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Duke Urology’s Active Role in the American Board of Urology p. 7

Benefits of an MBA in Today’s Healthcare p. 14
Spring has almost sprung! After one of the coldest Januaries we have experienced in a long time (and a record 11-inch snow storm in Durham), the flowers and trees are finally in bloom and the weather has warmed considerably.

In our Duke Urology Spring Newsletter, we hope to highlight the various accomplishments and initiatives within our program. The Urinary Stone Disease Research Network is a more than $5 million project funded by the NIH to look at the impact of diet and lifestyle changes on the management of kidney stones. Chuck Scales, along with Duke Clinical Research, has been selected as the coordinator for this large multi-center project. As nephrolithiasis is near and dear to my heart, we asked to highlight this large clinical trial and proposed innovations in the management of recurrent stone patients.

Todd Purves, Monty Hughes, and Matt Fraser have established a comprehensive basic science program investigating the impact of inflammation on bladder dysfunction. Dr. Fraser recently helped to organize the first AUA Research Conference on Diabetic Cystopathy. Along with the team from Duke Urology, including Jon Routh and Todd Purves, this landmark conference on diabetic voiding dysfunction included investigators from across the research spectrum. In this issue, Matt highlights the conference and how our Duke Urology team is promoting awareness and management of this often unrecognized problem.

As the business of healthcare continues to change, we are fortunate to have Mike Lipkin on our team, not only as a successful clinician and investigator in urolithiasis, but also someone intimately involved in the business of medicine. Mike currently serves as the Chief of the Clinic for the entire Department of Surgery, and with his recent MBA from the Fuqua School of Business, he has been actively involved in hospital administration. In this issue, Dr. Lipkin highlights some of the significant changes going on within the Duke Health System.

Our residency program continues to thrive under the leadership of Drew Peterson and Michael Ferrandino. Drew highlights this success and recognizes individuals within the residency program who have excelled in clinical care, research and education.

Our Continuing Medical Education programs, under the direction of Michael Ferrandino, thrives with the Duke Urologic Assembly meeting scheduled for April in Hilton Head, where Ralph de Vere White will be our Victor Politano guest professor. As this 50th anniversary of the DUA approaches, we are expecting a large contingent of Duke Urology trainees to return for this annual postgraduate course. In addition, we highlight our Duke Tuesday visiting professors over the last 12 months.

Finally, I would like to acknowledge and thank John Wiener, who has taken over editorial responsibilities for our Duke Urology Newsletter. Fortunately, John’s “institutional memory” is longer than mine, and his help has been invaluable in making sure we highlight the accomplishments of our current and past Duke Urology family.

We are preparing for the AUA Meeting in May, where Duke Urology will have its usual strong showing with podium and poster presentations, along with faculty members leading various postgraduate courses. Please make sure to join us at the annual DYSURIA cocktail reception scheduled for Saturday evening, May 19th from 6:30pm to 8:30pm at the San Francisco Marriott Marquis in room Pacific H, 780 Mission Street.

As always, if you happen to be in Durham, please stop by for a visit.

All the best,

Glenn

Glenn M. Preminger, MD
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The Polascik research group focuses on translational programs that impact improved patient care and surgical therapy through better risk stratification, patient selection, and minimally invasive targeted therapy for localized prostate cancer.

To improve the management of patients with localized prostate cancer, the research team has focused on evaluating the efficacy and improving the performance of multiparametric magnetic resonance imaging (MRI) in various clinical scenarios. We collaborate closely with the Radiology department and specifically with Dr. Rajan T. Gupta, an expert prostate MRI reader and researcher. Together, we have studied the utility of this imaging modality in different patient populations such as those who may be candidates for active surveillance, targeted prostate biopsy, or image-guided focal therapy. We are currently furthering our knowledge on the use of MRI in active surveillance as part of our Duke University Cancer Institute Multidisciplinary Active Surveillance registry (DUCIMAS), a registry of consenting patients who decided to manage their localized disease through observation. At the moment, our registry includes nearly 200 patients and keeps growing daily.

One of our main MRI projects for this year is to study the extent that multiparametric MRI can reduce racial disparities in prostate cancer by allowing the detection of clinically significant disease earlier in African-American men, who often present with worse oncological outcomes and represent 20–30% of the male population visiting our clinics. Our project aims to verify whether a more aggressive disease is associated with certain locations in the prostate. We will examine this looking back at clinical and imaging data of 230 patients, including 65 African-American men.

