Update | Understanding and Treating Upper Tract Urothelial Carcinomas (UTUCs)

Upper tract urothelial carcinomas (UTUCs) are a distinct disease representing 5%–10% of all bladder cancers. The diagnosis, prognosis, and management of this type of bladder cancer is different. Recent advances in bladder cancer research are providing new insights and options for those with UTUC.

Invited Expert Panel: Drs. Alon Weizer, Seth Lerner, Ahmad Shabsigh, Surena Matin, Jennifer Linehan and Sumanta (Monty) Pal

Gary Steinberg, MD, Professor Department of Urology and the Perlmutter Cancer Center NYU Langone Health and Director Goldstein Urology Program in Bladder Cancer.

Disclosure Statement | Scientific advisor for: Heat Biologics, Cold Genesys, PhotoCure, Merck, Roche/Genentech, Ciclomed, Taris Biomedical, MDxHealth, Fidia Farmaceuticals, Urogen, Ferring, Aduro, Boston Scientific, Bristol Myers Squibb, Astra Zeneca, Pfizer, Janssen, Epivax Oncology, Natera, FKD, Ferring, EnGene Bio, SesenBio, BioCanCell, Nucleix, Ipsen, Combat Medical, Astellas, Fergene, Dendreon, Abbvie, Seattle Genetics.

Dr. Steinberg specializes in urologic oncology. He has been instrumental in developing innovative surgical procedures for patients with bladder cancers. In addition, Dr. Steinberg's research includes developing new treatments for urologic cancers, especially bladder cancer. He has performed over 2500 radical cystectomies and is a national leader in continent urinary tract reconstruction. He was the principal investigator for a regenerative medicine project using patient's own stem cells to create urinary tract reconstructions without using the intestine. He has been a national principal investigator, scientific advisor and protocol development advisor for multiple innovative clinical trials and translational research studies utilizing novel agents including oncolytic vaccines and immunotherapeutic agents. He has been a key advisor in clinical trial design, protocol development, study completion and analysis for patients with high risk non-muscle invasive bladder cancer.

In addition, Dr. Steinberg is also involved with additional innovative intravesical drug delivery systems and other immunotherapy translational research studies. He has been a key protocol advisor on a number of novel neoadjuvant and adjuvant therapy trials for patients with muscle invasive bladder cancer and is currently leading the development of personalized cancer vaccines for neoadjuvant and metastatic bladder cancer. He has created a bladder cancer tissue bio-bank and has been a key participant in The Cancer Genome Atlas (TCGA) project for muscle invasive bladder cancer. He has been actively investigating genomic factors involved in therapeutic response. Finally, he has collaborated with investigators to create nude mouse human bladder cancer xenografts. Dr. Steinberg is also the chairperson of the Scientific Advisory Board of the Bladder Cancer Advocacy Network and serves on the executive committee of the Bladder Cancer Research Network. He has published over 250 peer review and book chapters. Seth P. Lerner, MD, is Professor of Urology and holds the Beth and Dave Swalm Chair in Urologic Oncology, and is Vice-chair for Faculty Affairs in the Scott Department of Urology, Baylor College of Medicine.

Disclosure Statement | Scientific advisor for: ENDO, FKD, JBL, Genentech, UroGen, Vixiion, Viventia, FerGene, Merck, Pfizer/EMD Serono, QED Therapeutics, Verity.

Dr. Lerner is Director of Urologic Oncology and the Multidisciplinary Bladder Cancer Program. He earned his medical degree from Baylor College of Medicine, completed a surgical internship at Virginia Mason Hospital in Seattle, and returned to Baylor for his residency training. He completed a two-year fellowship at the University of Southern California in urologic oncology and reconstructive surgery under Peter Jones and Don Skinner before returning to join the full-time Baylor faculty in 1992. His clinical practice, education, and research activities are devoted to urologic oncology and particularly lower and upper tract urothelial cancer. Dr. Lerner is author of over 200 peer-reviewed articles, and co-editor of a comprehensive *Textbook of Bladder Cancer*. He is the founding co-editor-in-chief of the Bladder Cancer journal.

Dr. Lerner established and directs the multi-disciplinary Bladder Cancer Research Program at Baylor and his research interests include use of selective estrogen receptor modulators for treatment of bladder cancer, gene therapy, integrated genomic analysis of bladder and upper urinary tract cancers, and outcomes of radical cystectomy and pelvic lymphadenectomy. He has 28 years of experience as a clinical investigator for both NCI and industry funded clinical trials. He is the PI of the ongoing SWOG NCI Phase III trial comparing extended vs. standard pelvic lymphadenectomy at time of radical cystectomy. He is active in the leadership of several national bladder cancer research enterprises including chair of the Local Bladder Cancer committee of SWOG, founding and former co-chair of the NCI Bladder Cancer Task Force and current co-chair of the NCI CTEP Genitourinary Steering Committee, and he co-chaired the Analysis Working Group of The Cancer Genome Atlas Project for muscle invasive bladder cancer for. He is very active in the Bladder Cancer Think Tank and co-chair of the management committee of the Bladder Cancer Think Tank and co-chair of the prestigious American Association of Genitourinary Surgeons and is listed routinely among "America's Top Doctors" and "Best Doctors in America.

