

UC Irvine Urology 1-Year Fellowship Program

University of California, Irvine School of Medicine Department of Urology 1-Year Fellowship Program

The University of California, Irvine is proud to offer an Endourology Society sanctioned one-year fellowship in minimally invasive urology. The fellowship is carefully tailored to creating leaders in minimally invasive urology and incorporates training in **robotics and laparoscopy, or endourology and ablation**. Please see the attached document for details.

Interested parties should contact:

Jaime Landman, MD
Professor of Urology and Radiology
Chairman, Department of Urology
Office: 714.456.3330
E-mail: landmanj@uci.edu



http://www.urology.uci.edu/education_fellowship.shtml

Fellowship Program

Minimally Invasive Urology Fellowship Program

Fellowship Directors

Jaime Landman, MD
Professor of Urology and Radiology
Chairman, Department of Urology

Faculty

Ralph V. Clayman, MD

Professor of Urology
Dean, School of Medicine

Thomas E. Ahlering, MD
Professor of Urology
Vice Chairman, Department of Urology

Edward Uchio, MD
Associate Professor of Urology

Laura Findeiss, MD
Associate Professor of Radiology

Overview



The Minimally Invasive Urology Fellowship at University of California, Irvine is an Endourology Society sanctioned fellowship specifically and carefully tailored to train future leaders in the world of minimally invasive urology. This intensive year long program is designed to allow the graduating fellow to have advanced technical skills in laparoscopy, endoscopy, ablation and robotic surgery to optimize patient outcomes with minimally invasive surgical technique. The fellowship also focuses on developing minimally invasive thinking processes such that the fellow, after graduation, can advance the future of minimally invasive urology. Research training is focused on creative and dynamic innovation, study design and execution, and proper presentation.

The fellowship incorporates all of the traditional elements of minimally invasive urology including laparoscopy, robotics, endoscopy, ablation, ESWL, and stone disease. The fellowship has, however, additionally incorporated highly skilled and well trained urologic oncologists, Dr. Thomas Ahlering and Dr. Edward Uchio, who are an important part of the minimally invasive fellowship and laboratory. The UC Irvine Surgical Education Laboratory is

designed to be academically productive as well as a fertile training ground for future leaders of minimally invasive urology. Additionally, the fellowship is quite unique as the close working relationship we have with interventional radiology allows our fellows to work closely with Dr. Laura Findeiss, chief of interventional radiology, to optimize the fellows experience with percutaneous ablation and other related procedures.

The technical training and investigative components of the fellowship are enhanced by unique world-class laboratory resources. The laboratory incorporates four distinct training facilities: a survival operative suite and animal vivarium, a non-survival operative suite with 6 operative stations, a surgical simulation and laparoscopic trainer suite, and a fresh tissue laboratory with an additional 4 operative stations. The available facilities and advanced surgical equipment allow the potential for any and all experiments to be performed. Within the surgical simulation and laparoscopic trainer suite, we have 6 laparoscopic pelvic trainers with accompanying laparoscopic instruments, laparoscopic virtual reality trainers, robotic virtual reality trainers, a percutaneous renal access simulator, an endoscopy simulator, and almost every item of endourology equipment. Expert full-time Urology dedicated staff is available to optimize productivity in the four laboratories. Staff dedicated to the minimally invasive urology team includes a full time research coordinator, a full time laboratory director, and the services of a statistician for study design and execution.

The focus of the laboratory is dynamic and innovative research that can often rapidly be translated into clinical practice. The extensive laboratory resources lend itself well to collaborative projects with faculty from other departments within UC Irvine allows fellows to realize and extend their creative potential. The laboratory has ongoing collaborations with interventional radiology, nephrology, the department of engineering and other UC Irvine resources.

Current research includes surgical education and training, surgical simulation, minimally invasive surgical energy technologies, novel anastomotic techniques and devices, surgical pharmaceuticals, urinary tract materials and physiology, novel ablation technologies, novel applications of ablation technologies, improved radiographic targeting and imaging, surgical

optics and digital technologies, and novel mechanisms for the protection of the kidney due to warm ischemia. The team has already developed techniques and concepts that have changed minimally invasive urologic surgery (intrarenal cooling technique, improved understanding of cryoablation candidacy, understanding ureteral peristalsis physiology, robotic natural orifice transluminal surgery). Our team has also worked with industry to create novel strategies for biopsy of kidney tumors that will be performed in the office, and we are even working on novel strategies for dialysis.

The UC Irvine Minimally Invasive Urology Fellowship is unique in the depth and breadth of the dedicated faculty. Currently, the fellowship is directed by Dr. Jaime Landman. In addition, the fellow works closely with Dr. Atreya Dash and Dr. Thomas Ahlering in minimally invasive urological oncology, with Dr. Laura Findeiss in interventional radiology, surgical simulation, and surgical education, and with Dr. Ralph Clayman in endourology.

Program Description



This is an intensive one-year fellowship with a clinical instructor appointment. During this year the fellow is expected to take call on the faculty rotation usually once every 6 weeks. The clinical component of this year includes time spent at the Long Beach Veterans Administration hospital as well as at UC Irvine Douglas Hospital. The robust resources and large number of students participating in the laboratory allow for the fellow to remain clinically busy while maintaining a robust laboratory experience. The Endourology fellows are considered the team leaders for laboratory and clinical research and will directly manage undergraduate students, medical students, as well as international visiting fellows. The fellows lead their section of the weekly laboratory meeting to communicate the latest progress of existing projects and to brainstorm new ideas for study.