Our larger interdisciplinary group, comprising biomedical engineering and pathology in addition to urology and radiology, recently received the “Intellectual Community Planning Grant” from the Duke University Provost that will allow us to establish regular meetings with collaborators to further our research and apply for joint funding into the employment of MRI for the diagnosis and treatment of prostate cancer. We work in close collaboration with Dr. Nightingale and Dr. Palmeri from the Biomedical Engineering department on projects that involve the use of ultrasonic imaging methods (Acoustic Radiation Force Imaging, or ARFI) to improve disease detection, characterization, and ultimately ARFI-targeted prostate biopsy. In 2016, we published the results of a project that examined the ability of ARFI to detect prostate cancer lesions in 29 patients who were scheduled to undergo radical prostatectomy. The results were promising, with ARFI being able to detect more than 70% of lesions. We currently continue to study ARFI’s diagnostic abilities with 2 federally funded projects: a Department of Defense study on the early
detection of clinically significant prostate cancer using ultrasonic ARFI, and a NIH-R01 project on image-guided targeted biopsy of clinically significant prostate cancer using ARFI-detected lesions.

As an expert on image-guided focal cryotherapy, I chaired the Delphi consensus meeting during the 9th International Symposium on Imaging and Focal Therapy of Prostate and Kidney Cancer in 2016. One of the main conclusions was that multiparametric MRI should be considered as the standard imaging tool regarding patient selection, image-guided targeting, and follow-up after focal therapy. MRI serves to identify specific prostate cancer lesions that can be targeted during biopsy as well as during subsequent focal treatment. MRI also increases the accuracy with which we are able to predict whether the cancer is contained in the prostate, as shown by our research group in 2016 (“Can Radiologic Staging With Multiparametric MRI Enhance the Accuracy of the Partin Tables in Predicting Organ-Confined Prostate Cancer?”). An additional advantage of multiparametric MRI in the field of focal therapy is its ability to detect anterior prostate cancers that are considered as potentially ideal lesions to treat with focal therapy, as they are located far from the nervous structures that regulate urinary and sexual function. In the past, these anterior lesions were challenging to detect and reach with the standard transrectal ultrasound biopsy and could be best sampled with the transperineal approach that historically required general anesthesia and was potentially associated with more complications. I have treated several patients with anterior prostate cancer using MRI image-guided focal cryotherapy, and my team is currently in the final phase of publishing our outcomes that show promising short-term results. In fact, our outcomes show that the procedure improved the urinary symptoms that patients were experiencing beforehand and that their sexual function was minimally impacted. These findings will be presented in the flagship video and podium sessions of the 10th International Focal Therapy Symposium held in the Netherlands this year.

Thomas Polascik, MD
Director, Urologic Oncology Fellowship
Professor of Surgery
The Duke Urology of Raleigh (DUR) practice was opened in July 2011 with the goal to offer highly subspecialized care outside of the traditional academic center environment in oncology, reconstructive urology, endourology, and sexual dysfunction. This has opened the doors to new patients by providing improved access to care for citizens of Wake County and eastern North Carolina. In the past year, the practice has grown to support 7 full-time providers and has seen a number of notable changes and achievements.

Our newest physician is Dr. Thomas Longo. Dr. Longo completed his medical degree and Urology residency at the University of Nebraska. He then completed a prestigious 2-year fellowship in Urologic Oncology at Duke University. Dr. Longo specializes in cancers of the urinary tract. Along with fellow urologic surgeon, Dr. Samuel Eaton, Dr. Longo is a key member of the Duke Raleigh Multidisciplinary Genitourinary (GU) Oncology clinic.

In April 2017, the Cancer Care Plus initiative was announced between the Duke Cancer Institute and Wake Med. This innovative collaboration offers streamlined screening and access to cancer clinical trials, broad multidisciplinary team care capabilities, and access to an array of supportive care services, such as hereditary and genetic counseling. Dr. Samuel Eaton serves as the Wake County GU oncology representative from Duke and has championed the need for improving care pathways and patient outcomes. The DUR practice is proud to support this important partnership and to be represented by Dr. Eaton.

The continued growth of our practice has led to the addition of three advanced practice providers (APPs). Betsy Hicks, PA, Jessica Anderson-Riddell, NP, and Heather Jacobs, NP, joined our practice over the last year. As a group, they are highly experienced and have each been practicing for more than 10 years. The additional APPs promote patient access in both our Urology clinic and the Duke Urology Men’s Health Center. With our full complement of physicians and APPs, the DUR practice can accommodate more than 10,000 unique patient visits every year. This is especially valuable for patients requiring rapid access for urgent consults, post-operative questions, and referrals from the emergency department.

