PCF’s Investment in UCLA Turns Into a Boon for Prostate Cancer Research

For its impact on UCLA Urology’s Prostate Cancer Research Program, few meetings were as consequential as the one held in June of 1996 at UCLA’s Jonsson Comprehensive Cancer Center.

At a time when few federal dollars were being invested in research on the second-leading cancer killer of men, the three-year-old Prostate Cancer Foundation (PCF), founded by philanthropist Michael Milken, had begun to fill the void. At that point, UCLA wasn’t receiving many of the PCF grants. But Milken approached Stuart Holden, MD, who had helped him launch the PCF in 1993 and served as its medical director, with his idea: Hold a board meeting at UCLA, and encourage then-UCLA Urology chair Jean deKernion, MD, to bring in top scientists — even those not directly working in prostate cancer — to present on their research interests.

“That meeting made it clear to the attendees that there was some real funding and opportunity in prostate cancer through PCF, and the science tends to follow the money — if there’s funding, it’s going to bring more people into that area of research,” recalls Dr. Holden, a prostate cancer physician who continues to serve as PCF’s medical director and board member, and is also a UCLA Urology clinical professor and co-director of the UCLA Institute of Urologic Oncology, helped to start the foundation and continues to serve as its medical director.
We called it the 'Field of Dreams' theory — if you build it, they’ll come.

The theory proved sound. Dr. Holden notes that in the aftermath of that meeting, two leading scientists who had not previously worked in prostate cancer were drawn to the field — Dr. Owen Witte, who went on to become the founding director of the UCLA Broad Stem Cell Research Center; and Dr. Charles Sawyers, now at New York City’s Memorial Sloan Kettering Cancer Center. With a PCF grant, they worked with UCLA Urology’s Dr. Robert Reiter to develop a new animal model for prostate cancer on which they began to test compounds developed by Dr. Michael Jung, a UCLA chemistry professor. The ultimate results of these efforts were two drugs, enzalutamide and apalutamide, that have had a significant impact on the survival of men with advanced prostate cancer.

But the reverberations from the 1996 meeting extend far beyond that highly successful research collaboration. Over the last 25 years, the PCF has provided approximately $30 million in support of the work of both new and established prostate cancer researchers at UCLA, helping the UCLA Prostate Cancer Research Program, under the leadership of Dr. Reiter, to become a national leader as one of eight recipients of the prestigious Specialized Program of Research Excellence (SPORE) grant from the National Cancer Institute (UCLA’s SPORE is currently on its fourth consecutive five-year funding cycle).

“A quarter of a century ago, we invited UCLA to convene their most talented bioscience researchers to give us ideas on approaching the challenge of prostate cancer,” says Milken, chairman of the Prostate Cancer Foundation. “We sought innovative thinkers, even if they had never pursued work in prostate cancer. With our encouragement, several of these brilliant scientists launched highly productive cancer studies that produced commercially successful new therapies. We were pleased to provide initial funding for what became some of the world’s most transformative work in scientific discovery, drug development, translational medicine and clinical care. This has helped drive down the prostate cancer death rate by more than half. We look forward to continuing the PCF-UCLA relationship for years to come.”

PCF was founded by Milken in February 1993, a month after he was diagnosed with advanced prostate cancer. At the time, Dr. Holden says, prostate cancer received little attention from researchers, and relatively little investment from government and private sources in finding a cure — despite the fact that approximately 1 in 8 men would be diagnosed in their lifetime, and treatment was often associated with significant side effects, including incontinence and impotence. “We went to the National Cancer Institute, and they said they didn’t fund research in prostate cancer because no one was working in the area, then we heard from researchers who said they didn’t fund research in prostate cancer because there was no funding,” Dr. Holden says.

In its effort to break this unvirtuous circle, PCF established a grant-funding system that was based on the same competitive peer-review process as was in place for federal grants, but with streamlined applications and a much faster decision-making and funding allocation system. As it continued to invest in some of the world’s most talented investigators, PCF became the leading philanthropic organization funding prostate cancer research globally. Thanks to PCF support, there are now some two-dozen FDA-approved prostate cancer drugs — more than triple the number available at PCF’s founding — along with many more in the pipeline. Two institutions had SPORE grants in 1993; today there are eight.

