The AUA Meeting is fast approaching! We hope to see many of you at the annual alumni dinner on Sunday, May 18, 2014. As a department, we ensure that all residents with abstracts accepted by the AUA are given the opportunity to travel to the annual meeting to present their work. This year, we have 12 residents presenting on 18 topics. This is a testament to the department leadership’s participation in basic science research and support of urology residents, and I am proud that research is an integral part of our residency program. This has been a very successful model not only in achieving important discoveries, but also in shaping the careers of our residents.

In addition to the studies conducted by residents, our faculty continues to publish groundbreaking research and attract significant NIH funding. We are one of the few departments to emphasize research for more than 50 years.

One of our strengths is the ability to nurture investigators as individuals taking different scientific paths. This diversity will lead to breakthroughs that will shape the future of urologic research.

This winter Sarki Abdulkadir was named the John T. Grayhack, MD Professor in Urological Research. Sarki is a leading researcher in cancer biology with a focus in prostate cancer initiation, progression, and recurrence. We are thrilled to welcome him to the department.

As you may know, I have decided to step down from my position as chairman. It has been a privilege to continue the legacy of this great department and work with and benefit from the counsel of outstanding faculty, residents, and colleagues. The diversity and talent of our department, along with collaborative interactions both within and outside the Northwestern community, have played a major role in our growth and development.

In my 24 years as chairman, the department has established a diverse array of research areas including inflammation, pain, the microbiome, angiogenesis, nanotechnology, urologic health, and cancer. Our research has focused on discovering innovative solutions to both common and complex urologic diseases resulting in significant improvements in the quality and duration of our patients’ lives. It has been an honor to serve and lead the department to the highest levels in education, research, and patient care. The department’s future is very bright.

Regards,

Anthony Schaeffer, MD
**SCHAEFFER TO STEP DOWN AS CHAIR OF UROLOGY**

After 24 years of service, Dr. Anthony Schaeffer plans to step down as chairman. He will continue his role as a distinguished member of the faculty and will serve as chair until a new one is appointed. He has maintained continuous NIH funding since 1978 and will continue this work after he steps down from his current role.

Schaeffer has had a prominent role in the field of urologic research, publishing extensively on urinary tract infection, inflammation, and incontinence. He has published more than 400 peer-reviewed articles and is currently a member of the NIH Multi-State Collaborative Research project on male chronic pelvic pain syndrome (prostatitis).

A national search for a new chair led by Dr. Andrew Parsa is currently underway. If you would like to provide comments or suggestions regarding the search, please email Samantha Lauren at slauren@nmff.org.

**NORTHWESTERN FIRST TO OFFER NEW PROSTATE CANCER TEST**

Earlier this winter, Northwestern Medicine, under the direction of Dr. William Catalona, was one of two health care providers to offer a new non-invasive blood test for prostate cancer. This new test, known as the Prostate Health Index (phi), is three times as accurate as the standard PSA test.

The phi test will reduce the need for men with elevated PSA levels to undergo biopsies to test for prostate cancer. With this test, physicians can distinguish prostate cancer from benign conditions by calculating three different PSA markers (PSA, FreePsa, and p2PSA) and applying them to an algorithm that calculates the probability of cancer in men with elevated PSA levels. In particular, the p2PSA tends to be elevated more in men who have cancer than in men who have benign conditions. Among those who do have cancer, it tends to identify those with more aggressive forms. A clinical study led by Catalona found a 30% reduction in unnecessary biopsies as a result of the phi test.

We are pleased to welcome Dr. Sarki Abdulkadir to the Department of Urology and the Robert H. Lurie Comprehensive Cancer Center as the John T. Grayhack, MD Professor in Urological Research.

In April 2014, Sarki was also appointed Director of International Relations for the Robert H. Lurie Comprehensive Cancer Center of Northwestern University. Dr. Abdulkadir brings his interest in training the next generation of scientists, his exceptional track record of research initiatives and his understanding of international funding agencies to this new role.

Abdulkadir previously worked at Vanderbilt University in Nashville, Tennessee, where he was Director of Graduate Studies and Associate Professor of Pathology, Microbiology, Immunology and Cancer Biology.

We also welcome Dr. Abdulkadir’s research team to the Department.