The DUR practice continues to stay on the cutting edge with innovative treatments designed to minimize complications and improve patient satisfaction. One of these treatments is the Rezum system for urinary symptoms in men. Dr. Brian Whitley began performing the procedure in early 2018. Rezum uses the natural energy stored in water vapor or steam to relieve symptoms associated with benign prostatic hyperplasia, or BPH. This in-office treatment does not require general anesthesia and typically takes less than 3 minutes to perform. Most patients begin to experience symptom relief in as soon as two weeks and maximum benefit will occur within 3 months. This is an exciting new treatment option which is only available in our Raleigh office.

As the Raleigh practice continues to grow, we are constantly working to improve access to care and deliver on the Duke values of excellence, safety, integrity, diversity, and teamwork. These core values are at the root of our early success and provide a steady platform for new challenges that lie ahead.
DUKE UROLOGY’S ROLE
with the American Board of Urology

As a leading training program in Urology, it is not surprising that Duke Urology faculty and alumni serve in significant roles in the certification process of the American Board of Urology (ABU). Glenn Preminger has previously served on the ABU’s Examination Committee, which develops and selects questions for the written Board (Qualifying) examination, as well as the annual resident in-service examination and the Self-Assessment Study Program (SASP) for the American Urological Association (AUA). Dr. Preminger now is an examiner for the oral ABU examination every February. John Wiener recently completed his four-year tenure on the Examination Committee in the summer of 2017, and will stay involved with the pediatric sub-specialty certification examination task force.

In terms of preparing for the oral board exam, Duke makes a major contribution. Drew Peterson was co-director of the AUA Oral Board Review Course in Dallas, held January 26–27, 2018. Multiple Duke faculty members and former Duke trainees served on the course faculty.

Other Duke Urology alumni are in major ABU leadership positions. Former Duke resident Fred Govier is a Trustee and Vice-President of the ABU. Finally, former Duke fellow Brant Thrasher is President of the AUA this year and will be the next Executive Secretary of the ABU.

Jonathan Routh, MD, MPH; Shubham Gupta, MD (U. of Kentucky, former Duke fellow); Chuck Scales Jr, MD; Jack Walter, MD (Brooke Army Medical Center, former Duke fellow); Suzanne Merrill, MD (Penn State, former Duke resident); Judd Moul, MD; Karl Kreder, MD (Chair at U. Iowa, former Duke fellow); Andrew Peterson, MD; Jodi Antonelli, MD (U. of Texas-Southwestern, former Duke resident)
Newly published research shows that kidney stones are skyrocketing in the U.S. at alarming rates, doubling in men and quadrupling in women over the past thirty years (Kittanamongkolchai et al., 2018). As the nation scrambles for answers on how to quell this unwelcome spike, researchers for the Prevention of Urinary Stones with Hydration (PUSH) study have been testing their own hypothesis for several months; namely, that a high-tech water bottle might be one key to reducing the recurrence of the urinary stone disease, commonly referred to as kidney stones.

Funded by the National Institutes of Health (NIH), the PUSH study is a randomized trial that will enroll 1,642 people, half in an intervention group and half in a control group. The study's primary aim is to determine whether use of a “smart” water bottle to stay hydrated, along with a program of financial incentives and health coaching, will result in reduced risk of kidney stone recurrence over a two-year period. The trial is supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of NIH.

“If you have experienced kidney stones in the past, you're at a high risk of getting them again,” said Dr. Charles Scales, Associate Professor at Duke Urology and Duke Clinical Research Institute, and one of the study's principal investigators, who recently participated in an informative video about PUSH. “Experts agree that one of the best ways to reduce your risk is to drink more water, but it's not always easy to make changes to your regular lifestyle habits and maintain them over time. The PUSH study will investigate specific ways to encourage, motivate, and support people to achieve their fluid intake goals for the long term.”

PUSH researchers will ensure participants are hydrating per the study's guidance via a smart water bottle that monitors fluid consumption and connects to an app, allowing users to easily check their hydration progress throughout the day. Study participants in both the intervention and control groups will receive these smart water bottles and will be asked to try to drink enough to expel 2.5 liters of urine per day—about 10.5 cups.

