CONCURRENT SESSION 1. HUMAN CANCER IMMUNOBIOLOGY

Chairs: David Klinke, PhD and Todd Schell, PhD

Abstract #1: Christopher A. Chuckran – Neuropilin-1 stabilizes human Tregs in cancer patients potentiating suppressive function

Abstract #2: Ashwin Somasundaram – IL-6, IL-8 drive LAG3/PD1 immune suppression on effector and naïve, peripheral blood CD8+ T cells in cancer patients

Abstract #4: Sayali Onkar – Elucidating the function of immune cells in invasive lobular carcinoma

Abstract #5: Anthony Cillo – Heterogeneity of CD4+ T cell transcriptional signatures in head and neck squamous cell carcinoma by single-cell RNAseq analysis

Abstract #6: Vanessa Chan – Endogenous T cell responses in biomarker negative patients with clinical response to PD-1 blockade

Abstract #8: James E. Glassbrook – Transcriptomic profiling of tumor infiltrating cells in cutaneous squamous cell carcinoma using single-cell RNA sequencing

Abstract #9: Richard C. Wu – PD-1 expressing T regulatory cells in metastatic cancers pleural effusions exhibit attenuated suppressive function

Abstract #10: Li Zhu – Metastatic breast cancers have reduced immune cell recruitment but harbor increased macrophages relative to their matched primary tumors

Abstract #11: Zuan-Fu Lim – Translational single cell proteomics profiling of live T lymphocytes in oncogene-addictive NSCLC under immune checkpoint inhibitor (CPI) treatment

CONCURRENT SESSION 2. REGULATORS OF IMMUNE RESPONSE AND RESISTANCE

Chairs: Elizabeth Repasky, PhD and Tom Mace, PhD

Abstract #13: Chang Liu – Neuropilin-1 is a T cell memory checkpoint limiting long-term anti-tumor Immunity

Abstract #14: Angela M. Gocher – The role of interferon gamma in regulatory T cell fragility

Abstract #15: Carolina M. Gorgulho – Signal 0: chemotherapy stressed colorectal tumor cells with apoptotic defects drive dendritic cell maturation

Abstract #16: Samuel C. Butler – Chemotherapy and chloroquine modulate programmed death ligand expression in esophageal cancer

Abstract #17: G. Aaron Holling – The CD28-ARS2 axis regulates CD8 T-cell metabolic reprogramming and effector differentiation

Abstract #19: Shivana Lightman – A surprising role for Indoleamine 2,3-dioxygenase (IDO): supporting the survival of bone marrow resident long lived plasma cells (LLPC)

Abstract #22: Ian MacFawn – Grainyhead-like-2 confers NK-sensitivity through interactions with epigenetic modifiers

CONCURRENT SESSION 3. TUMOR MICROENVIRONMENT

Chairs: Tullia Bruno, PhD and Dan Powell, PhD

Abstract #23: Elisa Ruffo – Impact of PD1 and LAG3 on regulatory T cell function in the tumor microenvironment

Abstract #24: Kayla Steinberger – HIF1□ regulates the Tie2 receptor on Tie2-expressing monocytes and perturbs angiogenic function in breast cancer

Abstract #29: Bowen Dong – Chemotherapy sensitizes ovarian cancer for recognition by effector CTLs

Abstract #30: Paolo DA Vignali – Tumor-infiltrating terminally exhausted CD8+ T cells augment the suppressive tumor microenvironment

Abstract #32: Patricia P. Yee – Hyperactivating the Hippo pathway effector, TAZ, distorts the tumor microenvironment and promotes glioblastoma mesenchymal differentiation and tumor progression

Abstract #34: McLane Watson – Lactic acid metabolically supports the high suppressive function of tumor infiltrating regulatory T cells

Abstract #35: Rebekah E. Dadey – The epigenetic underpinnings of regulatory T cell fragility in the tumor microenvironment