Howard R. Soule, PhD, executive vice president and chief science officer for PCF, says one of the keys to the foundation’s success has been its willingness, as displayed in the early meeting at UCLA, to bring talented researchers from a wide variety of scientific disciplines into the fold. Another important focus, Dr. Soule explains, is on funding young scientists. “There’s a ‘valley of death’ for investigators who are just getting started,” Dr. Soule says. “They have to become self-sufficient by raising their own research funding, which is typically done through NIH grants. But it can be very difficult to do that until they’ve accumulated enough data to support a federal grant application.”
Through its Young Investigator Awards program, PCF has provided that bridge to larger grants for nearly 300 early-career prostate cancer researchers, ensuring that they will have protected time and resources to build a research track record even as many are balancing clinical responsibilities as academic urologists. It’s what Dr. Soule calls a “human capital building program” for PCF, which also provides opportunities for the recipients to network and exchange ideas with peers and more established scientists, fostering a community of support.

Over the years, PCF has given 13 Young Investigator Awards to UCLA scientists. Among the most notable of those recipients is Isla Garraway, MD, PhD, UCLA Urology associate professor and director of research, who parlayed the early support to become a prominent prostate cancer researcher, with PCF funding that has continued throughout her career. “I went to my first Prostate Cancer Foundation meeting when I was a chief resident, and it was so stimulating because they curate top-notch scientists across disciplines to present their work on prostate cancer,” Dr. Garraway says. “By supporting a pool of young investigators every year, they ensure that there will always be a new group of vibrant, enthusiastic, engaged people, generation after generation, working until the problem is solved.” (For more on Dr. Garraway, see the Alumni Profile column below.)

The PCF-UCLA Urology relationship also extends to the affiliated Greater Los Angeles VA Medical Center, where Dr. Garraway is an attending urologist. Under the leadership of Dr. Matthew Rettig, a UCLA Urology professor and medical director of the prostate cancer program at the IUO, the facility is one of 12 PCF-VA Precision Oncology Centers of Excellence — part of a $50 million initiative of PCF and the U.S. Department of Veterans Affairs to promote cutting-edge research and personalized prostate cancer care for the benefit of the nation’s veterans.

With his dual roles at PCF and the IUO, Dr. Holden personifies the synergistic relationship between the two. He joined the UCLA Urology faculty in 2014 to work with Dr. Arie Belldegrun, the IUO’s director, in bringing to fruition the vision of a multidisciplinary team of scientists and physicians collaborating under the same roof. “As a result of my work through the PCF I’ve been able to see how the best institutions work, and it became clear that the approach UCLA was taking makes the most sense,” Dr. Holden says. Within the IUO’s imaging core, UCLA was among the institutions that led the research resulting in FDA approval last December for a new prostate cancer imaging technique known as prostate-specific membrane antigen PET imaging, or PSMA PET, which offers the promise of more precision in treating newly diagnosed high-risk prostate cancers or prostate cancers that recur after treatment. The research at UCLA was led by a nuclear medicine physician, Dr. Jeremie Calais, who received a PCF Young Investigator Award.

“UCLA continues to be a successful recipient of PCF funding in a ruthlessly competitive peer-reviewed system,” Dr. Soule says. “This has been a model for a successful relationship between a foundation and an academic institution, and we’re looking forward to more great ideas coming from UCLA in the years ahead.”

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**ALUMNI PROFILE**

Isla Garraway, MD, PhD

Dr. Isla Garraway’s interest in research started early. Her father, Dr. Michael Garraway, was a professor of plant pathology at The Ohio State University whose studies necessitated many nights and weekends in the laboratory. Dr. Garraway remembers being captivated from an early age by her father’s workplace, filled with test tubes growing fungus in the name of advancing science. As she got older, though, she began to dream of becoming a surgeon — inspired, this time, by her uncle, Dr. Levi Watkins Jr., a pioneering cardiothoracic surgeon and civil rights leader.

