

UROLOGY

AT YALE | 2021



**Are Focal Therapies the Future
of Prostate Cancer Treatment?**

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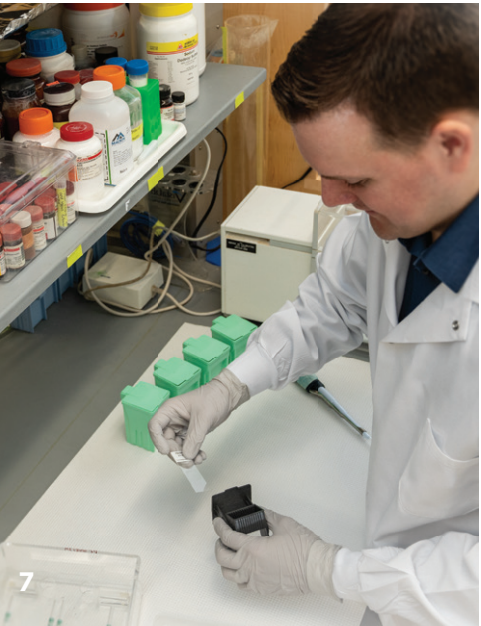
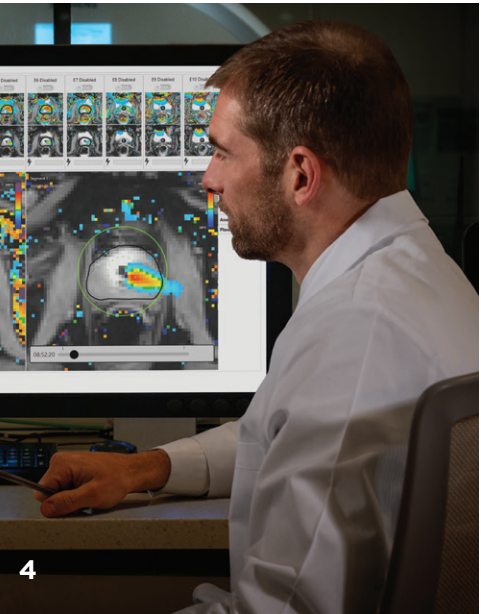
On The Cover

Preston Sprenkle, MD

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For men with lower-risk, localized prostate cancer, Preston Sprenkle, MD, and Raj Ayyagari, MD, combine their expertise to offer a minimally-invasive treatment options. Focal therapy treats only the cancerous parts of the prostate, leaving remaining tissue unharmed and preserving nearby nerves and organs along with the patient's quality of life.

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Since joining Yale Urology in January 2019, Timothy Tran, MD, has brought relief to his patients through his innovative and comprehensive approach to stone disease. When he was deciding which aspect of urology to specialize in, Dr. Tran asked himself, "What do I want my day to be filled with?" He didn't need to ponder long, for the days he always enjoyed the most were the ones in which he cared for patients with stone disease.

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Ask Robert Weiss, MD, to talk about what stands out over his 50-plus years in the field as a scientist, clinician, and beloved professor and he will tell you he loves the variety, and the way pediatric urology makes him think. But along with the intellectual, scientific, and technical challenges that come with the territory, the word that crops up most often as he describes his wide-ranging career is...fun!

16 Mentoring our Emerging Leaders

Helping physicians to become more critical thinkers is just one of the core competencies taught in Yale School of Management's Emerging Leaders Program (ELP). For the last six years, in collaboration with Yale Medicine and the Yale New Haven Health System, the two-year ELP program has provided intensive business training to Yale Urology faculty—an extraordinary opportunity not lost on its participants.

“It has been a privilege to guide our department and see our team flex and push themselves in ways we never thought were possible.”

—Patrick A. Kenney, MD



No one could have prepared for the unique challenges we faced over the last year as a result of the COVID-19 pandemic. As we successfully emerge from the second surge, we can finally look forward with hope. Our outstanding faculty and staff have made this possible, as well as our home state of Connecticut, which has led the way with one of the highest rates of vaccinations in the United States.

It has been a privilege to guide our department and see our team flex and push themselves in ways we never thought were possible. Our faculty volunteered to work in the Intensive Care Units, and our advanced practice providers and nurses transitioned to work in the inpatient settings, providing care throughout COVID-19. We pivoted to a virtual world quickly and effortlessly, ramping up our use of telehealth via MyChart and Zoom and moving our administrative meetings and residency recruitment online as well. We repurposed an existing technology to help provide a critical solution for a nationwide problem of PPE shortages. Through it all, we remained true to the principles of our mission and that of the Yale New Haven Health System and continued to provide safe, patient-centric care under the most stringent of circumstances. I am extremely proud of each and every member of Yale Urology.

With this issue of Urology at Yale, you will get a look inside our growing department of faculty and scientists who are bringing innovative discoveries and exciting therapies to our patients. Our cover story calls attention to a new treatment option for men with minimally-invasive prostate cancer. Focal therapies provide a middle-ground therapy that falls between active surveillance and radical treatment, as Urologic Oncologist Dr. Preston Sprenkle, and Interventional Radiologist, Dr. Raj Ayyagari explain.

Dr. Darryl Martin is a translational research scientist trained in cancer molecular biology, and along with the members of his lab, he is working to identify new genitourinary cancer treatments to improve patient outcomes. With the renewal of a second, 5-year grant, Dr. Leslie Rickey and the PLUS Consortium continue to find solutions to destigmatize and also prevent the development of lower urinary tract symptoms in women and girls.

Dr. Timothy Tran prides himself on providing quick relief to patients who present with pain from kidney stones. His skills, combined with his expertise in ultrasonography, allow him to perform a streamlined procedure to remove large stones through a small incision.

