

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Emerging Cellular Therapies: T Cells and Beyond (B6)

Scientific Organizers: Carl H. June, Marcela V. Maus and Bruce R. Blazar

Supported by the Directors' Fund

Lymphocytes and their Roles in Cancer (R1)

Scientific Organizers: Iannis Aifantis, Ugur Sahin and Mikala Egeblad

February 11-15, 2018 • Keystone Resort • Keystone, Colorado, USA

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Abstract & Scholarship Deadline: / Abstract Deadline: / Discounted Registration Deadline:

SUNDAY, FEBRUARY 11

Arrival and Registration

MONDAY, FEBRUARY 12

Welcome and Keynote Address (B6)

Ton N. Schumacher, Netherlands Cancer Institute, Netherlands
Tumor Cell Sensitivity and Resistance to T Cell Attack

Welcome and Keynote Address (R1)

Alexander Y. Rudensky[†], HHMI/Memorial Sloan Kettering Cancer Center, USA
Regulatory T Cells and their Functions in the Tumor Microenvironment

CAR/TCR Preclinical (B6)

Philip D. Greenberg[†], University of Washington, USA
WT-1 Specific TCR-Modified T Cells for Leukemia

Crystal L. Mackall[†], Stanford University, USA
CAR T Cells in Pediatric Malignancies

Stanley R. Riddell[†], Fred Hutchinson Cancer Research Center/University of Washington, USA
CAR T Cells of Defined Composition in B Cell Malignancies
Short Talk(s) Chosen from Abstracts

Understanding Lymphocytic Malignancy: Leukemia and Lymphoma (R1)

John E. Dick[†], Princess Margaret Cancer Centre, Canada
Mapping Clonal Evolution in Acute Leukemia

Elias Campo[†], University of Barcelona, Spain
CLL Genomics and Genetics

Katia Georgopoulos[†], Massachusetts General Hospital, USA
Early Events in Lymphocytic Differentiation and Transformation
Short Talk(s) Chosen from Abstracts

Workshop 1: Perspectives from Industry and FDA: Roundtable (B6)

Short Talks Chosen from Abstracts

Synthetic Biology (B6)

Darrell J. Irvine, Massachusetts Institute of Technology, USA
Chemically Engineering T Cell Therapies

Wendell A. Lim[†], University of California, San Francisco, USA
Optimizing Synthetic Biology Tools for T Cell Therapies

Peter G. Schultz[†], The Scripps Research Institute, USA
Orthogonal Approaches to Synthetic Cell and Antibody Design
Short Talk Chosen from Abstracts

Therapeutic Targeting of Lymphocytic Malignancy (R1)

Irene M. Ghobrial[†], Dana Farber Cancer Institute, USA
Targeting the Tumor Microenvironment in Multiple Myeloma

Adolfo Ferrando[†], Columbia University, USA
Acute Lymphoblastic Leukemia, Role of Metabolic Rewiring
Iannis Aifantis, New York University School of Medicine, USA
Targeting the Tumor Microenvironment in Acute Leukemia
Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, FEBRUARY 13

CAR/TCR in the Clinic for Cancer (B6)

Speaker to be Announced

Stephen J. Forman[†], City of Hope, USA
CAR Trials in the Clinic

Marcela V. Maus, Harvard Medical School, USA
CAR T Cells for Glioblastoma and/or Multiple Myeloma

Saar I. Gill, University of Pennsylvania, USA
CAR T Cells for Acute Myelogenous Leukemia
Short Talk(s) Chosen from Abstracts

Cellular Therapies in Blood Malignancies and Beyond (R1)

Carl H. June[†], University of Pennsylvania, USA
CAR T Cells and their Therapeutic Promise in the Treatment of Leukemia

Crystal L. Mackall[†], Stanford University, USA
Recent Updates of Chimeric Antigen Receptor Clinical Trials

Chiara Bonini[†], Vita-Salute San Raffaele University, Italy
In vivo Tracking of T Cells and the Immunological Memory

Michel Sadelain[†], Memorial Sloan-Kettering Cancer Center, USA
Next Generation CAR-T Cell-Expressing Vectors and in vivo Utilization

Short Talk(s) Chosen from Abstracts

Engineered T Cells for HIV (B6)

David Baltimore[†], California Institute of Technology, USA
Engineering Cellular Immunity to HIV and Cancer

Paula M. Cannon[†], University of Southern California, Keck School of Medicine, USA
Shutting the Door on HIV with Stem Cells and More

James L. Riley, University of Pennsylvania, USA
Creating a Better Offense and a Better Defense Against HIV
Short Talk Chosen from Abstracts

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Lymphocytes as Elements of the Tumor Microenvironment (R1)

