



UCLA UROLOGY

UPDATE



Above left: Drs. Nishant Patel (I.) and Matthew Dunn (r.) lead the UCLA Stone Treatment Center, based in the Department of Urology. Above right: Thanks to the treatment he received at the center, Neil Wong was able to return to his active lifestyle.

Stone Center Brings Relief to Patients with Painful Condition

ven before he retired, Neil Wong was devoted to his morning exercise routine with a religious fervor. Then one day several years ago, Mr. Wong unexpectedly found himself experiencing a crippling level of discomfort. Mr. Wong spent an agonizing 36 hours before the source of his pain, a stone that had developed in his kidney, passed through his urinary tract.

In April, the 69-year-old retired Los Angeles resident was incapacitated by the same issue, only this time it wasn't going away. "At first it seemed like it had passed, but then there was another one right behind it," he recalls. "My life was basically on hold for weeks. All you could do was try to find a comfortable position."

The UCLA Stone Treatment Center, based in the Department of Urology, provides compassionate and state-of-the-art care that brings relief to patients like Mr. Wong. A leader in the field for more than three decades, the center brings together a multidisciplinary

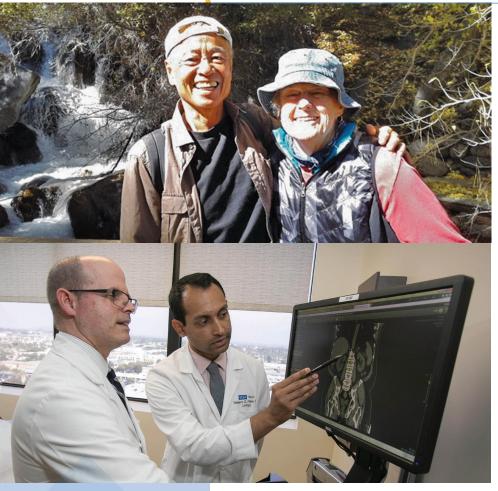
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UCLA Stone Treatment Center



Drs. Patel and Dunn confer on a case. The UCLA Stone Treatment Center brings its state-of-the-art treatments to some of the most difficult cases, including that of patient Neil Wong (above left and opposite page, on the far right during a bike outing with a stop at the Manhattan Beach Pier).

continued from cover

team of healthcare professionals, including urologists, nephrologists, endocrinologists, radiologists, dietitians and others.

The center sees cases ranging from routine to the most challenging — patients with stones that are large, complex (such as those that are broken into many different pieces), or in difficult-to-

access locations, as well as individuals whose anatomy or other health concerns complicate treatment. Many patients are referred after treatment elsewhere has failed to resolve the problem, or because their stone disease continues to recur. "We are

able to care for just about any stone that comes our way, and we always customize our care based on the patient," says Matthew Dunn, MD, UCLA Urology associate professor and the center's director. "With all of our patients it's not just about treating the stone itself, but taking a comprehensive approach that also includes diagnosis and a focus on prevention, follow-up and surveillance to make sure the problem isn't returning."

Urinary stone disease — commonly called kidney stones, but the stones can also develop in other parts of the urinary tract — is one of the most common urological conditions. Each year in the U.S., more than 1 million visits are made to healthcare providers and more than 300,000 people go to emergency rooms for stone-related problems. Approximately 9 percent of the population will develop a stone in their lifetime, and half of those who experience a stone will have a second one within five years.

Stone disease is also becoming more prevalent, for reasons that aren't entirely clear. "Obesity is increasing, and obese patients are at greater risk for stones," says Nishant Patel, MD, UCLA Urology assistant professor and an expert in stone disease and treatment. "But that doesn't entirely account for the increase. Stones are multifactorial, and there are other issues

involved, including genetic and dietary factors. We also know that worldwide, the main cause of stones is not drinking enough fluid."

Stones can have a tremendous impact on quality of life, both during acute episodes

and in their aftermath. "People who have had stones will often say it's the worst pain they've ever experienced," Dr. Dunn says. "And just the knowledge that there is a good

"People who have had stones will often say it's the worst pain they've ever experienced." chance of another attack can have a significant effect on mental health."