We also salute Dr. Robert Weiss, a pediatric urologist who has been helping our youngest

patients and their families, as well as guiding our residents for more than 50 years. He is a national treasure in urology and laid the foundation for the modern structure of Yale Urology. We close our 2021 issue with a look inside a unique program offered through the Yale School of Management, the Emerging Leaders Program. This is a special, two-year course that exposes select physicians from across the hospital system to key business management principles preparing them for future roles in leadership.

In the past year we have seen extraordinary teamwork and fantastic science at work. As we all experience the very tangible and exciting benefit of the COVID vaccines, the discoveries generated from within our department and laboratories also bring hope for the future for our patients. Please enjoy this snapshot into Yale Urology.

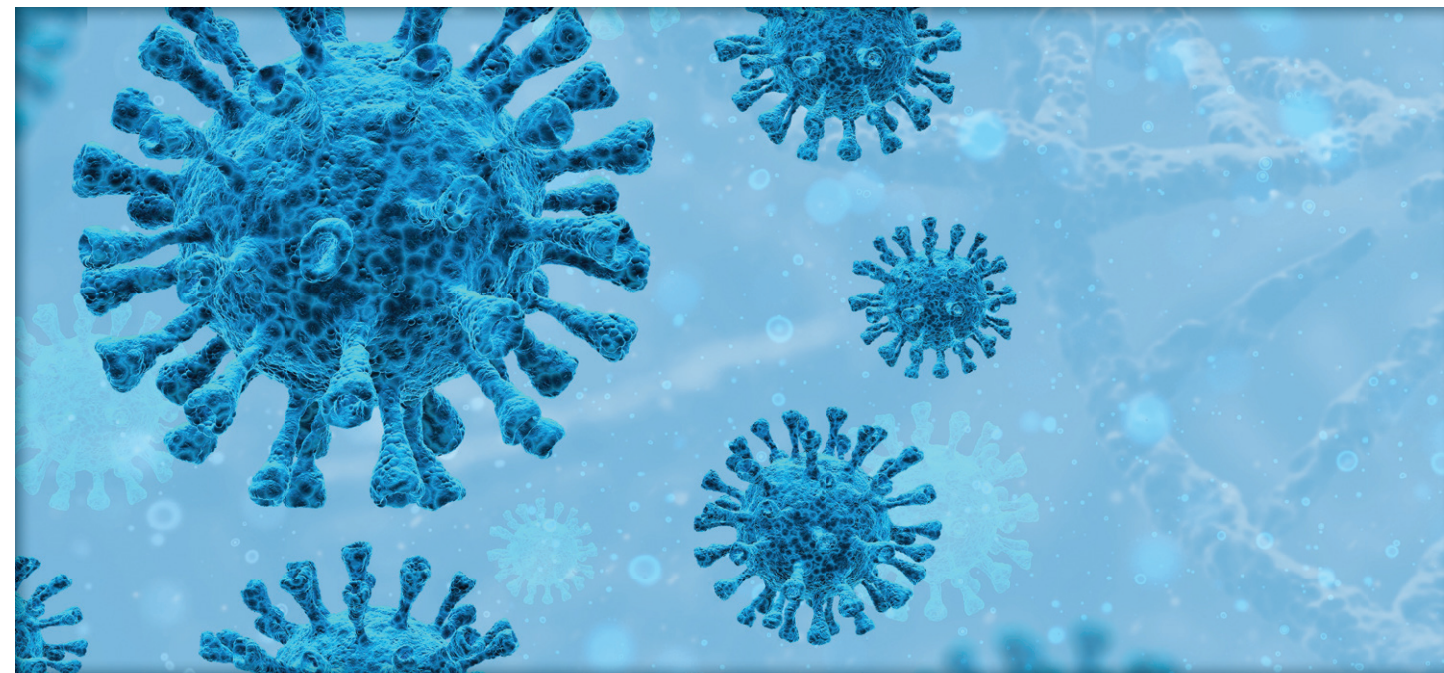
Most sincerely,

A handwritten signature in dark ink, appearing to read "P. Kenney".

Patrick A. Kenney, MD
Interim Chair, Department of Urology
Yale School of Medicine
Interim Chief of Urology
Yale New Haven Hospital

COVID-19 RESPONSE

Pivoting in a Pandemic



The impact of COVID-19 has had an astounding effect around the world, and Connecticut is no different. On a local level within Yale Urology, the impact on patient care, supplies, and normal operations has required everyone to be flexible and fluid on a daily basis. In response, our providers and staff have gone above and beyond to provide support and create solutions to help patients and families with the care and services they need during this extraordinary time of crisis, and to support one another.

