TARGET AUDIENCE
This activity has been designed to meet the educational needs of medical and radiation oncologists, urologists and other allied healthcare professionals involved in the treatment of prostate cancer (PC).

OVERVIEW OF ACTIVITY
Cancers of the genitourinary (GU) system affect hundreds of thousands of individuals in the United States each year and account for more than one fourth of all new cancer diagnoses. Of this diverse array of distinct diseases, tumors of the prostate are among the most prevalent and thus the topic of extensive ongoing clinical research. Consequently, the clinical management of both early and more advanced presentations of prostate cancer is constantly evolving, necessitating rapid and consistent access to learning opportunities for clinicians who care for these patients. This CME program was developed from the proceedings of a satellite symposium held during the 2019 Genitourinary Cancers Symposium. It provides the perspectives and experiences of prostate cancer experts to facilitate a better understanding of new management strategies and lingering clinical controversies facing the GU cancer community.

This activity will help medical oncologists and other allied healthcare professionals to find answers to the individualized questions and concerns they frequently encounter and to in turn provide high-quality cancer care.

LEARNING OBJECTIVES
• Appraise the published research database supporting the recent FDA approvals of secondary hormonal agents in the management of nonmetastatic prostate cancer, and consider this information in the discussion of nonresearch treatment options for patients.
• Explore available data with cytotoxic and secondary hormonal therapy in the setting of hormone-sensitive metastatic prostate cancer to effectively design treatment plans for appropriate patients.
• Consider patient and disease characteristics in addition to available clinical trial data in the selection and sequencing of available local and systemic treatment modalities for patients with metastatic prostate cancer.

• Evaluate the rationale for testing for BRCA mutations in patients with metastatic prostate cancer, and advise individuals found to harbor these genetic abnormalities about participation in clinical trials investigating the role of PARP inhibitors.
• Recall the design of ongoing research studies evaluating other novel agents and strategies for prostate cancer, and counsel appropriate patients about availability and participation.

ACCREDITATION STATEMENT
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Penn State College of Medicine and Research To Practice. Penn State College of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

For questions about CME credit, either email continuinged@pennstatehealth.psu.edu or call (717) 531-6483 and reference course number G6435-19-T.

CREDIT DESIGNATION STATEMENT
Penn State College of Medicine designates this enduring material for a maximum of 1.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

HOW TO USE THIS CME ACTIVITY
This CME activity consists of an audio component. To receive credit, the participant should review the CME information, listen to the MP3s, complete the Post-test with a score of 80% or better and fill out the Educational Assessment and Credit Form located at ResearchToPractice.com/GUCancers19/CME.

CONTENT VALIDATION AND DISCLOSURES
It is the policy of Research To Practice and Penn State College of Medicine to ensure balance, independence, objectivity and scientific rigor in all their educational programs. All faculty, planners and managers participating in this activity are required to disclose any relevant financial relationship(s) they (or spouse/partner) have with a commercial interest that benefits the individual in any financial amount that has
occurred within the past 12 months; and the opportunity to affect the content of CME about the products or services of the commercial interest. Research To Practice and Penn State College of Medicine ensured that any conflicts of interest were resolved before the educational activity occurred.

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

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**Advisory Committee and Consulting Agreements:** Amgen Inc, Astellas Pharma Global Development Inc, AstraZeneca Pharmaceuticals LP, Clovis Oncology, Dendreon Pharmaceuticals Inc, ESSA Pharma Inc, Janssen Biotech Inc, Medivation Inc, a Pfizer Company, Merck, Sanofi Genzyme; **Contracted Research:** AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Dendreon Pharmaceuticals Inc, Genentech, Janssen Biotech Inc, Johnson & Johnson Pharmaceuticals, Merck, Novartis, Sanofi Genzyme, Tokai Pharmaceuticals; **Other Remunerated Activities:** Co-inventor of a biomarker licensed to QIAGEN.

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**Advisory Committee:** Bayer HealthCare Pharmaceuticals, EMD Serono Inc, Fusion Pharmaceuticals; **Consulting Agreements:** Advanced Accelerator Applications, Astellas Pharma Global Development Inc, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Blue Earth Diagnostics, Constellation Pharmaceuticals, Dendreon Pharmaceuticals Inc, EMD Serono Inc, Endocyte Inc, Genentech, Janssen Biotech Inc, Johnson & Johnson Pharmaceuticals, Myovant Sciences, Pfizer Inc, Progenics Pharmaceuticals Inc, Sanofi Genzyme; **Contracted Research:** AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Constellation Pharmaceuticals, Dendreon Pharmaceuticals Inc, Endocyte Inc, Innocrin Pharmaceuticals Inc, Invitae, Johnson & Johnson Pharmaceuticals, Merck, Progenics Pharmaceuticals Inc, Roche Laboratories Inc, Sanofi Genzyme, SOTIO LLC; **Data and Safety Monitoring Board/Committee:** AstraZeneca Pharmaceuticals LP, Johnson & Johnson Pharmaceuticals, Myovant Sciences, Pfizer Inc; **Ownership Interest:** Lilly.