Urinary stones are solid concretions of minerals that often form as a result of a chemical imbalance in the urine, most commonly an excess of calcium. These stones can remain dormant and barely noticed, if at all. But when they begin to move down the urinary tract they can cause intense pain in the back, lower abdomen or groin, as well as nausea, blood in the urine and discomfort while urinating. Many patients are able to pass the stones on their own, while others require more immediate treatment.

For those who need it, treatment has improved dramatically in recent years, Drs. Dunn and Patel note. The approaches now most commonly used are flexible ureteroscopy, an outpatient procedure in which an ultra-thin fiber optic camera is placed through the urinary tract and used to break up and extract the stone; and percutaneous nephrolithotomy (PCNL), which

removes the largest stones through a tiny incision in the back. These advances, combined with the expertise at the UCLA Stone Treatment Center, mean that the center's team is able to successfully manage the most difficult stones, and to treat the majority of patients in outpatient settings..

Once the immediate problem has been addressed, the focus shifts to determining what caused the stone and devising a strategy to prevent future stones from developing, along with conducting ongoing imaging surveillance to ensure treatment success or guide changes to the plan. A 24-hour urine study and metabolic work-up can identify the type of kidney stone and the dietary or physiological factors contributing to the patient's stone risk, informing the plan for prevention. All patients are advised to ensure proper fluid intake — at least 3 liters of water each day, or enough to pass 2.5 liters of urine. Dietary strategies vary with

the individual, but tend to include increased consumption of fruits and vegetables while limiting meats and sodium. Maintaining a healthy body weight and limiting stress can also help to reduce the risk of recurrence, Drs. Dunn and Patel note.

To overcome the ureteral obstruction that was keeping Neil Wong's kidney stone lodged last April, Dr. Patel employed a very small scope and a new procedure called dusting, in which he used a laser to chip off tiny fragments of the stone, then placed a stent to allow the "dust" to pass. Mr. Wong then underwent a 24-hour urine study and was given dietary advice based on his metabolic profile. Recent imaging shows that he is stone free.

"It's great to be back in my normal routine," says Mr. Wong, moments before heading out for a bike ride. "And I'm making sure to stay well hydrated."



John Leppert, MD, MS



s an associate professor of urology at Stanford University School of Medicine with a clinical practice based at the VA Palo Alto Health Care System, Dr. John Leppert is reminded on a regular basis of why he went into medicine. "There's a special privilege in taking care patients, particularly at difficult times such as when they have a new diagnosis of cancer," Dr. Leppert says. "And

delivering state-of-the-art treatment to veterans, who often don't have as many resources as other patients in the community might, has been very rewarding."

Dr. Leppert spends half of his time seeing patients at the Palo Alto VA, with a focus on kidney cancer. But he is equally drawn to the other half of his workweek, which is devoted to research — both at the VA and at Stanford. "There are fewer and fewer surgeon-scientists, and it's important that UCLA and Stanford are still training urologists who can take care of patients but also contribute to advancing the science behind that care," he explains. "A major part of my job satisfaction is the ability to have a foot in both worlds."

Dr. Leppert's roots as a scientist go back a little more than a decade to his UCLA Urology residency, in which the fourth year of the program is devoted entirely to conducting research. He spent the year based primarily in the laboratory of Dr. Arie Belldegrun, a leading kidney cancer researcher and currently director of the UCLA Institute of Urologic Oncology, studying biomarkers of angiogenesis — the development of new blood vessels — in kidney cancer.

At Stanford, Dr. Leppert is studying protein-based biomarkers for kidney cancer patients — tests using blood or biopsy tissue that could help to predict which drugs would be most effective and least toxic for particular patients with metastatic disease, as well as contributing to a more accurate prognosis. He also heads an epidemiological study looking at patients' kidney function after surgery for kidney cancer. The study, which takes advantage of the wealth of data available through the VA's extensive electronic health record system, seeks to better understand the impact of kidney cancer surgery on the risk of complications and progressive loss of kidney function. In preparation for the study, Dr. Leppert earned a master's degree in epidemiology and received an appointment to Stanford's nephrology service.

"So much of what I do here is influenced by the outstanding training I received," Dr. Leppert says. "Even after you're no longer at UCLA, you can always trace back people who have trained there because we share these indelible memories of how our attending physicians approached patient care. I can still hear their voices in the back of my head when I'm taking care of patients, and probably always will. And I made close friendships with the people in my resident year, as well as those in the years just before and after me, that will last a lifetime."

