Working with 6 other centers across the United States, the University of Iowa Departments of Urology, Radiology, and Nuclear Medicine are collaborating to gather data for FDA approval for this new and exciting imaging study. Positron emission tomography (PET) imaging using a radiotracer (a small amount of radioactive material) that targets prostate-specific membrane antigen (PSMA) may allow doctors to identify smaller areas of disease spread as well as sites of early recurrences. This information is helpful for prostate cancer management and patient counseling.

One of these PSMA-targeting PET agents, Ga-68 PSMA-11, uses small molecules that bind to PSMA to localize a prostate cancer tumor and allows radiologists to image patients after 1 hour to detect small sites of disease. Ga-68 PSMA-11 is not currently approved by FDA for prostate cancer imaging, and its use is considered investigational. Although investigational, multiple studies suggest that this newest agent is superior to currently available FDA-approved agents, particularly at very low PSA levels.

Currently, physicians and scientists at the University of Iowa are investigating the use of this novel agent prospectively in two patient populations: 1) Those with intermediate or high-risk prostate cancer that are planning to have a prostatectomy and 2) those with a PSA recurrence following definitive therapy for prostate cancer (radiation or surgery). In addition to offering a cutting-edge technology to our patients in Iowa, the results of these studies will allow us to better understand the role of this new agent in the management of prostate cancer patients and further expand the individualized approach to prostate cancer treatment.

Looking Ahead

Patient who underwent prostatectomy locally and had biochemical recurrence. PSMA imaging identified a positive lymph node that would not have been detected on standard CT or MRI imaging.

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I look forward to updating you on our research and philanthropic efforts, as well as our resident and faculty recruitment in the next department newsletter.

— Dr. Karl J. Kreder, Professor and Department Executive Officer, Rubin H. Flocks Chair, Department of Urology.
2017

PEDIATRIC UROLOGY
With the assistance of a Stead Family Children’s Hospital research grant, the pediatric urology division has developed working prototype devices to assist in monitoring children and adults with neurologic conditions affecting their bladder. We anticipate testing the accuracy and usability of these devices in people within the next several months. These devices can be thought of as similar to the device a patient with diabetes uses to measure their own blood sugar levels. The information obtained will help patients and physicians adjust a patient’s medications and how often they need to catheterize. Ultimately, it is hoped this will protect the patient’s bladder and kidney function. One device is about the size of a roll of quarters and measures and records the bladder pressure, time, and date and transmits this information wirelessly to a phone or other device. The other device is a larger ‘home unit’ about half the size of a box of Kleenex that makes the same measurements as the smaller device but also pumps the urine out of the bladder and measures and records the volume of urine removed. User-friendly software applications for a variety of phones/computers to be used with the devices are currently under development and patents are pending.

FIRST IN IOWA: FUSION GUIDED PROSTATE BIOPSY
Under the direction of Chad Tracy, MD, MRI/ultrasound fusion-guided biopsy was added to our services to help guide our urologists to more precisely differentiate cancerous tumors from normal prostate tissue during biopsy. The new MRI method shows the prostate gland in much greater detail, so urologists can better visualize areas of tissue that might contain high-grade tumors.

MALNUTRITION IN HOSPITALIZED PATIENTS
Ken Nepple, MD, FACS, led a multidisciplinary team that redesigned a malnutrition assessment process to help providers better recognize, diagnose, and address malnutrition in hospitalized patients. Based on patient and financial benefit, this workflow was subsequently adopted hospital-wide. This work also led to a sponsored role in the Malnutrition Quality Improvement Initiative, a collaboration between the Academy of Nutrition and Dietetics, Avalere Health, and other stakeholders.

CLINICAL CANCER TRIAL
Michael O’Donnell, MD began a prospective, multi-institutional trial of hyperthermic mitomycin therapy using the Synergo® device. Currently approved for use in Europe, the device combines local radiotherapy and hyperthermia to the bladder walls while infusing a chemotherapy agent into the bladder. This therapy is used after surgical removal of tumors and shows promise in preventing cancer recurrence.

GRANTS AND RESEARCH FUNDING
Yi Luo, MD, MS, PhD, received an NIH Research Project Grant (RO1) from the National Institute of Diabetes and Digestive Kidney Diseases (NIDDK) to develop new therapies for Interstitial cystitis (IC)/bladder pain syndrome (BPS). IC/BPS is one of the most difficult urologic diseases to manage, and successful completion of this study will provide new insights for the mechanisms of cystitis pain and a basic research platform for future development of clinical strategies for treatment of IC/BPS pain. The project, Inhibition of TLR4 for Treatment of Cystitis Pain (NIH/NIDDK 1R01 DK111396-01A1) was funded for $1,372,500 beginning in September 2017 through May 2021. Dr. Luo also received a Department of Urology Intramural Grant ($11,000) for the study “Evaluation of intravesical delivery of surviving siRNAs by functionalized mesoporous silica nanoparticles for bladder cancer treatment.”