- **Meejeon Roh, PhD** joined the Department of Radiation Oncology and Urology as a research assistant professor from Vanderbilt University. Dr. Roh was trained at University of Alabama at Birmingham and Vanderbilt University. Her research interest is to identify and validate novel therapeutic targets for prostate cancer as well as understanding mechanisms for prostate cancer progression/recurrence.

- **Yvonne Feeney** has been with Northwestern University since 2000. Previously in the department of Pathology as lab manager to Dr. Clevenger, she is now part of the Abdulkadir lab in the Department of Urology. She received her Bachelors of Science degree from the University of Illinois Urbana-Champaign.

- **Rama Ali** joined Northwestern University as a post-baccalaureate research fellow in Dr. Abdulkadir’s lab. Rama holds a Bachelor of Pharmaceutical Sciences from Cairo University and a Master’s in Biotechnology from the American University in Cairo. She completed her Master’s degree at Vanderbilt University Medical Center, where she worked on microRNA expression profiling in upper gastrointestinal cancers.

- **Rose Njoroge** is a transfer graduate student from Vanderbilt University. She previously worked for the US Army Medical Research Unit (USAMRU-K) in Kenya and the University of Palermo in Italy. She has a Master’s degree from Seoul National University in South Korea and a Bachelor’s degree from the Jomo Kenyatta University of Agriculture and Technology in Kenya.

- **Younga Yoo** received a PhD in biochemical technology from Korea University. Her research focuses on the role and mechanism of signaling pathways that contribute to tumorigenesis and metastasis. She is particularly interested in the role of signal transduction pathways on the maintenance and development of cancer stem cells.
Dr. Anthony Schaeffer has received the Keyes Medal from the American Association of Genitourinary Surgeons (AAGUS) for his achievements in the field of urology. Schaeffer was given the award in April at the AAGUS Annual Meeting in Amelia Island, Florida.

The Keyes Medal was established to recognize an individual for outstanding contributions in the advancement of urology. It is known as the major award for lifetime achievement in Urology and has been awarded sparingly.

Dr. Schaeffer is the fifth individual from the Department of Urology at Northwestern to receive this honor. Dr. Kretschmer received the award in 1950 followed by Dr. V.J. O’Conor in 1960, Dr. Grayhack in 2001, and Dr. Catalona in 2003.

Earl Cheng, MD, 50, was recently appointed Division Head of Urology at Ann & Robert H. Lurie Children’s Hospital of Chicago. He has served as Interim Division Head Director since July 2013. Cheng is a national expert in complex reconstructive urology and co-directs a basic science laboratory with Arun Sharma, PhD that focuses on tissue engineering techniques for the urinary tract, with emphasis on bladder regeneration. He also has a special interest in the medical and surgical management of individuals with sex development conditions that can result in ambiguous genitalia, and is the Co-Director of the Midwest’s first Gender and Sex Development Program at Lurie Children’s with Robert Garofalo, MD, division head of Adolescent Medicine at Lurie Children’s.

Dr. Cheng who spent the majority of his career at Children’s Memorial Hospital/Lurie Children’s will be overseeing the largest pediatric urology department in the region, and the 6th best program in the nation according to U.S. News & World Report.

“I am extremely honored to have been chosen as the next division head of Urology at Lurie Children’s. I look forward to building on our current clinical programs and research initiatives to establish us as the premier pediatric urology program in the country,” said Cheng.

Dr. Cheng received both his undergraduate and medical degrees from Northwestern University and completed his residency at Northwestern University Medical School. He is a Professor of Urology at Northwestern University Feinberg School of Medicine and author of over 100 papers, invited articles, and book chapters. Dr. Cheng has served or currently serves on the executive committees of the Society of Pediatric Urology, American Academy of Pediatrics Section of Urology, Spina Bifida Association of America, and the Editorial Committee of the Journal of Urology.
In the fall of 2013, Matthias Hofer spent two and a half weeks in Accra, Ghana to work at the 37 Military Hospital on a clinical rotation organized by the International Volunteers in Urology (IVUmed).