In college, Dr. Garraway realized she could have the best of both worlds. “I heard about these MD/PhD training programs geared toward developing physician-scientists,” she says. “And I thought that was perfect for me.” She enrolled in UCLA’s Medical Scientist Training Program, but while she was working toward her PhD, her beloved father was diagnosed with an aggressive form of prostate cancer. “At that point my priorities shifted,” Dr. Garraway says. Ultimately, she decided to pursue a career as an academic urologist, treating and conducting research that could benefit patients like her father. Dr. Michael Garraway died in 1999, just as Dr. Garraway was to start her UCLA Urology training.

As a UCLA Urology resident, Dr. Garraway benefited from a new set of mentors and role models. Dr. Jean deKernion, then the department’s chair, had encouraged her to consider urology when Dr. Garraway was a fourth-year medical student. “I was concerned about going into a surgical subspecialty and still having time for research, and he assured me that I could absolutely combine the two,” she recalls. “Then, when I was starting my residency having just buried my dad from prostate cancer, he was so encouraging and nurturing, which meant so much at that time.” Other UCLA Urology faculty members who provided inspiration included Dr. Carol Bennett, an accomplished African-American woman on

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Stewart and Lynda Resnick have achieved remarkable entrepreneurial success, most notably as the founders of The Wonderful Company, which grows, harvests, bottles, packages, and markets a range of products, including fruits, nuts, flowers, water, wines and juices. The Resnicks have been equally prolific as philanthropists, with a focus on medicine; mental health; and employment, education, and healthcare in California’s Central Valley, where many of their employees reside.

With so many worthy causes, Stewart Resnick says, decisions on where to donate aren’t always easy. “If you’re a businessperson, you want your investments to work, even if they’re philanthropic,” he explains. “And I tell people all the time, I’m a lot more comfortable in how to make money than how to give it away and make sure it does some good.”

One frequent recipient of the Resnicks’ philanthropy is UCLA’s Department of Urology. Over the years, the couple have supported the department with more than 30 gifts amounting to approximately $11.6 million either personally, through The Wonderful Company or their family foundation, or directed through the Prostate Cancer Foundation.

The relationship started after Mr. Resnick was treated for prostate cancer in the early 1990s. As he learned more, he concluded this was an under-invested disease when it came to research. In looking to make a difference, he turned to UCLA Urology. “Through a close friend who was in the department, I knew this was one of the leading urology programs in the country, and we had a long relationship with UCLA,” says Mr. Resnick, who received his bachelor’s and law degrees from UCLA, and, along with his wife, made the pivotal gift in establishing the Resnick Neuropsychiatric Hospital at UCLA. “I also know that the difference in any organization is good leadership. These are long-term investments, so you have to be confident that the institution you’re supporting is going to maintain good leadership, and that’s the case with UCLA Urology.”

Even if philanthropy can involve hard choices, the Resnicks remain steadfast in their passion for giving back. “I grew up in a lower-middle-class family, worked my way through college and law school, and went on to make a lot of money, much of which involved good fortune,” Stewart Resnick says. “I believe you have an obligation to help those who are less fortunate, and it’s very satisfying to know that you’re leaving things better than you found them.”
For any successful academic urology department, prostate cancer represents a major part of the mission. In the U.S., it remains the second-most common cancer diagnosed in men, with approximately 250,000 new cases expected in 2021. Prostate cancer is also the second-leading cause of cancer death among men, though fortunately for the majority of patients it can either be successfully treated, or requires no treatment at all — in the latter case, because many prostate tumors are so slow growing they may never pose a threat, and so-called active surveillance can delay or obviate the need for therapy.

What sets UCLA Urology apart from most, though, is the deep engagement of our clinicians and scientists in research that covers every aspect of prostate cancer — from laboratory studies into the molecular and cellular biology of tumors so that we can better understand what causes some to be more lethal than others, to the development of game-changing technologies that are improving our ability to accurately diagnose and stage prostate cancers. Some of the most prominent pharmaceutical treatments for advanced prostate cancer have originated in UCLA laboratories. As one of only eight U.S. institutions designated by the National Cancer Institute as a prostate cancer Specialized Program of Research Excellence, we have a multidisciplinary team of basic-science and clinical researchers whose work is redefining how we diagnose and treat the disease.

