Scientific Organizers:
Chris Boshoff, Pfizer Inc.
Lieping Chen, Yale University, USA
Lisa Coussens, Oregon Health & Science University, USA

Held in honor of cancer immunotherapy research pioneers Dr. Alan Korman and Dr. Nils Lonberg, thanks to the generous support from an anonymous donor

By 2025, most patients with cancer will receive immunotherapy as part of their treatment regimen. This symposium will cover the most critical topics integral to this vision: How can we integrate, sequence or combine immunotherapy with standard-of-care cytotoxic therapy, radiotherapy and targeted therapies? Which preclinical models are best predictive of combination approaches? How do we combine immune agonists as well as molecules inhibiting immune-suppressive pathways with checkpoint inhibitors? What are the rational combinations for cancer vaccines and viro-therapy? Which combinatorial approaches could prevent or treat adaptive mechanisms of resistance? Most immunotherapies are being developed in isolation, or being tested as single agents in preclinical models or in clinical studies. This meeting helps to address the gaps in knowledge of how and when to combine therapies, and how to integrate immunotherapy into current standard-of-care or novel targeted therapy approaches – both preclinical and clinical. Overall, the objectives of this meeting are to: 1) Elucidate rational combinations for immunotherapy; 2) Discuss preclinical and other models to inform combinatorial approaches; 3) Understand the relevance for biomarker approaches; and 4) Provide insights into the latest preclinical and clinical data for immunotherapy combinations.

Session Topics:
• Rational Immunotherapy Combinations: Preclinical Models as Predictive or Responses
• Workshop: Biomarkers and Patient Selection Strategies for Immunotherapy Combinations
• Incorporating Checkpoint Inhibitors into SOC Chemo- and Radiotherapy Regimens
• Combining Immunotherapy with Tyrosine Kinase and Other Signaling Pathway Inhibitors
• Sequencing vs. Combinations: Insights from Biomarker and Preclinical Studies
• Immunotherapy Combinations: Preventing and Managing Resistance to Checkpoint Inhibition and T Cell Exhaustion
• Overcoming T Cell Exclusion and an Immune-Privileged Microenvironment with Combination Approaches
• Vaccines, Oncolytic Viruses and Cellular Therapies: Towards Combinations
• CTLA-4: Novel Molecules and Approaches to Combinations• HFrEF: Genetics and Epigenetics

Scholarship Application & Discounted Abstract Deadline: November 21, 2017
Abstract Deadline: December 19, 2017
Discounted Registration Deadline: January 16, 2018

Note: Scholarships are available for graduate students and postdoctoral fellows and are awarded based on the abstract submitted. Submitting an abstract is an excellent opportunity to gain exposure for your work. Abstracts submitted by the abstract deadline will also be considered for short talks on the program.

Upper image of killer T cells surrounding a cancer cell courtesy of Alex Ritter, Jennifer Lippincott Schwartz and Gillian Griffiths, National Institutes of Health

Meeting Hashtag: #KScancerimm
www.keystonesymposia.org/18C5
FRIDAY, MARCH 23
Arrival and Registration

SATURDAY, MARCH 24
Welcome and Keynote Session
*Chris H. Boshoff, Pfizer Inc., USA
*Lieping Chen, Yale University, USA
*Lisa M. Coussens, Oregon Health & Science University, USA
Jedd D. Wolchok, Memorial Sloan Kettering Cancer Center, USA
Immunologic Checkpoint Blockade: Exploring Combinations and Mechanisms
Elizabeth M. Jaffee, Johns Hopkins University, USA
Combinatorial Immunotherapy Converts Pancreatic Cancers into an Immunologically Inaccessible Disease

