

An AACR Special Conference

Tumor Immunology and Immunotherapy: A New Chapter

Presented in conjunction with the Cancer Immunology Working Group of the AACR

December 1-4, 2014 • Disney's Contemporary Resort • Orlando, FL

Conference Co-Chairpersons

Nina Bhardwaj, Mount Sinai Medical Center, New York, NY
Robert H. Vonderheide, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA
Stanley R. Riddell, Fred Hutchinson Cancer Research Center, Seattle, WA
Cynthia L. Sears, Johns Hopkins University, Baltimore, MD

This is the fifth conference in the Tumor Immunology Special Conference series. In the past, this conference has appealed to nearly 400 attendees, from basic immunologist, non-immunologists to clinical researchers. A hallmark of this conference is to integrate several sub-disciplines of cancer immunology with a broad focus on treatment and prevention of different cancers.

Building on previously successful Tumor Immunology Special Conferences, this conference is designed to provide highly stimulating discussions to further the scientific and translational goals of the field and allow for more effective exchange of ideas between basic cancer immunologists, non-immunologists, and clinical scientists. The central theme of this year's conference is to discuss the advances made in basic and translational tumor immunology across multiple disciplines. Important topics to be covered in this meeting are: interaction of radiobiology, antibody effector mechanisms in immune therapy, tumor microenvironment, microbiome, overcoming obstacles to generating adaptive immunity, adoptive-T-cell therapy, Metabolism, and novel understanding in the biology of vaccination. Overall, the conference will appeal to basic, translational, and clinical scientists from academics to industry.

The AACR would like to thank the following organizations for their generous support of this conference.

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Center to
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Disparities

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Conference Program

Monday, December 1

7:00 p.m.-9:00 p.m. Opening Plenary Session

Welcome Remarks

Keynote Addresses

Molecular basis of T cell exhaustion: Insights for immunotherapy

E. John Wherry, University of Pennsylvania, Philadelphia, PA

The intersection of inflammation, immunity, and cancer: From basic biology to translational research

Michael Karin, University of California, San Diego, CA

9:00 p.m.-10:30 p.m. Opening Reception

Tuesday, December 2

7:00 a.m.-8:00 a.m. Continental Breakfast and Meet-the-Expert Roundtables

A list of roundtable leaders and topics is available at the registration desk.

8:00 a.m.-10:15 a.m. Session 1: Interaction of Radiobiology

Session Chairperson: Robert H. Vonderheide, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA

Turning a tumor into a vaccine factory: In situ vaccination for low-grade lymphoma

Joshua Brody, Mount Sinai Hospital, New York, NY

Partnership of radiotherapy and immunotherapy: A new paradigm in cancer treatment

Sandra Demaria, New York University School of Medicine, New York, NY

Breaking immune privilege in pancreatic cancer

Robert H. Vonderheide

The heat shock protein-CD91 pathway is necessary for tumor immunosurveillance*

Robert J. Binder, University of Pittsburgh, Pittsburgh, PA

MUC1 vaccine for colon cancer prevention: Microarray and bioinformatic analysis of pre-vaccination gene signatures distinguishing responders from non-responders*

Olivera J. Finn, University of Pittsburgh, Pittsburgh, PA

*Short talks from proffered papers.

10:15 a.m.-10:45 a.m. Break

10:45 a.m.-1:15 p.m. Session 2: Antibody Effector Mechanisms in Immune Therapy
Session Chairperson: Martin Glennie, University of Southampton, Southampton, United Kingdom

Enhancing the efficacy of antitumor antibodies

Raphael Clynes, Bristol-Myers Squibb Company, Lawrenceville, NJ

Designing immunostimulatory antibodies for cancer treatment

Martin Glennie

Enhancing immune effector function via antibody engineering

Christian Klein, Roche GlycArt AG, Schlieren, Switzerland

Translation of cancer vaccine strategies from mice to clinical trials*

Jay A. Berzofsky, Center for Cancer Research, National Cancer Institute, Bethesda, MD

The abstract for this presentation is available as B26.

Dissecting the tumor myeloid compartment reveals rare activating antigen presenting cells, critical for T cell immunity*

Miranda Broz, University of California, San Francisco, CA

The abstract for this presentation is available as B65.

Determine a transcriptional mechanism novel to tumor infiltrating T cell dysfunction*

Katherine A. Waugh, University of Colorado - School of Medicine, Aurora, CO

1:15 p.m.-3:30 p.m. Poster Session A (Lunch provided)

3:30 p.m.-5:45 p.m. Session 3: Tumor Microenvironment
Session Chairperson: Nina Bhardwaj, Mount Sinai Medical Center, New York, NY

Molecular mechanisms controlling the T cell-inflamed tumor microenvironment: Implications for therapy

Thomas Gajewski, University of Chicago, Chicago, IL

Effective immunotherapy regimens incorporating highly active human STING-activating cyclic dinucleotide derivatives

Thomas W. Dubensky, Aduro BioTech, San Francisco, CA

T cell exclusion in pancreatic ductal adenocarcinoma: The FAP+ cancer-associated fibroblast and CXCL12

Douglas T. Fearon, Cancer Research UK Cambridge Research Institute, Cambridge, United Kingdom

CXCL13-producing extrafollicular Tfh-like CD4+ T cells in human breast cancer*

Chunyan Gu-Trantien, Jules Bordet Institute, Brussels, Belgium

IRF8 regulates GM-CSF expression in T cells and tumor cells to mediate myeloid-derived suppressor cell differentiation*

Amy Paschall, Georgia Regents University, Augusta, GA

*Short talks from proffered papers.