PUSH is currently enrolling at four clinical centers:

• University of Pennsylvania/Children's Hospital of Philadelphia  
• University of Texas Southwestern Medical Center in Dallas  
• University of Washington in Seattle  
• Washington University in St. Louis

“...have had at least one symptomatic stone in the past three years, have a low urine output (measured over 24 hours), own a smartphone, and meet other eligibility criteria, as outlined in the trials ClinicalTrials.gov page: NCT03244189, under grant DK110986.

About the PUSH Study and the Urinary Stone Disease Research Network

The PUSH study is being conducted through the Urinary Stone Disease Research Network (USDRN), which is funded by the National Institutes of Health (NIH) and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). USDRN represents a group of scientists and investigators designing and conducting research on urinary stones (kidney stones) in adults and children in order to learn more about who forms kidney stones, the best treatments, and how to prevent stones from forming. For more information, please visit http://usdrn.org/.

References:

On October 8–9, 2017, a conference was held at the American Urological Association Headquarters in Linthicum, Maryland, titled “Diabetes and Diabetic Uropathy.” The conference was conceived and spearheaded by Matthew O. Fraser, PhD, Associate Professor of Urologic Surgery and Director of Basic Science Research at Duke, who has a long standing research interest in the topic.

Dr. Fraser was assisted by Jonathan C. Routh, MD, MPH, and J. Todd Purves, MD, PhD, pediatric urologists and Associate Professors at Duke with a strong interest in diabetes. Together, they submitted a Conference Grant application to National Institutes of Health and brought together additional support from Duke Urology, the American Urological Association, American Diabetes Association, the Society of Urodyamics, Female Pelvic Medicine and Urogenital Reconstruction, and the Society for Pelvic Research.

An All-Star team of clinical and basic science researchers convened as a Steering Committee, and a comprehensive, multidisciplinary program was designed to foster interaction between international experts who study different levels of the effects of diabetes on the health of the lower urinary tract and other systems (e.g. cardiovascular, GI, sexual function). The inclusion of different viewpoints, from population level through organismic, organ system, cell and molecular levels, together with representation from different organ systems allowed vertical and horizontal cross-fertilization that engendered enthusiastic discussion amongst speakers and attendees. Drs. Fraser, Routh, and Purves represented Duke Urology and Dr. Jennifer B. Green, MD, Associate Professor of Medicine, represented Duke’s Division of Endocrinology, Metabolism, and Nutrition.

Trainees received generous travel awards from the NIH Conference Grant award, were provided additional opportunities to present their own research during a trainee poster session, and interacted with distinguished faculty. The event was widely hailed as a great success.
Diabetic bladder dysfunction, or DBD, is one of the most common complications of diabetes, with estimates suggesting that between 25–90% of patients experience this disorder. Symptoms are variable and progressive, but commonly manifest early as impaired bladder sensation and bladder overactivity that progresses to underactivity, impaired contractility, and eventually incontinence. With the growing epidemic of diabetes (projected to affect 1 in 3 Americans by 2050), and a current absence of targeted therapies, DBD represents a huge clinical challenge.

The Duke University Urinary Dysfunction Laboratory, led by Principal Investigator J Todd Purves MD, PhD, and Laboratory Director, F. Monty Hughes Jr., PhD, have developed a genetic mouse model of diabetes that will provide an opportunity to study this condition. Recent investigations into diabetic complications of the eye, kidney, heart and nervous system suggest that inflammation, driven by metabolic dysregulation, is responsible for tissue damage and dysfunction in target organs. Further, the mechanism by which diabetic metabolites incite inflammation appear to be mediated by the NLRP3 inflammasome which is capable of sensing danger signals produced by diabetes and then translating that into an inflammatory response generated by the innate immune system. Drs. Purves and Hughes, who were the first to localize and characterize the behavior of the NLRP3 inflammasome in the urothelium of the bladder, hypothesized that this pattern recognition receptor was responsible for the bladder damage seen in diabetic patients. The new mouse model was created by crossing a type 1 diabetic mouse, known as Akita, with a mouse lacking a functional NLRP3 gene.

Initial studies were primarily carried out by Duke urology resident Brian Inouye, MD, with support from the 2016-17 American Urological Association Urology Care Residency Research Award. Dr. Inouye was the first to document the presence of inflammation at the same time that urinary dysfunction was observed in diabetic mice. Subsequent studies found that diabetic mice lacking the NLRP3 gene did not develop DBD in early adulthood, nor did they suffer from inflammation in the tissues, as was observed in the wild type diabetics. These studies suggest that inhibition of NLRP3 or its downstream molecular partners could provide a useful target in preventing or treating DBD, which would be the first available therapy specifically designed for this condition.