DONOR SPOTLIGHT



Anna and David Grotenhuis

hen David Grotenhuis needed highly complex bladder augmentation surgery in 2008, his Santa Barbara urologist referred him to UCLA Urology's Dr. Shlomo Raz, chief of the Division of Female Pelvic Medicine and Reconstructive Surgery. Mr. Grotenhuis and his wife Anna went to UCLA for a consultation, aware of Dr. Raz's international reputation as a pioneer who had developed state-of-the-art techniques in the surgery. Upon meeting with Dr. Raz, the couple also learned that he had trained many of the leaders in the field. "My husband said we would probably be getting another opinion," Mrs. Grotenhuis recalls, laughing. "And Dr. Raz said, 'Be my guest. I've taught all the people you're talking about seeing.'"

What the Grotenhuises didn't count on was how much they would come to appreciate the personal attention and compassion they received from Dr. Raz. "In addition to being world renowned, he's a man of magnificent warmth and a great personality who is so dedicated to his patients — the kind of personal doctor you can email with a problem, and he'll answer it no mater where in the world he is," says Mrs. Grotenhuis, who also ended up becoming a patient of Dr. Raz's when she had a bladder-related issue in 2012.

During Mr. Grotenhuis' postoperative care and recovery period, the couple also came to appreciate the quality of the postdoctoral fellows being trained by Dr. Raz. In 2009 they established the Anna and David Grotenhuis Fellowship in Female Urology, Reconstructive Surgery, and Urodynamics, providing much-needed philanthropic support to ensure that Dr. Raz could continue to train the next generation of leaders in treating problems such as pelvic floor dysfunction, incontinence, voiding dysfunction, urodynamics and reconstructive surgery. The couple has continued to support Dr. Raz's fellows ever since; most recently, the Grotenhuises included the fellowship program in their charitable remainder trust, ensuring that their support will continue for many years to come.

"Support for these fellows was what was in Dr. Raz's heart, and it's been so rewarding to contribute to that," says Mrs. Grotenhuis, who notes that the couple continues to receive holiday cards from trainees they have supported over the years. "To be one of Dr. Raz's fellows, you have to be at the top. It's exciting to be able to invest in these cutting-edge, bright young people who will carry on his incredible legacy for the next generation of urological providers."

Letter from the Chair



eedless to say, a diagnosis of cancer can be a life-changing event for both the person receiving the diagnosis and his or her family. In the case of urologic cancers, for which there are often difficult treatment decisions to be made and a desire to find the best and most compassionate care available, patients often seek multiple opinions. Given UCLA Urology's national reputation as a leader in urologic oncology, our department is often the destination of choice for these patients.

People suffering from acute kidney stone episodes typically don't have the time to seek opinions; they need treatment immediately. But just like patients with cancer, individuals with stone disease — the most common urologic condition, and arguably the most painful — deserve state-of-the-art care, both to properly manage their immediate problem and to prevent it from returning.

In this issue we highlight our UCLA Stone Treatment Center, which is providing that state-of-theart care. UCLA Urology has been a leader in advancing the treatment of kidney stones going back as far as the 1980s, when one of the inventors of the lithotripter, Christian Chaussey, was recruited to join our faculty from Germany, bringing with him his then-revolutionary device, which uses sound waves to non-surgically destroy stones. But with the recruitment of Drs. Matthew Dunn and Nishant Patel, we now have a comprehensive center that is not just treating the acute problem with cutting-edge technologies, but also taking a patient-centered approach in addressing all aspects of stone prevention and care, in collaboration with a multidisciplinary team of UCLA experts.

This patient-centered, multidisciplinary care is what we take pride in here at UCLA. In that sense, our approach to stone treatment is much like our approach to cancer treatment, except that in the case of stones, there is typically the need to be much faster in response to an acute episode. And as with cancer and all other major urologic conditions, we have expanded our stone services beyond the UCLA Stone Treatment Center's Santa Monica headquarters — with fully staffed care provided in Burbank, Santa Clarita and, soon, Calabasas — as part of our effort to ensure that our outstanding and personalized services are widely accessible throughout our Los Angeles communities.

Just like patients with cancer, individuals with stone disease deserve state-of-the-art care.