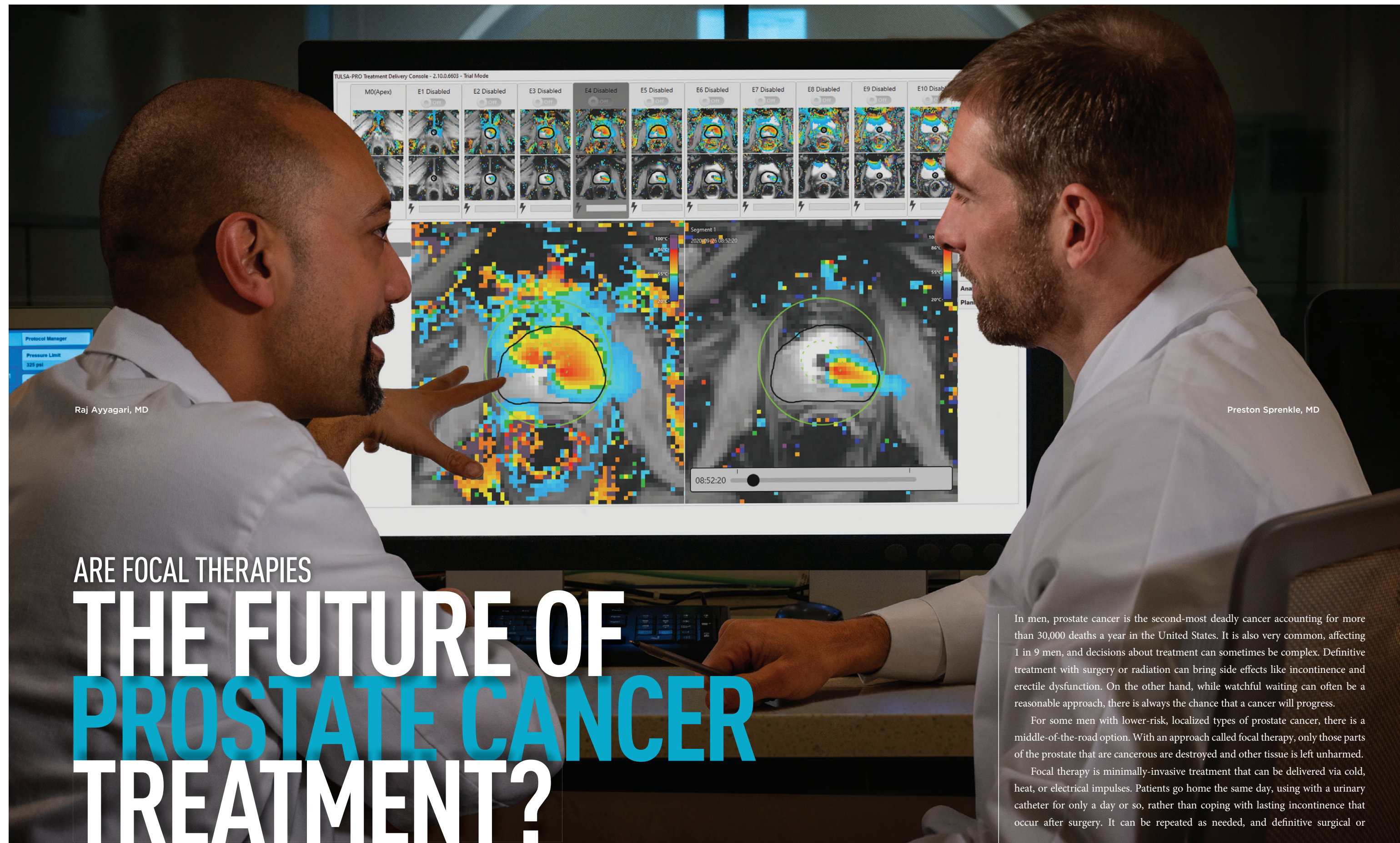
Patrick A. Kenney, MD, Associate Professor of Urology was Medical Director of Supply Chain at Yale New Haven Health prior to becoming Interim Chair of the Department of Urology. In this role, Dr. Kenney led colleagues to address the profound personal protective equipment (PPE) supply chain disruptions caused by COVID-19. Starting ahead of the curve in January 2020, the team pivoted to industrial PPE, sourced reusable isolation gowns, established a groundbreaking elastomeric respirator program, and developed a novel N95 reprocessing program, which received Emergency Use Authorization by the Food and Drug Administration. The Yale group demonstrated for the first time that vaporized hydrogen peroxide is viricidal, allowing a method for fumigating hospital rooms to be redeployed to reprocess precious N95 respirators. Thanks to these efforts, Yale New Haven Health never ran out of PPE despite one of the heaviest COVID-19 burdens in the country.

To allow urology patients to continue to meet with their physicians for follow-up appointments and consultations, the rapid implementation of

telehealth required significant efforts from our schedulers, management teams, and clinicians. Using the camera on a laptop or mobile device, patients and providers could meet via video, staying in the safety of their own home, while allowing for continuity of care. Diana Glassman, Meghan Curran, Rosy Cruz, and their entire team effortlessly led the transition of many of appointments to telehealth and arranged for multidisciplinary telemedicine visits for our pediatric patients.

As a result of COVID+ inpatient surge and unprecedented staffing needs, we saw many Yale Urology providers stepping forward to volunteer within the MICU, Yale New Haven Hospital's medical intensive care unit, as well as on hospital floors. Several individuals also volunteered for the procedure team, in particular, Adam Hittelman, MD, PhD, who organized and arranged for critical education in central line placing.

With travel and in-person gathering restrictions remaining in place as the fall arrived, the residency interview process also felt the impact of COVID-19. Applicants could no longer visit the campus of their preferred programs. Programs needed to get creative, and as a result, Yale Urology's residents hosted two Zoom open houses, featuring candid conversations with residents, as well as breakout rooms for more formal Q&A opportunities. The interview process also shifted to Zoom, hosting 68 applicants over three days, as well as a virtual meet and greet the night before interviews began—a feat led by Christine Merenda and her administrative team.



Raj Ayyagari, MD

Preston Sprenkle, MD

ARE FOCAL THERAPIES THE FUTURE OF PROSTATE CANCER TREATMENT?

In men, prostate cancer is the second-most deadly cancer accounting for more than 30,000 deaths a year in the United States. It is also very common, affecting 1 in 9 men, and decisions about treatment can sometimes be complex. Definitive treatment with surgery or radiation can bring side effects like incontinence and erectile dysfunction. On the other hand, while watchful waiting can often be a reasonable approach, there is always the chance that a cancer will progress.

For some men with lower-risk, localized types of prostate cancer, there is a middle-of-the-road option. With an approach called focal therapy, only those parts of the prostate that are cancerous are destroyed and other tissue is left unharmed.

