

Volume III Quarterly Report

Department of Urology

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Dr. Ralph Clayman Honored at Festschrift and Investiture Ceremony

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Message from the Chair



Dear Colleagues and Friends,

The Department of Urology embodied true excellence in 2015. Last year was exceptional for us and—although we cannot feature all our research achievements, educational opportunities and patient success stories in a single newsletter—in this issue we share highlights of our recent accomplishments and future plans.

As always, the most fulfilling achievement for our team is making a difference in the lives of our patients and their families. We had the privilege of caring for thousands of people this past year and it is rewarding to see them recover and return to their lives, thankful for the care they received.

In addition, we are extremely grateful for the generous donors who collectively contributed more than \$4 million last year in support of our healing mission. We will honor these gifts and steward the funds to assure a brighter future for patients with urologic diseases.

As you'll read in the next few pages, the Department of Urology is making great strides in innovative research, education and treatments that benefit our community and help advance the field of urology. Page 4 describes how a donor's contribution is funding tissue engineering research, and page 5 includes an article about Dr. Ralph Clayman's recent Festschrift and Investiture Ceremony, where he was honored for his contributions to urology and medicine. Be sure to read the next issue of our newsletter, as we will share more information about our department's upcoming expansion throughout Southern California.

It is an exciting time for our department and we are fortunate to have a dedicated team who understands the importance and impact of the work that we do. We are off to a great start and look forward to an even more successful 2016.

We wish everyone a happy and healthy New Year!

Thank you,

Jaime Landuan

Jaime Landman, MD

At UC Irvine Heath Center for Urologic Care, we offer expert, comprehensive care for:

Female Urology Gamal Ghoniem, MD Judy Choi, MD

General Urology Services Ross Moskowitz, MD

Kidney Stones & Kidney Disease Jaime Landman, MD Ralph Clayman, MD Ramy Yaacoub, MD Male Infertility Aaron Spitz, MD

Male Urology Joel Gelman, MD

Pediatric Urology Antoine Khoury, MD Elias Wehbi, MD Irene McAleer, MD Reconstructive Urology

Gamal Ghoniem, MD Joel Gelman, MD Judy Choi, MD

Urologic Cancers

Edward Uchio, MD Kara Babaian, MD Mark Jordan, MD Thomas Ahlering, MD

Dr. Antoine Khoury presents 2015 Lattimer Lecture



Dr. Antoine Khoury was selected to present the American Academy of Pediatrics' Annual Lattimer Lecture at the 26th Congress of the European Society for Pediatric Urology last fall.

Khoury, who is the Walter R. Schmid Professor of Pediatric Urology, shared findings from his research which aims to find a solution for children with anatomically or functionally abnormal bladders. Currently the only option for these children is bladder reconstruction using segments of the intestinal tract. The procedure has been successful in maintaining urinary continence and low-pressure storage of urine, which prevents damage to the kidneys. But because the lining of the intestine is both absorptive and secretory, secretion of mucus and reabsorption of urine back into circulation makes this technique less than perfect.

A promising alternative came along more than 20 years ago with the introduction of tissue engineering science, using native cells from the patient. Initial research showed that although the cells thrived in the laboratory, they fared poorly once they were transplanted because they were unable to quickly establish blood supply. Khoury and his team explored a different option. They used a segment of the colon that already had an established blood supply, removed its mucosal lining, and sprayed a mixture of bladder cells and fibrin glue. This alternative worked as the team had hoped. It provided the same benefits as the established bladder reconstruction procedure and, because they replaced the mucosal lining with bladder lining that is impermeable, it solved the absorption or secretion issue.

"This proved to be the most practical solution to overcome the lack of oxygen and nutrient supply for the transplanted cells," Khoury said. "This hybrid model has demonstrated its usefulness and durability. Our next step is to translate these findings to clinical use for the benefit of our patients."

Prostate Cancer Clinical Trials

Our principal investigator, Edward Uchio, MD, has many clinical trials for the treatment of prostate cancer.

Current studies include:

SPARTAN – A study of ARN-509 in men with non-metastatic castration-resistant prostate cancer. Clinicaltrials.gov Identifier: NCT01946204

PROSPER – Safety and efficacy study of enzalutamide in patients with non-metastatic castration- resistant prostate cancer. Clinicaltrials.gov Identifier: NCT02003924

PROSTVAC – A study in preventing disease progression in patients with localized prostate cancer undergoing active surveillance. Clinicaltrials.gov Identifier: NCT02326805

EMBARK – Safety and efficacy study of enzalutamide plus leuprolide in patients with non-metastatic prostate cancer. Clinicaltrials. gov Identifier: NCT02319837





Tissue Engineering Gift Funds Search for Less Pain, More Gain

UC Irvine Health is looking at ways to successfully grow transplantable tissue in the laboratory. The Department of Urology is preparing to launch an investigation into the possibilities, enabled by a generous gift from Jerry Choate, retired chair and chief executive officer of The Allstate Corporation.