& Mark S. Litwin, MD, MPH

Professor and Chair, UCLA Urology

UCLA Urology Residents Spend Their Fourth Year Conducting Research



From left to right: Drs. Golla, Sadun, Burton and Jayadevan.

t the halfway point in their training, UCLA Urology residents step away from the clinics and operating rooms to spend a year conducting research. Far removed from the fast-paced world of patient care, they can be found in the laboratory, working with research associates and technicians under the supervision of UCLA Urology faculty members who are dedicated to research — often with the support of private philanthropy. In the process of learning under the tutelage of their faculty mentors and helping to advance the science, they gain an appreciation for the biological underpinnings of the conditions they see as clinicians. Following are the paths chosen by *UCLA Urology's 2018-19 fourth-year residents:*

Dr. Claire Burton is spending her research year working with Dr. Jennifer Anger in the Division of Female Pelvic Medicine & Reconstructive Surgery at Cedars-Sinai and UCLA Urology's Dr. Christopher Saigal. The overarching goal of her research year is to improve the care and patient experience

of men and women with overactive bladder syndrome, an incurable bladder condition that affects up to 20 percent of adults and continues to be a major health problem affecting quality of life, especially in older patients.

Patients who fail to improve on medications are frequently offered more invasive treatments, including Botox, sacral neuromodulation, and percutaneous tibial nerve stimulation. Dr. Burton's group is exploring the factors that go into how or why patients choose these options by conducting a series of questionnaires and interviews before and after treatment. "This will help physicians counsel patients with overactive bladder syndrome and better engage them in shared decision making," she explains.

Another component of Dr. Burton's research revolves around how to improve the care of patients with urinary incontinence in the primary care setting by assessing current barriers to their care and implementing a pilot program with primary care practitioners. "I hope in working with Dr. Anger and Dr. Saigal that I will learn the skills required to be an effective health services researcher and also advance my career as an academic urologist," Dr. Burton says.

For his research year, Dr. Vishnukamal Golla has developed a study to define the current state of surveillance during and after CCRT - including surveillance cystoscopy and salvage cystectomy — and to correlate these interventions with clinical outcomes such as disease-free status and overall survival. "The overarching goal is to provide policyrelevant information on the impact of quality indicators," explains Dr. Golla, who is being mentored by Dr. Karim Chamie, UCLA Urology assistant professor. The hope, he adds, is that the educational intervention developed from his group's findings will affect quality of life and reduce the overall burden of bladder cancer in the United States, along with the associated healthcare costs.

"The research year in the UCLA Urology residency is a formative experience that I believe is critical in laying the foundation for a successful future in academic urology and independent scientific investigation," Dr. Golla says. "Ultimately, I aspire to leave an indelible mark in the field of urology and one day serve as a leader in the academic community. I will work tenaciously to combine my clinical and research interests with the goal of improving urological care for our patients."

Dr. Rajiv Jayadevan is spending his research year with Dr. Leonard Marks, UCLA Urology professor and a pioneer in the field of focal therapy for prostate cancer. One of his main projects will be to help develop and run a clinical trial that tests a new device using focal laser ablation to treat prostate cancer. Currently, the majority of patients who seek treatment for prostate cancer end up having either a radical prostatectomy — removal of the entire prostate — or radiation, Dr. Jayadevan notes. Both treatments can result in serious side effects, including incontinence and erectile dysfunction.

Focal laser ablation uses a small laser fiber to treat a patient's prostate cancer in a single session in the clinic rather than the operating room, and with minimal risk of incontinence or impotence. "This type of outpatient treatment has the potential to revolutionize the way physicians manage prostate cancer and is one of the main reasons I chose to work with Dr. Marks," Dr. Jayadevan says. "I believe that this device has the potential for widespread adoption of a rapid and cost-effective method for treating patients with prostate cancer in the office. I'm eager to spend this year learning about the development and implementation of new medical technology for the betterment of our patients' lives. "



Victor Nitti, MD

Dr. Nitti, an internationally known scholar, clinician, educator and administrator, comes to UCLA for a novel joint appointment as a professor in the departments of Urology and Obstetrics & Gynecology, director of the newly established and novel hybrid Center for Female Pelvic Health, and inaugural holder of the Shlomo Raz Chair in Urology. Dr. Nitti was previously at the New York University School of Medicine, where he was professor and vice-chairman of the Department of Urology, as well as director of Female Pelvic Medicine and Reconstructive Surgery and director of the Female Pelvic Medicine and Reconstructive Surgery fellowship program. He holds a BA in Economics and Biology from the University of Rochester, NY, earned his MD from Rutgers University New Jersey Medical School, and completed his residency training at SUNY Downstate in Brooklyn, NY, before coming to UCLA for a one-year fellowship in female urology, neurourology and reconstructive urology.