David H. Raulet, University of California, Berkeley, USA

Immune Surveillance of Cancer Cells by Natural Killer Cells

Karin E. de Visser[†], Netherlands Cancer Institute, Netherlands

Immune Cells and their Roles in Breast Cancer Cell Spreading

Johanna A. Joyce[†], University of Lausanne, Switzerland

T Cell Exclusion, Immune Privilege, and the Tumor Microenvironment

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, FEBRUARY 14

Tregs as Cellular Therapeutics (B6)

Bruce R. Blazar, University of Minnesota, USA

Tregs for Graft-vs-Host Disease

Jeffrey A. Bluestone[†], University of California, San Francisco, USA

Tregs for Diabetes and Autoimmune Diseases

Megan K. Levings, University of British Columbia, Canada

HLA-A2 Directed CAR Tregs

Laurence A. Turka[†], Massachusetts General Hospital, USA

Tregs for Solid Organ Transplantation

Short Talk(s) Chosen from Abstracts

Emerging Technologies: Visualization and Dissection of Tumor Microenvironment (R1)

Matthew F. Krummel[†], University of California, San Francisco, USA

Visualization of the Immune Response during Establishment of Metastases

Jerome Galon[†], INSERM U872, Cordeliers Research Center, France

Immunoscore as a Stronger Predictor of Patient Survival in Colorectal Cancer

Mikala Egeblad, Cold Spring Harbor Laboratory, USA

Visualization of the Switch from Immune Control to Immune Escape

Michael Goldberg[†], Dana-Farber Cancer Institute, USA

Enhancing Cancer Immunotherapy through Nanotechnology

Short Talk(s) Chosen from Abstracts

Workshop 2: Late Breaking Talks (B6)

Short Talks Chosen from Abstracts

Beyond T Cells: HSC, T Progenitor, and iPSCs I (B6)

Jakub Tolar[†], University of Minnesota, USA

Stem Cell Correction of Congenital Disorders

Martin Pule[†], University College London, UK

New Designs in Synthetic T Cells

Speaker to be Announced

Short Talk Chosen from Abstracts

Emerging Concepts in the Development of Tumor Vaccines (R1)

Ugur Sahin, TRON – Translationale Oncology, Germany

Systemic RNA Delivery, Dendritic Cell Vaccines and Implications for Cancer Immunotherapy

Ton N. Schumacher[†], Netherlands Cancer Institute, Netherlands

Targeting of Cancer Neo-Antigens with Donor-Derived T Cell Receptor Repertoires

Johanna Olweus[†], University of Oslo, Norway

Targeting of Cancer Neo-Antigens with Donor-Derived T Cell Receptor Repertoires

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, FEBRUARY 15

Beyond T Cells: HSC, T Progenitor, and iPSCs II (B6)

Juan Carlos Zúñiga-Pflücker, Sunnybrook Research Institute, Canada

Generation of Human Progenitor T Cells from Stem Cells

Michel Sadelain[†], Memorial Sloan-Kettering Cancer Center, USA

iPS-Derived Genetically-Modified T Cells

Luigi M. Naldini, San Raffaele Telethon Institute, Italy

Gene Transfer to Modify the Tumor Microenvironment

Nicholas P. Restifo[†], NCI, National Institutes of Health, USA

Tuning Up T Cells as Stem Cells for Cancer Therapy

Short Talk(s) Chosen from Abstracts

Combinatorial Treatments and their Effects on Lymphocyte Function in Cancer (R1)

Robert H. Vonderheide[†], University of Pennsylvania School of Medicine, USA

CD40 Immunotherapy for Pancreatic Cancer

Lisa M. Coussens[†], Oregon Health & Science University, USA

Immune Microenvironments in Solid Tumors

Michael A. Curran, University of Texas MD Anderson Cancer Center, USA

Optimizing T cell Frequency and Function Via Checkpoint Antibody / Vaccine Combinations

Sjoerd H. van der Burg[†], LUMC, Netherlands

Combination of Immune Vaccines to Chemotherapy

Short Talk(s) Chosen from Abstracts

Intersection of Genetic Editing and Cellular Therapy (B6)

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David R. Liu[†], Harvard University, USA

CRISPR-Edited Cell Therapies

Andrew M. Scharenberg, University of Washington, USA

Editing T Cells and Stem Cells for Cancer Therapy

Carl H. June, University of Pennsylvania, USA

Adoptive Transfer with Genetically Edited T Cells

Future Directions for Next Generation Sequencing: Genomics, Epigenetics and Immunogenomics (R1)

Dana Pe'er[†], Columbia University, USA

A Single Cell Approach to Understanding the Tumor Microenvironment

Richard A. Young[†], Whitehead Institute for Biomedical Research, USA

Mapping of Enhancers and 3D Chromosomal Topology in Leukemia

Manel Esteller[†], Belvitge Biomedical Research Institute (IDIBELL), Spain

Cancer Epigenetics: From Knowledge to Applications

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (B6)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (R1)

FRIDAY, FEBRUARY 16

Departure