The Current and Future Role of Oncologic Immunotherapies in the Management of Genitourinary Cancers

TARGET AUDIENCE
This activity has been designed to meet the educational needs of medical and radiation oncologists, urologists and other allied healthcare professionals.

OVERVIEW OF ACTIVITY
The past several years have seen an explosion in the emergence of new potential therapies that leverage the natural ability of the human body to attack and treat cancer. Known as immune-mediated therapies or cancer immunotherapies, these promising treatments are taking center stage at medical conferences and generating excitement all over the world. Although they may be diverse in terms of their biology and current clinical management, genitourinary (GU) cancers — prostate cancer, renal cell carcinoma (RCC), bladder cancer, et cetera — are unified in their potential as fertile ground for immunologic therapy and research and have been at the forefront of both past and current efforts in this regard. Not surprisingly, with the many exciting advances rapidly occurring both within the field of GU tumors and elsewhere, a number of vexing questions and clinical challenges are emerging simultaneously.

These video proceedings from a CME symposium held during the 2015 Genitourinary Cancers Symposium feature discussions with leading investigators in the management of prostate, renal and bladder cancer regarding actual patient cases and related clinical research findings. By providing information on important immunotherapeutic developments, this activity will assist medical and radiation oncologists, urologists and other healthcare professionals to address existing management uncertainties and determine the current role and future potential of immunotherapeutic interventions in patients with common GU cancers.

LEARNING OBJECTIVES
- Develop a basic understanding of the human immune response, and identify the underlying mechanisms by which various tumor types evade this process to proliferate and grow.
- Analyze the biologic basis for various immunotherapeutic strategies designed to boost an individual’s immune response to combat cancer.
- Effectively apply evidence-based research findings to appropriately integrate available immunotherapeutics into the management of advanced prostate cancer and RCC.
- Compare and contrast the mechanisms of action, efficacy and safety/toxicity of approved and investigational immunotherapies for the treatment of prostate cancer, RCC, bladder cancer and other GU tumors to determine the current and/or potential utility of each in clinical practice.
- Appraise the rationale for and clinical data with investigational anti-PD-1 and anti-PD-L1 antibodies in patients with metastatic RCC and bladder cancer.
- Recognize immune-related adverse events and other common side effects associated with approved and developmental immunotherapeutics in order to offer supportive management strategies.
- Recall the design of ongoing clinical trials evaluating novel immunotherapeutic approaches, and counsel appropriately selected patients with GU cancers about availability and participation.

ACCREDITATION STATEMENT
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HOW TO USE THIS CME ACTIVITY
This CME activity consists of a video component. To receive credit, the participant should watch the video, complete the Post-test with a score of 70% or better and fill out the Educational Assessment and Credit Form located at ResearchToPractice.com/GUCancers15/Immunotherapy/CME.

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apparent conflicts of interest are identified and resolved through a conflict of interest resolution process. In addition, all activity content is reviewed by both a member of the RTP scientific staff and an external, independent physician reviewer for fair balance, scientific objectivity of studies referenced and patient care recommendations.

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

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**MODERATOR** — Dr Love is president and CEO of Research To Practice, which receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Amgen Inc, Astellas Scientific and Medical Affairs Inc, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Biodex Inc, Boehringer Ingelheim Pharmaceuticals Inc, Boston Biomedical Pharma Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Daiichi Sankyo Inc, Dendreon Corporation, Eisai Inc, Exelixis Inc, Foundation Medicine, Genentech BioOncology, Genomic Health Inc, Gilead Sciences Inc, Incyte Corporation, Janssen Biotech Inc, Jazz Pharmaceuticals Inc, Lilly, Medivation Inc, Merck, Myriad Genetic Laboratories Inc, NanoString Technologies, Novartis Pharmaceuticals Corporation, Novocure, Onyx Pharmaceuticals, an Amgen subsidiary, Pharmacyclics Inc, Prometheus Laboratories Inc, Regeneron Pharmaceuticals Inc, Sanofi, Seattle Genetics, Sigma-Tau Pharmaceuticals Inc, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Taiho Oncology Inc, Takeda Oncology, Teva Oncology, Tokai Pharmaceuticals Inc and VisionGate Inc.

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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

David F McDermott, MD

Daniel P Petrylak, MD
KEYNOTE-012: A phase Ib multi-cohort study of MK-3475 in subjects with advanced solid tumors. NCT01848834
Matsumoto K et al. B7-DC induced by IL-13 works as a feedback regulator in the effector phase of allergic asthma. *Biochem Biophys Res Commun* 2008;365(1):170-5.


Charles G Drake, MD, PhD

A randomized, open-label, phase 2 trial examining the sequencing of sipuleucel-T and androgen deprivation therapy in men with non-metastatic prostate cancer and a rising serum prostate specific antigen after primary therapy. *NCT01431391*


Beer TM et al. Characterization of immune-related adverse events in a phase 3 trial of ipilimumab versus placebo in post-docetaxel mCRPC. *Proc Genitourinary Cancers Symposium* 2014;Abstract 52.

CA184-043: A randomized, double-blind, phase 3 trial comparing ipilimumab versus placebo following radiotherapy in subjects with castration resistant prostate cancer that have received prior treatment with docetaxel. *NCT00861614*


Prospect: A randomized, double-blind, phase 3 efficacy trial of PROSTVAC-V/F +/- GM-CSF in men with asymptomatic or minimally symptomatic metastatic castrate-resistant prostate cancer. *NCT01322490*

Quinn DI et al. A randomized phase II, open-label study of sipuleucel-T with concurrent or sequential enzalutamide in metastatic castration-resistant prostate cancer. *Proc ASCO* 2014;Abstract 16071.

STRIDE: A randomized, open-label, phase 2 study of sipuleucel-T with concurrent versus sequential administration of enzalutamide in men with metastatic castrate-resistant prostate cancer. *NCT01981122*

David I Quinn, MBBS, PhD

A randomized, blinded, phase 2 dose-ranging study of BMS-936558 (MDX-1106) in subjects with progressive, advanced/metastatic clear-cell renal cell carcinoma who have received prior anti-angiogenic therapy. *NCT01354431*

A randomized, open-label, phase 3 study of nivolumab (BMS-936558) versus everolimus in subjects with advanced or metastatic clear-cell renal cell carcinoma who have received prior anti-angiogenic therapy. *NCT01668784*

Axitinib (Ag-013736) as second line therapy for metastatic renal cell cancer: Axis trial. *NCT00678392*

CheckMate 214: A phase 3, randomized, open-label study of nivolumab combined with ipilimumab versus sunitinib monotherapy in subjects with previously untreated, advanced or metastatic renal cell carcinoma. *NCT02231749*


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