5:45 p.m.-5:55 p.m. Break

5:55 p.m.-6:55 p.m. Special Session
How to Get Your Papers Published: A Discussion with Journal Editors

This session is open to junior investigators and AACR Associate Members.

Glenn Dranoff, Dana-Farber Cancer Institute, Boston, MA
Robert H. Vonderheide, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA

7:00 p.m. Dinner on own

Wednesday, December 3

7:00 a.m.-8:00 a.m. Continental Breakfast and Meet-the-Expert Roundtables

A list of roundtable leaders and topics is available at the registration desk.

8:00 a.m.-10:15 a.m. Session 4: Microbiome
Session Chairperson: Cynthia L. Sears, Johns Hopkins University, Baltimore, MD

The gut microbiota-cancer axis
Laurence Zitvogel, Institut Gustave-Roussy, Villejuif, France

Microbiota associations in colon cancer
Cynthia L. Sears

Fusobacteria and colon cancer
Wendy M. Garrett, Harvard School of Public Health, Boston, MA

Genomic characterization of immune escape pathways in gastric cancer*
Kai Wang, Pfizer Oncology, San Diego, CA

Agonistic CD40 antibody combined with chemotherapy drives TLR4/MyD88 independent regression of pancreatic tumors in a T cell dependent manner*
Katelyn T. Byrne, University of Pennsylvania, Philadelphia, PA

10:15 a.m.-10:30 a.m. Break

*Short talks from proffered papers.

10:30 a.m.-12:30 p.m. Session 5: Overcoming Obstacles to Generating Adaptive Immunity
Session Chairperson: Catherine J. Wu, Dana-Farber Cancer Institute, Boston, MA

Type-1-cytokines synergize with oncogene inhibition to induce tumor growth arrest
Nicholas Restifo, National Institutes of Health, Bethesda, MD

Designing cancer vaccines that mimic viral infections
Esteban Celis, Georgia Regents University Cancer Center, Augusta, GA

PD-1 blockade therapy for cancer
Antoni Ribas, UCLA Medical Center, Los Angeles, CA

Fighting fire with fire: Developing a personalized neoantigen cancer vaccine
Catherine J. Wu

12:30 p.m.-2:45 p.m. Poster Session B (Lunch provided)

2:45 p.m.-5:00 p.m. Session 6: Adoptive T Cell Therapy
Session Chairperson: Robert H. Vonderheide, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA

Chimeric antigen receptor T cells as therapy
Carl H. June, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA

Engineering T cells to be effective in eradicating tumors
Philip D. Greenberg, Fred Hutchinson Cancer Research Center, University of Washington, Seattle, WA

Curative potential of T-cell immunotherapy for cancer
Steven A. Rosenberg, National Cancer Institute, Bethesda, MD

Enhanced affinity T cell receptor based therapy can surmount immune and physical barriers to treat pancreatic ductal adenocarcinoma*
Ingunn M. Stromnes, Fred Hutchinson Cancer Research Center, Seattle, WA

Targeting histone deacetylase 6 in T-cells to improve melanoma immunotherapy*
Andressa Sodre Laino, Moffitt Cancer Center, Tampa, FL

5:00 p.m.-6:15 p.m. A Regulatory Path to Approval of an Immune-Checkpoint Inhibitor in Combination with a Targeted Therapy
Session Chairperson: Antoni Ribas, UCLA Medical Center, Los Angeles, CA

Panelists: Antoni Ribas, UCLA Medical Center, Los Angeles, CA
Marc Theoret, Center for Drug Evaluation and Research, Food and Drug Administration, Silver Spring, MD
Steven D. Averbuch, Bristol-Myers Squibb Company, Princeton, NJ

6:15 p.m. Dinner on own

*Short talks from proffered papers.

Thursday, December 4

7:00 a.m.-8:00 a.m. Continental Breakfast and Meet-the-Expert Roundtables

A list of roundtable leaders and topics is available at the registration desk.

8:00 a.m.-10:15 a.m. Session 7: Immunometabolism and Immunoregulation

Session Chairperson: Elizabeth A. Repasky, Roswell Park Cancer Institute, Buffalo, NY

Impact of thermoregulatory metabolism on immunosuppression and therapeutic responsiveness of tumors

Elizabeth A. Repasky

Regulation of metabolic plasticity in effector T cells

Russell G. Jones, McGill University, Montreal, QC, Canada

T cell trafficking in lymphoid and non-lymphoid tissues

Victor H. Engelhard, University of Virginia, Charlottesville, VA

Use of random peptide array to discover cancer neoantigens for vaccines and diagnostics*

Luhui Shen, Center for Innovations in Medicine, Biodesign Institute, Arizona State University, Tempe, AZ

Potentiating immunological memory in mice using aptamer targeted siRNA delivery to inhibit mediators of effector differentiation in CD8⁺ cytotoxic T lymphocytes*

Alexey Berezchnoy, University of Miami Miller School of Medicine, Miami, FL

10:15 a.m.-10:45 a.m. Break

10:45 a.m.-12:30 p.m. Session 8: Biology of Vaccination

Session Chairperson: Nina Bhardwaj, Mount Sinai Medical Center, New York, NY

Vaccines: The igniters of antitumor immunity

Lei Zheng, Johns Hopkins University School of Medicine, Baltimore, MD

Vaccines targeting innate immune cells

Nina Bhardwaj

Mechanisms of protective tumor immunity

Glenn Dranoff, Dana-Farber Cancer Institute, Boston, MA

*Short talks from proffered papers.