

Prof. Eric A. Klein: genomic research in prostate cancer

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Introduction

Eric A. Klein (*Figure 1*), M.D., is the Andrew C. Novick Distinguished Chair of the Glickman Urological and Kidney Institute and Professor of Surgery in the Lerner College of Medicine of the Cleveland Clinic. Following undergraduate training at Johns Hopkins University, he was a *cum laude* graduate of the University of Pittsburgh School of Medicine. He subsequently completed residency training in Urology at the Cleveland Clinic and a fellowship in Urologic Oncology at Memorial Sloan Kettering Cancer Center.

Dr. Klein's clinical and research interests cover all stages of prostate cancer with a focus on genomics and clinical trials. Under his direction, the Prostate Cancer Research Program has been recognized as "Program of the Year" by the Cleveland Clinic. He has served as Chairman of the Localized Prostate Cancer Committee of the Southwest Oncology Group and was the National Study Coordinator for the NCI-sponsored Selenium and Vitamin E Cancer Prevention Trial (SELECT). He is currently co-PI on two Prostate Cancer Foundation Challenge Grants, and co-leader of the Cleveland Clinic Lerner Research Institute-designated Prostate Cancer Center of Excellence.

Dr. Klein is a member of numerous professional societies and scientific advisory boards including the American Association of Genitourinary Surgeons, the Clinical Society of Genitourinary Surgeons, the Society of Urologic Oncology, just to name a few. He also received numerous awards in recognition of his achievements. Dr. Klein has contributed more than 400 papers to the scientific literature, authored or edited 8 books on urologic malignancies, and serves as the Editor-in-Chief of *Urology*. He is a much-sought-after speaker and has delivered more than 200 invited scientific lectures including 13 named lectureships, and has served as a Visiting Professor at more than 50 institutions around the world.

Interview

During the AUA 2016 annual meeting, I was honored to



Figure 1 Prof. Eric A. Klein.

meet Dr. Klein and invite him for a brief interview to share his expert opinions on genomic research in prostate cancer.

Dr. Klein felt that this is a very exciting time because we have moved into an era of precision medicine, which means in actual clinical practices, doctors are able to make informed management decisions with patients based on the specific molecular characteristics of their cancers and decide the best personalized approach to manage their diseases.

However, the biggest challenge doctors may face is to educate patients about all the science behind the use of these biomarkers and convince them to accept the treatment decision selected that may be different from other patients who suffer the exact same disease. It is also important to make urologists comfortable with incorporating this process into their routine flows of practices and make sure they understand the meaning of all the biomarker tests.

Dr. Klein pointed out three particular areas involved in the trend of genomic research in prostate cancer, including (I) the use of molecular diagnostic tests to avoid over-diagnosis of prostate cancer and help determine whether patients should just receive active surveillance instead of any treatment; (II) the use of molecular prognostic tests



Figure 2 Interview with Dr. Eric A. Klein (1).

Available online: <http://www.asvide.com/articles/1069>

to indicate the need for multimodality therapy and help set patient expectations of therapeutic burden, for instance, the Decipher genomic classifier measured on radical prostatectomy specimen is able to help determine whether the patient is likely to get benefit from adjuvant radiation therapy; (III) the use of molecular tests to help decide agent-targeted treatment for metastatic castration-resistant diseases.

Dr. Klein also shared with us the preliminary evaluation of a recent study sponsored by Cleveland Diagnostics—a multivariate model centered on IsoPSATM, a novel structure-focused protein biomarker to assess potential discrimination of patients with high-grade (Gleason ≥ 7) from benign or

low-grade (Gleason =6) patients. Dr. Klein believed that this new technology provides a new way to capture more about the biology of PSA, which will help improve the accuracy in diagnosing high-grade prostate cancer. The full outcome of this study is expected to be published by the end of 2016.

For more detail of this interview, readers can refer to the following video (*Figure 2*).

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

References

1. Xu EX. Interview with Dr. Eric A. Klein. *Asvide* 2016;3:297. Available online: <http://www.asvide.com/articles/1069>

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