Choate understands the risks and rewards of tissue engineering research. In addition to managing the personal insurance risk his entire career, his long-time seat on the board of biotechnology pioneer company Amgen gave him an insider's view of research.

"In medical research, all sorts of potentially effective treatments are investigated," he said, "Most don't pan out. Then eventually one does and you're thrilled by it."

Choate met Dr. Joel Gelman, director of Reconstructive Urology at UC Irvine Health, in 2002, not long after he retired and moved from Chicago to Southern California. Over the years, the two have talked often about how tissue engineering might improve lives.

"Dr. Gelman has never given up," said Choate. "He says, 'If we're successful in developing tissue that can be implanted surgically, that would be a huge step forward.' He reminds me how life-altering this research could be."



Jerry Choate's gift to UC Irvine Health will fund tissue engineering research.

When Choate learned he had bladder cancer, Gelman suggested that he see Dr. Edward Uchio, a UC Irvine Health urologist who specializes in cancer.

"From the beginning, Dr. Uchio said he would do everything he could to keep this from getting away from us," said Choate. "He's really gone the extra mile to restore my health. I couldn't ask for better care."

Choate's gift to UC Irvine Health establishes the Jerry D. Choate Presidential Endowed Chair in Urology Tissue Engineering. Funds go toward a dedicated research laboratory for urologic tissue engineering in perpetuity. A search is underway to identify a tissue engineering expert to serve as chair and leader of a multidisciplinary team.

"Because of Jerry Choate, we have the opportunity to bring the brightest minds from cancer, pediatrics, basic science and bioengineering together to identify techniques and technologies for developing tissue –and, hopefully, some day, organs," said Jaime Landman, MD, chair of the Department of Urology. "It's not inconceivable that we could one day find ourselves creating bladders and other organs on a 3D printer."

For a confidential conversation about how you can make a difference, please contact Jenny Tom at tomjc@uci.edu

Ralph Clayman, MD, Honored for Contributions to Urology and Medicine

In 2015, the Department of Urology hosted a Festschrift Ceremony in honor of Dr. Ralph Clayman for his decades of contributions to the field of urology. The ceremony was celebrated on the 25th anniversary of the world's first laparoscopic nephrectomy, which Clayman performed.

At the event, dozens of prominent physicians from all over the globe presented their work and spoke of Clayman's direct influence on their lives and careers. His work was described by his colleagues as innovative, groundbreaking, and astounding.

In conjunction with the Festschrift, an Investiture Ceremony was held to introduce the "Ralph V. Clayman, MD, Endowed Chair of Endourology." This endowed chair will be utilized for the development of treatments to combat urologic conditions, and the advancement of state-of-the-art clinical and basic science research studies.

Well known for his strong emphasis on providing compassionate patient care, Clayman and his research efforts focus on developing less invasive surgery techniques that reduce or eliminate painful incisions for all aspects of kidney surgery: cancer, stones, and obstruction. His research studies include the development of advanced instrumentation for minimally invasive surgery and cryoablation therapy for kidney cancer. He holds more than 10 patents on new devices and instruments used in minimally invasive surgery.

Clayman joined the UC Irvine Health Department of Urology in 2002 and was named dean of the UC Irvine School of Medicine in 2009. Under his leadership, UC Irvine Medical Center became one of the first Southern California hospitals to



(Left to right: Howard Federoff, MD, PhD, CEO of UC Irvine Health, Ralph Clayman, MD, professor of urology and Jaime Landman, MD, chair of the Department of Urology.

acquire the da Vinci Surgical System® for robotic-assisted surgery. He continued his fellowship in less invasive urology, a program whose trainees now occupy academic positions at universities throughout the U.S., Canada and Israel.

Prior to his arrival at UC Irvine, he spent 17 years at Washington University in St. Louis where he was professor of urology and radiology, director of the Midwest Stone Institute, and co-director of the Division of Minimally Invasive Surgery.

SPOTLIGHT PUBLICATIONS

Front Page of The Journal of Urology



For the cover of their December issue, *The Journal of Urology* featured an illustration of our department's innovative work on 3D image reconstruction of bladder innervation. He has received numerous awards for his work in less invasive surgery on both a national and international level. Clayman is now an active faculty member in the Department of Urology.

"We are so fortunate to work alongside Dr. Clayman," said Jaime Landman, MD, chair of the Department of Urology." He is an inspiration to many. The Festschrift and Investiture Ceremony was a true display of the admiration and respect his peers hold for him and all of his academic and clinical accomplishments."

TALL score for prediction of oncological outcomes after radical nephroureterectomy for high-grade upper tract urothelial carcinoma.

