

# Amr Mahran, MD PhD

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# Education

07/2023	Medical Doctorate in (Urology), Department of Urology, Faculty of Medicine, Assiut University School of Medicine, Egypt
10/2021- 09/2022	Clinical Training, Peditatric Urology, University of Tennessee Health Science Center, Memphis, Tennessee
2019-2022	<b>Graduate Certificate in Clinical Research</b> , Department of Population and Quantitative Health Sciences, Case Western Reserve University.
2021	United States Medical Lisencing Examination (USMLE) Step 3
2020	Educational Commission For Foreign Medical Graduates (ECFMG) Certification
2015-2017	Post-Doctoral Research Fellowship, Department of Urology, University Hospitals Cleveland Medical Center, Case Western Reserve University School of Medicine
	Mentors: Dr. Adonis Hijaz and Dr. Lee Ponsky
2011-2015	Post-Residency Clinical Training at the Department of Urology, Faculty of Medicine, Assiut University School of Medicine, Egypt
2008-2011	Residency in Urology along with Master degree in Urology: Assiut University Hospital, Assiut University School of Medicine, Egypt
2007	Internship, Assiut University Hospital, Assiut University School of Medicine, Egypt
2000-2006	Doctor of Medicine, Assiut University School of Medicine, Egypt

# **Work Experience**

7/2023	Consultant and Lecturer of Urology		
	Department of Urology, Assiut University School of Medicine, Egypt		
10/2021-9/2022	Clinical Fellow		
	Peditatric Urology, University of Tennessee Health Science Center, Memphis, Tennessee		
9/2020- 5/2021	Graduate Student		
	Clinical Translational Science, Department of Populationa and Quantitative Health		
	Sciences, Case Western Reserve University School of Medicine, Cleveland, OH		
9/2018-9/2020	Senior Research Associate		
	Department of Urology, Case Western Reserve University School of Medicine, Cleveland		
9/2015-9/2018	Post-Doctoral Fellow		

	Department of Urology, Case Western Reserve University School of Medicine, Cleveland
2012-2023	Assistant Lecturer (Junior Faculty)
	Department of Urology, Assiut University School of Medicine, Egypt
2011-2012	Clinical Demonstrator
	Department of Urology, Assiut University School of Medicine, Egypt

# **Publications and Presentations**

# Peer-Reviewed Publications:

- 1. Li L., Shiradkar R, ....., Mahran A, et al., Novel radiomic analysis on bi-parametric MRI for characterizing differences between MR non-visible and visible clinically significant prostate cancer. European Journal of Radiology Open, 2023. 10: p. 100496.
- 2. Eileen Y, Melody M, Mahran A, et al., Pain management in outpatient urologic procedures: A prospective randomized trial of oxycodone versus ketorolac. International Journal of Reconstructive Urology 1(1):p 40-45, Jan–Apr 2023. | DOI: 10.4103/IJRU.IJRU 4 23.
- 3. Shu TD, Schumacher FR, Conroy B, Ponsky L, **Mahran A**, et al., Disparities in cause-specific mortality by race and sex among bladder cancer patients from the SEER database, Cancer Causes Control. 2023 Mar 8. doi: 10.1007/s10552-023-01679-x. Epub ahead of print. PMID: 36882598.
- 4. Mishra K, Isali I, Sindhani M, Prunty M, Bell S, **Mahran A**, et al., Characterization of Changes in Penile Microbiome Following Pediatric Circumcision, European Urology Focus, 2022, ISSN 2405-4569, https://doi.org/10.1016/j.euf.2022.12.007.
- 5. Prunty M, Bukavina L, **Mahran A**, et al. Risk factors for postoperative Clostridium difficile infection after radical cystectomy for bladder cancer: a NSQIP database analysis. Can J Urol. 2022 Jun;29(3):11170-11174. PMID: 35691039.
- 6. Shiradkar R, Ghose S, Mahran A, et al. Prostate Surface Distension and Tumor Texture Descriptors From Pre-Treatment MRI Are Associated With Biochemical Recurrence Following Radical Prostatectomy: Preliminary Findings. Frontiers in Oncology. 2022:12.
- 7. Mishra K, Jesse E, Bukavina L, ..., Mahran A, Calaway A, Block S, Ponsky L. Impact of Music on Postoperative Pain, Anxiety, and Narcotic Use After Robotic Prostatectomy: A Randomized Controlled Trial. J Adv Pract Oncol. 2022 Mar;13(2):121-126. doi: 10.6004/jadpro.2022.13.2.3.
- Slopnick EA, Bagby C, Mahran A, Nagel C, Garcia J, El-Nashar S, Hijaz AK. Skene's Gland Malignancy: A Case Report and Systematic Review. Urology. 2022 Feb 19:S0090-4295(22)00149-2. doi: 10.1016/j.urology.2022.02.004.
- 9. Carter IV, Callegari MJ, Jella TK, **Mahran A**, et al. Trends in testosterone prescription amongst medical specialties: a 5-year CMS data analysis. Int J Impot Res. 2022 Jan 7. doi: 10.1038/s41443-021-00497-6.
- 10. Sun H, Prunty M, Isali I, **Mahran** A et al. Cost of Care in Open Cystectomy Patients Across Time and Space: Does It Matter? Bladder Cancer. 2021 Jan 1: 439 447.