On the clinical side, Maryellen Kelly, DNP, supported by an NIH KURe Grant, has just completed a pilot study to assess the problem of DBD in children. Looking at a cohort of 120 children surveyed at the Duke Pediatric Diabetes Clinic, as well as controls from community pediatric clinics, Dr. Kelly found that diabetic children reported an incidence of lower urinary tract symptoms (LUTS) twice as high as in non-diabetic children (33.3% vs 16.7%). This surprising result shows that even at an early age and stage of disease, diabetes is responsible for significant urologic pathology. Even more concerning for a progressive inflammatory process, the finding suggests that our adult colleagues can expect to be treating more patients with DBD in the future. A follow up multi-institutional investigation, led by Dr. Kelly and Jonathan Routh, MD MPH, is underway with participation from Johns Hopkins, University of Wisconsin, University of Michigan (Ann Arbor and Detroit), Augusta Children's Hospital, Children's Mercy, University of Virginia, British Columbia Children’s Hospital, and Children’s Hospital of Orange County/ University of California, Irvine.
GRANTS, AWARDS, & RECOGNITION

Brant A. Inman, MD, Cary N. Robertson Associate Professor of Urology Surgery, Vice Chief of Urology:

GRANTS
- Duke MEDx (PI: Inman) Carbon nanotube DNA detector for cancer
- DOD-CDMRP PCRP PC150161 (PI: Inman) Targeting B7-H3 in prostate cancer
- DOD-CDMRP PRCRP CA160715 (PI: Inman) Synergistic immuno-photo-nanotherapy for bladder cancer
- C30 Canine Oncology Consortium (PI: Inman) BRAF mutations in bladder cancer
- Bladder Cancer Advocacy Network (PI: Sloan) The cost of bladder cancer to Medicare

CLINICAL TRIALS
- Dendreon (PI: Inman) Metastasectomy + vaccine in prostate cancer
- Abbott Laboratories (PI: Inman) Urovysion test to predict BCG response in bladder cancer
- Genentech-Roche (PI: Inman) Atezolizumab vs placebo in bladder cancer
- Genentech-Roche (PI: Inman) Atezolizumab + BCG in bladder cancer
- FKD Therapies (PI: Inman) Adenoviral therapy for bladder cancer
- Nucleix (PI: Inman) Novel diagnostic test for bladder cancer
- Urogen (PI: Inman) Mitogel as treatment for upper tract urothelial carcinoma

Judd W. Moul, MD, FACS, James H. Semans, MD Professor of Surgery, Professor in Anesthesiology, Director, Duke Prostate Center:
- Executive Committee member of the AJCC, conducted national webinar recently educating hundreds of tumor registrars on the changes to prostate cancer staging in the new 8th Edition AJCC Staging Manual.
- Keynote Speaker in June 2017 at the Texas State Disparities Conference on the topic of prostate cancer in African American men.
- Visiting professor at the Peruvian Urological Society Annual Congress in Lima, Peru in September 2017
- Guest Speaker at the 29th Fall Foliage Cancer Conference in Asheville, NC in October 2017
- Guest Speaker at the Kimbrough Urological Seminar in Jan 2018 in Scottsdale, AZ

Andrew C. Peterson, MD, Professor of Surgery, Director of the Urology Residency Program and the Reconstructive Urology and Genitourinary Cancer Survivorship Fellowship:
- Gold medal award winner, 2017 Excellence in Urology Seminar, Intermountain Health, Utah
- Appointed as Urology Specialty Advisor to the Relative Value Scale Update Committee, AMA

Thomas J. Polascik, MD, Professor of Surgery, Director of the Urologic Oncology Fellowship:
- Duke Institute for Health Innovation (DIHI) sponsored – “Implementation of a novel PSA screening algorithm”
- Intellectual Community Planning Grant (Provost sponsored): “Duke Cancer Institute Prostate Multi-parametric MRI and Targeted Biopsy Working Group”
- DOD in collaboration with Biomedical Engineering: “Early Detection of Clinically Significant Prostate Cancer using Ultrasound Acoustic Radiation Force Impulse (ARFI) Imaging”
- R01 in collaboration with BME: “Image guided targeted biopsy of clinically significant prostate cancer with acoustic radiation force”

Jonathan C. Routh, MD, PhD, Paul H. Sherman, MD, Associate Professor of Surgery
- Appointed as the Paul H. Sherman, MD, Associate Professor of Surgery by the Board of Trustees. The endowment recognizes a faculty member who is a scholar of true eminence and excellence.
- Equity, Diversity, and Inclusion Award for Duke Child & Adolescent Gender Care Team. This award recognizes individuals and teams for exceptional leadership and commitment to equity, diversity and inclusion within the Duke community. The award was presented at the coveted Samuel L. Cook Society Dinner, being held at the Washington Duke on Tuesday, February 20th.