Brian Shuch, MD

Dr. Shuch joins the UCLA Urology faculty as director of the Kidney Cancer Program and member of the Institute of Urologic Oncology, taking the reins of the renowned program from his long-time mentor, Dr. Arie Belldegrun, UCLA Urology professor and director of the Institute of Urologic Oncology. Dr. Shuch comes to UCLA from the Yale School of Medicine, where he was an associate professor in the departments of Urology and Diagnostic Radiology. He earned his undergraduate degree with honors from the University of Michigan and his MD from the New York University School of Medicine, where he was honored as the most outstanding graduate in his class. Subsequently he completed his residency in urology at UCLA, followed by a three-year urologic oncology fellowship at the National Cancer Institute. Dr. Shuch will hold the Alvin & Carrie Meinhardt Chair in Kidney Cancer Research.



Renea Sturm, MD

Dr. Sturm joins the UCLA Urology faculty after completing a three-year fellowship in pediatric urology at the Ann and Robert H. Lurie Children's Hospital in Chicago, which is affiliated with Northwestern University. She remained at Lurie for an extra year to burnish her basic science research skills in tissue engineering and regenerative medicine. A translational scientist who works with experts in bioengineering and polymer biochemistry seeking to build urethras and bladders for children, Dr. Sturm earned her undergraduate degree in music from Rice University, where she attended on full scholarship. She earned her MD from Baylor and completed her urology residency at UC Davis.

Dr. Taylor Sadun is creating an integrated clinical, radiologic, pathologic, and molecular profile of prostate cancer that will lead to the development of an individualized prediction model to distinguish aggressive from indolent tumors to guide patient management. Her research, under the mentorship of Dr. Robert Reiter, UCLA Urology professor, chief of the Division of Urologic Oncology and director of the Prostate Cancer Program, is supported in part by the generosity of the H H Lee Research Program and the Jerry Janger Fellowship.

Early diagnosis of prostate cancer has the potential to reduce morbidity and mortality

associated with the disease, Dr. Sadun notes, but improving the risk-to-benefit ratio for early detection requires the development and application of precise tools to guide patient management. Multiparametric MRI (mpMRI) is a promising approach that may enhance tumor detection and classification. "It provides not only anatomic detail about the location and size of suspicious tumors, but also functional information such as diffusion-weighted imaging and dynamic contrast enhancement that have been shown to correlate with phenotypic and biologic features of tumor aggressiveness," Dr. Sadun explains. One of the current shortcomings of

mpMRI is the lack of understanding of the biological basis for detection of suspicious lesions by anatomic MRI imaging. Dr. Sadun's group is exploring the hypothesis that differences in functional and anatomic MRI imaging of prostate tumors reflect the genetic, epigenetic and resulting biological heterogeneity of prostate cancer.

"This project incorporates my interest in bioinformatics and its ability to propel precision medicine to new heights," Dr. Sadun says. "Ultimately, I aspire to a career as an academic urologist involved in clinical and translational research to improve patient care."



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BEST HOSPITALS USNEWS U.S.News & World Report's
UCLA Health hospitals in
Westwood and Santa Monica placed

No. 1 in Los Angeles, No. 2 in California and

No. 7 in the nation in the 2018-19

U.S. News and World Report rankings.



UCLA Urology: #7 in the Nation Highest Ranked in Los Angeles



The Men's Clinic at UCLA

DID YOU KNOW?

When couples decide they want no more children, more choose tubal ligation — an invasive surgical procedure — than vasectomy, despite the many advantages of the latter. A vasectomy at the Men's Clinic at UCLA is a 10-minute office procedure performed under local anesthesia, with a higher success rate, significantly lower risk and a faster recovery than tubal ligation. When men's reproductive priorities change, surgeons at the Men's Clinic are also international experts in microsurgery and vasectomy reversals.

The Men's Clinic at UCLA is a comprehensive, multidisciplinary health and wellness center located in Santa Monica. For more information or to make an appointment, call (310) 794-7700.



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