- 11. Jella T, Fernstrum A, Callegari M, Cwalina TB, Muncey W, **Mahran A**, Petrinic B, Ray A, Elghalban H, Abdelrazek M, Loeb A, Thirumavalavan N, Gupta S. Peri-operative outcomes between primary and replacement artificial urinary sphincter surgery: An ACS-NSQIP analysis. Turk J Urol. 2021
- 12. Mahran A, Miller A, Calaway A, et al. The Impact of Race and Sex on Metastatic Bladder Cancer Survival. Urology. 2021 Nov 20:S0090-4295(21)00922-5. doi: 10.1016/j.urology.2021.08.049.
- 13. Hiremath A, Shiradkar R, Fu P, **Mahran A**, et al., An integrated nomogram combining deep learning, Prostate Imaging–Reporting and Data System (PI-RADS) scoring, and clinical variables for identification of clinically significant prostate cancer on biparametric MRI: a retrospective multicentre study. The Lancet Digital Health, 2021. **3**(7): p. e445-e454.
- 14. Alfahmy A, Mahran A, Conroy B. et al. Abdominal and vaginal pelvic support with concomitant hysterectomy for uterovaginal pelvic prolapse: a comparative systematic review and meta-analysis. Int Urogynecol J (2021). <u>https://doi.org/10.1007/s00192-021-04861-4</u>
- 15. Habermehl N, Minich NM, Malay S, **Mahran A**, Kim G. Pediatric Thoracolumbar Spinal Injuries in United States Trauma Centers. Pediatr Emerg Care. 2021 Apr 9. doi: 10.1097/PEC.00000000002427. Epub ahead of print. PMID: 33848099.
- 16. Callegari M, Jella T, **Mahran A.** et al., Opioid prescription patterns among urologists as compiled from within Medicare. Canadian Urological Association Journal, 2021. **15**(11).
- 17. Elshafei A, Calaway A, ..., Mahran A, Jones JS, Polascik T, and Dewitt-Foy M. Does Prior Surgical Interventional Therapy for BPH Affect the Oncological or Functional Outcomes after Primary Whole Gland Prostate Cryoablation for Localized Prostate Cancer? Prostate Cancer and Prostatic Diseases, 2021, <u>https://doi.org/10.1038/s41391-020-00306-z</u>
- Nakayama JM, Sheyn D, Mahran A, El-Nashar SA. Proportion and Utilization Trends in the NSQIP Database from 2010 through 2015 with Correlation to Technology and Policy, Journal of Gynecologic Surgery, 2021 (Ahead of print)- <u>https://doi.org/10.1089/gyn.2020.0180</u>
- 19. Seyfried N, Mahran A, et al., Diagnostic Yield of Incremental Biopsy Cores and Second Lesion Sampling for In-Gantry MRI-Guided Prostate Biopsy. AJR Am J Roentgenol, 2020.
- 20. Li L, Shiradkar R, Leo P, Algohary A, Fu P, Tirumani SH, **Mahran** A et al., A novel imaging based Nomogram for predicting post-surgical biochemical recurrence and adverse pathology of prostate cancer from pre-operative bi-parametric MRI. EBioMedicine, 2020. 63: p. 103163.
- 21. Bukavina L, Mishra K, **Mahran** A, et al., "Robotic fatigue?" The impact of case order on positive surgical margins in robotic-assisted laparoscopic prostatectomy. Urol Oncol, 2020.
- 22. Mishra K, Mahran A, et al. Validating the Martini Staging System for Rectourethral Fistula: A Meta-Analysis of Postoperative Outcomes, Urology. 2020 (Accepted)
- 23. Shiradkar R, Panda A; ..., Mahran A et al. T1 T2 MR Fingerprinting Measurements of Prostate Cancer and Prostatitis Correlate with Deep Learning Derived Estimates of Epithelium, Lumen and Stromal Composition on Corresponding Whole Mount Histpathology. European Rdiology, 2020 (Accepted)
- 24. Algohay A, Shiradkar R, ..., **Mahran A** et al. Combination of Peri-Tumoral and Intra-Tumoral Radiomic Features on Bi-Parametric MRI Accurately Stratifies Prostate Cancer Risk: A Multi-Site Study. Cancers, 2020, 12, 2200

- 25. Wang M, Bukavina L, Mishra K, **Mahran** A, et al. Kidney volume loss following percutaneous nephrolithotomy utilizing 3D planimetry. Urolithiasis. 2020 Jun;48(3):257-261. doi: 10.1007/s00240-019-01149-7.
- 26. *Mahran A,* Fernstrum A, et al. Impact of Trauma Center Designation in Pediatric Renal Trauma: National Trauma Data Bank Analysis. Journal of Pediatric Urology, 2020
- 27. Bukavina L, Prunty M, Mishra K, Sun H, Sheyn D, Conroy C, **Mahran A**, et al. Gender Disparities in Bladder Cancer Specific Survival in High Poverty Areas Utilizing Ohio Cancer Incidence Surveillance System (OCISS). Urology. 2020.
- 28. Ray A, Fernstrum A, **Mahran A**, Thirumavalavan N. Testosterone therapy and risk of breast cancer development: a systematic review. Current Opinion in Urology. 9000; Publish Ahead of Print.
- 29. Mishra K, Ng M, Wang M, Mahran A, et al. Direct Cost Savings Analysis of Nurse Practitioner for Inpatient Urology Practice. Urology Practice.0(0):10.1097/UPJ.00000000000143.
- 30. Mishra K, Avila A, Mahran A, et al. Preoperative Testing for Urethroplasty is Not Associated With Outcomes-A NSQIP Study. Urology. 2020.
- 31. Mishra K, Fernstrum A, **Mahran A**, et al. Epidural Anesthesia is associated with increased complications in Cystectomy Patients: A NSQIP Analysis. Urology. 2020.
- 32. Narayanamurthy V, Mishra K, **Mahran A**, et al. Inter-imaging accuracy of computed tomography, magnetic resonance imaging, and transrectal ultrasound in measuring prostate volume compared to the anatomic prostatic weight. Turkish Journal of Urology. 2020;46(1):50.
- 33. Mahran A, Mishra K, Omil-Lima D, Abboud B, Wang M, Jankowski J, et al. Is there a benefit to additional neuroaxial anesthesia in open nephrectomy? A prospective NSQIP propensity score analysis. International Urology and Nephrology. 2019:1-9.
- 34. 1Isali I, **Mahran A,** Khalifa AO, Sheyn D, Neudecker M, Qureshi A, et al. Gene expression in stress urinary incontinence: a systematic review. International urogynecology journal. 2019:1-14.
- 35. Woo K, Bukavina L, Mishra K, Mahran A, Prunty M, Ponsky L, DiCarlo H, Ross J, Woo L. Comparison of 30-day postoperative outcomes of open and minimally invasive pyeloplasty utilizing prospective NSQIP-P database. Journal of Pediatric Urology, 2019, https://doi.org/10.1016/j.jpurol.2019.05.022.
- 36. *Mahran A*, Mishra K, Bukavina L, Schumacher F, Quian A, Buzzy C, et al. Observed racial disparity in the negative predictive value of multi-parametric MRI for the diagnosis for prostate cancer. International urology and nephrology. 2019:1-6.
- 37. Wang M, Ng M, Bukavina L, **Mahran A**, Mishra K, Buzzy C, et al. Superfluous Hospital Expenditure Associated with Unnecessary Renal Cyst Surveillance. Urology Practice. 2019:10.1097/UPJ. 000000000000067
- 38. *Mahran A,* Baaklini G, Hassani D, Abolella HA, Safwat AS, Neudecker M, et al. Sacral neuromodulation treating chronic pelvic pain: a meta-analysis and systematic review of the literature. International urogynecology journal. 2019:1-13.
- 39. Khalifa AO, Kavran M, **Mahran A,** Isali I, Woda J, Flask CA, et al. Stromal derived factor-1 plasmid as a novel injection for treatment of stress urinary incontinence in a rat model. International urogynecology journal. 2019:1-9.