Focal therapy is minimally-invasive treatment that can be delivered via cold, heat, or electrical impulses. Patients go home the same day, using with a urinary catheter for only a day or so, rather than coping with lasting incontinence that occur after surgery. It can be repeated as needed, and definitive surgical or

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For some men with lower-risk, localized types of prostate cancer, focal therapy is a middle-of-the-road option. Only those parts of the prostate that are cancerous are destroyed and other tissue is left unharmed.

radiation treatment can also be subsequently performed, if necessary. In the meantime, nearby nerves and organs may be preserved, along with the patient’s quality of life.

“Not everyone needs treatment, and [of those who do], not everyone needs aggressive treatment,” said Associate Professor of Urology Preston C. Sprenkle, MD, a pioneering advocate and practitioner of focal therapy.

Dr. Sprenkle likens this approach to treating warts: “We’re ‘burning it off,’ and it may come back. But we can treat it again.”

Also called focal ablation, focal therapy is possible in part due to recent advances in magnetic resonance imaging (MRI) that allow clinicians to pinpoint a prostate cancer’s size and location and to assess its grade.

Dr. Sprenkle regularly uses magnetic resonance (MR) guidance to perform prostate biopsies. He was among the nation’s first to do so when he arrived at Yale in 2012.

“We’ve become much more specific in our ability to predict which are high-grade lesions, which are not, and where they are,” Dr. Sprenkle explained of MRI. “MR-targeted biopsy helps about half the people who are diagnosed defer their treatment to some point in the future. Some will be able to avoid treatment altogether.”

“MRI is by far the best way to image the prostate,” noted Raj Ayyagari, MD, an interventional radiologist at Smilow Cancer

Hospital with expertise in real-time MRI-guided procedures. “You can see all the structures very clearly—the prostate and the tumor that you want to treat, as well as the rectum, the bladder, and the nerves.”

That clear window makes MRI the perfect guide for focal therapy, and Dr. Sprenkle uses it to deliver cryotherapy that leaves noncancerous areas of the prostate intact.

Besides cryotherapy, which targets tissue with cold gases like argon, Dr. Sprenkle also offers a type of focal therapy called electroporation. Other ablation options use lasers, high-intensity focused ultrasound (HIFU), or photodynamic therapy, in which the prostate is sensitized with a drug, then subjected to a light beam.

Soon, Drs. Sprenkle and Ayyagari will start offering a new FDA-cleared option to treat localized prostate cancer: transurethral localized sonographic ablation (TULSA). Like other focal therapies, TULSA is minimally invasive, but offers additional benefits, including added protection of surrounding tissues.

TULSA takes place in an MRI scanner with the patient under anesthesia. A slender ultrasound probe is placed in the urethra, which lies within the prostate. Cooling probes protect the urethra and rectum from ultrasound energy. A digital targeting system then allows for precise targeted ultrasonic ablation of the prostate, its direction and temperature controlled via MRI.

Smilow Cancer Hospital will be one of just a handful of centers around the world to offer TULSA, and the only one in New England. In large international trials, TULSA was safe and well-tolerated. Three-year results found that ablation had been safe and precise, resulted in greatly lowered levels of prostate-specific antigen, and left men with stable urinary and bowel function as well as erectile function that recovered by the one-year mark. The procedure may also relieve lower urinary tract symptoms.

“TULSA is not the equivalent of surgery, by any means, but it appears to be better than any other focal therapy,” Dr. Ayyagari said. After TULSA, some men in the trials did eventually need salvage therapy, such as surgical prostatectomy.

That’s to be expected, according to Dr. Sprenkle. “Focal therapy is not as definitive as surgery—that’s our point,” he said. “We’re trying to minimize the toxicity” of prostate treatment, he added. He keeps close watch on his patients after focal therapy with periodic MRI-guided biopsies.

“We can always either do a repeat ablation or redo surgery or radiation if we need to in the future,” Dr. Sprenkle said. “We’re not really losing out on much by performing focal therapy, but we may potentially be curing these people of their disease.” [Y](#)

Taking Innovative Discoveries FROM BENCH TO BEDSIDE

Why are some prostate cancers lethal, while so many others linger harmlessly for years? How can a drug instilled in the bladder adhere in pursuit of cancer cells rather than washing out with the urine? And how can we study the multitude of possible interactions between a cancer drug and people's diverse immune systems?

Yale Urology translational research scientist Darryl Martin, PhD, is tackling questions like these with a bench-to-bedside team intent on finding better genitourinary cancer treatments. Trained in cancer molecular biology, Dr. Martin has developed innovative tools like drug-ferrying nanoparticles and mice that carry both the tumor and the immune cells of a specific human cancer patient.

Dr. Martin leads a team of surgeons, pathologists, medical oncologists, chemists, biologists, radiologists, and machine-learning engineers. "Our department has invested in the science to help the clinical aspect," Dr. Martin said.

In 2019, Martin's team reported their discovery that a membrane protein called GP130 is rampant in aggressive and dangerous forms of bladder cancer. This protein is involved in some tumors' resistance to chemotherapy, and inhibiting its presence makes cancer cells less prone to survive and metastasize, Dr. Martin found.

To block GP130, his team created nanoparticles laden with small interfering RNA (siRNA)—genetic molecules that can disrupt specific out-of-control gene-expression pathways. In a mouse model, the nanoparticles shrank tumors by nearly three-quarters.

These nanoparticles hold promise, too, in overcoming complications with intravesical therapy, a method in which a bladder cancer treatment agent is introduced directly into the bladder. Unfortunately, these agents tend not to adhere to the bladder wall or penetrate the surface layer of cells. Their contact with the tumor is brief, quickly washing out with the urine.

