

University of Miami Health System Urologists Recognized at AUA 2020

The American Urological Association (AUA), a leading advocate for the specialty of urology, held its annual conference virtually in May, and several urologists and researchers from the University of Miami Health System and Sylvester Comprehensive Cancer Center were recognized for their achievements.

Himanshu Arora, Ph.D., a research faculty member with Sylvester Comprehensive Cancer Center and the University of Miami Miller School of Medicine, received the AUA Care Foundation 2020 Research Scholar Award for a two-year project titled *“Immune Modulatory Functions and Mechanism of Action of Nitric Oxide in Castration Resistant Prostate Cancer Micro-environment.”*

The \$40,000 funding will allow Dr. Arora and research partner Ranjith Ramasamy, M.D., associate professor of urology, to explore how nitric oxide could modulate the infiltration of pro- and anti-inflammatory macrophages at the site of cancer.

In addition, four urologists were recognized for their poster presentations as “Best Poster Winners”:

Vivek Venkatramani, M.D.

“Readmission rates and their predictors after robotic and open radical cystectomy: An analysis from the RAZOR trial.”

Radical cystectomy has significant perioperative complication rates, and the study involved readmission rates at 90 days and one year, following radical cystectomy in patients from the [RAZOR randomized trial](#) that compared robot-assisted radical cystectomy (RARC) to open cystectomy (OC). The study, whose principal investigator was Dipen J. Parekh, M.D., chair of the Department of Urology, concluded that postoperative readmission rates do not differ between RARC and OC. The study reiterated the importance of prospective trials to evaluate different surgical techniques before drawing conclusions regarding readmission rates.

“I am humbled to be selected as best poster for our study on readmission rates in the RAZOR trial,” said Vivek Venkatramani, M.D., assistant professor of urology. “Tremendous gratitude also to Dipen J. Parekh, urologic oncologist and director of robotic surgery at Sylvester Comprehensive Cancer Center, for the opportunity.”

Abhishek Bhat, M.D.

“Intermediate risk (IR) non-muscle invasive bladder cancer (NMIBC) is a heterogeneous entity with a variable risk of recurrence and progression.”



Dr. Abhishek Bhat

The current AUA and SUO (Society of Urologic Oncology) guidelines for NMIBC recommend a cystoscopy and urine cytology every three to six months for the first two years, and cross-sectional imaging every one to two years, but there is limited data to support a specific surveillance interval. Abhishek Bhat, M.D., who was mentored by Chad Ritch, M.D., associate professor of urology, compared several surveillance strategies of varying intensities to detect the recurrence and progression in IR-NMIBC. “I am truly ecstatic and humbled to be judged the best poster in the bladder cancer epidemiology session for the virtual AUA,” he said. “It was a brilliant team effort, with inspiring mentorship which also includes Drs. Mark Gonzalgo, Dipen J. Parekh and Sanoj Punnen.”

Thiago Lima, M.D.

“Can we use serum 17-hydroxyprogesterone as a serum biomarker of intra-testicular testosterone?”

Intra-testicular testosterone (ITT) is essential for spermatogenesis and can only be reliably measured with invasive testicular sampling. Previous studies showed a good correlation between ITT and serum 17-hydroxyprogesterone (17-OHP) in men treated with human Chorionic Gonadotropin (hCG). Based on this observation, it is hypothesized that serum 17-OHP can be used as a serum biomarker for ITT in men undergoing testosterone therapies. Men who underwent agents that altered serum testosterone at baseline and after three months of therapy were evaluated. They demonstrated that serum testosterone levels were similar between men who received various therapies. It was also found that serum 17-OHP was undetectable in men who received TRT compared to men receiving CC/hCG or fertile controls.

“Using a serum marker to evaluate men who are treated with medications for male fertility rather than invasive testicular sampling is a paradigm shift,” said Thiago Lima, M.D., a fellow in reproductive urology at the University of Miami Health System.

Himanshu Arora, Ph.D.

“Endogenous effects of Leptin on Leydig stem cell differentiation are specific to patient’s BMI”

It was demonstrated that Leptin, a paracrine factor secreted by Sertoli cells, is critical for Leydig stem cell (LSC)

differentiation and subsequent testosterone production via its regulation of desert hedgehog (DHH) signaling. It is also observed that obesity plays a role in infertility, and obese men have low testosterone and Leptin resistance. The exact association between obesity and low testosterone remains unclear. The study postulated that Leptin could influence differentiation of Leydig stem cells that are critical for testosterone production. “If we can modulate Leptin levels, then we can increase men’s natural testosterone production while avoiding all the potential side effects of testosterone therapy,” said Himanshu Arora, Ph.D., research assistant professor in the Department of Urology.

Raveen Syan, M.D.

“A cost-effectiveness analysis of hysteropexy compared to vaginal hysterectomy with apical suspension for the treatment of pelvic organ prolapse using a vaginal approach”

Hysteropexy for treatment of uterine/apical prolapse via a vaginal approach has recently been shown to have equivalent medium-term efficacy compared to traditional vaginal hysterectomy with apical suspension (sacrospinous ligament fixation or uterosacral ligament suspension). This study performed a cost-effectiveness analysis comparing hysteropexy versus vaginal hysterectomy with apical suspension. It found that hysteropexy with sacrospinous ligament fixation was the most cost-effective strategy, which remained true even when modeled with high repeat surgery rates (up to 60%) or high recurrent prolapse rates (up to 40%).

“Hysteropexy should be included in surgical treatment options for management of uterine prolapse,” said Raveen Syan, M.D.,

assistant professor of urology. “However, decision-making should always account for factors such as medical history, comorbidities, and patient preference.”

Additionally, on June 27-28 the “AUA Virtual Experience” will be streaming live. It will feature educational programming, keynote lectures, sessions on new clinical guidelines, semi-live surgeries, late-breaking scientific news, and industry updates. On the first day of the event, Dr. Chad Ritch will be a featured panelist discussing “*What to Do During BCG Shortage for High-risk NMIBC Patients?*” On the second day of the event, Dr. Ranjith Ramasamy will be a featured panelist discussing “*Testosterone therapy and its side effects.*” The two-day event is free to all AUA members. For more information visit www.auavirtual.org.