- 40. Bukavina L, Mishra K., **Mahran A,** Shekar A, Sheyn D, Slopnick E, Hijaz A, Jankowski J, Ponsky L., Nguyen C. Gender Disparity in Cystectomy Postoperative Outcomes: Propensity Score Analysis of the NSQIP Database. European Urology Oncology, <u>https://doi.org/10.1016/j.euo.2019.04.004</u>
- 41. Wang, M, Janaki, N, Buzzy C, Bukavina L, **Mahran A,** Mishra K, MacLennan G, Ponsky L. Whole mount histopathological correlation with prostate MRI in Grade I and II prostatectomy patients. Int Urol Nephrol (2019). <u>https://doi.org/10.1007/s11255-019-02083-8</u>
- 42. Mishra K, Bukavina L, Mahran A, Bobrow A, Buzzy CA, Jain N, Gnessin E, Loeb A, Ponsky LE. Variability in Prices for Erectile Dysfunction Medications Are All Pharmacies The Same? The Journal of Sexual Medicine, 2018; 15(12): 1785-1791.
- 43. *Mahran A,* Bukavina L, Mishra K, et al. Bladder irrigation after transurethral resection of superficial bladder cancer: a systematic review of the literature. Can J Urol. 2018;25(6):9579-9584.
- 44. Mahran A, Turk A, Buzzy C, Wang M, Yang J, Neudecker M, et al. Younger Men With Prostate Cancer Have Lower Risk of Upgrading While on Active Surveillance: A Meta-analysis and Systematic Review of the Literature. Urology. 2018;121:11-8.
- 45. Mahran, A, Soriano, A., Safwat, A. S., Hijaz, A., Mahajan, S. T., Trabuco, E. C., Siegel, S. W., and El-Nashar, S. A. (2017) The effect of sacral neuromodulation on pregnancy: a systematic review. Int Urogynecol J Pelvic Floor Dysfunct, 1-9

## Puplications to be submitted or currently under review:

- 1. Delta radiomic patterns on serial bi-parametric MRI are associated with pathologic upgrading in prostate cancer patients on active surveillance: Preliminary Findings.
- 2. Propensity Score Matched Analysis of Urinary Tract infections and Readmissions after Open Ureteroneocystostomy: Does Age Matter?

## **Reply by Authors:**

- 1. Mishra K, Mahran A, et al., Author Reply to Letter-to-the-Editor on: Validating the Martini Staging System for Rectourethral Fistula. Urology, 2020.
- 2. Mishra K, Ng M, Wang M, Mahran A, et al. Reply by Authors on Direct Cost Savings Analysis of Nurse Practitioner for Inpatient Urology Practice. Urology Practice, 2020;7(6), pp. 472–473

## **Conference Paper (Proceedings):**

Shiradkar R, Zuo R, **Mahran** A, Ponsky L, Tirumani SH, Madabhushi A (2020). Radiomic features derived from periprostatic fat on pre-surgical T2w MRI predict extraprostatic extension of prostate cancer identified on post-surgical pathology: preliminary results. SPIE, Bellingham, WA USA

# Acknowledgments:

1. Pyeloplasty with ureteral stent placement in children: Do prophylactic antibiotics serve a purpose? https://www.jpurol.com/article/S1477-5131(22)00119-X

2. Diagnostic Accuracy of a Rapid Biparametric MRI Protocol for Detection of Histologically Proven Prostate Cancer. https://www.goldjournal.net/article/S0090-4295(18)30920-8/fulltext

## **Conference Abstracts:**

Almatari A, ..., **Mahran A** et al., MP70-06 Matched Analysis of Urinary Tract Infections and Readmissions after Open Ureteroneocystostomy: Does Age Matter? Journal of Urology, 2023. **209**(Supplement 4): p. e1005.

Manning E, **Mahran** A et al., MP38-15 Prognostic Nutritional Index (PNI) As a Predictive Factor for Upstaging in Cystectomy Patients. American Urologic Association Annual Meeting (Moderated Poster), Virtual, Septemeber 10th-13th, 2021

Carter I, Callegari M, Jella T, **Mahran** A et al., MP36-15 Trends in Testosterone Prescriptions amongst Medical Specialties: A 5-Year CMS Data Analysis. American Urologic Association Annual Meeting (Moderated Poster), Virtual, Septemeber 10th-13th, 2021

Neupane R, Prunty M, Omil-Lima D **Mahran** A et al., PD05-03 Androgen Deprivation Therapy (ADT) for Prostate Cancer and Its Effects on Brain Volume 3D Planimetry. American Urologic Association Annual Meeting (Podium), Virtual, September 10th-13th, 2021

Alfahmy A, Mahran, A et al. #M82 Comparative Abdominal and Vaginal Pelvic Support with Concomitant Hysterectomy for Uterovaginal Pelvic Prolapse: A Systematic Review and Meta-Analysis. (2021), Basic Science Essay Winner. Neurourol Urodyn, 40: S6-S242. <u>https://doi.org/10.1002/nau.24638</u>

Callegari M, Jella T, **Mahran** A et al., 033 Trends in Testosterone Prescription Modalities Amongst Medical Specialties: A 5-year CMS Data Analysis (2013-2017). The Journal of Sexual Medicine, 2021. 18(3): p. S19-S20.