John S. Wiener, MD, Professor of Surgery, Head, Section of Pediatric Urology:
- Finished four year term on Examination Committee of American Board of Urology/AUA.
- Awarded Second Prize for research paper at Third World Congress on Spina Bifida Care and Research March 2017 for Bladder and Bowel management and continence outcomes of adults with spina bifida: findings of the National Spina Bifida Patient Registry.

John S. Wiener, MD, Professor of Surgery, Head, Section of Pediatric Urology:


Leidig PD, Hughes FM, Purves JT. Components of Urinary Stones Activate the NLRP3 Inflammasome in Bladder Urothelium. Poster presentation.


**TALKS**

**Chuck Scales Jr., MD, Associate Professor of Surgery.** “Big Data.” Rock Society Meeting.

**Jonathan Routh, MD, Paul H. Sherman, MD, Associate Professor of Surgery.** “The Scope of Unwarranted Variation in Pediatric Urological Care, and What to Do About It.” Society for Pediatric Urology.


**Brant Inman, MD, MS, Cary N. Robertson, MD, Associate Professor of Surgery.** “New Insights in High Grade, Non-Muscle Invasive Bladder Cancer.” Association Francaise d’urologie.
DUKE TUESDAYS in Urology

The Division continues its long tradition of Duke Tuesdays in Urology. Three times each year, we bring noted urologic experts as visiting professors to teach the faculty, residents, staff, as well as area urologists.

PREVIOUS

JULY
2017

MORRIS CENTER FOR UROLOGIC RESEARCH LECTURESHIP: ARE UROLOGISTS STILL NEEDED IN THE CARE OF ADVANCED RENAL CELL CARCINOMA?
presented by BRADLEY C. LEIBOVICH, MD, Chair of Department of Urology, and David C. Utz, MD, Professor of Urology at Mayo Clinic, Rochester, Minnesota.

JOHN E. DEES, MD LECTURESHIP: OUTCOMES OF RANDOMIZED SURGICAL TRIALS IN FEMALE UROLOGY ANDVOIDING DYSFUNCTION:
UITN and PFDN
presented by GARY E. LEMACK, MD, Professor of Urology and Neurology, Program Director, Fellowship in Female Pelvic Medicine and Reconstructive Surgery. Department of Urology, University of Texas Southwestern Medical Center, Dallas, Texas.

FEB
2018

MALE FERTILITY- A WINDOW ON A MAN’S HEALTH
presented by EDMUND SABANEGH, JR., MD, Chairman, Department of Urology, Vice Chief of Staff. Director, Center for Male Fertility, Glickman Urological and Kidney Institute, Cleveland Clinic.

UPCOMING

JULY
10
2018

MORRIS CENTER FOR UROLOGIC RESEARCH LECTURESHIP
to be presented by EILA C. SKINNER, MD, Chair Department of Urology. Thomas A. Stamey Research Professor in Urology. Member, Stanford Cancer Institute, Stanford, California.

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2018

JOHN E. DEES, MD LECTURESHIP
to be presented by HADLEY M. WOOD, MD, Associate Professor of Surgery. Genitourinary Reconstruction. Glickman Urological and Kidney Institute, Cleveland Clinic, Cleveland, Ohio.
Glenn Preminger, MD; Edmund Sabanegh, MD; Karen Baker, MD. Dr. Baker trained with Dr. Sabanegh in a male fertility fellowship at Cleveland Clinic.

**FELLOW HIGHLIGHTS**

**ADAM KAHOKEHR, MD, PhD, FRACS**

Dr. Kahokehr grew up in Wellington, New Zealand, and went to medical school at the University of Auckland. He obtained a PhD after his first year of residency by investigating the physiological responses of intraperitoneal tissue injury following major abdominal surgery in the ERAS setting in 2011. He completed his urology residency through the Royal Australasian College of Surgeons, obtaining FRACS in 2017.

Following fellowship in Reconstructive Urology and Cancer Survivorship at Duke, he plans to work at The University of Adelaide in Australia as an academic and reconstructive urologist.