Rational Immunotherapy Combinations: Preclinical Models as Predictive or Responses
*Judith A. Varner, University of California, San Diego, USA
Lieping Chen, Yale University, USA
Design of Combination Therapy-Based Adaptive Resistance Mechanisms in Tumor Microenvironment
Michele W. Teng, QIMR Berghofer Medical Research Institute, Australia
Dissecting the Immunological Mechanisms underlying the Efficacy of Neoantigen Immunotherapy
Simone A. Minnie, QIMR Berghofer Medical Research Institute, Australia
Short Talk: Stem Cell Transplantation Establishes T Cell-Dependent Myeloma Immune-Equilibrium that Can Be Enhanced with Immunotherapy
Hyejin Choi, Memorial Sloan Kettering Cancer Center, USA
Short Talk: Optimizing Targeted Therapy and Immune Checkpoint Blockade Therapy in Kras Mutant Lung Cancer

Workshop: Novel and Sequencing Approaches
*Chris H. Boshoff, Pfizer Inc., USA
Braden N. Mills, University of Rochester, USA
Development of a New Strategy to Treat Locally Advanced Pancreatic Cancer
Adrienne Rothschild, Massachusetts Institute of Technology, USA
Order of Administration of Combination Cytokine Therapies Can Decouple Toxicity from Efficacy in Syngeneic Mouse Tumor Models
Alvaro de Mingo Pulido, Moffitt Cancer Center, USA
TIM-3 Regulates cDC1 Function and Response to Chemotherapy in Breast Cancer
Jiemiao Hu, University of Texas MD Anderson Cancer Center, USA
Combination Therapy for Boosting T Cell Transfer to Overcome Heterogeneity and Immune Suppression of Solid Tumors
Christopher D. Zahm, University of Wisconsin-Madison, USA
TLR Stimulation of Antigen-Presenting Cells Leads to IL-12 Expression that Decreases PD-1 Mediated Regulation

Hayley S. Ma, Kineta Inc., USA
Combination CD40 Agonist and PD-1 Antagonist Antibody Therapy Enhances Vaccine-Induced T Cell Responses in Non-Immune Response Cancers

Incorporating Checkpoint Inhibitors into SOC Chemo- and Radiotherapy Regimens
*Jane L. Grogan, Arsenal Biosciences, USA
Ronald Herbst, MedImmune, USA
Combination Therapy for Cancer: Beyond Checkpoint Inhibition
Andy Minn, University of Pennsylvania, USA
Interferon-Driven Resistance Mechanisms to Immune Checkpoint Blockade Combination Therapy
Sonia Harnois, Bristol-Myers Squibb, Canada
Short Talk: Relatlimab, An Anti-LAG-3, in Combination with Nivolumab in Melanoma Patients Who Progressed on Anti-PD-1/PD-L1
Karin Knudson, NCI, National Institutes of Health, USA
Short Talk: An IL-15 Supergonist ALT803in Combination with an Anti-PD-L1

Poster Session 1

SUNDAY, MARCH 25
Combining Immunotherapy with Tyrosine Kinase and Other Signaling Pathway Inhibitors
*Lisa M. Coussens, Oregon Health & Science University, USA
Dynamic Interactions between Myeloid and Lymphoid Cells Regulate Response to Therapy in Solid Tumors
Judith A. Varner, University of California, San Diego, USA
Targeting Tissue-Resident Macrophages and Their Progenitors to Suppress Cancer Progression
Chris H. Boshoff, Pfizer Inc., USA
Combining Immune Checkpoint Inhibitors with Targeted Therapies
Jane L. Grogan, Arsenal Biosciences, USA
Epigenetic Regulation of Tumor-Associated Myeloid Cell Activity by CBP/EP300 Bromodomain
Sabrin Mishel, University of Toronto, Canada
Short Talk: Proximal Signaling through the Innate Immune Inhibitory Receptor Signal Regulatory Protein alpha (SIARpA) in Primary Macrophages

Sequencing vs. Combinations: Insights from Biomarker and Preclinical Studies
*Lisa M. Coussens, Oregon Health & Science University, USA
Sergio A. Quezada, University College London, UK
Using Preclinical Models and Clinical Samples to Inform Mechanisms and Rational Combinations
Jo A. Van Ginderachter, VIB-Vrije Universiteit Brussel, Belgium
Tumor-Associated Dendritic Cell Sub-Populations in Cancer Immunity
Bernard A. Fox, Earle A Chiles Research Institute, USA
Sequencing Checkpoint Therapies