Gupta K, Omil-Lima D, Mahran A et al., 062 Comparison of Patient Demographics and Surgical Trends in Peyronie's Disease: A NSQIP Study. The Journal of Sexual Medicine, 2021. 18(3): p. S33-S34.

Slopnick E, Mahran A, Systematic Reviewof Skene's Gland Neoplasms, American Urogynecological Society (poster), Virtual PFDWEEK 2020.

Fernstrum A, **Mahran A,** Bukavina L et al. Cystectomy Outcomes Based on Operative Time: An ACS-NSQIP Analysis. North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Podium)

Callegari M, Fernstrum A, **Mahran A** et al. Complications and Outcomes Between Primary Implantation and Revision Artificial Urinary Sphincter Surgery: An ACS-NSQIP Analysis. North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Podium)

Bukavina L, Mishra K, Sopko E, ..., Mahran A et al. Impact of music on postoperative pain, anxiety, and narcotic use after robotic prostatectomy: A Randomized-Control Trial(RCT). North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Podium)

Mishra K, **Mahran** A, Abboud B et al. Validating the Martini Staging System for Rectourethral Fistula - A Meta-Analysis in Support of Standardizing the Reporting of Rectourethral Fistula. North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Podium)

Fernstrum A, Mishra K, Cullison C, **Mahran** A et al. Disparity in Bladder Trauma Outcomes by AAST-OIS grading: A Propensity Score Analysis of the National Trauma Database. North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Podium)

Mishra K, Bukavina L, **Mahran** A et al. Betadine versus Chlorhexidine - A Next Generation Sequencing Analysis of the Microbiome Present on the Post-Prep Operative Field During Penile Prosthesis Implantation. North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Poster)

Shiradkar R, **Mahran A**, Zuo R, et al. Delta Radiomic Features from serial bi-parametric MRI are associated with biopsy upgrading of prostate cancer patients on Active Surveillance. International Society for Magnetic Resonance in Medicine (ISMRM) Meeting, 2020

Seyfried N, **Mahran** A, Panda A, et al. Value of Incremental Biopsy Cores and Second Lesion Sampling with In-Gantry MRI-guided Prostate Biopsies. International Society for Magnetic Resonance in Medicine (ISMRM) Meeting, 2020

Shiradkar R, **Mahran** A, Sharma S, et al, Radiomic features of prostate cancer patients (Gleason Grade Group = 2) show differences between African American and Caucasian populations on bi-parametric MRI: Preliminary Findings. American Urologic Association Annual Meeting (Moderated Poster), Washington, DC, May 15th-18th, 2020.

Mahran A, Mishra K, Prunty M, Omil-Lima D, et al. National Trends in Bladder Cancer: Sources of Potential Cost Variation in Cystectomy Care. American Urologic Association Annual Meeting (Moderated Poster), May 15th-18th, 2020.

Mishra K, Bukavina L, **Mahran** A, Retuerto M, Winner D, Fernstrum A, Ray A, Gupta S, Thirumavalavan N, Ghannoum M, Loeb A. Betadine versus Chlorhexidine – A Next-Generation Sequencing Analysis of the Microbiome Present on the Post-prep Operative Field During Penile Prosthesis Implantation. Presented at American Urologic Association Annual Meeting (Moderated Poster), May 15th-18th, 2020.

Bukavina L, Mishra K, Mahran A, Markt S, et al. The Impact of Case Order on Positive Surgical Margins for Prostate Cancer: A Multi-institutional Analysis. Presented at American Urologic Association Annual Meeting (Podium), May 15th-18th, 2020.

Mahmut A, Janaki N, **Mahran A,** Bream M, Shekar A, Mishra K, Omil-Lima D, Ponsky L, MacLennan G, Bukavina L. Re-examining the Depth of Invasion in High-grade T1 Bladder Cancer and Clinical Outcomes: An independent Predictor of Survival. Presented at American Urologic Association Annual Meeting (Moderated Poster), May 15th-18th, 2020.

Mishra K, Avila A, **Mahran A**, et al. Intensity of Preoperative testing for Urethroplasty and its association with outcomes- A National Surgical Quality Improvement Program Study. Presented at The Sexual Medicine

Society of North America (Moderated Poster), Nashville, TN, October 24th – 26th, 2019 and American Urologic Association Annual Meeting (Moderated Poster), May 15th-18th, 2020

Mishra K, Mahran A, et al. The Risks of Epidural Anesthesia iIn Cystectomy Patients: A NSQIP Analysis (Poster). Society of Urologic Onclogy (SUO), Washington DC, Dec 4-6, 2019

Akgul M, Janaki N, **Mahran** A, et al. Re-Examining the Depth of Invasion in High-Grade T1 Bladder Cancer and Clinical Outcomes: An Independent Predictor of Survival (Poster). Society of Urologic Onclogy (SUO), Washington DC, Dec 4-6, 2019.

O-Lima D, Mahran A, Ponsky L, et al. Utility of Multiparametric Prostate MRI In Prostate Cancer Active Surveillance (Poster). Society of Urologic Onclogy (SUO), Washington DC, Dec 4-6, 2019.

Wang M, Bukavina L, Mishra K, **Mahran A**, Quian A, Kondray C, Patel A, Bodner D, Ponsky L, Gnessin E. Kidney Volume Loss Following Percutaneous Nephrolithotomy Utilizing 3D Planimetry. Journal of Urology, 2019; 201 (Suppl 4);e553.