CONCURRENT SESSION 4. EMERGING THERAPIES AND IMMUNE MECHANISMS

Chairs: Jason Muhitch, PhD and Maria Castro, PhD

Abstract #36: Stephanie Tetzo – Interferon regulatory factor-8 expression is an important determinant of macrophage-mediated anti-metastatic activity

Abstract #37: Peng Peng – CD28 mediates autophagy to enhance multiple myeloma survival

Abstract #38: Kanita A. Chaudhry – The pro-survival role of the aryl hydrocarbon receptor (AhR) in multiple myeloma

Abstract #39: Fouad Choueiry – CD200 promotes immunosuppression in the pancreatic tumor microenvironment

Abstract #40: Sean Colligan – Targeting biosynthetic pathways In myeloid-derived suppressor cells ameliorates their immunosuppressive phenotype

Abstract #41: Lawrence Andrews – PD1 and LAG3 converge to limit polyfunctionality and systemic immunity

Abstract #42: Adam Utley – CD28 reinforces plasma cell longevity through mitochondrial respiration and ROS-dependent signaling

Abstract #43: Riddhi Falk-Mahapatra – Treatment induced PGE2 plays an unexpected beneficial role in the generation of anti-tumor immunity

CONCURRENT SESSION 5: TRANSLATIONAL AND CLINICAL CANCER STUDIES

Chairs: Kelvin Lee, MD and Karen Mossman, PhD

Abstract #45: Alyssa Vito – A combination of clinical chemotherapies and oncolytic HSV-1 renders TNBC susceptible to checkpoint blockade therapy

Abstract #46: Rebecca K. Carrell – Treg depletion potentiates vaccination against MUC1-expressing breast cancer

Abstract #47: Yue Wang – A new damage associated molecular pattern molecule (DAMP): increase in serum profilin 1 (Pfn1) in renal cancer patients treated with high dose interleukin 2 (IL-2) and hydroxychloroquine (HCQ)

Abstract #48: Chigozirim N. Ekeke – Counterintuitive: poor survival and accelerated tumor growth with checkpoint inhibition in a murine malignant pleural effusion lung cancer model

Abstract #49: Jordan White – Comparing anti-CD8 wild-type and deglycosylated antibody as a positron emission tomography (PET) imaging agent

Abstract #50: Justin Hackett – Variance in response to immune checkpoint inhibitors in a B16 melanoma model using genetically heterogeneous Diversity Outbred mice

Abstract #52: Kristin DePeaux – Oncolytic vaccinia virus immunologically resets the tumor microenvironment in part through infection of inhibitory populations

Abstract #54: Mireia Uribe Herranz – Gut microbiota SCFAs modulate dendritic cell antigen presentation and impact radiotherapy

Abstract #55: Fouad Choueiry – Soy-tomato enriched diet modulates inflammation in chronic pancreatitis

CONCURRENT SESSION 6: TUMOR ANTIGENS, CELL THERAPIES, AND VACCINES

Chairs: Jonathan Bramson, PhD and Wei-Zen Wei, PhD

Abstract #56: Brendan Zangari – TCR7 regulates T-cell stemness

Abstract #57: Eduardo Rojas – Engineering human natural killer cells to enhance their tumor lytic and anti-metastatic activity

Abstract #58: Meisam Naeimi Kararoudi – Genetic modification of human primary and expanded NK cells opens a new era of cancer immunotherapy

Abstract #59: Michelle L. Miller – Patient-derived, vaccine-elicited MUC1 antibodies mediate immune effector functions against cancer cells

Abstract #61: Ana Portillo – Investigating the anti-tumour function of primary HER2-specific CAR-NK cells against breast cancer cells in vitro

Abstract #62: Yijang Wang – Metabolic reprogramming augments CAR T cell function in solid malignancy

Abstract #64: Janos L. Tanyi – Ovarian granulosa cell tumor characterization identifies FOXL2 as a novel immunotherapeutic target