Kenneth G. Nepple, MD, FACS received two grants for the integration of iPads in resident education—an internal grant from the Department of Urology (PI, $5,400) and a Graduate Medical Education Innovation Funding Award (co-PI, $7,500).
Faculty Focus

Ken Nepple, MD

Dr. Williams, the former Chair of Urology for 25 years, was a mentor personally and professionally. He taught me to be demanding of myself and to advocate for what you think is right for your patient.

What is your hometown?
Templeton, Iowa (pop. 360)

How/when did you become interested in science and/or medicine?
I have always been interested in science, which morphed into an interest in medicine during college. My interest in surgery developed during medical school based on wanting to use my hands, focus on attention to detail, and directly impact patients.

When did you join the University of Iowa faculty?
2012

How or why did you choose to join the faculty at the University of Iowa?
I decided toward the end of urology residency that I wanted to come back to Iowa after urologic oncology fellowship. The department, the hospital, the college, and the people of Iowa are very important to me.

Is there a teacher or mentor who helped shape your career?
Dr. Williams, the former Chair of Urology for 25 years, was a mentor personally and professionally. He taught me to be demanding of myself and to advocate for what you think is right for your patient.

How do you see your faculty role impacting medicine and/or science?
Taking care of one patient at a time, but while also trying to fix problems that impact healthcare delivery for many patients. I also value the role of trying to impact how students and residents approach the way they deliver patient care.

What is the biggest change you’ve experienced in your field since you were a student?
Technology. Technology is just starting to catch up to the needs of medicine. I do things on a regular basis that I would have thought were science fiction as a student.

What one piece of advice would you give to today’s students?
Don’t settle for one piece of advice.

In what ways are you engaged in professional activities outside the University (i.e. population based research, mentoring high school students, sharing your leadership/expertise with organizations or causes, speaking engagement off campus, etc.)?
I regularly get the opportunity to interact on the national level with thought leaders in urology, robotic surgery, oncology, informatics, and malnutrition care. I’m appreciative of the support system at Iowa that allows those contributions while still prioritizing the patient.

What are some of your outside (personal) interests?
Spending time with family and watching our three kids grow up, kid’s activities including sports and drama, taking care of the yard including our mini-baseball field, overuse of technology.
2017 Events

FLOCKS VISITING PROFESSOR, JUNE 23-24
Our 2017 Flocks Visiting Professor was Roger Dmochowski, MD, FACS. Dr. Dmochowski is a professor in the Department of Urology at Vanderbilt University in Nashville.

IOWA UROLOGIC SOCIETY, AUG. 25-26
Mohit Khera, MD, MBA, MPH, served as our David A. Culp Speaker at the Iowa Urologic Society annual meeting. Dr. Khera is an associate professor and director of the Laboratory for Andrology Research at McNair Medical Institute, Baylor College of Medicine in Houston.

We also welcomed Kathleen Hwang, MD, as Special Guest Speaker. Dr. Hwang is an assistant professor of surgery (urology) and pathology and laboratory medicine, and director of the male reproductive medicine and surgery fellowship at Brown University in Providence, Rhode Island.

MEN'S HEALTH
Dr. Chad Tracy, Dr. Karl Kreder, and Kirin Annam, ARNP, presented at the community health seminar Prostate Cancer and Erectile Dysfunction: Get Your Quality of Life Back. Topics included understanding prostate cancer; advances in prostate cancer diagnosis and treatments, including MRI and Ultrasound; and treatment side effects, including incontinence and erectile dysfunction.

In alignment with Movember, a multinational event in which participants grow beards and mustaches to raise awareness of men’s health issues, the department sponsored the campuswide BeardUp! contest. Additionally, the department held a silent auction in support of a new men’s health fund housed in the University of Iowa Center for Advancement.

2017 Events

DR. PAUL GELLHAUS
Dr. Paul Gellhaus joined the UI Department of Urology as Clinical Assistant Professor. Dr. Gellhaus specializes in urologic oncology and reconstructive oncology.

DR. GINA LOCKWOOD
Dr. Gina Lockwood joined the UI Pediatric Urology team as Clinical Assistant Professor. Dr. Lockwood also holds a Masters of Science in Clinical and Translational Research.

DR. KATHERINE COTTER
Dr. Katherine Cotter joined us as our 2017-2018 Reconstructive Urology Fellow. Dr. Cotter completed her urology residency at the University of Minnesota.

RESIDENTS
New interns to the department included Dr. Mark Bevill and Dr. Charles Paul, both graduates of the University of Iowa Carver College of Medicine. Also joining Urology is Dr. Justin Drobish, who earned his medical degree from Michigan State University.