Narayanamurthy V, Mishra K, **Mahran A,** Bukavina L, Patel A, Ponsky LE, Bodner D, Gnessin E. Interimaging Accuracy of CT, MRI, and TRUS in Measuring Prostate Volume Compared to the Anatomic Prostatic Weight. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Wang M, Nafiseh J, Buzzy C, Bukavina L, **Mahran A,** Mishra K, MacLennan G, Ponsky LE. Whole Mount Histopathological Correlation with Prostate MRI in Grade I & II Prostatectomy Patients. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Woo K, **Mahran A,** Bukavina L, Mishra K, Prunty M, Ponsky LE, Dicarlo H, Ross JH, Woo LL. Pediatric Pyeloplasty 30-day outcomes: comparison of open versus minimally invasive pyeloplasty for ureteropelvic junction obstruction utilizing NSQIP database. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Bukavina L, Mishra K, Mahran A, Shekar A, Sheyn D, Slopnick E, Hijaz A, Jankowski J, Ponsky L, Nguyen C. Gender Disparity in Cystectomy Postoperative Outcomes: Propensity Score Analysis of the NSQIP Database. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Wang M, Ng M, Bukavina L, **Mahran A,** Mishra K, Ray A, Buzzy C, Garrels K, Nguyen C. Superfluous hospital expenditure associated with unindicted renal cyst surveillance. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Jain N, Woo K, Bukavina L, Mishra K, **Mahran A,** Kondray C, Sheyn D, Buzzy C, Ponsky L, Garrels K, Nguyen C. The Effects of Androgen Deprivation Therapy on Brain Volume 3D Planimetry. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Bukavina L, Mahran A, Mishra K, Adamic B, Shekar A, Narayanamurthy V, Nguyen C, Ponsky L. Epidural Anesthesia Increases Rate of Complications and Post Operative Stay in Patients After Cystectomy: A NSQIP analysis. North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Mishra K, Bukavina L, **Mahran A,** Narayanamurthy V, Retuerto M, Jaeger I, Lengu I, Bodner D, Ghannoum M, Ponsky L. The Bioburden Identified on Reusable Scopes Vesus Single-use Scopes – Should We Use Disposable Scopes in High-risk Patients? North Central Section (Podium), Chicago, IL, September 11th-14th, 2019.

Wang M, Bukavina L, Mishra K, **Mahran A**, Quian A, Kondray C, Patel A, Bodner D, Ponsky L, Gnessin E. Kidney Volume Loss Following Percutaneous Nephrolithotomy Utilizing 3D Planimetry. Plenary Session: Next Frontier, American Urologic Association Annual Meeting Chicago, IL, May 3rd-5th, 2019.

Jain N, Bukavina L, Mishra K, **Mahran A,** Kondray C, Sheyn D, Buzzy C, Ponsky L, Garrels K, Nguyen C. The Effects of Androgen Deprivation Therapy On Brain Volume 3D Planimentry. American Urologic Association Annual Meeting (Podium), Chicago, IL, May 3rd-5th, 2019

Mahran A, Bukavina L, Mishra K, Omil-Lima D, Abboud B, Wang M, Buzzy C, Jankowski J, Abouassaly R, Ponsky LE, Lengu I. Spinal Anesthesia Reduces Rates of Readmission and Complications in Patients After Nephrectomy: A NSQIP analysis. AUA North Central Section (Podium), Chicago IL, September 11th-14th, 2019.

Mishra K, Chen M, Bukavina L, **Mahran A,** Kiechle J, Wang M, Buzzy C, Ponsky L, Gonzalez C. Pain Management in Outpatient Urologic Procedures – A Prospective Randomized Trial of Oxycodone versus Ketorolac. Presented at American Urologic Association Annual Meeting, Chicago, IL, May 3rd-5th, 2019.

Mishra K, Bukavina L, **Mahran A,** Bobrow A, Buzzy C, Jain N, et al. 152 Variability in Cash Prices for Erectile Dysfunction Medications–Are All Pharmacies the Same? The Journal of Sexual Medicine. 2019;16(4):S77-S8.

Jain N, Bukavina L, Mishra K, **Mahran A,** Kondray C, Sheyn D, Buzzy C, Ponsky L, Garrels K, Nguyen C. The Effects of Androgen Deprivation Therapy On Brain Volume 3D Planimentry. Journal of Urology, 2019; 201 (Suppl 4);e393.

Mishra K, Chen M, Bukavina L, **Mahran A,** Kiechle J, Wang M, Buzzy C, Ponsky L, Gonzalez C. Pain Management in Outpatient Urologic Procedures – A Prospective Randomized Trial of Oxycodone Versus Ketorolac. Journal of Urology, 2019; 201 (Suppl 4):e121.

Ng M, Wang M, Bukavina L, **Mahran A,** Mishra K, Callegari M, Posnky L. Cost-savings Analysis of Inpatient Advanced Practice Provider. Journal of Urology, 2019; 201 (Suppl 4):e303.

Mishra K, Bukavina L, **Mahran A,** Bobrow A, Buzzy CA, Jain N, Gn''essin E, Loeb A, Ponsky LE. Variability in Prices for Erectile Dysfunction Medications – Are All Pharmacies The Same? Presented at the Society of Women in Urology (Poster), Scottsdale, AZ, January 20th, 2019.

*Mahran A,* Yang J, Buzzy C, Abboud R, et al, "The effect of racial disparity on the negative predictive value of Prostate imaging reporting and data system (PI-RADS) on multi-parametric Magnetic resonance imaging of the prostate (mpMRI)". AUA North Central Section (Podium), Chicago, IL, September 5th-8th, 2018.

Mahran A, Su J, et al Can Prostatic Specific Antigen Velocity (PSAV) Improve The Diagnostic Accuracy Of Prostate Imaging Reporting And Data System (PI-RADS) Score For Predicting Significant Prostate Cancer (2018), The Journal of Urology, Volume 199, Issue 4, e771.

Levine H, Mahran A, Buzzy C, et al, "Correlating Multi-Parametric Magnetic Resonance Imaging PI-RADS Score With Prostate Volume". AUA North Central Section (Podium), Chicago, IL, September 5th-8th, 2018.

