



Urology Update

Prostate Cancer Consensus 2017

The Role of Genetic Testing for Inherited Prostate Cancer Risk

The field of genetic testing is evolving rapidly, and men diagnosed with prostate cancer often ask about the implications of their diagnosis on their children and other relatives. To bring clarity and understanding to providers and their patients on the best approaches to genetic testing and referral guidelines for prostate cancer patients and their relatives, the Sidney Kimmel Cancer Center and the Foundation for Breast and Prostate Health co-sponsored the first international Prostate Cancer Consensus 2017 to address the "Role of Genetic Testing for Inherited Prostate Cancer Risk."

The purpose of the Consensus (held March 3,4 on the Jefferson Campus) was to provide guidance to providers and patients based on the latest information on what are the genetics of prostate cancer, who should be referred for genetic counseling, and which genes may have the greatest impact for prostate cancer patients and their families. Issues surrounding genetic counseling were also addressed, such as considerations for panel testing, reproductive implications, cost issues and genetic discrimination laws. Molecular



Keynote speaker Mr. Robin Cole (left) with Consensus Co-chairs Drs. Karen Knudsen, Veda Giri and Leonard Gomella.



Consensus participants.



Drs. Hamdy (Oxford University, England), Bangma (Erasmus University, the Netherlands) with Drs. Trabulsi, Mann and Hubosky.



6 ABC News TV coverage.



More than 60 content experts participated in the two-day Consensus in March.



Dr. Tricia Gomella's Consensus Mascot and AT-GC treats.



Drs. Giri and Gomella welcoming participants.



and genomic tumor analysis were also briefly addressed in the context of evaluation for prostate cancer inheritance.

More than 60 experts and stakeholders from the United States, Canada, Great Britain and the Netherlands discussed, debated and defined "The Role of Genetic Testing for Inherited Prostate Cancer Risk." Since the issue of genetic testing involves inherited risk for prostate cancer and encompasses risks for other cancers affecting both males and females, the panel discussions and keynote presentation helped frame the real-world applications of prostate cancer genetic testing.

The Consensus assembled a group of panel members and faculty prostate cancer experts, including urologists, medical oncologists, radiation oncologists, clinical cancer genetics experts, pathologists, gynecologists, primary care providers, community urologists, genetic counselors, social workers, bioethicists, basic science researchers and patient advocates.

Leonard G. Gomella, MD, Karen Knudsen, PhD, and Veda Giri, MD,* served as Consensus co-chairs. More than a dozen other Jefferson faculty were engaged as members of the steering committee or as a panel member. This steering committee was co-chaired by Drs. Kevin Kelly, Stephen Peiper and Gordon Schwartz.

Mr. Robin Cole, retired Pittsburgh Steeler, two-time Super Bowl champion and founder of the OBEDIAH Foundation, was the keynote speaker. His address, "A Patient's Perspective on Familial Prostate Cancer Risk Assessment," focused on his personal challenges and those faced by his father and brothers due to familial prostate cancer.

Discussions centered on developing genetic referral guidelines for prostate cancer patients and their blood relatives and the relationship between inherited diseases such as breast, ovarian and other cancers and the current understanding of how these related tumors guide

* Dr. Gomella, The Bernard W. Godwin Jr, Professor of Prostate Cancer; Chairman, Department of Urology; Senior Director Clinical Affairs, Sidney Kimmel Cancer Center; Clinical Director, Jefferson Sidney Kimmel Cancer Network
Dr. Veda N. Giri, Director, Cancer Risk Assessment and Clinical Cancer Genetics; Associate Professor, Department of Medical Oncology
Dr. Karen E. Knudsen, Director of Sidney Kimmel Cancer Center; The Hilary Koprowski Professor and Chair of Cancer Biology



members group photo.



Keynote Speaker/Advocate Robin Cole, Two-time Super Bowl Champion.



Panel members discussing critical genetic testing issues.

prostate cancer genetic testing. Additionally, the elements of genetic counseling were outlined, as well as the genes to test in the context of inherited prostate cancer risk. The potential role of genetic testing in prostate cancer management and the current role in screening for prostate cancer were also part of the discussions.

Questions addressed that as the number of relatives with prostate cancer increases, so does a man's lifetime risk of the disease. What is increasingly recognized is that other familial malignancies such as breast, ovarian, colon, pancreatic, endometrial cancers and melanoma may be connected to inherited risk for prostate cancer in a family due to common genetic mutations accounting for hereditary cancer syndromes. Identifying men who may be at risk for inherited prostate cancer and genetically related malignancies would allow directed attempts at early diagnosis and potential prevention strategies for prostate and other cancers. Advances in genetic testing for inherited and familial prostate cancer were determined to be necessary to inform personalized cancer risk screening and treatment approaches.