Our cover story this issue chronicles a partnership between UCLA Urology and the Prostate Cancer Foundation (PCF) that has been instrumental to the growth and success of our Prostate Cancer Program over the last 25 years. Foundations play a vital role in biomedical research by providing the seed funding needed by investigators to collect data on promising ideas that can then be used to secure larger federal grants. At UCLA and other leading institutions around the world, the PCF has catalyzed prostate cancer research both through initial support to launch the careers of talented young investigators, and by drawing investigators with a track record of success in other scientific areas to the problem of prostate cancer. But beyond the funding, PCF has created a community of prostate cancer research through conferences and other networking opportunities that has led to the exchanges of ideas and the forging of collaborations so important to advancing the science. The result, here at UCLA, is a vibrant program contributing to accelerating progress that has already improved outcomes for so many men at UCLA and beyond, with the promise of continuing progress in the years ahead.

Mark S. Litwin, MD, MPH
Professor and Chair, UCLA Urology
A. Lenore Ackerman, MD, PhD, UCLA Urology assistant professor and director of research in the Division of Pelvic Medicine and Reconstructive Surgery, was selected by the American Urological Association (AUA) for the 2021 AUA/JUA Academic Exchange Program. As a scholar, she will spend 2-3 weeks at a Japanese urology institution during November/December 2021 and attend the 2021 JUA Annual Meeting in Yokohama, Japan in December 2021. Along with colleagues Julia Z. Guo, Dr. Colby Souders, Lynn McClelland, Dr. Jennifer T. Anger, Dr. Victoria C. Scott, and Dr. Karyn S. Eilber, Dr. Ackerman had a manuscript, Vaginal laser treatment of genitourinary syndrome of menopause: Does the evidence support the FDA safety communication?, published in the October 2020 issue of Menopause.

William Aronson, MD, UCLA Urology professor and chief of urology at Olive View-UCLA Medical Center, received a $45,000 grant from the Seafood Industry Research Fund for his study, Fish-Based Diet for Prostate Cancer Patients on Active Surveillance.

Wayne Brisbane, MD, fellow in urologic oncology, received a prestigious Young Investigator Award from the Prostate Cancer Foundation for his study, Micro-Ultrasound and MRI Investigation of Human Prostate Cancer. He will be mentored by Dr. Leonard S. Marks.

Thomas Gaither Castellano, MD, UCLA Urology resident, received a $25,000 H and H Lee Surgical Research Scholars Award in support of his fourth-year research project on anorectal sexual function in people with prostates. He will be mentored by Dr. Mark S. Litwin, UCLA Urology chair.

Georgina Dominique and Victoria Lee, students at the David Geffen School of Medicine at UCLA, were recipients of 2020-21 Viola Hyde Surgical Research Scholarships. Their UCLA Urology faculty mentors are Kymora Scotland, MD, PhD, and Renea Sturm, MD, respectively.

Richard M. Ehrlich, MD, UCLA Urology professor emeritus, had two new photography books published, Neogenesis Three and the Arolsen Holocaust Archives.


Isla Garraway, MD, PhD, UCLA Urology associate professor, and her colleagues received a $1 million Department of Defense Population Science grant, Analysis of Tissue Architecture to Identify Lethal Prostate Cancer in the Veteran Population, to apply machine learning and digital image analysis to routine pathology diagnostic prostate biopsy slides in order to offer new opportunities for biomarker discovery.

Efe Chantal Ghanney Simons, MD, UCLA Urology resident, received the 2021 Outstanding Resident Award from the Society of Women in Urology. Dr. Ghanney Simons also received a $25,000 grant from the Josiah Macy Jr. Foundation in support of her study, Equity, Diversity and Inclusion (EDI) in the Urology Workforce: Strengthening the Pipeline.

Vishnu Kamal Golla, MD, UCLA Urology chief resident, was matched into his first choice for fellowship in the National Clinician Scholars Program (NCSP) at Duke University. A direct descendant of the famed Robert Wood Johnson Clinical Scholars Program, the NCSP is the nation’s premier health services research program that trains world leaders in translational population science.

