4988 / 5 Responders to combination radiation and PD-1 blockade demonstrate reduced myeloid immunosuppression and enhanced interferon signaling in oligometastatic prostate cancer patients
  - o PICI Investigator David Oh, MD, PhD (UCSF)

#### Poster Session: PO.IM02.01 - Adaptive Immunity in Tumors | Section 1; 9:00 AM-12:30 PM

- 3983 / 25 Antigen-presenting cancer-associated fibroblasts provide an alternate mechanism for CD4 T cell activation in murine pancreatic ductal adenocarcinoma
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

#### **Poster Session: PO.IM01.04 - Combination Approaches** | Section 3; 9:00 AM-12:30 PM

- 4034 / 10 Lag3 blockade enhances the anti-tumor effect of dual GITR agonism and PD-1 blockade in a preclinical melanoma model
  - PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine); PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)
- 4051/27 Optimizing breast cancer therapy by modulating oxygen consumption
  - PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine); PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)
- 4052 / 28 Neutrophil recruitment and activation promotes cutaneous adverse effects with T cell immunotherapies
  - PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine); PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)
- 4053 / 29 Targeting oxygen consumption with metformin and phenformin have differential effects on immune cells in the tumor microenvironment
  - PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine); PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)

### Poster Session: PO.IM01.08 - Vaccines, Antigens & Antigen - Presentation 1 Section 5; 9:00 AM-12:30 PM

- 4093 / 4 Modeling tumor immunoediting under immune selective pressure to inform neoantigen landscape dynamics for effective cancer vaccines
  - PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine); PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)
- 4090/ 1 Gut microbiota mimics as a source of cross-reactive tumor rejection antigens
  - PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine),
    PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)

### Session: SY42 - Discovering and Broadening the Therapeutic Modalities of Immune Therapy | Hall GH - Ground Level - Convention Center

- Intro & welcome
  - PICI Center Co-Director F. Stephen Hodi, MD (DFCI)
  - o 12:30–12:35 PM
- Improved understanding of antigen presentation machinery for therapies
  - PICI Center Co-Director F. Stephen Hodi, MD (DFCI)
  - o 12:35–12:55 PM

### Poster Session: PO.CL06.02 - Adoptive Cellular Therapy 2 | Section 40; 1:30–5:00 PM

- 6325 / 16 Lineage tracing defines responding CAR T cells in patients with B cell malignancies
  - PICI Investigator Zinaida Good, PhD (Stanford/Mackall Lab)

### Poster Session: PO.IM01.17 - Immune Modulation Employing Agonist or Co-Stimulatory Approaches | Section 3; 1:30–5:00 PM

- 5306 / 15 PTPN22 targeting partners with 41BB/OX40 costimulation to overcome anti-PD1 resistance in pancreatic ductal adenocarcinoma
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### Poster Session: PO.BCS02.01 - Integrative Cancer Science | Section 36; 1:30–5:00 PM

- 6212 / 15 A differential ligand-receptor network inference method to identify alterations in communication between myeloid cells and CD8 T cells in response to PancVAX neo-epitope peptide vaccine, anti-CTLA-4 and anti-PD-1 antibodies in a murine model of pancreatic ductal adenocarcinoma
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### Poster Session: PO.CL06.09 - Tumor Microenvironment and Cancer Immunity | Section 47: 1:30–5:00 PM

- 6522 / 7 Epigenetic modulation decreases myeloid suppression to improve response to immune checkpoint inhibition in breast cancer
  - PICI Collaborator Elizabeth M. Jaffee, MD (Johns Hopkins)

### Poster Session: PO.TB11.14 - Spatial Resolution of the Tumor Microenvironment | Section 10; 1:30–5:00 PM

- 5486 / 8 Spatial profiling reveals unique immune-transcriptomic features of tertiary lymphoid structures in melanoma
  - PICI Center Director James P. Allison, PhD (MD Anderson), PICI Center Co-Director Padmanee Sharma, MD, PhD (MD Anderson)

### Session: Session MS.CL06.01 - Immuno-oncology | Ballroom 20 CD - Upper Level - Convention Center

- 6550 Biopsy analysis of trial S1616: Ipilimumab plus nivolumab versus ipilimumab alone in patients with anti-PD-1 refractory melanoma
  - PICI Investigator & 2022 Parker Bridge Fellow Katie Campbell, PhD (UCLA); PICI Center Director Antoni Ribas MD, PhD (UCLA)
  - o 2:35–2:50 PM

#### Wednesday, April 10 -

#### Poster Session: PO.CL06.03 - Cancer Immunity and Inflammation | Section 40; 9:00 AM-12:30 PM

- 7472 / 15 Melanoma-intrinsic expression of signal-regulatory protein alpha (SIRPα) confers tumor cells resistance to anti-tumor adaptive immunity
  - o PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine); PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)

#### Poster Session: PO.ET09.11 - YAP/TAZ/TEAD Modulators | Section 28; 9:00 AM-12:30 PM

- 7274 / 11 Optimization of intermittent dosing strategies of KRAS G12C inhibitors in preclinical lung cancer model
  - o PICI Author: PICI Center Director Jedd Wolchok, MD, PhD (Weill Cornell Medicine), PICI Center Co-Director Taha Merghoub, PhD (Weill Cornell Medicine)

#### Poster Session: PO.MCB08.05 - Genomics and Immuno-oncology | Section 16; 9:00 AM-12:30 PM

- 7041 / 8 Tumor-immune interactions and cisplatin resistance in localized muscle-invasive bladder cancer
  - PICI Center Co-Director Elizabeth A. Mittendorf, MD, PhD (DFCI)

#### Poster Session: PO.TB11.09 - Immune Cells in the Tumor Microenvironment 2 Section 9; 9:00 AM-12:30 PM

- 6870 / 14 Immunological aging in triple negative breast cancer leads to a chronic interferon phenotype and immune cell exhaustion that impedes response to therapy
  - o PICI Center Co-Director Elizabeth A. Mittendorf, MD, PhD (DFCI)

#### **Awards & Recognition**

#### April 6

- Session: LE03 AACR Award for Lifetime Achievement in Cancer
  Research | Ballroom 20 AB Upper Level Convention Center
  - o Chairperson: PICI Investigator Robert H. Vonderheide, MD, DPhil (Penn)
  - o 3:00-3:45 PM

#### April 7

- Session: LE19 Pezcoller Foundation-AACR International Award for Extraordinary Achievement in Cancer Research | Ballroom 20 CD - Upper Level - Convention Center
  - Chairperson: PICI Investigator Robert Schreiber, PhD (WashU)
  - o 12:00–12:45 PM
- Session: LE20 AACR-Irving Weinstein Foundation Distinguished Lectureship | Room 29 Upper Level Convention Center
  - o Chairperson: PICI Investigator Robert Schreiber, PhD (WashU)
  - o 12:45 PM 1:30 PM

#### April 9

- Session: LE05 AACR Award for Outstanding Achievement in Blood Cancer Research | Room 29 - Upper Level - Convention Center
  - Distinguished award recipient:
    PICI Center Co-Director Owen Witte, MD (UCLA)
  - o 4:30-5:15 PM