Mahran A, Buzzy C, Mansori B, et al, "Gleason score (GS) upgrading at radical prostatectomy: is it an actual Upgrading? An overview using multi-parametric MRI", AUA North Central Section (Podium), Chicago, IL, September 5th-8th, 2018.

Mahran A, Abboud R, Buzzy C, Wang M, Glover M, Jaeger I, Gulani V, Ponsky L, Basal Location of Prostatic Cancer on Multi-parametric MRI as a New Predictor for Biochemical recurrence after Robotic Radical Prostatectomy, poster presentation, World Congress of Endourology, Vancouver, Sep 2017

Glover M, Abboud R, Mahran A, Buzzy C, Thawani R, Wang M, Gulani V, Ponsky L, Jaeger I, The Impact of mpMRI on Prostate Cancer Detection with Respect to Prostate Volume, poster presentation -World Congress of Endourology, Vancouver, Sep 2017

Abboud R, Buzzy C, **Mahran A,** Glove M, Thawani R, Wang M, Jaeger I, Gulani V, Ponsky L, Modeling prebiopsy and mpMRI variables: Avoiding unnecessary prostate biopsies, poster presentation, World Congress of Endourology, Vancouver, Sep 2017

Abboud R, **Mahran A,** Christina Buzzy, Scarberry K, Francis J, Gulani V, Ponsky L, Clinical Parameters For Consideration of a Prostate Biopsy After A Non-Positive MRI, poster presentation, Engineering Urology Society, Boston, May 2017

Mahran, A, Soriano A, Hijaz AK, Mahajan S, Siegel SW et al. (2017). Sacral Neuromodulation and Pregnancy: A Systematic Review. Neurourology and urodynamics, Wiley-Blackwell 111 River St, Hoboken 07030-5774, NJ USA.

James R, Ginsberg J, Petrikovets A, Khalifa A, li M, **Mahran A**, etal. Prospective Observations of Prevalence of Peripartum Incontinence in Nulliparas, American Urogynecological Society (Oral poster), PFDWEEK 2016, Denver, Colorado.

## **Book Chapters:**

*Mahran A, Mishra K, Buzzy C, Ponsky L. The Value of Incorporating Multiparametric MRI for Active Surveillance in Patients with Prostate Cancer. Reading MRI of the Prostate: Springer; 2020. p. 79-87.* 

Mishra K, Bukavina L, Mahran A, Ponsky L. A Primer on Prostate MRI for the Practicing Urologist: Update on the Current Literature. Reading MRI of the Prostate: Springer; 2020. p. 89-96.

#### Presentations:

Mishra K, **Mahran** A, Abboud B et al. Validating the Martini Staging System for Rectourethral Fistula - A Meta-Analysis in Support of Standardizing the Reporting of Rectourethral Fistula. North Central Section of the AUA Virtual 94th Annual Meeting, October 15 - 16, 2020 (Podium)

*Mahran A,* Bukavina L et. al. "National Trends in Bladder Cancer: Sources of Potential Cost Variation in Cystectomy Care". Virtual American Urologic Association Annual Meeting (Moderated Poster), May 17th, 2020.

*Mahran A,* Yang J, Buzzy C, Abboud R, et al, "The effect of racial disparity on the negative predictive value of Prostate imaging reporting and data system (PI-RADS) on multi-parametric Magnetic resonance imaging of the prostate (mpMRI)". AUA North Central Section (Podium), Chicago IL, September 5th-8th, 2018.

Levine H, Mahran A, Buzzy C, et al, "Correlating Multi-Parametric Magnetic Resonance Imaging PI-RADS Score With Prostate Volume". AUA North Central Section (Podium), Chicago, IL September 5th-8th, 2018.

Mahran A, Buzzy C, Mansori B, et al, "Gleason score (GS) upgrading at radical prostatectomy: is it an actual Upgrading? An overview using multi-parametric MRI", AUA North Central Section (Podium), Chicago IL, September 5th-8th, 2018.

Mahran A, Sue J et al, "Can Prostatic Specific Antigen Velocity (PSAV) Improve The Diagnostic Accuracy Of Prostate Imaging Reporting And Data System (PI-RADS) Score For Predicting Significant Prostate Cancer, American Urologic Association Annual Meeting (Moderated Poster), San Francisco CA, May 18-21, 2018.

Mahran, A., Soriano A, Hijaz AK, Mahajan S, Siegel SW et al. Sacral neuromodulation and pregnancy: a systematic review. Society of Urodynamics, Female Pelvic Mediceine & Urogenital Reconstruction (SUFU) (Poster), Scottsdale, AZ, February 28 - March 4, 2017.

Mahran A, Buzzy C, Abboud R, Scarberry K, Francis J, Gulani V, Ponsky L, Does Multi-parametric MRI Predict Positive Surgical Margins after Robot-Assisted Radical Prostatectomy? A Retrospective Cohort Study, Poster presentation, Engineering Urology Society (Poster), Boston MA, May 2017

# **Research Featured in Media**

- MDLinx February 13, 2020: "Epidural anesthesia is associated with increased complications in cystectomy patients: A NSQIP analysis". <u>https://www.mdlinx.com/journal-summaries/bladder-cancer-regional-anesthesia-epidural-anesthesia/2020/01/17/7600679/</u>
- MDLinx September 8, 2020: "Validating the martini staging system for rectourethral fistula: A meta- analysis of postoperative outcomes". https://www.mdlinx.com/journalsummary/validating-the-martini-staging-system-for-rectourethral-fistula-a-meta-analysis-ofpostoperative/60EnwhmJl5g0mGmYqtGkHK
- Medscape (Reuters Health):
  - "No Need to Add Epidural to General Anesthesia for Cystectomy", featured on Medscape.com, February 4th, 2020. <u>https://www.medscape.com/viewarticle/924648</u>