Dr. Eric Andresen joined Unity Point Health at Allen Hospital in Waterloo, Iowa; Dr. Laura Bertrand joined the urology staff at St. Elizabeth’s Physicians in Florence, Kentucky, and Dr. Vince Chehval joined Valley Urologic Associates in Phoenix, Arizona.
Honors and Awards

- **U.S. News & World Report** has ranked the Department of Urology adult care specialty number 31 and the pediatric care service as number 36 of America’s “Best Hospitals.”

- **Dr. Karl Kreder** was presented in May with the Victor A. Politano Award at the annual meeting of the American Urological Association. Dr. Kreder was honored for his research and clinical excellence in urinary incontinence. The award, presented annually, is given to an individual for outstanding achievements in the field and for enhancing the treatment of incontinent patients. The awards ceremony was held at the Museum of Fine Arts in Boston.

- **Dr. Michael O’Donnell** was awarded the Richard D. Williams Chair in Urology. Dr. Williams began his service at the University of Iowa Hospitals and Clinics in 1984 as the Rubin H. Flocks Professor and head of the University of Iowa, Department of Urology. The UI Roy J. and Lucille A. Carver College of Medicine, the Department of Urology, and the UI Foundation honored Dr. Williams and his legacy with the Richard D. Williams, M.D., Faculty Fund in the department of urology, which has been converted into the endowed chair.

- **Dr. James Brown** was awarded the 2017 Excellence in our Workplace award.

- The UI Carver College of Medicine Office of Faculty Affairs and Development awarded teaching honors to **Dr. Chad Tracy**.

- The 2017 Graduate Medical Education (GME) Leadership Symposium awarded **Dr. Chad Tracy** Excellence in Clinical Coaching.

- **Phil Ahrens** was awarded the 2017 UIHC GME Excellence in Interprofessional Education & Practice Award

- **Dr. Kenneth Nepple** was awarded the 2017 Summer Research Fellowship Outstanding Mentor in Clinical Research at the September 2017 Medical Student Research Conference Awards. Dr. Nepple mentored student Laura Quast, who was honored with Excellence in Urology Research for “Population-based Evaluation of Factors Associated with Use of Intravesical Bacillus Calmette-Guérin for High Grade Non-Muscle Invasive Bladder Cancer.”

Scholarship

PEER-REVIEWED ARTICLES


- **Bertrand LA, Thomas L, Li P, Buchta CM, Boi SK, Orlandella R, Brown JA, Nairn LA, Nepple KG**. Obesity as defined by waist circumference but not body mass index is associated with higher renal mass complexity. Urologic Oncology 2017;35:1-6.


Cooper CS, Caldamone AA. Development of the certificate of added qualification in pediatric urology in the U.S. Canadian Urological Association Journal 2017 Jan-Feb;11(1-2):10-11.


Krasowski MD, Grieme CV, Cassady B, Dreyer NR, Wanat KA, Hightower M, Nepple KG. Variation in results release and patient portal access to diagnostic test results at an academic medical center. Journal Pathology Informatics 2017;8:45-54.


Siegel S, Kreder K, Takacs E, McNamara R, Kan F. Prospective randomized feasibility study assessing the effect of cyclic sacral neuromodulation on urinary urge incontinence. Female Pelvic Medicine & Reconstructive Surgery 2017 [Epub ahead of print].


Voznesensky MA, Lawrence WT, Keith JN, Erickson BA. Patient-reported social, psychological, and urologic outcomes after adult buried penis repair. Urology 2017 May;103:240-244.


**ABSTRACTS PRESENTED**

**American Urological Association, May 2017, Boston, MA**


Arlan AM, Alexander SE, Guidos PJ, Leong T, Cooper CS. Distal ureteral diameter ratio is an independent risk factor for breakthrough febrile urinary tract infection. *Best Research Poster Award*


Guidos PJ, Arlen AM, Bonnett MA, Leong T, Cooper CS. Impact of continuous low-dose antibiotics on growth parameters in pediatric vesicoureteral reflux patients. *Clinical Prize Finalist*

Gaither TW, Cooper CS, Kornberg Z, Baskin LS, Copp HL. Risk factors for the development of bladder and bowel dysfunction. *Clinical Prize Finalist*

Gaither TW, Cooper CS, Kornberg Z, Baskin LS, Copp HL. Body mass index of children at risk for urinary tract infections: secondary analysis of the RIVUR trial.


Paul C, Alcock NG. Improving outcomes in stone surgery--from access to exit.

Erickson B. Role of men's health clinics in treatment of urologic patients.

Nepple KG. Prostate cancer survivorship and the coming mandates.

Wald M. Genetic causes of infertility