

MOLECULAR TUMOR BOARD

Integrating Biomarker Analyses into Clinical Decision-Making Regarding the Use of Immune Checkpoint Inhibitors in Cancer Treatment

CME Information

TARGET AUDIENCE

This activity is intended for medical oncologists, hematologists, surgeons, radiation oncologists, oncology nurses and other healthcare professionals involved in basic, translational and clinical cancer research or treatment.

OVERVIEW OF ACTIVITY

The past several years have seen an explosion in the emergence of new therapies that leverage the natural ability of the human body to attack and treat cancer. The newest and perhaps most exciting arena in this regard has been the development and assessment of immune-modulating antibodies, or checkpoint immune modulators. To date, studies with a number of anti-PD-1/PD-L1 monoclonal antibodies have demonstrated outcomes that many investigators have described as unprecedented, and emerging research data from an array of ongoing trials examining the role of these agents in a variety of diseases will almost certainly continue to dominate scientific congresses and the medical literature. Not surprisingly, the introduction of immune checkpoint inhibitors, particularly anti-PD-1/PD-L1 antibodies, has created a multitude of uncertainties and important clinical questions. Foremost among these is why certain patients enjoy profound and long-lasting benefits from these agents while others experience no clinical effect. This conundrum has impelled scientists to examine the biologic underpinnings of malignant cells and the cell environment in an effort to uncover potential biomarkers predictive of response to immunotherapeutic agents.

These video proceedings from a CME symposium held during the 2017 AACR Annual Meeting feature discussions with renowned immunotherapy experts representing different areas of oncology — lung cancer, melanoma, gastrointestinal cancers, genitourinary cancers and hematologic cancers — regarding relevant clinical research exploring the burgeoning role of checkpoint inhibitors with an emphasis on what is known about the use of biomarkers to determine which patients will likely benefit from treatment with an immunotherapeutic agent. By providing information on important developments, this activity will assist medical oncologists and other healthcare professionals to address existing management uncertainties and determine the current and future roles of immunotherapeutic interventions.

LEARNING OBJECTIVES

- Appraise the rationale for and clinical data with approved anti-PD-1 and anti-PD-L1 antibodies in patients with various solid tumors and hematologic cancers.
- Describe ongoing research to assist in the identification of biomarkers, tumor characteristics or other clinical features that are indicative of response to immune checkpoint inhibitors in patients with different types of cancer.
- Compare and contrast expert perspectives on the indications for PD-L1 analysis in patients with metastatic non-small cell lung cancer, melanoma and other cancers, and, when appropriate, select individuals for PD-L1 assessment.
- Appreciate the similarities and differences among various diagnostic assays available to determine PD-L1 status, and use this information to select a validated testing platform for use in practice.
- Describe ongoing research to document the correlation between DNA mismatch repair deficiency in colorectal and noncolorectal gastrointestinal and other cancers and response to anti-PD-1 immune checkpoint inhibitors, and develop strategies to assess for this biomarker.
- Recognize current investigational efforts to identify other potential biomarkers of response to checkpoint inhibition (tumor mutational burden, tumor-infiltrating lymphocytes, et cetera), and consider how they may be applied in future clinical practice.
- Recall the design of ongoing clinical trials evaluating novel immunotherapeutic approaches, and counsel appropriately selected patients about availability and participation.

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FACULTY — The following faculty (and their spouses/partners) reported relevant conflicts of interest, which have been resolved through a conflict of interest resolution process:

Johanna C Bendell, MD

Director, GI Oncology Research
Associate Director
Drug Development Unit
Sarah Cannon Research Institute
Nashville, Tennessee

Contracted Research: Abbott Laboratories, AbbVie Inc, Apexigen, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Daiichi Sankyo Inc, Eisai Inc, EMD Serono Inc, Five Prime Therapeutics Inc, Forty Seven Inc, Genentech BioOncology, Gilead Sciences Inc, GlaxoSmithKline, Incyte Corporation, Kolltan

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Charles G Drake, MD, PhD

Professor of Medicine
Co-Director
Cancer Immunotherapy Programs
Columbia University Medical Center
New York, New York

Consulting Agreements: Agenus Inc, Dendreon Pharmaceuticals Inc, Genentech BioOncology, ImmuneXcite, Janssen Biotech Inc, Lilly, Merck, NexImmune, Pierre Fabre, Roche Laboratories Inc; **Contracted Research:** Bristol-Myers Squibb Company; **Patents:** AstraZeneca Pharmaceuticals LP, Janssen Biotech Inc, MedImmune Inc; **Script Regulatory Affairs:** Aduro Biotech, Bristol-Myers Squibb Company, Janssen Biotech Inc; **Stock Ownership:** Compugen, NexImmune, Potenza Therapeutics, Tizona Therapeutics.

Roy S Herbst, MD, PhD

Ensign Professor of Medicine (Oncology)
Professor of Pharmacology
Chief of Medical Oncology
Director, Thoracic Oncology Research Program
Associate Director for Translational Research
Yale Comprehensive Cancer Center
Yale School of Medicine
Smilow Cancer Hospital
New Haven, Connecticut

Consulting Agreements: AstraZeneca Pharmaceuticals LP, Genentech BioOncology, Kolltan Pharmaceuticals Inc, Lilly, Merck, Pfizer Inc; **Contracted Research:** Genentech BioOncology, Merck.

David F McDermott, MD

Associate Professor of Medicine
Harvard Medical School
Director, Biologic Therapy and Cutaneous Oncology Programs
Beth Israel Deaconess Medical Center
Leader, Kidney Cancer Program
Dana-Farber Cancer Center
Boston, Massachusetts

Consulting Agreements: Array BioPharma Inc, Bristol-Myers Squibb Company, Eisai Inc, Exelixis Inc, Genentech BioOncology, Merck, Novartis, Pfizer Inc; **Contracted Research:** Prometheus Laboratories Inc.

Craig Moskowitz, MD

Clinical Director, Division of Hematologic Oncology
Attending Physician
Lymphoma and Adult BMT Services
Member, Memorial Sloan Kettering Cancer Center
Professor of Medicine
Weill Medical College of Cornell University
New York, New York

Consulting Agreements: Bristol-Myers Squibb Company, Celgene Corporation, Genentech BioOncology, Merck, Seattle Genetics; **Contracted Research:** Bristol-Myers Squibb Company, Merck, Pharmacyclics LLC, an AbbVie Company, Seattle Genetics.

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Hardware/Software Requirements:

A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 7 or later, Firefox 3.0 or later, Chrome, Safari 3.0 or later
Adobe Flash Player 10.2 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

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Select Publications

Neil Love, MD (Introduction)

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Roy S Herbst, MD, PhD

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