Ghana is a county with 25 million people and a size comparable to Oregon. The annual income per person is roughly $1800; however, there is a wide gap between a very low-income population living mainly in rural Ghana, and a middle class that is located in the urban areas. Matthias explained that unlike many other African countries, there is both a significant middle class, as well as a health insurance system that is financed either by the insured member or an employer. In 2003, a universal-type health care system was introduced to cover all children and pregnant women. Because there is a lack of physicians in rural areas, many of the patients Matthias observed were people from the countryside seeking treatment, sometimes days of travel away. Patients are expected to bring all required medications, fluids (IV as well as irrigation fluids needed in the OR), dressing supplies, gloves, glucose strips, etc. to the hospital.
There were five operating rooms in the 37 Military Hospital, all of which were equipped with standard ventilation, lighting, anesthesia machines, endoscopy, and sterilization facility access. Matthias noted that he unfortunately saw several patients with advanced renal or prostate cancer upon returning to the clinic months after their initial visit. Many patients were from outside of Accra, sometimes several hours away by car, so they did not always return for surgery. In addition, many rural populations also seek care from traditional healers and herbal medications, causing a delay in treatment resulting in inoperable disease.

When reflecting on the highlights of his trip, the first thing that came to mind was the friendliness of the people Matthias worked with at 37 Military Hospital. “I was considered part of the team rather than just a visitor. I have never met such friendly, peaceful, and nice individuals.” Matthias also noted that he was incorporated into the daily routine of the hospital, allowing him to see all aspects of the medical system and care of patients. Last but not least, he had the opportunity to explore the beautiful sights of both Ghana and Accra.
CONGRATULATIONS RESIDENTS AND FELLOWS CLASS OF 2014

RESIDENTS

Laurie Bachrach
Laurie will be joining a Uropartners group in the Western Suburbs of Chicago, covering Gottlieb and Elmhurst hospitals. She will be specializing in general surgery and robotics.

Jessica Casey
Jessica is moving to Indianapolis with her husband and daughter for a two year fellowship in pediatric urology at Riley Hospital for Children to work with Dr. Mark Cain and Dr. Richard Rink.

Daniel Stein
Dan plans on training with Dr. Richard Santucci at the Detroit Medical Center in the Center for Urologic Reconstruction for a fellowship in Genitourinary Reconstructive Surgery and Trauma.

FELLOWS

Mark Faassee
Pediatric Urology
Mark plans to pursue an opportunity in Chicago following completion of his fellowship. He recently earned a MPH.

Israel Nosnik
Pediatric Urology
Izzy will join Dr. David Ewalt and Dr. Bill Strand as the third member of pediatric urology at Urology Clinics of North Texas. His practice will include general pediatric urology with a focus on robotic and minimally invasive surgery.

Justin Shinyu Han
Genitourinary Reconstructive Surgery
Justin is joining the Department of Urology at North Shore/Long Island Jewish Health as an Assistant Professor of Urology in the Hofstra North Shore School of Medicine.
Channa Amarasekera was born in Colombo, Sri Lanka. He completed his undergraduate education at the University of Maryland, earning a BS in Cell Biology and Molecular Genetics. Channa will graduate from Harvard Medical School in May, 2014.

Oluwarotimi (Rotimi) Okunade was born in Ibadan, Nigeria. She received her undergraduate degree in Biomedical Sciences & Engineering from Harvard University. Rotimi will graduate from Yale University School of Medicine in May, 2014.

Louis Revenig was born in Chattanooga, Tennessee. He earned his BS in Biology from the University of Tennessee in Knoxville. He will graduate from Emory University School of Medicine in May, 2014.
Exploring Complication Rates for Robotic-Assisted Prostate Surgery vs. Open Surgery

A national, multi-institutional database study led by Dr. Robert Nadler found readmission and complication rates were significantly lower for robotic-assisted prostate surgery than for open prostate surgery. The robot-assisted group experienced significantly lower overall complication rates, surgical complication rates, and unplanned readmission rates. The operative time was significantly longer for the robotic-assisted group, but this did not result in higher complications during or after the surgery.

“Readmissions for Medicare patients alone currently add $17.4 billion each year in health care spending,” said Nadler. “The findings from this study show that beyond the patient benefit, robotic-assisted surgery may be relevant to reducing health care costs as it results in reduced readmission rates compared to open surgery.”