* Session Chair † Invited but not yet accepted  Program current as of November 8, 2019. Program subject to change. Meal formats are based on meeting venue. For the most up-to-date details, visit www.keystonesymposia.org.
Ralf Huss, Definiens AG, Germany
Short Talk: Multiplex Immuno-Oncology Panel for Standardized Cancer Profiling of the Immune Status Based on the Spatial and Functional Characterization in the Tumor Microenvironment

Poster Session 2
MONDAY, MARCH 26

Immunotherapy Combinations: Preventing and Managing Resistance to Checkpoint Inhibition and T Cell Exhaustion
*Sergio A. Quezada, University College London, UK
Peter S. Hammerman, Novartis Institutes for BioMedical Research, USA
Adaptive Resistance to Immune Checkpoint Blockade
Andrea Schietinger, Memorial Sloan Kettering Cancer Center, USA
Molecular and Epigenetic Programs Defining Tumor-Specific T Cell Dysfunction
Gregory Lawrence Beatty, University of Pennsylvania, USA
Strategies for Incorporating CD40 Agonists in Cancer Therapy
Yong-Jun Liu, Sanofi, USA
Next Generation of Immunotherapy: Targeting Anti-PD1 Resistance
Ramsay Khader, Barts Cancer Institute, UK
Short Talk: Pegylated Arginine Deiminase and PD-1/PD-L1 Blockade in the Treatment of ASS1-Deficient Cancers

Overcoming T Cell Exclusion and an Immune-Privileged Microenvironment with Combination Approaches
*Lieping Chen, Yale University, USA
Douglas T. Fearon, Cold Spring Harbor Laboratory, USA
CXCR4 Mediates Immune Privilege in T Cell-Exclusive Tumors.
Daniela F. Quail, McGill University, Canada
Macrophage and T Cell Interactions in the Brain Tumor Microenvironment
Hiroyoshi Nishikawa, National Cancer Center Japan, Japan
Control of Tumor-Associated Regulatory T Cells for Effective Cancer Immunotherapy
Casey Ager, University of Texas MD Anderson Cancer Center, USA
Short Talk: Intratumoral Delivery of a Novel STING Agonist Synergizes with Checkpoint Blockade to Regress Multi-Focal Pancreatic Cancer

Poster Session 3
TUESDAY, MARCH 27

Vaccines, Oncolytic Viruses and Cellular Therapies: Toward Combinations
*Mario Sznol, Yale School of Medicine, USA
Jeffrey Weber, New York University, USA
Clinical Efficacy and Biomarker Analyses in Patients Receiving Adjuvant Checkpoint Blockade for Resected High-Risk Stages III/IV Melanoma
Olivera J. Finn, University of Pittsburgh School of Medicine, USA
Vaccines for Prevention of Non-Viral Cancers
Gerald P. Linette, University of Pennsylvania, USA
Melanoma Neoantigen Discovery and Clinical Validation

CTLA-4: Novel Molecules and Approaches to Combinations
*Andrea Schietinger, Memorial Sloan Kettering Cancer Center, USA
Spencer C. Wei, University of Texas MD Anderson Cancer Center, USA
Cellular Mechanisms of Combination Checkpoint Blockade
Mario Sznol, Yale School of Medicine, USA
Lessons Learned from Anti-CTLA-4 and Anti-PD-1 Combination
Alan J. Korman, Bristol-Myers Squibb, USA
Next-Generation Anti-CTLA-4 Antibodies

Meeting Wrap-Up: Outcomes and Future Directions
*Chris H. Boshoff, Pfizer Inc., USA
*Lieping Chen, Yale University, USA
*Lisa M. Coussens, Oregon Health & Science University, USA

WEDNESDAY, MARCH 28
Departure