Nestor Gonzalez-Cadavid, PhD, UCLA Urology adjunct professor, and Jacob Rajfer, MD, UCLA Urology professor and former chief of urology at Harbor-UCLA Medical Center, were ranked in the top 2% of researchers in the world based on the number of published citations.

Tommy Jiang, second-year medical student, is first author of a paper entitled “Impact of the COVID-19 pandemic on patient preferences and decision-making for symptomatic urolithiasis,” published in the Journal of Endourology. Among the co-authors are UCLA Urology residents Dr. Vadim Osadchiy and Dr. James Weinberger. This work was an inter-institutional collaboration with Dr. Naveen Kachroo, an endourologist at the Cleveland Clinic, and was led by UCLA Urology faculty Dr. Sriram Eleswarapu and Dr. Jesse Mills. The group has also published an article entitled “Digital ethnographic analysis of prostate cancer discussions on social media” in BJUI Compass.

Tracey Krupski, MD, MPH, former UCLA Urology fellow, has been named by the AUA as the 2021 recipient of its triennial Robert C. Flanigan Award for fostering evidence-based decision-making and for her outstanding commitment to resident and medical student education.

Neil Mendhiratta, MD, UCLA Urology resident, won the 2020 Society of Urologic Oncology’s Young Urologic Oncologists award for his abstract, “Decisional regret & financial toxicity among patients with benign renal masses.” Vidit Sharma, MD, UCLA Urology fellow, was runner-up for the 2020 Society of Urologic Oncology’s Young Urologic Oncologists award for his abstract, “Obesity explains significant statewide variation in renal parenchymal tumor incidence in the United States.” They are mentored by Dr. Brian Shuch.

David Miller, MD, MPH, former UCLA Urology fellow, has been appointed president of the University of Michigan Health System and executive vice dean for clinical affairs at the University of Michigan Medical School.

Aydin Pooli, MD, UCLA Urology clinical instructor, and colleagues Dr. David C. Johnson, Dr. Joseph Shirik, Daniela Markovic, Dr. Taylor Y. Sadun, Dr. Anthony E. Sisk, Jr., Dr. Amirhossein Mohammadian Baigiran, Dr. Sohrab Afshari Mirak, Dr. Ely R. Felker, Alexa K Hughes, Dr. Steven S. Raman and Dr. Robert E. Reiter, had a manuscript, “Predicting pathological tumor size in prostate cancer based on multiparametric prostate magnetic resonance imaging and preoperative findings,” published in the February 2021 issue of the Journal of Urology.

Robert E. Reiter, MD, MBA, Bing Professor of Urologic Oncology and director of the UCLA Urology Prostate Cancer Program, and colleagues, Drs. Richard J. Rebello,
Although considerable progress is being made, much remains unknown about why certain prostate cancers are more lethal than others. That is Dr. Garraway’s focus, in what she calls “a true bench-to-bedside-and-back-to-bench endeavor.” Using tissue removed from patients during prostate cancer surgery, her team grows and studies the cells in the laboratory. If certain genes appear to be involved in metastatic progression, Dr. Garraway and her colleagues can go back to the clinical specimens to determine whether their observations are confirmed in the genomic and molecular data.

As UCLA Urology’s director of research, Dr. Garraway also finds herself in the role that made such a difference in her own training — mentoring residents and junior faculty as they develop research proposals, apply for grant funding and set up their labs. It’s also an opportunity to impart the wisdom of her experience to the next generation of physician-scientists. “I tell them what I love is that the work never becomes mundane,” Dr. Garraway says. “It’s a real privilege to be able to hover between the two spaces while having an impact on patients’ quality of life by providing the best possible care.”
The Men’s Clinic at UCLA

DID YOU KNOW?

Premature ejaculation is the most common sexual complaint in men, affecting approximately 30% of men worldwide — but there are many treatment options. The Men’s Clinic at UCLA can provide a comprehensive physical examination and hormone assessment to tailor a therapy that’s right for you.

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

Contributions to UCLA Urology support our research programs and help our faculty make the cutting-edge discoveries that can save lives. You can make a gift to UCLA Urology by logging on to http://giving.ucla.edu/urology. Please call (310) 206-4565 if you have any questions about making a gift to UCLA Urology.