Youssef RF, et al. World J Urol. 2015.

Developed a multivariable prognostic tool for the prediction of oncological outcomes after RNU for high-grade UTUC. The score can be used for patient counseling, selection for adjuvant systemic therapies and design of clinical trials.



Practical PCNL: From Access to Exit

In November, the Department of Urology hosted *Practical PCNL: From Access to Exit*, a hands-on AUA course directed by Drs. Ralph Clayman and Jaime Landman. More than thirty national and international physicians enlisted in this training course.

Attendees were trained on obtaining percutaneous access to the kidney using both fluoroscopy and sonography, gaining familiarity with current instrumentation and demonstrating the optimal methods for post-operative drainage and managing of the percutaneous tract. Participants also gained an understanding of how to recognize and manage complications of PCNL, and perform and review ultrasound imaging.

The goal was to enable physicians to offer PCNL as an integral surgical procedure in the treatment of stone disease.



2016 UC Irvine Grand Rounds Skype Lectures

This unique lecture series, envisioned by Drs. Clayman and Landman and Mr. Skarecky, brings urologic experts from across North America into our newly renovated state-of-the-art telemedicine suite at UC Irvine via a Skype platform. Lecturers share the latest finds in their fields of research and, at the end of each lecture, attendees can participate in a lively question and answer session. In addition, the lecturer can test attendees with regard to what they have learned during the lecture, using the Poll Everywhere system.

Upcoming Skype Lectures:

Monday, Feb. 22, 2016 Pediatric Lecture: Childhood UTIs

and Pyelonephritis Linda Shortliffe Stanley McCormick Memorial Professor in the School of Medicine, Emerita Stanford University

Monday, March 21, 2016

Pediatric Lecture: Pediatric Neurogenic Bladder Mark Cain, MD Professor and Chief of Pediatric Urology

Monday, April 18, 2016

Pediatric Lecture: Adrenal Hyperplasia Richard Rink, MD Robert A. Garrett Professor of Pediatric Urologic Research Professor

Monday, May 23, 2016

Pediatric Lecture: Pediatric Medical Renal Disease Elizabeth Harvey, MD, FRCP(C)

The Hospital for Sick Children University of Toronto

Health Scholars Lab Day

The Department of Urology's Lab team trained 16 young students on various surgical techniques, including knot tying, laparoscopic use, cystoscopy and stone removal. Under careful instruction, they also had a chance to practice using the Da Vinci[®] Robot, a device usually reserved for medical students and residents. The group is part of the Health Scholars Program (HSP), founded by Dr. Marco Angulo from UC Irvine Health Department of Family Medicine. HSP trains, mentors, and provides clinical exposure to aspiring healthcare professionals. The training they receive will hopefully engender to pursue careers in the medical field.



A special thank you to our Lab team for their support and mentorship: Christina Hwang, Renai Yoon, Victor Huynh, Blanca Morales, Carlos Gomez Mustafa, Sherry Lu, and Kenneth Schmitt, pictured here with a group of health scholars.



Welcome Judy M. Choi, MD

Visiting Professor: Timothy B. Boone, MD, PhD

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We are privileged to have Dr. Timothy B. Boone as our visiting professor from March 3-5, 2016. He will be presenting a series of educational lectures, and will provide hands-on surgical training to our residents. Boone is the chair of the Urology Department, co-director of the Institute for Academic Medicine and a member of the Neurological Institute at Houston Methodist Hospital. He is professor of Urology at Weill Cornell Medical College and holds appointments as professor of urology at Texas A&M College of Medicine and Baylor College of Medicine.

The Department of Urology welcomes our newest faculty member, Dr. Judy Choi, assistant professor of Urology. Choi is skilled in all areas of general and female urology with an emphasis in urinary incontinence; vaginal and uterine prolapse; neurogenic bladder; voiding dysfunction; mesh complications; vesico-vaginal fistulas; urethral diverticula; bladder stones; benign prostatic hypertrophy (BPH); painful bladder syndrome and pelvic reconstruction. She has extensive training in the most advanced surgical treatments for these conditions, including endoscopic techniques, robotic surgery and neuromodulation.





World Congress of Endourology, London 2015

Drs. Jaime Landman and Ralph Clayman presented educational seminars and participated in friendly debates with experts worldwide at the Endourological Society's Annual World Congress of Endourology. Eleven abstracts from UC Irvine Health Department of Urology were accepted during the World Congress.





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Join Our Team!

Our department is growing and we are actively recruiting faculty. If you are interested, visit our recruit website at https://recruit.ap.uci.edu/apply

Contact us

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For appointments or referrals, please contact our business development officer Rachel Hogue at 714-292-9716.

Find us online

For a complete list of services and patient care information, visit **ucirvinehealth.org/urology**

Additional information can be found on our academic website at **www.urology.uci.edu**



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