**ARIEL SCHULMAN, MD**

Dr. Ariel Schulman completed medical school at SUNY-Stony Brook and residency at Maimonides Medical Center. He joined Duke for his Society of Urologic Oncology Fellowship in 2016. During fellowship he has been involved with projects investigating the use of multiparametric magnetic resonance imaging and focal therapies for prostate cancer. After completion of fellowship, he plans to practice in an academic setting.

**BRENTON WINSHIP, MD**

Dr. Brenton Winship is a first-year fellow in endourology, metabolic stone disease, laparoscopy, and robotic surgery. Brent and his wife, Christina, along with their 2 children Harriet (age 2) and Theodore (age 6 months), came to Durham most recently from Washington, DC, where Brent completed his residency in urology at George Washington University. Brent and Christina are excited to be back in North Carolina; they met as undergrad students at Davidson College before Brent went on to med school at Emory University and Christina on to law school at the University of Colorado. Brent will complete a 2-year fellowship at Duke.
BENEFITS OF AN MBA in a Changing Healthcare Landscape

Michael Lipkin, MD, MBA
Chief of the Clinic, Associate Professor of Surgery

Dr. Lipkin earned his MBA from Fuqua School of Business at Duke in 2017.

The current climate in healthcare is one of uncertainty and change. Through this uncertainty, there remains one change that seems clear—a move toward more value-based care with a greater percentage of risk being born on healthcare systems. This is a significant change for both healthcare systems and providers. In order to succeed in this environment, it will require a hard look at not only the processes for delivering care, but also the culture of healthcare delivery organizations.

At its core, an MBA is the academic pursuit of studying the leadership and management practices, as well as the processes and functions that contribute to organizational success. These skills are in ever greater demand in healthcare to help prepare and lead organizations successfully through the changes in healthcare. Strong leadership along with a comprehensive understanding of business principles is required to help enable successful transitions to new models of reimbursement and care delivery.

With the implementation of Medicare Access and CHIP Reauthorization Act (MACRA), providers and health systems will universally be exposed to at risk reimbursement. What this essentially means is that based on the quality and cost of care compared to benchmarks, underperforming health systems will face penalties decreasing reimbursements from Medicare and possibly requiring returning money. This fundamentally changes how providers have practiced medicine in a fee for service model. In order for providers and systems to succeed, it will not only require rethinking processes and care pathways, but also the provider culture of “if I work harder and do more, I will get paid more.” The interactions between specialists and primary care physicians will need to be reframed. In a value-based care world, with at risk reimbursement, the primary care physician becomes a critically important component.

This change will require strong physician leadership and this leadership training can be achieved through an MBA. Traditionally, physician leaders are chosen based on seniority, or in academic centers, academic success. These are poor measures of true leadership capability. Formal leadership training will be critical to help usher physicians through these turbulent times. There are a number of leadership theories, including the “Six Domains of Leadership,” taught at Duke University's Fuqua School of Business (https://deltaleadership.com/six-domains-model). The Six Domains provides a framework to formalize leadership training. It starts with a foundation of Personal, Relational and Contextual leadership. These focus on direct interactions with others. It then builds upon these upward to Inspirational, Supportive and Responsible leadership. This construct provides tangible training and tools for students to improve their leadership abilities.

Process improvement will be equally important in a changing healthcare climate. Understanding the functions and processes that make up a complex healthcare system, and having a base of knowledge to apply to these, is important for improvement. An example is work that we have done with the Surgery Scheduling Hub. The hub was consistently underperforming in the domains of abandonment rate and managing the volume of incoming referrals. Using simple queueing theory taught at business school, it became apparent that the hub was understaffed. It was physically impossible to handle the number of calls based on the time each call takes, call volume, and number of staff available. This simple calculation allowed us to demonstrate not only the need for more staff, but the actual number of staff that was necessary to reduce abandonment to an acceptable measure (3%).

In summary, an MBA is a valuable tool to help develop the skills necessary to lead and improve processes in an ever changing healthcare environment. As providers, we are the experts in the domain of how best to deliver care to our patients. Having the tools and leadership abilities to expand upon that knowledge and implement across systems is imperative to allow us to deliver the very best care we can to our patients in a turbulent environment.
Residents Ashley C. Wietsma, MD, and Andrew Chang, MD

Resident Achievements

Ashley C. Wietsma, MD, received multiple honors this academic year in recognition of her research activities and leadership skills, including the SESAU Health Policy Young Investigator Award and the Duke University Feagin Leadership Scholars Program.