Furthermore, genetic information may also provide individualized estimates of disease prognosis and severity in order to tailor management

The ultimate goal of the conference is to publish consensus guidelines for genetic testing for inherited prostate cancer risk to guide patients and providers with this decision in the rapidly evolving genetic era. A major journal paper will be generated with additional plans for national and international meeting presentations.

Prostate cancer, a major healthcare burden in the United States and in most other western countries, is the leading solid tumor in American men and a major cause of morbidity and mortality. Since prostate cancer is both a clinically and genetically heterogeneous disease, it is estimated that inherited factors may account for up to 40-50% of cases likely from a combination of rare, high-penetrance gene mutations, as well as common variants. The current understanding is that approximately 5-10% of inherited prostate cancer is due to more commonly identified important genes conferring a significantly increased lifetime risk for the disease.



Panel members represented a dozen areas of expertise.



Patient advocates with retired Pittsburgh Steeler Robin Cole (center).



Shelley Schwartz, Founder of the Foundation for Breast and Prostate Health, opening remarks.



Fox 29 TV Interview with Dr. Gomella and Mr. Cole on the Consensus.



Panel members enjoying A Taste of Philly Luncheon.



SKMC Dean Mark Tykocinski welcomed the group to Jefferson.

SESSION TOPICS

SESSION I: INTRODUCTION AND OVERVIEW

- Why is this Consensus needed in 2017?
- Consensus program and process to be followed
- Endorsements
- The Burden of Prostate Cancer Today and in the Future
- A Patient's Perspective on Familial Prostate Cancer Risk Assessment

SESSION II: OVERVIEW OF CONTEMPORARY GENETIC COUNSELING

- Summary of current genetic testing capabilities and recommendations for inherited cancer risk assessment
- Overview of the principles of genetic testing and genetic counseling
- Models of Genetic Testing in Other Cancers

SESSION III: PRACTICAL CONSIDERATIONS OF GENETIC TESTING AND COUNSELING

- Ethical considerations in testing for inherited diseases
- Financial considerations in genetic testing
- What is the role of primary care and other providers in genetic testing for inherited cancer risk?

SESSION IV: PROSTATE CANCER GENOMICS AND GENETICS

- Emerging insights into the genetic contribution to prostate cancer risk (Part 1)

SESSION V: PROSTATE CANCER GENOMICS AND GENETICS (CONTINUED)

- Emerging insights into the genetic contribution to prostate cancer risk (Part 2 continued)
- Additional genomic approaches

SESSION VI: CLINICAL APPLICATIONS OF PROSTATE CANCER GENOMICS AND GENETICS

- Is there a role for genetic testing in prostate cancer screening strategies?
- Current and future role of genetic testing in the management of prostate cancer
- Specific Populations to Consider For Genetic Testing For Prostate Cancer Predisposition