Dr. Martin developed a nanoparticle shrouded in a viscous carbohydrate called Chitosan that is derived from the shells of crustaceans. He then loaded the nanoparticle with an siRNA that targets Survivin, a protein that allows tumor cells to live too long, and with another protein that penetrates cells. The newly created nanoparticle succeeded in penetrating bladder cells, decreasing Survivin levels and inhibiting growth of the cells.

"By encapsulating a treatment, these materials could actually stick to the wall," Dr. Martin explained. "This allows the amount of time of exposure to be extended so it doesn't wash out right away—it has a

chance to stay and release a therapeutic agent over time."

So far, the Martin lab has found promising results with particles that interact with cells in superficial bladder cancers. The bigger challenge is to develop a generation of nanoparticles that can penetrate deeper layers of the bladder and target more aggressive cancers.

Nanoparticles also hold promise for treating prostate cancer. When Dr. Martin studied biopsies from Smilow Cancer Hospital patients with prostate cancer, he found that a receptor called Claudin is upregulated in the higher-grade cancers.

Claudin makes up part of the tight junctions that link adjacent cells, and Dr. Martin's team was able to design a nanoparticle that targets it. They hooked iron oxide and fluorescent molecules onto this particle. They then demonstrated that the particle not only hones in better on the cancer site, but also allows for highly specific MRI and fluorescent images.

"The dream is that we could have imaging materials and therapeutic materials in one nanoparticle," Dr. Martin explained. "It could illuminate the tumor and start releasing therapeutics to that site."

Disease progression, the process by which an early-stage or indolent cancer can turn malignant, is still poorly understood. Dr. Martin is working to untangle the pathways and genes involved in this tipping-point aspect of tumor behavior.

A key part of the explanation, he suspects, lies in how each tumor is affected by its immediate surroundings, or microenvironment. The microenvironment comprises everything from blood vessels to collagen and enzymes to immune cells. Each may influence what a tumor does next. But studying the immune system's influence on tumors is hampered by the fact that researchers rely on mice that lack an immune system.

In response, Dr. Martin and his colleagues are developing a mouse model that can better simulate these complexities. After isolating both immune cells and cancer cells from a single patient, they are transplanting these cells to generate immune-competent mice. The idea is to observe interactions between the patient's immune system, the tumor and its microenvironment, and various therapeutic agents.

Eventually, researchers could build a library of such mouse models, each with a slightly differing cancer and immune-system variation that could allow for more tailored cancer treatment. As with all the Martin lab's projects, the mouse model's goal is near-term clinical relevance. "Patient care is going to depend on what type of research can be done in the lab," Dr. Martin said. "The ultimate goal is to improve patient care at the end of the day." **Y**

"The dream is that we could have imaging materials and therapeutic materials in one nanoparticle. It could illuminate the tumor and start releasing therapeutics to that site."

Darryl Martin, PhD

A Renewed Effort to Improve Bladder Health in Women

“The consortium takes a unique public health approach by seeking to identify risk and protective factors for bladder health and expand clinical and research efforts to include earlier intervention or prevention.”



Leslie Rickey, MD, MPH

Leslie Rickey, MD, MPH, Associate Professor of Urology, is celebrating the approval of a second five-year grant for the Prevention of Lower Urinary Tract Symptoms (PLUS) Consortium. Funded by the National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health, this first-of-its kind national large-scale study of bladder health in women aims to shed much needed light on how we might prevent these urinary tract conditions.

It was Dr. Rickey who recruited a multi-disciplinary team in 2015 to make Yale one of the seven clinical sites for the PLUS Consortium. “The consortium takes a unique public health approach by seeking to identify risk and protective factors for bladder health and expand clinical and research efforts to include earlier intervention or prevention,” said Dr. Rickey. In the five years since, the national consortium’s diverse group of investigators—including epidemiologists, clinicians, and prevention scientists—has developed important tools to advance the study and promotion of bladder health.

Lower urinary tract symptoms (LUTS), such as incontinence, overactive bladder, and urinary tract infections, affect large portions of the population. “Seventy-five percent of women report at least one lower urinary tract symptom,” said Dr. Rickey, “while 20 percent of women age 30 and older report severe LUTS.” Yet many women regard LUTS as just an inevitable part of being female. “There’s a bit of danger in normalizing LUTS,” she said. “Women delay seeking care until it progresses to the point where it’s so advanced they can’t live their lives the way they want, and the

conditions might be harder to treat.”

The consortium started by developing a definition of bladder health, which will serve as a benchmark for the consortium’s own study and can become a reference point for other researchers and clinicians. The definition states: “Bladder health is a complete state of physical, mental, and social wellbeing related to bladder function and not merely the absence of LUTS. This function that permits daily activities, adapts to short-term physical or environmental stressors, and allows optimal wellbeing, e.g., travel, exercise, social, occupational, and other activities.”

In the consortium’s first study, women of different backgrounds and ages from 11 to 91 participated in focus groups across the country. “Many women said they were pleased that someone was investigating this issue because they felt bladder health was a ‘hidden’ topic that was never discussed with their healthcare providers or in general,” said Deepa Camenga, MD, MHS, a pediatrician and Associate Professor of Emergency Medicine. Dr. Rickey adds, “Information from this study has deepened our understanding of how girls and women learn and communicate about their bladders and has also informed the language and perspective of PLUS surveys.”

Another innovative aspect of the PLUS Consortium is its focus on community engagement and data dissemination. Shayna Cunningham, PhD, Assistant Professor of Community Medicine and Health Care at UConn, is a Yale PLUS Investigator who has helped spearhead Yale’s efforts to share the focus group results with the local New Haven community. The Yale group has also held

community sessions with local women to get feedback on the bladder health definition and aspects of the study design, as well as discuss their own concerns about bladder health.