Dr. Wietsma, a third-year Duke Urology resident, has focused her research year on health services research. Under the mentorship of Dr. Jonathan Routh and Dr. Charles Scales, her projects cover a wide spectrum of health policy issues, such as utilizing large, claims-based databases to investigate national trends in recurrence of urinary stone disease, and developing a narrative medicine workshop for physicians to reduce burnout. Her passion for health policy and aspirations for medical leadership were recently recognized by the SESAU with the Health Policy Young Investigator Award. This competitive award allowed her to travel to Washington, D.C., for the first annual AUA Advocacy Summit from March 12–14, 2018. At this groundbreaking conference, she interacted with a diverse group of physicians, researchers, and patient advocates discussing advocacy for innovation and access to treatment. She met with North Carolina congressmen and their staff on Capitol Hill to promote transparency and oversight of the U.S. Preventive Services Task Force, expansion of GME residency positions for specialties including urology, and the establishment of an Office of Men's Health.

In addition to her research, Dr. Wietsma has been using this year to develop her individual leadership style and goals through the prestigious Duke University Feagin Leadership Program. Following a rigorous application process, she was named as a part of a group of twenty-four medical students, residents, and fellows as a Feagin scholar. Since August 2017, scholars have participated in a series of conferences and workshops focusing on topics such as emotional intelligence, executive presence, and negotiation tactics. Scholars have been mentored by renowned leaders in the medical and Duke communities, such as Nobel laureate Dr. Robert Lefkowitz, and Coach Krzyzewski. Through this program, Dr. Wietsma is leading a QI initiative to streamline the use of translator services in Duke’s emergency room to increase both provider and patient satisfaction.

Dr. Routh summed up her research year by saying, “Ashley’s talent, drive, and determination have resulted in her achieving several noteworthy milestones and recognitions this year. We are extremely proud of all that she has accomplished and can’t wait to see what the future holds for this extraordinarily talented young urologist!”

Third year resident, Andrew Chang, MD, scored in the 100th percentile for the national urology in-service examination administered by the American Urological Association. Yes, 100th percentile—for those who understand statistics this is an almost impossible goal to achieve—it means that Dr. Chang produced the top score in the country! Congratulations to Dr. Chang for his performance on this important milestone examination.

The Division of Urology residency program had an outstanding match this year. We will be bringing in four new residents to start next year: Christopher Kim (Rutgers), Scott Campbell (Hopkins) and Tyler Hobbs (Duke) will be joining the Duke team in July. Additionally, Captain Armand Allkanjari, MD, will be joining us after completing his internship year at Walter Reed National Medical Center. He is currently serving as a flight surgeon in the United States Air Force and will be filling our military match spot.
Beginning with this issue, we will start an annual feature to honor an alumnus of Duke School of Medicine who has made significant contributions to the field of urology. This individual may or may not be known to all DYSURIA members because they did not train at or serve on the Duke Urology faculty.

STEPHEN KOFF, MD

Stephen Koff, a New York native, came to Duke as an undergraduate in 1962 and graduated with an MD in 1969. He began his medical training at New York Hospital/Cornell with a plan to focus on nephrology. However, he could not resist the lure of surgery and went to the University of Michigan to train in urology under Jack Lapides, who had a lifelong impact on Dr. Koff’s innovative approach to the field. As all Americans interested in pediatric urology did at the time, he went to Britain where he spent a fellowship with Herbie Johnson in Liverpool. He returned to the University of Michigan where he served as chief of pediatric urology until 1982.

Dr. Koff was recruited to Ohio State in Columbus, where he was chief of pediatric urology until his retirement in 2012. He also served as chief surgical officer of the Children’s Hospital which is now named Nationwide Children’s Hospital. In addition to training innumerable residents and starting a fellowship program, Dr. Koff made many lasting contributions to pediatric urology. He invented the terms “voiding dysfunction” and “dysfunctional elimination syndrome” to describe these now well-recognized pediatric urologic problems that contribute to recurrent UTIs, incontinence, and vesicoureteral reflux. He also took the once-controversial, now widely-accepted approach to non-operative management of most cases of prenatally-diagnosed hydronephrosis. In 2010, Dr. Koff received the highest honor in pediatric urology when he was awarded the American Academy of Pediatrics Section of Urology Medal.

Dr. Koff and his wife Bunny have since retired to Chapel Hill, NC. He was gracious enough to attend pediatric urology radiology conferences with the Duke residents after becoming a Dukie again. In his free time, he enjoys his hobbies of antique clock repair, woodworking, playing the harp and promoting his wife’s art career.