Improving Chronic Pain Management in Interstitial Cystitis

David Klumpp, PhD, studies new approaches to treating chronic pelvic pain. Klumpp is currently investigating a probiotic approach for the treatment of urinary tract infections. Compared to the traditional treatment methods of antibiotics, Klumpp believes that bacteria with anesthetic effects may help alleviate pain.

Recently, Klumpp located a gene in mice associated with pain severity in interstitial cystitis. The gene affects arachidonic acid levels, causing an inflammation response in animals, which leads to pain. Klumpp believes that controlling arachidonic acid in humans may help control pain among patients with interstitial cystitis.

Vitamin D Deficiency Linked To Aggressive Prostate Cancer

African-American and European-American men at high risk of prostate cancer have greater odds of being diagnosed with an aggressive form of the disease if they have a vitamin D deficiency, according to a new study led by Dr. Adam Murphy. “Vitamin D deficiency could be a biomarker of advanced prostate tumor progression in large segments of the general population,” said Murphy. “More research is needed, but it would be wise for men to be screened for vitamin D deficiency and treated.” Scientists examined data collected from a diverse group of more than 600 men from the Chicago area who had elevated PSA levels or other risk factors for prostate cancer. Each man was screened for vitamin D deficiency before undergoing a prostate biopsy. The authors were surprised to find that vitamin D deficiency seemed to be a predictor of aggressive forms of prostate cancer diagnosis in African-American and European-American men, even after adjusting for potential confounders including diet, smoking habits, obesity, family history and calcium intake. “Vitamin D deficiency is more common and severe in people with darker skin and it could be that this deficiency is a contributor to prostate cancer progression among African-Americans,” Murphy said. “Our findings imply that vitamin D deficiency is a bigger contributor to African-American prostate cancer.”

Results of the study were published May 1 in Clinical Cancer Research. The National Institutes of Health and the U.S. Department of Defense funded this study.
New Treatment for Erectile Dysfunction

Erectile dysfunction is a significant clinical problem affecting 52% of men between the ages of 40 and 70. Current treatments are ineffective in prostatectomy and diabetic patients due to injury to the cavernous nerve. Carol Podlasek and her research team have developed a novel integrative approach to the treatment of erectile dysfunction. Podlasek is creating two peptide amphiphile nanofiber hydrogels for delivery of sonic hedgehog protein to the cavernous nerve and to the penis to promote regeneration and prevent penile apoptosis. Her team is also studying sonic hedgehog pathway function at the nerve/smooth muscle/endothelial interface and with collagen remodeling. These studies have broad clinical application for treatment of erectile dysfunction in prostatectomy and diabetic patients.

Understanding the Immune Basis of Prostate Disease in Humans

Dr. Praveen Thumbikat’s laboratory is interested in understanding the mechanism underlying inflammation of the human prostate and its impact on prostate disease. In the past year they have successfully identified some of the molecular mechanisms that mediate pelvic pain in chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS). Beta-Tryptase, a protease released by mast cells, may serve as a diagnostic marker in at least a subset of patients with CP/CPPS. In studies focused on etiology and pathogenesis of CP/CPPS, they found evidence that insults to the prostate such as a bacterial infection can initiate immune mechanisms that result in self-recognition and the onset of prostate-directed autoimmunity. Thumbikat and his team are now pursuing avenues to modulate these events using both probiotic and mast cell-targeted therapies. Thumbikat’s ultimate goal is to develop multi-modal therapies that can be targeted to patients.

2012-13 HIGH IMPACT PUBLICATIONS

The publications of Adam Murphy, Arun Sharma, Shad Thaxton, and Carol Podlasek were recognized as high impact publications for 2012-13. The publications receiving this honor were:

On March 6 and 7, Dr. James Lingeman, Professor of Urology at Indiana School of Medicine, participated in the annual two-day visiting professor event. Highlights of the event included multiple lectures and videos on Holmium Laser Enucleation (HoLEP) of the Prostate followed by a hands-on lab where residents performed HoLEP on bull prostates with Dr. Lingeman. Residents and fellows then gathered for a grand rounds talk on “New Insights into the Formation of Kidney Stones.” The day concluded with a group dinner.