A Bladder Health Survey that Dr. Rickey helped develop is currently being validated for use in a population study, and consortium members are also fine-tuning questionnaires for Latinx and adolescent populations. “I was really impressed that the PLUS Consortium is taking a life-course approach and including adolescents as a priority population from the beginning of its inception,” said Dr. Camenga, who is helping write the adolescent version of the questionnaire. “The life-course approach allows us to be more innovative in our science and more appropriate for the age group.”

Those questionnaires will play a crucial role in the PLUS Consortium’s longitudinal study of bladder health, which is expected to roll out in 2021. “We’re at an exciting point in the consortium,” Dr. Cunningham said. “We’ve done all this work to lay the foundation for this study.”

Dr. Rickey is looking forward to the study’s results and applying them to improve the health of patients not only locally in Yale clinics and New Haven communities, but also nationwide. “Similar to prediabetes, we want to identify ‘pre-LUTS’ in girls and women with early signs or risk factors,” she said. “If we can use the knowledge we gain to intervene and change what they’re doing and prevent their condition from progressing, we can have tremendous impact on both individual well-being and overall public health.” **Y**

A Rewarding Approach to Stone Disease

When he was deciding which aspect of urology to specialize in, Timothy Tran, MD, Assistant Professor of Clinical Urology, asked himself, “What do I want my day to be filled with?” He didn’t need to ponder long, for the days he always enjoyed the most were the ones in which he worked with patients with stone disease.

“It is such satisfying work,” Dr. Tran said. “Kidney stones are incredibly and invariably painful. When you remove a stone, the patient goes from suffering severely right before a procedure to afterward feeling so much better and being so thrilled and grateful that they can get back to their daily lives. I knew that was the type of day I wanted to have.”

Since joining Yale Urology in January 2019, Dr. Tran has brought relief to his patients through his innovative and comprehensive approach to stone disease. He has not only streamlined the diagnostic and surgical procedures, but also redefined preventative care by using metabolic evaluations and dietary consultations to help patients avoid a painful recurrence. “Because of specialized training, we are able to offer every type of stone procedure,” he said. “That enables us to individualize each patient’s treatment plan.”

Two years ago after completing a kidney stone fellowship at Icahn School of Medicine at Mount Sinai, Dr. Tran earned certification from the American Institute of Ultrasound Medicine. That training enables him to perform ultrasounds in the clinic, instead of having to refer patients to a radiologist. That’s particularly beneficial when monitoring patients who have recurrent stone disease. “We’re providing a convenience, but not at the expense of diagnostic quality,” Dr. Tran said.

Dr. Tran’s radiology skills also enable him to

streamline a procedure known as a percutaneous nephrolithotomy (PCNL), in which large stones are removed from the kidneys through a small incision made in the back. Patients usually need to first see an interventional radiologist, who plots the entry tract for the PCNL. But Dr. Tran himself performs the tract imaging in the Yale Urology surgical suite and then immediately begins the surgery. If a stone cannot be cleared through one tract, he uses imaging to create multiple access points to clear everything instead of having to schedule a second surgery. He also uses smaller instruments in order to reduce the size of the incision and subsequent bleeding. “We have a much higher stone-free rate, less time under anesthesia, and greater convenience for the patient by being able to offer PCNL,” Dr. Tran explained.

There’s a 50 percent chance that kidney stone patients will have a recurrence within five years. To prevent another stone episode, Dr. Tran prescribes a metabolic evaluation for many of his patients, especially those who’ve had a large stone, needed surgery or passed a stone but have multiple remaining stones. The evaluation consists of blood work and a 24-hour at-home urine collection. The results can identify specific risk factors for stone formation as well as the composition of the stone.

“There’s a number of different kidney stone types,” Dr. Tran said, “and for the most common types there’s maybe ten different possibilities for why they would become a stone. We don’t want to simply give people a laundry list of things to do—drink more water, eat less salt, limit nuts and chocolate, avoid spinach—without finding out the true underlying metabolic issue. That would be overwhelming. With the metabolic evaluation, we can typically identify one to three

factors that really stand out and then focus on and treat those.”

The most common culprits are low fluid intake and low levels of citrate, a molecule that inhibits stone formation. Fortunately, patients can easily reduce these risk factors by boosting their daily intake of water and citrus fruits. “The metabolic evaluation gives patients direct control to help prevent another stone episode,” says Charlotte Bell, APRN, who reviews evaluations with Dr. Tran’s patients.

Some patients have more complex metabolic abnormalities. Elevated oxalate levels lead to a higher risk of forming calcium oxalate stones. Uric acid stones can form when a patient’s diet is too rich in meats. Dr. Tran refers these more complex nutritional cases to Krista Fogarty, a registered dietician at Lawrence + Memorial Hospital. She translates the metabolic evaluation into a new personalized eating plan. “Patients sometimes have other health considerations in addition to kidney stones,” Dr. Tran said. “Krista is able to help them develop a suitable dietary balance that maintains good overall health while also limiting their stone risk.”

His patients are often surprised by how a few small dietary changes can make a difference over time—improvements that are evident at their follow-up appointments in the months after surgery. “Dr. Tran appreciates nutrition as a science and how it can make a difference,” Ms. Fogarty said. “Our collaboration is excellent for making sure his patients get the best possible care.” It’s all part of a day’s work for Dr. Tran—the satisfying, rewarding days he first envisioned in his fellowship and now lives out in his daily practice at Yale Urology. **Y**



“The metabolic evaluation gives patients direct control to help prevent another stone episode.”