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Co-Chair, Center for Mechanism Based Therapy  
Head, Biomarker Development Initiative  
Member and Attending Physician  
Genitourinary Oncology Service  
Department of Medicine  
Memorial Sloan Kettering Cancer Center  
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Weill Cornell Medical College  
New York, New York

**Board of Directors:** Asterias Biotherapeutics; **Consulting Agreement:** WCG Oncology; **Contracted Research:** Epic Sciences, Illumina Inc, Innocrin Pharmaceuticals Inc, Janssen Biotech Inc, Menarini Silicon Biosystems, Thermo Fisher Scientific; **Uncompensated Consulting:** Amgen Inc, ESSA Pharma Inc, Janssen Biotech Inc, Menarini Silicon Biosystems.

**Matthew R Smith, MD, PhD**  
Claire and John Bertucci Endowed Chair in Genitourinary Cancers  
Professor of Medicine  
Harvard Medical School  
Director, Genitourinary Malignancies Program  
Massachusetts General Hospital Cancer Center  
Boston, Massachusetts

**Advisory Committee and Consulting Agreements:** AbbVie Inc, Amgen Inc, Astellas Pharma Global Development Inc, Bayer HealthCare Pharmaceuticals, Clovis Oncology, Gilead Sciences Inc, Hexal AG, Hinova Pharmaceuticals Inc, Janssen Biotech Inc, Lilly, Novartis, Orion Corporation, Pfizer Inc; **Contracted Research:** Amgen Inc, Bayer HealthCare Pharmaceuticals, Clovis Oncology, Janssen Biotech Inc, Lilly.

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**Consulting Agreements:** Bayer HealthCare Pharmaceuticals, Pfizer Inc, Sanofi Genzyme; **Contracted Research:** Bayer HealthCare Pharmaceuticals, Exelixis Inc, Genentech, Janssen Biotech Inc, Medivation Inc, a Pfizer Company, Roche Laboratories Inc, Sanofi Genzyme; **Honoraria:** Astellas Pharma Global Development Inc, AstraZeneca Pharmaceuticals LP, Janssen Biotech Inc, Sanofi Genzyme.

Inc, Regeneron Pharmaceuticals Inc, Sandoz Inc, a Novartis Division, Sanofi Genzyme, Seattle Genetics, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Taiho Oncology Inc, Takeda Oncology, Tesaro, Teva Oncology, Tokai Pharmaceuticals Inc and Tolero Pharmaceuticals.

PENN STATE COLLEGE OF MEDICINE — Faculty and staff involved in the development and review of this activity have disclosed no relevant financial relationships.

RESEARCH TO PRACTICE CME PLANNING COMMITTEE MEMBERS, STAFF AND REVIEWERS — Planners, scientific staff and independent reviewers for Research To Practice have no relevant conflicts of interest to disclose.

This educational activity contains discussion of published and/or investigational uses of agents that are not indicated by the Food and Drug Administration. Research To Practice and Penn State College of Medicine do not recommend the use of any agent outside of the labeled indications. Please refer to the official prescribing information for each product for discussion of approved indications, contraindications and warnings. The opinions expressed are those of the presenters and are not to be construed as those of the publisher or grantors.

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Hardware/Software Requirements:
A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 11 or later, Firefox 56 or later, Chrome 61 or later, Safari 11 or later, Opera 48 or later
Adobe Flash Player 27 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

Last review date: May 2019
Expiration date: May 2020
Select Publications

Matthew R Smith, MD, PhD

Fizazi K et al. ARAMIS: Efficacy and safety of darolutamide in nonmetastatic castration-resistant prostate cancer (nmCRPC). Genitourinary Cancers Symposium 2019;Abstract 140.


Cora N Stemberg, MD

Armstrong AJ et al. Phase 3 study of androgen deprivation therapy (ADT) with enzalutamide (ENZA) or placebo (PBO) in metastatic hormone-sensitive prostate cancer (mHSPC): The ARCHES trial. Genitourinary Cancers Symposium 2019;Abstract 687.

Fizazi K et al. ARAMIS: Efficacy and safety of darolutamide in nonmetastatic castration-resistant prostate cancer (nmCRPC). Genitourinary Cancers Symposium 2019;Abstract 140.


Howard I Scher, MD


Sharma P et al. Initial results from a phase II study of nivolumab (NIVO) plus ipilimumab (IPI) for the treatment of metastatic castration-resistant prostate cancer (mCRPC; CheckMate 650). Genitourinary Cancers Symposium 2019;Abstract 142.

Yu EY et al. Keynote-365 Cohort A: Pembrolizumab (pembro) plus olaparib in docetaxel-pretreated patients (pts) with metastatic castrate-resistant prostate cancer (mCRPC). Genitourinary Cancers Symposium 2019;Abstract 145.

Emmanuel S Antonarakis, MD


A Oliver Sartor, MD

Hofman MS et al. Lutetium-177 PSMA (LuPSMA) theranostics phase II trial: Efficacy, safety and QoL in patients with castrate-resistant prostate cancer treated with LuPSMA. *Proc ESMO* 2017;Abstract 7850.


Smith MR et al. ERA 223: A phase III trial of radium-223 (Ra-223) in combination with abiraterone acetate and prednisone/prednisolone for the treatment of asymptomatic or mildly symptomatic chemotherapy-naïve patients (pts) with bone-predominant metastatic castration-resistant prostate cancer (mCRPC). *Proc ESMO* 2018;Abstract LBA30.