Jennifer Linehan, MD, is Professor of Urology and holds the Beth and Dave Swalm Chair in Urologic Oncology, and is Vice-chair for Faculty Affairs in the Scott Department of Urology, Baylor College of Medicine.

Disclosure Statement | No Disclosures.

Jennifer Linehan, M.D. is currently an Associate professor of Urologic oncology at the John Wayne Cancer Institute (JWCI). Dr. Linehan completed her general surgery internship and then urology residency at the University of Arizona where she received the George M. Drach Award

for the most compassionate urologic resident. During this time, she also received several local grants and awards for research in diagnosis and management of kidney cancer using optical coherence tomography followed by new techniques for hemostasis during partial nephrectomy. She joined City of Hope in 2010 as a fellow in robotic and urologic oncology then stayed on after fellowship as Assistant professor at City of Hope. She is an experienced robotic and laparoscopic surgeon who also has interest in improving endoscopy for ureteral cancers. She is currently part of North American Robotic Urology Symposium (NARUS) helping to conduct the Young NARUS program. Dr. Linehan has been involved in biomarker research for both prostate and kidney cancer. She has worked closely with Steven Smith, Ph.D., at Beckman Research Institute of City of Hope on identifying biomarkers for prostate cancer. She expanded her research efforts to renal tumors identifying biomarkers both in blood and urine with Dr. David Hoon, Ph.D at JWCI. She is currently investigating new intravesical treatments for bladder cancer and hoping to expand this research to urothelial carcinomas of the upper tract.

Surena Matin, MD, is Professor of Urology at MD Anderson Cancer Center.

Disclosure Statement | Urogen- speaking engagement/consulting -ended October 2020

Dr. Matin is the Monteleone Family Foundation Distinguished Professor with Tenure in the Department of Urology at MD Anderson Cancer Center, Houston, Texas. Dr. Matin has an active clinical practice focusing on the entire spectrum of care for renal cell carcinoma (RCC) and upper urinary tract urothelial cancer (UTUC). His primary research efforts are based on understanding the biology and treatment of UTUC and clinical research in UTUC and RCC. He also serves as Medical Director of the MINTOS (Minimally Invasive New Technology in Oncologic Surgery) multidisciplinary collaborative program in the Division of Surgery. Dr. Matin is Associate Editor of Oncology for Urology (the Gold Journal), and Associate Editor for Bladder Cancer.

Alon Weizer, MD, is Professor of Urology at University of Michigan

Disclosure Statement |No Disclosures

Alon Weizer completed his undergraduate education at Duke University. He completed medical school at Baylor College of Medicine in Houston, TX and returned to Duke University where he complete a 6 year training program in general surgery and urology. He then completed a 2-year fellowship at the University of Michigan in Ann Arbor, MI in Urologic Oncology and Minimally Invasive Surgery. His clinical and research interest is focused on prevention and early detection of bladder cancer, novel treatments for early bladder cancer, and the use of minimally invasive approaches to treat bladder, prostate, kidney, testicular, and genitourinary malignancies. He lives in Ann Arbor, MI with his wife and two children.

Ahmad Shabsigh, is an Associate Professor of Urology at the Ohio State University

Disclosure Statement |No Disclosures

Ahmad Shabsigh is a urologic oncologist who specializes in surgical treatments of patients with genitourinary cancers, including but not limited to prostate, bladder, kidney, testicular and penile cancer. He received my medical training at Aleppo University Medical School in Syria and completed his residency at Columbia University in New York. He then completed a fellowship in urologic oncology at Memorial Sloan Kettering Cancer Center in New York before joining The Ohio State University. He was named to the Castle Connolly list of "Regional Top Doctors" from 2017 to 2020 and rated in the top 10 percent of physicians in the nation for patient satisfaction from 2016 to 2020. He has extensive experience in prostate, bladder and kidney surgery, including open and robotic techniques. He has performed numerous complex robotic renal surgeries, including selective clamping and the first robotic nephrectomy with level three IV thrombectomy. Additionally, he performed the first robotic radical cystectomy with intracoporeal urinary diversion in central Ohio. He was also involved in the development of robotic surgery for APR for rectal cancer. During his fellowships, he worked on the biology of prostate and bladder cancers, as well as the molecular mechanisms of androgen deprivation and angiogenesis in prostate cancer. He has since moved to clinical and translational research, including studies on surgical outcomes and perioperative quality of care and quality of life. He also served as the principal investigator (PI) and co-investigator for a number of institutional and multicenter clinical trials focused on the diagnosis and treatment of kidney, prostate and bladder cancers. In addition to his clinical and research work, he is an associate professor in the Department of Urology at The Ohio State University. He also currently serves as the editor of Journal of Men's Health and have published more than 80 articles in such peer-reviewed journals as Journal of the National Comprehensive Cancer Network, World Journal of Urology, The Journal of Urology and Histopathology.