Charlotte Bell, APRN

Timothy Tran, MD

A Legendary Leader in Urology

Ask Robert Weiss, MD, to talk about what stands out over his 50-plus years in the field as a scientist, clinician, and beloved professor and he will tell you he loves the variety, and the way pediatric urology makes him think. “You have to be good at the technical part—that’s a given, but what I like is that if you appropriately think out the problem, as if you were in a chess match, you’ll do well and patients will do well,” said the Donald Guthrie Professor of Surgery, Department of Urology, Yale School of Medicine. “Plus, compared with a lot of other surgical fields, there are great opportunities for research—the scientific aspects of urology are great.”

But along with the intellectual, scientific, and technical challenges that come with the territory, the word that crops up most often as he describes his wide-ranging career is...fun. “It wasn’t uncommon for me to get in at 7 or 8 AM and still be doing rounds with students and residents at 10 PM at night. But we weren’t tired—we were having great fun!” he said. “I am happiest in the lab and in the operating room,” he said, “and when you are educating residents—they won’t allow you to just do things the way you’ve always done them. You can’t sit and vegetate.”

It’s that kind of flexible attitude, he says, that has helped him continue to adapt in his field, taking advantage of opportunities whenever they came his way. In a 2018 essay in *The Canadian Journal of Urology*, he wrote, “My career and happiness were shaped...by remembering Yogi Berra’s aphorism, ‘When you come to a fork in the road, take it—and there were many forks.’”

One fork was the decision to go into the field of urology, which he made while serving in the military from 1962 to 1963. “A doctor in

our unit, The Polar Research and Development Corp, located under the Greenland ice cap 138 miles northeast of Thule, Greenland and 800 miles from the North Pole, who was senior to me said, ‘Bob, you have to decide what field you want to be in—why don’t you tell them you’re a urologist.’” That suggestion went along with what his father, who had been a general surgeon, told him. “He said that I should pick any surgical field except general surgery. He knew, back before World War II, that surgeons were already beginning to sub-specialize.”

In contrast, pediatric urology, as a field, was in its infancy, and Dr. Weiss was attracted to the fact that the opportunities were wide open. Dr. Weiss obtained his urologic training at the Columbia-Presbyterian Medical Center, where the chair, Dr. John K. Lattimer, was one of the founding fathers of pediatric urology. When he arrived in New Haven in 1967, Yale helped him take advantage of those opportunities, he says. “Yale is a place where you can collaborate; I did well because we all nurtured and helped each other. If you have the desire to do something, you will.”

Another major fork in the road for Dr. Weiss: the decision to go into academic medicine rather than private practice. He has not looked back since making that choice. “If you go into private practice, you may end up doing the same thing over and over again, then, by the time you hit 50, you’ll get bored,” he said. In academia, he relishes the combination of doing surgery, plus research, writing, and teaching—especially teaching. “There’s no reason to go into academic medicine unless you are interested in education—and you have to make yourself available to students.” Asked what his advice might be to students and residents: “Pick an

academic career if you want an exciting life!” he exclaimed. “You can make great contributions in terms of curing patients but also focus in on a specific area of research. I was able to build up a lab, make rounds, see patients, and work on big cases,” he said, still relishing every bit of it.

Whether doing groundbreaking investigations into the physiology of ureteral smooth muscle early on in his career, studying the role of nitric oxide in inflammatory conditions of the urinary tract, or more recently, working with Yale’s biomedical engineering department on the use of nanoparticle-based delivery platforms for therapeutics in the management of benign and malignant diseases, “You have to keep doing things, keep getting more ideas, and if you see a new opportunity—take it!”

Which is why, despite being locked down during COVID-19, doing a Zoom call from his home in North Haven, CT, Dr. Weiss is looking forward to continuing his lab research once the pandemic is over. “There are always new grants and the field is constantly evolving—that’s what keeps me happy,” he said. “When I started as a resident, for instance, if a patient came in and couldn’t urinate, the only option was to do a prostatectomy. Today, there are new non-surgical ways of delivering medications and therapies, less invasive treatments. I continue to be interested in it all—that’s why I haven’t experienced burnout.”

Along the way, Dr. Weiss has served on nearly every board and committee and received nearly every award possible in the field including a Lifetime Achievement Award from the Urodynamic Society; an NIH Merit award (the first urologist to do so); the Keyes Medal awarded by the American Association of Genitourinary Surgeons for (...cont’d.)

Robert Weiss, MD

“You can only do so much in the four score and twenty years or so that you have, but if you can affect the next generation, that makes you feel better.”



outstanding contributions in the advancement of urology, and the 2018 Pediatric Urology Medal from the American Academy of Pediatrics. But the award that he specifically mentions is one received most recently—an inaugural faculty teaching award from his urologic residents that was named in his honor: The Robert M. Weiss, MD, Outstanding Faculty Teaching Award. “That’s the kind of thing that makes you feel best—when a resident comes back twenty years later and says, ‘Dr. Weiss—You were the person who helped me become who I am,’ I think that’s what gives you the most pride. Just like when you raise your own kids, you want the students to do well.”

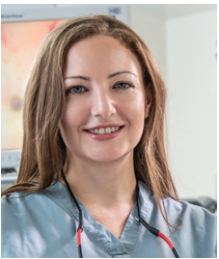
Dr. Weiss and his wife of 47 years, Ilana, have two children, a son and a daughter, and they recently became grandparents. Not coincidentally, both their children became physicians, his son a radiologist and his daughter, like her father, a pediatric urologist. “I didn’t try to influence them, but they must have seen that I was happy doing what I was doing, and that if it was good enough for their father, it was good enough for them.”

Dr. Weiss is perhaps as proud of the many doctors he has nurtured and sent out into the world as he is of his own children. “They’re not genetically related, but they are the next generation,” he said. “You can only do so much in the four score and twenty years or so that you have, but if you can affect the next generation, that makes you feel better.” **Y**

Mentoring Our Emerging Leaders



Angela Arlen, MD



Jaime Cavallo, MD, MPH



Daniel Kellner, MD

Helping physicians to become more critical thinkers is just one of the core competencies taught in Yale School of Management’s Emerging Leaders Program (ELP). For the last six years, in collaboration with Yale Medicine and the Yale New Haven Health System, the two year ELP program has provided intensive business training to Yale physicians—an extraordinary opportunity not lost on its participants.