- "Routine Preop Testing Does Not Affect Urethroplasty Outcomes", featured March 20<sup>th</sup>, 2020. <u>https://www.medscape.com/viewarticle/927199</u>
- "Does Active Surveillance Increase Risks in Younger Men With Prostate Cancer?", a video commentary featuring our meta-analysis (Younger Men With Prostate Cancer Have Lower Risk of Upgrading While on Active Surveillance), puplished October 4th, 2018. https://www.medscape.com/viewarticle/902266
- Renal &Urology News: "Study Supports Prostate Cancer Active Surveillance for Younger Men", featured July 31<sup>st</sup>, 2018. <u>https://www.renalandurologynews.com/home/news/urology/prostatecancer/study-supports-prostate-cancer-active-surveillance-for-younger-men/</u>
- UroToday.com Highlights
  - February 21<sup>st</sup>, 2021: "A Novel Imaging Based Nomogram for Predicting Post-Surgical Biochemical Recurrence and Adverse Pathology of Prostate Cancer from Pre-Operative Bi-Parametric MRI Beyond the Abstract"
  - December 17<sup>th</sup>, 2020: "A novel imaging based Nomogram for predicting post-surgical biochemical recurrence and adverse pathology of prostate cancer from pre-operative bi-parametric MRI"
  - November 20<sup>th</sup>, 2020: "Robotic fatigue? The impact of case order on positive surgical margins in robotic-assisted laparoscopic prostatectomy".
  - August 4<sup>th</sup>, 2020: "Gender Disparities in Bladder Cancer Specific Survival in High Poverty Areas Utilizing Ohio Cancer Incidence Surveillance System (OCISS)".
  - January 12th, 2020: "Inter-imaging accuracy of computed tomography, magnetic resonance imaging, and transrectal ultrasound in measuring prostate volume compared to the anatomic prostatic weight".
  - August 7th, 2019 "Gender Disparities in Clinical Outcomes after Cystectomy Expert Commentary".
  - July 21st, 2019: "Gene expression in stress urinary incontinence: a systematic review"
  - January 30th, 2019: "Whole mount histopathological correlation with prostate MRI in Grade I and II prostatectomy patients".
  - February 13th, 2017: "The effect of sacral neuromodulation on pregnancy: a systematic review"
  - December 19th, 2018: "Bladder irrigation after transurethral resection of superficial bladder cancer: a systematic review of the literature".
  - August 7, 2018: "Younger Men with Prostate Cancer have Lower Risk of Upgrading while on Active Surveillance: A Meta-analysis and Systematic Review of the Literature".
- Auntminnie.com: "mpMRI falls short for prostate cancer in African Americans", featured May 13th, 2019 on the largest radiology community in the world. https://www.auntminnie.com/index.aspx?sec=log&itemID=125427
- Sexhealthmatters.org: April 2nd, 2019 Sex Health Drugs are Expensive. What Can Consumers Do? Our tudy evaluating the variability in prices across pharmacies in a single geographic region was featured

- on the website. <u>https://www.sexhealthmatters.org/news/sex-health-drugs-are-expensive.-what-can-</u> <u>consumers-do</u>
- CWRU Daily: "researchers develop new treatment for stress urinary incontinence", featured April 19, 2019, <u>https://thedaily.case.edu/cwru-researchers-develop-new-treatment-for-stress-urinary-incontinence/</u>

# **Editorial Board Membership**

2020- Present	International Journal of Clinical Urology
2020- Present	Journal of Case Reports and Images in Urology
2018- Present	Journal of Pediatric Diseases

# **Reviewer for Scientific Journals**

2021- Present	Cancers
2020- Present	Children
2020- Present	Journal of Sexual Medicine
2020- Present	Urology Video Journal
2020- Present	BioMed Central (BMC) Cancer
2020- Present	International Urogynecology Journal
2019- Present	Asian Journal of Andrology
2018- Present	Urology
2017- Present	BioMed Central (BMC) Women's Health

# **Current Professional Memberships**

American Urologic Association (AUA) European Association of Urology (EAU)

## **Current Liscensure**

Egyptian Medical Syndicate (2008-) Does not expire

# **Educational Activities**

#### A) Teaching:

- 2022- Teaching undergraduate medical students various topics in Urology and supervising/assisting our urology residents and junior assistant lectures in performing variousurological procedures including but not limited to pediatric urology, endourology, female urology, uro-oncology, and general urology procedures.
- 2013-2015 "Clincal Skills in Urology" for medical undergraduates, Assiut University, Egypt

- 2012-2015 "History Taking and Clinical Examination in Urology", for medical undergraduates, Assiut University, Egypt.
  2012-2015 "University in the information of the providence of the providen
- 2012- 2015 "How to interpret Urologic findings on Plain Urinary Tract X-ray, Intravenous Urogram, and CT Scans", for medical undergraduates, Assiut University, Egypt
- 2012-2015 Supervising the work of Urology residents in the Department of Urology, Assiut University, Egypt

# B) Mentorship/Co-mentorship in Research:

Individual and	Presentations at National	Publications (Articles/ Abstracts)	Current
position at time of	or International		position
mentorship/ co-	Conferences		
mentorship			
Dr. Michael Wang (2 <sup>nd</sup> - 4 <sup>th</sup> year medical student at CWRU)	<ol> <li>Poster Presentation at the Society of Urologic Oncology (SUO) meeting, 2017.</li> <li>Oral Presntation at National central section AUA, 2019</li> </ol>	<ol> <li>Wang, M, Janaki, N, Buzzy C, Bukavina L, Mahran A, et al. Whole mount histopathological correlation with prostate MRI in Grade I and II prostatectomy patients. Int Urol Nephrol (2019).</li> <li>Wang M, Ng M, Bukavina L, Mahran A, Mishra K, Buzzy C, et al. Superfluous Hospital Expenditure Associated with Unnecessary Renal Cyst Surveillance. Urology Practice. 2019.</li> <li>Wang M, Ng M, Bukavina L, Mahran A, Mishra K, Buzzy C, et al. Superfluous Hospital Expenditure Associated with Unology Practice. 2019.</li> <li>Wang M, Ng M, Bukavina L, Mahran A, Mishra K, Buzzy C, et al. Superfluous Hospital Expenditure Associated with Unnecessary Renal Cyst Surveillance.</li> </ol>	Urology Resident, Wayne State
Dr. Mitchell Ng (3 <sup>rd</sup> year medical student at CWRU)	1- Oral Presntation at National central section AUA, 2019	<ul> <li>Urology Practice. 2019.</li> <li>1- Wang M, Ng M, Bukavina L, Mahran A, Mishra K, Buzzy C, et al. Superfluous Hospital Expenditure Associated with Unnecessary Renal Cyst Surveillance. Urology Practice. 2019</li> <li>2- Wang M, Ng M, Bukavina L, Mahran A, Mishra K, Buzzy C, et al. Superfluous Hospital Expenditure Associated with Unnecessary Renal Cyst Surveillance. Urology Practice. 2019.</li> </ul>	Orthopedics Resident, Maimonides Medical Center

