

An AACR Special Conference in Cancer Research
Tumor Immunology and Immunotherapy
October 5-6, 2021 | Virtual Special Conference

Conference Cochairs:

Johanna A. Joyce, University of Lausanne, Lausanne, Switzerland
Jennifer A. Wargo, The University of Texas MD Anderson Cancer Center, Houston, TX
Jedd D. Wolchok, Memorial Sloan Kettering Cancer Center, New York, NY

TUESDAY, OCTOBER 5, 2021

- 10:00 AM-12:00 PM** **Plenary Session 1: Immunometabolism**
Session Chair: Johanna A. Joyce, University of Lausanne, Lausanne, Switzerland
- 10:00 AM-10:25 AM **Unconventional ER stress response pro-tumorigenic polarization and survival in TAMs**
Ping Chih Ho, Ludwig Institute, Lausanne, Switzerland
- 10:25 AM-10:50 AM **Tumor microenvironment metabolism in T cell differentiation and dysfunction**
Greg M. Delgoffe, University of Pittsburgh, Pittsburgh, PA
- 10:50 AM-11:15 AM **How metabolism shapes tumor-immune interactions and anti-tumor immunity**
Marcia Haigis, Harvard Medical School, Boston, MA
- 11:15 AM-11:30 AM **Oncolytic adenoviruses expressing metabolic targets can improve viro-immunotherapy with bispecific T cell engagers through reducing acidosis in an in vitro model***
Arthur Dyer, University of Oxford, Oxford United Kingdom
- 11:30 AM-11:45 AM **The co-expression of VISTA and TIGIT on cytotoxic T cells defines subpopulation with altered immunometabolism***
Cassandra Gilmour, Cleveland Clinic Lerner Research Institute, Cleveland, OH
- 11:45 AM-12:00 PM **Immuno-reactive cancer organoid models to examine microbiome metabolite effects on immune checkpoint blockade efficacy***
Ethan Shelkey, Wake Forest Baptist Medical Center, Winston-Salem, NC
- 12:00 PM-12:15 PM** **Break**
- 12:15 PM-1:45 PM** **Plenary Session 2: Advances in Immune Cell Engineering**
Session Chair: Johanna A. Joyce, University of Lausanne, Lausanne, Switzerland

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- 12:15 PM-12:40 PM **Engineering enhanced persistence and anti-tumor function for therapeutic human T cells**
Caroline Arber, Lausanne University Hospital, Epalinges, Switzerland
- 12:40 PM-1:05 PM **CAR NK Cells: The future of cancer immunotherapy**
Rafet Basar, The University of Texas MD Anderson Cancer Center, Houston, TX
- 1:05 PM-1:30 PM **Chimeric antigen receptor macrophages for the treatment of solid tumors**
Saar Gill, University of Pennsylvania, Philadelphia, PA
- 1:30 PM-1:45 PM **CRISPR-mediated PTPN2 deletion in CAR T cells enhances anti-tumor efficacy***
Xin Du, University of Melbourne, Melbourne, VIC, Australia
- 1:45 PM-2:00 PM Break**
- 2:00 PM-3:15 PM Plenary Session 3: COVID-19 Immunology in Cancer Patients**
Session Chair: Jennifer A. Wargo, The University of Texas MD Anderson Cancer Center, Houston, Texas
- 2:00 PM-2:25 PM **Impact of immunotherapy on COVID-19 immunity: Insights from checkpoint blockade in cancer**
Alexander Huang, University of Pennsylvania, Philadelphia, PA
- 2:25 PM-2:50 PM **Adaptive immune dysregulation in cancer patients with SARS-CoV-2 infection**
Santosh Vardhana, Memorial Sloan Kettering Cancer Center, New York, NY
- 2:50 PM-3:15 PM TBD
- 3:15 PM-3:30 PM Break**
- 3:30 PM-5:00 PM Opening Keynote Lectures**
Session Chairs: Jennifer A. Wargo, The University of Texas MD Anderson Cancer Center, Houston, Texas, and Jedd D. Wolchok, Memorial Sloan Kettering Cancer Center, New York, New York
- 3:30 PM-4:15 PM **Mapping myeloid programs that control tumor immunity**
Miriam Merad, Icahn School of Medicine at Mount Sinai, New York, NY
- 4:15 PM-5:00 PM **Next generation CAR T cells to overcome resistance**
Crystal L. Mackall, Stanford University, Stanford, CA