“Medicine has a very unique economy, and I am very grateful for this unparalleled experience,” said Jaime Cavallo, MD, MPH, Assistant Professor of Urology. “I’ve enjoyed the mentorship and collaboration with my peers, and the access to graduate-level business experts.”

The ELP curriculum covers familiar business school competencies and leadership principles including finance, organization behavior, economics, and project management. Both years of the program are immersive—one day a month of interactive morning and afternoon sessions, for nine months. The second year takes the skills acquired in year one and applies them to the learning goals of ‘Leading Yourself and Leading Others.’

Each nominated by the Yale Urology Chair, several Yale Urology faculty have participated since the program’s inception. For the 2020-21 session, Angela Arlen, MD, Assistant Professor of Urology; Jaime Cavallo, MD, MPH; and Daniel Kellner, MD, Assistant Professor of Clinical Urology, join nearly 80 colleagues in medicine in ELP—double the roster size of previous years.

“It’s a fantastic opportunity to prepare for future leadership roles, but most importantly to enhance understanding of the system to better serve our patient population,” said Dr. Arlen.

The program equips faculty with the opportunity to enrich their work life, explains Tim Shea, Learning Experience Manager, Executive Programs, Yale School of Management. “Participants acquire a basic understanding on how to inspire, manage, and lead people. It shows them how to be innovative and look at situations more broadly than they would otherwise.”

“At the end of two years, participants will be able to apply operational principles and understand economic rationale—and when something smells right or smells bad,” said Paul Taheri, MD, MBA, Chief Executive Officer of Yale Medicine, and Deputy Dean of Yale School of Medicine.

After arriving at Yale in 2013 from the University of Vermont, Dr. Taheri saw an immediate need for a professional development program for physician leaders—the same type of program he first created at the University of Michigan, and then again at Vermont. “We want physicians to step out of their bubble, and understand how the world really works,” Dr. Taheri said.

To put this training to work, he says the best thing physicians can do is “to ‘use it or lose it.’ Get engaged with their department.” Ultimately, when it comes to how they approach their clinic work or patient flow, “they need to be the quarterback—the central figure who communicates the game plan and lets everyone complete their specific roles.”

Yale Urology Residents Fellowship placements (2012-present)

CLEVELAND CLINIC	2012 Christopher Starks, MD Male Infertility/Microsurgery
INDIANA UNIVERSITY SCHOOL OF MEDICINE	2012 Hristos Kaimakliotis, MD Urologic Oncology
NATIONAL CANCER INSTITUTE	2014 Amichai Kilchevsky, MD Urologic Oncology
MEDICAL UNIVERSITY OF SOUTH CAROLINA	2014 Jaimin Shah, MD Urologic Oncology
CITY OF HOPE COMPREHENSIVE CANCER CENTER	2015 Steven Kardos, MD Urologic Oncology
HACKENSACK UNIVERSITY MEDICAL CENTER	2016 Gerald Portman, MD Laproscopy/Robotics
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL	2017 Nnenaya Agochukwu, MD Health Services Research
VANDERBILT UNIVERSITY MEDICAL CENTER	2017 Sophia Delpe, MD Female Pelvic Medicine
EMORY UNIVERSITY SCHOOL OF MEDICINE	2018 Qiaqia (Charlotte) Wu, MD Pediatric Urology
BOSTON UNIVERSITY SCHOOL OF MEDICINE	2018 Shu Pan, MD Reproductive Medicine
UNIVERSITY OF CALIFORNIA SAN DIEGO HEALTH	2020 Juan Javier-Desloges, MD Urologic Oncology
JOHN WAYNE CANCER INSTITUTE	2020 Jeannie Su, MD Clinical Oncology

Faculty and Clinicians

Catherine M. Alonzo, MD	Patrick A. Kenney, MD
Angela M. Arlen, MD	Debra King, PA, PhD
Ryan Artigliere, PA	Jennifer Kokalari, PA
Molly Band, PA	Sarah M. Lambert, MD
Charlotte Bell, APRN	Michael S. Leapman, MD
Leonid Bilenkin, PA	Franklin F. Leddy, MD
Joseph M. Brito, III, MD	Adam Ludvigson, MD
Thomas M. Buckley, MD	Mary Grey Maher, MD
Kaitlyn Carrera, APRN	Elizabeth Mann, PA
Jaime A. Cavallo, MD, MPH	Darryl Martin, PhD
Jessica Cave, APRN	Thomas V. Martin, MD
John W. Colberg, MD	Piruz Motamedinia, MD
Meaghan Conway, PA	Marianne G. Passarelli, MD, MBA
Cynthia Curto, APRN	Daniel P. Petrylak, MD
Ralph J. DeVito, MD	Victor Quintanilla, PA
Erik G. Enquist, MD	Joseph F. Renzulli, II, MD
Harris E. Foster, Jr., MD	Leslie M. Rickey, MD, MPH
Israel Franco, MD	Dinesh Singh, MD
Therese Collett-Gardere, APRN	Preston C. Sprenkle, MD
George Hayner, PA	Nicholas Stroumbakis, MD
David G. Hesse, MD	Ralph F. Stroup, MD
Adam B. Hittelman, MD, PhD	Timothy Y. Tran, MD
Stanton C. Honig, MD	Lee Venancio, PA
Kristie Hotchkiss, APRN	Robert M. Weiss, MD
Daniel S. Kellner, MD	

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