D. V. i.i.	1 Out Description of	1	Norman Market and Market Market A	Danilant
Dr. Vaishnavi	1- Oral Presntation at	1-	Narayanamurthy V, Mishra K, Mahran A,	Resident
Narayanamurthy (2 <sup>nd</sup>	National central		et al. Inter-imaging accuracy of computed	Physician in
year medical student	section AUA, 2019		tomography, magnetic resonance	Neurology at
at CWRU)			imaging, and transrectal ultrasound in	UT
			measuring prostate volume compared to	Southwestern
			the anatomic prostatic weight. Turkish	Medical Center
			Journal of Urology. 2020;46(1):50.	
Dr. Andrew Turk	No Presentation	1-	First co-author: Mahran A, Turk A, Buzzy	Urologist in
(2 <sup>nd</sup> year medical			C, Wang M, Yang J, Neudecker M, et al.	Akron, OH
student at			Younger Men With Prostate Cancer Have	
NEOMED)			Lower Risk of Upgrading While on	
			Active Surveillance: A Meta-analysis and	
			Systematic Review of the Literature.	
			Urology. 2018;121:11-8	
Dr. Johnny Steven	No Presentation	1-	Mahran A, Su J, et al. Can Prostatic	Graduated
Su (2 <sup>nd</sup> year medical			Specific Antigen Velocity (PSAV)	
student at CWRU)			Improve The Diagnostic Accuracy Of	
			Prostate Imaging Reporting And Data	
			System (PI-RADS) Score For Predicting	
			Significant Prostate Cancer, The Journal	
			of Urology, Volume 199, Issue 4, e771	
Dr. Gina Baaklini	No Presentation	1-	Mahran A, Baaklini G, Hassani D, et al.	Urology
(3 <sup>rd</sup> year medical			Sacral neuromodulation treating chronic	Resident,
student at			pelvic pain: a meta-analysis and	Military, San
NEOMED)			systematic review of the literature.	Antonio, Texas
, , , , , , , , , , , , , , , , , , , ,			International urogynecology journal.	
			2019:1-13.	
Bissan Aboud	No Presentation	1-	Mahran A, Mishra K, Omil-Lima D,	Resident
(Bachelor of		1	Abboud B, et al. Is there a benefit to	Emergency
science)			additional neuroaxial anesthesia in open	Medicine,
science)			nephrectomy? A prospective NSQIP	UPMC,
			propensity score analysis. International	Pittsburgh, PA
			Urology and Nephrology. 2019:1-9	6,
Dr. Nicola Saufrist	1- Poster presentation at	1	Seyfried N, Mahran A, et al. Value of	Oh/Gum
Dr. Nicole Seyfried (3 <sup>rd</sup> year medical	1	1-	•	Ob/Gyn Resident
			Incremental Biopsy Cores and Second	
student CWRU)	Society for Magnetic		Lesion Sampling with In-Gantry MRI-	Physician at UT
	Resonance in		guided Prostate Biopsies (Accepted at	Southwestern
	Medicine (ISMRM),	~	ISMRM.	Medical Center
	August 2020	2-	Seyfried N, Mahran A, et al., Diagnostic	
			Yield of Incremental Biopsy Cores and	
			Second Lesion Sampling for In-Gantry	

		MRI-Guided Prostate Biopsy. AJR Am J	
		Roentgenol, 2020	
Dr. Abraham	2- Poster presentation at	3- Almatari A., et al., MP70-06	4 <sup>th</sup> year medical
Almatari	the AUA, April 2023	MATCHED ANALYSIS OF URINARY	student
(3 <sup>rd</sup> year medical		TRACT INFECTIONS AND	UTHSC
student UTHSC)		READMISSIONS AFTER OPEN	
		URETERONEOCYSTOSTOMY: DOES	
		AGE MATTER? Journal of Urology,	
		2023. 209(Supplement 4): p. e1005.	

# **Awards/Honor Societies/Research Support**

- 2020/21 <u>UH BIG DATA \$25,000: Health Informatics Focused Pilot Projects</u>: from University Hospitals Cleveland Medical Center. "Impact of Mental Health Treatment on Bladder Cancer Mortality in US Veterans", **Role:** Co-I
- 2020/21 <u>CTSC \$50,000 Annual Pilot Grant (a component of the UL1 TR002548 Clinical and Translational Science Awards from the National Institute of Health)</u>: "Development of a Prostate Cancer Risk Stratification Nomogram Integrating Clinical Variables and MRI Derived Radiomic Signatures for Patients on Active Surveillance", Role: Co-I.
- 2015/17 <u>2-year Post-doctoral research fellowship at Case Western Reserve University</u>: salary support and health insurance benefits, in addition to \$20,000 for research support from the Ministry of High Eeducation and Scientific Research, Egypt: awarded for distinguished research projects
- 2007 Doctor of Medicine: "Summa cum laude", Assiut University School of Medicine, Assiut University, Egypt.

## **Skills and Interests**

Computer: Proficient in developing MS Access databases and REDCap databases and surveys; using R and R-Markdown, SAS, MS Office, and Photoshop
 Languages: English (full professional proficiency), Arabic (native), French (beginner)

Interests: Travel, soccer, and table tennis