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WEDNESDAY, OCTOBER 6, 2021

- 10:00 AM-12:00 PM** **Plenary Session 4: Interrogating the Immune Landscape of Cancer**
Session Chair: Johanna A. Joyce, University of Lausanne, Lausanne, Switzerland
- 10:00 AM-10:25 AM **The immune contexture and its impact on cancer treatment**
Jérôme Galon, INSERM, Paris, France
- 10:25 AM-10:50 AM **Cancer evolution: Chromosomal instability and immune evasion**
Charles Swanton, Francis Crick Institute, London, England
- 10:50 AM-11:15 AM **Predicting clonal evolution in pancreatic cancer survivors**
Marta Luksza, Icahn School of Medicine at Mount Sinai, New York, NY
- 11:15 AM-11:30 AM **Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immune tolerance***
Nathan Reticker-Flynn, Stanford University, Menlo Park, CA
- 11:30 AM-11:45 AM **Reprogramming of naïve B cells in pancreatic cancer subverts humoral immunity***
Yuliya Pylayeva-Gupta, University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, NC
- 11:45 AM-12:00 PM **Quiescent cancer cells form immunotherapy resistant reservoirs by forming an immune suppressive niche***
Judith Agudo, Dana-Farber Cancer Institute, Boston, MA
- 12:00 PM-12:15 PM** **Break**
- 12:15 PM-2:00 PM** **Plenary Session 5: Therapeutic Targeting of the Tumor Microenvironment**
Session Chairs: Johanna A. Joyce, University of Lausanne, Lausanne, Switzerland, and Jennifer A. Wargo, The University of Texas MD Anderson Cancer Center, Houston, Texas
- 12:15 PM-12:40 PM **Exploring and therapeutically exploiting the tumor microenvironment in brain cancers**
Johanna A. Joyce

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- 12:40 PM-1:05 PM **Targeting tumor associated macrophages for cancer therapy**
Jennifer L. Guerriero, Brigham and Women's Hospital, Boston, MA
- 1:05 PM-1:30 PM **Immune suppression in cancer and strategies for its reversal**
Rosandra Kaplan, National Cancer Institute/National Institutes of Health,
Bethesda, MD
- 1:30 PM-1:45 PM **Context is everything: Microbiota-specific T follicular helper cells in colorectal cancer***
Abigail Overacre-Delgoffe, University of Pittsburgh School of Medicine,
Pittsburgh, PA
- 1:45 PM-2:00 PM **Macrophage promotion of anti-androgen resistance in prostate cancer bone disease***
Binzhi Qian, University of Edinburgh, Edinburgh, United Kingdom
- 2:00 PM-2:15 PM Break**
- 2:15 PM-3:30 PM Plenary Session 6: Technology and Systems Biology**
Session Chair: Jennifer A. Wargo, The University of Texas MD Anderson Cancer Center, Houston, Texas
- 2:15 PM-2:40 PM **The power of ONE: Immunology in the age of single cell genomics**
Ido Amit, Weizmann Institute of Science, Rehovot, Israel
- 2:40 PM-3:05 PM **Cancer metabolism: Emerging insights from single cell analysis**
Jason W. Locasale, Duke University, Durham, NC
- 3:05 PM-3:30 PM **Mapping the dynamics of immunotherapy to quantify tumor antigenicity**
Grégoire Altan-Bonnet, National Cancer Institute, Bethesda, MD
- 3:30 PM-3:45 PM Break**
- 3:45 PM-5:15 PM Plenary Session 7: Combinatorial Studies to Overcome Resistance to Immunotherapy**
Session Chairs: Jennifer A. Wargo, The University of Texas MD Anderson Cancer Center, Houston, Texas, and Jedd D. Wolchok, Memorial Sloan Kettering Cancer Center, New York, New York
- 3:45 PM-4:10 PM **What does not kill it makes it stronger: Acquired resistance to anti-MAPK targeted therapy confers an immune-evasive tumor microenvironment and cross-resistance to immunotherapy**

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Anna C. Obenauf, Research Institute of Molecular Pathology, Vienna, Austria

4:10 PM-4:35 PM **Understanding responses to cancer therapy: The tissue is the issue, the scoop is in the poop, and you are what you eat**
Jennifer A. Wargo

4:35 PM-5:00 PM **Immunotherapy for melanoma: Checkpoint blockade combinations**
Jedd D. Wolchok

5:00 PM-5:15 PM **Inhibition of MEK1/2 overcomes resistance to aPD-1 blockade in pancreatic ductal adenocarcinoma through modulation of NETosis in tumor-associated neutrophils***
Brian Herbst, Johns Hopkins, Baltimore, MD

*Short talk from proffered abstract