SESSION VII: REVIEW OF PROSTATE CANCER GENETIC CLINICAL TRIALS

- Ongoing and completed relevant prostate cancer genetic clinical trials

SESSION VIII: CONSENSUS TOPICS FOR DELIBERATION

- Deliberations being used to determine the content of the final consensus paper

Panel Members

Panel Member/Specialty	Institution	Panel Member/Specialty	Institution
Wasim Abida, MD, PhD/Medical Oncology	Memorial Sloan Kettering Cancer Center	Peter McCue, MD/Pathology	Jefferson Sidney Kimmel Cancer Center
Chris Bangma, MD, PhD/Urology	Erasmus Medical Center, Rotterdam, The Netherlands	Martin Miner, MD/Primary Care	Brown University
Mitchell Benson, MD/Urology	Columbia University	Todd Morgan, MD/Urology	University of Michigan
Amie Blanco/Genetic Counseling	UCSF Helen Diller Family Comprehensive Cancer Center	Judd Moul, MD/Urology	Duke University, Duke Cancer Institute
John Buehler/Patient Advocate	N/A	Ron Myers, PhD/Medical Decision Making Research	Jefferson Sidney Kimmel Cancer Center
Arthur "Bud" Burnett, MD, MBA/Urology	Johns Hopkins Medical Institutions	Sarah Nielsen, MS, CGC/Genetic Counseling	The University of Chicago
William Catalona, MD/Urology	Northwestern University, Feinberg School of Medicine; R.H. Lurie Comprehensive Cancer Center	Elias Obeid, MD, MPH/Medical Oncology	Fox Chase Cancer Center
Robin Cole/Patient Advocate	N/A	Christian Pavlovich, MD/Urology	Johns Hopkins Medical Institutions
Kathleen Cooney, MD/Medical Oncology/Genetics	University of Utah School of Medicine	Stephen Peiper, MD/Pathology	Jefferson Sidney Kimmel Cancer Center
Matthew Cooperberg, MD, MPH/Urology	UCSF Helen Diller Family Comprehensive Cancer Center	David Penson, MD, MPH/Urology	Vanderbilt University Medical Center
David Crawford, MD/Urology	University of Colorado, Denver	Daniel Petrylak, MD/Med Oncology	Yale University
Robert Den, MD/Radiation Oncology	Jefferson Sidney Kimmel Cancer Center	Curtis Pettaway, MD/Urology	MD Anderson Cancer Center
Adam Dicker, MD, PhD/Radiation Oncology	Jefferson Sidney Kimmel Cancer Center	Robert Pilarski, MS, LGC, MSW/Genetic Counseling	The Ohio State University
Scott Eggener, MD/Urology	University of Chicago	Peter Pinto, MD/Urology	National Cancer Institute
Neil Fleshner, MD/Urology	University of Toronto, Princess Margaret Cancer Centre	Wendy Poage, MHA/Prostate Cancer Education/Advocacy	Prostate Condition Educ Council
Matthew L. Freedman, MD/Medical Oncology/Genetics	Harvard Medical School/Dana-Farber Cancer Institute	Ganesh Raj, MD, PhD/Urology	University of Texas Southwestern Medical Center at Dallas
Veda Giri, MD/Medical Oncology/Genetics	Jefferson Sidney Kimmel Cancer Center	Tim Rebbeck, PhD/Genetic Research	Harvard/Dana Farber Cancer Institute
Leonard G. Gomella, MD/Urology	Jefferson Sidney Kimmel Cancer Center	Mark Robson, MD/Breast Oncology/Genetics	Memorial Sloan Kettering Cancer Center
Freddie Hamdy, MBChB, LRCSPEd, LRCSed, LRCPStGlasg, FRCSEd, MD, FRCSEd(Urol), MA (Oxon), FRCS, FMedSci./Urology	University of Oxford, Oxford, England	Matt Rosenberg, MD/Primary Care	Mid Michigan Health Center
Jean Hoffman-Censits, MD/Medical Oncology	Jefferson Sidney Kimmel Cancer Center	Howard Sandler, MD/Radiation Oncology	Cedars-Sinai Medical Center
Mark Hurwitz, MD/Radiation Oncology	Jefferson Sidney Kimmel Cancer Center	Oliver Sartor, MD/Medical Oncology	Tulane University Medical School
William Isaacs, PhD/Genetics Research	Johns Hopkins Medical Institutions	Edward "Ted" Schaeffer, MD, PhD/Urology	Northwestern University, Feinberg School of Medicine; R.H. Lurie Comprehensive Cancer Center
Christopher Kane, MD/Urology	University of California San Diego	Gordon Schwartz, MD/Breast Surgery	Foundation for Breast & Prostate Health
Philip Kantoff, MD/Medical Oncology	Memorial Sloan Kettering Cancer Center	Mark Shahin, MD/Gynecologic Oncology	Hanjanl Institute for Gynecologic Oncology; Abington Hospital- Jefferson Health
R. Jeffrey Karnes, MD/Urology	Mayo Clinic, Rochester	Neal Shore, MD/Urology	Atlantic Urology Clinics/CURC
Larry Karsh, MD/Urology	The Urology Center of Colorado	Brian Shuch, MD/Urology	Yale University
Peter Kaye, Sr./Patient Advocate	N/A	Howard Soule, PhD/Basic & Clinical Research	Prostate Cancer Foundation
Kevin Kelly, DO/Medical Oncology	Jefferson Sidney Kimmel Cancer Center	Scott Tomlins, MD, PhD/Pathology	University of Michigan Medical School
Eric Klein, MD/Urology	Cleveland Clinic	Edouard J. Trabulsi, MD/Urology	Jefferson Sidney Kimmel Cancer Center
Karen Knudsen, PhD/Oncology Research	Jefferson Sidney Kimmel Cancer Center	Robert Uzzo, MD/Urology	Fox Chase Cancer Center
Daniel Lin, MD/Urology	University of Washington	Donald J. Vander Griend, PhD/Genetic Counseling	The University of Chicago
Kevin Loughlin, MD, MBA/Urology	Brigham & Women's Hospital, Harvard Medical School	Patrick C. Walsh, MD/Urology	Johns Hopkins Medical Institutions
Grace LuYao, PhD/Population Science	Jefferson Sidney Kimmel Cancer Center	Carol Weil, JD/Bioethics	National Cancer Institute
S. Bruce Malkowicz, MD/Urology	University of Pennsylvania	Richard Wender, MD/Family & Community Medicine	American Cancer Society
Mark Mann, MD/Urology	Jefferson Sidney Kimmel Cancer Center		
J. Ryan Mark, MD/Urology	Jefferson Sidney Kimmel Cancer Center		

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