On March 7, Dr. Lingeman joined Dr. Robert Nadler, Dr. Barry McGuire, and the chief residents in the operating room for two percutaneous nephrolithotomy (PCNL) procedures. Residents received pointers on performing the procedure, which were later summarized in lectures on PCNL tips, tricks, and the management of kidney stones. On Friday, Lingeman attended dinner with just the residents and participated in the annual resident bowling outing. It was a tight match, but the senior resident team defeated Dr. Lingeman's team of junior residents.

Dr. Lingeman is internationally acclaimed for his clinical expertise and research in kidney stone disease and holmium laser treatment of prostatic hypertrophy. Dr. Lingeman is an NIH-funded investigator in the treatment of stone disease and is the founding director of the International Kidney Stone Institute.
The Department of Urology welcomed Douglas Husmann, MD as visiting professor on April 24-25. Dr. Husmann of Mayo Clinic joined residents and fellows for the annual pediatric urology visiting professor event. The event opened with clinical case presentations with residents and fellows followed by a lecture on vesicoureteral reflux (VUR) in pediatric and adult populations. He later toured the Ann & Robert H. Lurie Children’s Hospital and concluded the day with a grand rounds presentation titled “Urethral Injuries and Strictures: What have we learned?”

On Friday, April 25, residents attended a pre-operative indications conference and conducted additional clinical case presentations with Dr. Husmann and fellows. Dr. Husmann delivered an interactive presentation on the treatment and long term follow up of neurogenic bladder. Lastly, residents and fellows participated in a competitive game of Pediatric Urology Jeopardy.

Dr. Douglas Husmann specializes in pediatric and reconstructive urology, having completed fellowships in pediatric urology-transplantation and endocrinology. He has extensive experience in urologic reconstruction that arises following both congenital abnormalities and traumatic injuries. With this widely varied experience, Dr. Husmann has extensive publications and research interests that range from androgen physiology in aberrant and normal embryologic development to neurophysiologic derangements of the bladder and kidney arising from spinal cord injuries.
Urology Faculty Named “Top Doctors” by Chicago Magazine

Congratulations to Dr. Schaeffer, Dr. Catalona, and Dr. Kozlowski for being named to the annual Chicago Magazine list of top doctors. Northwestern was represented in 49 of the 60 specialties and had more medical staff nominated than any other health system in Chicago.

Residents Recognized by Chicago Urological Society

The following residents earned awards for the 2014 Chicago Urological Society Essay Contest:

• Matthias Hofer, first prize, basic science research.
• Greg Auffenberg, first prize, surgical skills competition; third prize, clinical research.
• Kalen Rimar, second prize, clinical skills competition.

2014 AUA NORTHWESTERN ALUMNI DINNER

The Annual AUA meeting will take place in Orlando, FL May 16-21 at the Orange County Convention Center.

We hope you will join us for this year’s Northwestern Alumni Dinner to be held on Sunday, May 18 at 6 PM at Vito’s Chop-house. Vito’s is located at 8633 International Drive in Orlando.

Please contact Mary Kate Fitzgerald at mary.fitzgerald@northwestern.edu or (312) 695-6124 if you have questions or would like to RSVP.

INSIDE THE DEPARTMENT

• Dr. Christopher Gonzalez was named Director of Surgical Services for Northwestern Memorial Hospital in January, 2014. He will continue to serve as Professor in Urology and Director of the Northwestern Genitourinary Reconstruction and Prosthetics Fellowship program.

• This winter we said farewell to Research Administrator Mengwei Liu and Program Assistant Sara Steinkamp.

• We welcome our new Program Assistant Mary Kate Fitzgerald. Prior to joining Northwestern, Mary Kate led community engagement and program development for Bright Pink, a national non-profit focused on the early detection of breast and ovarian cancer in young women. Her previous experience includes program evaluation with the UK National Health Service and Women’s Health Foundation of Chicago. Mary Kate holds a MPH from the University of Illinois at Chicago.

• If you have any announcements you would like to share, please send details to Mary Kate Fitzgerald at mary.fitzgerald@northwestern.edu.
Visit The Department of Urology on the web at:
http://www.feinberg.northwestern.edu/depts/urology