In the laboratory the fellow will be leading and supervising the laboratory experiments and researchers. The focus of the laboratory efforts will be on endourological, laparoscopic, robotic,

and translational research. We encourage each individual fellow to tailor projects that stimulate his/her interest and expand his/her technical skill sets in order to create an extremely productive year. The projects are aimed at addressing existing clinical challenges in urology and surgery, but may be of any realm in medicine.

The clinical component of the fellowship includes a focus on the development of advanced technical skills in the operating room, develop familiarity and dexterity with advanced instrumentation, and expanding surgical judgment and experience. The breadth of procedures will cover oncologic, endourological, laparoscopic, and robotic techniques. Additionally, the fellow will be responsible for the design and implementation of clinical trials, for the enrollment of patients in clinical studies, and for the interpretation and effective presentation of the data and results. This typically leads to multiple manuscripts being produced during the year. The clinical fellow will also run their own clinic one half day per week and will therefore be able to generate their own cases as well as be involved with the cases of the three attendings that compose the endourology service.

Research Facilities



There are four independent facilities that compose the UC Irvine Surgical Education Center Laboratory: a survival operative suite and animal vivarium, a non-survival operative suite with 6 operative stations, a surgical simulation and laparoscopic trainer suite, and a fresh tissue laboratory with an additional 4 operative stations. The animate and inanimate laboratory is a facility used in conjunction with other school of medicine departments. The facility incorporates inanimate trainers and laparoscopy virtual reality training systems to optimize pre-clinical training. There is a full time lab manager who is a member of the minimally invasive urology team to assist with technical training in this facility.

Robotic surgery is currently strongly emphasized in the UC Irvine minimally invasive urology program due to its clear relevance in the future of all urologic surgery. We currently have two dedicated robotic systems, a da Vinci-S and a da Vinci Si. Both are high definition robotic

systems which are very actively used by all minimally invasive urology faculty members for over 200 cases per year.

Ablation is clearly an important direction in minimally invasive urology. The minimally invasive urology team has one of the world's active clinical and research programs in cryoablation. Dr. Jaime Landman developed and is the director of the UCI Ablation Center in conjunction with Dr. Laura Findeiss, the chief of interventional radiology. This is one of the only multi-disciplinary ablation programs in the nation, and Dr. Landman and Dr. Findeiss are among the world's leaders in this field. Additionally, Dr. Landman and Dr. Findeiss perform a large volume of percutaneous and laparoscopic renal ablation, and the minimally invasive urology team continues to innovate in the technology and technique of renal ablation. The ablation center incorporates all ablative technologies (cryoablation, radiofrequency ablation, high-frequency focused ultrasound, etc.) which allows for a remarkable range of academic and clinical innovative opportunities. For more information on the University of California, Irvine Ablative Oncology Center please visit www.urology.uci.edu

At UC Irvine, the minimally invasive urology group has a well-funded and supported minimally invasive urology laboratory for both basic science and animal laboratory studies. Besides the full time laboratory manager, we have available veterinary technicians and UC Irvine veterinarians to assist with the planning of survival surgeries and the post-surgical recovery of animals. Our laboratory and training facilities are located near the hospital and thus it is a short walk to help coordinate our clinical and research activities. In addition, at any given time there are typically 1 to 3 international fellows who observe surgery and help facilitate the team's research endeavors. Undergraduate students and graduate students (eg. School of Engineering) from the University of California campus are frequent collaborators in the minimally invasive urology laboratory. Additionally, there are continuous interactions with other University of California, Irvine resources such as the Beckman Laser Institute www.bli.uci.edu/

Principal Accountabilities

Basic/Clinical Research: Upon the initiation of the fellowship the fellow is granted full attending privileges and is given the academic title of clinical instructor. Significant time during this year is spent doing translational or clinical research in minimally invasive urology. Each fellow will "inherit" a series of ongoing projects which the laboratory always has in progress. Typically, one major project and several minor projects are in progress. The major project is usually set in motion prior to arrival by the outgoing team, and will incorporate the incoming

fellow's particular area of interest(s). This project is designed and prepared such that it can be completed during the fellowship year with a goal of providing data worthy of presentation and publication. Combining the primary project with ongoing projects, it is typical for the first year fellow to be primary author or co-author on between 5 and 10 peer reviewed publications. During this year, all laboratory supplies and additional needs would be provided through the laboratory. In addition, the laboratory has a full time lab manager and dedicated technicians to help support the fellow in all research projects. All laboratory projects are closely supervised by Dr. Landman. Laboratory meetings occur on a weekly basis (7:00-9:00am Thursday mornings) to review progress and future directions; these meetings are attended by the entire faculty and staff of the minimally invasive urology team and typically last between 1.5 to 2 hours. The fellow's primary responsibility is to learn laparoscopic and endoscopic technique in the inanimate facility as well as while performing laboratory experiments. However, as a team, we all share responsibility for all our team's activity.

Clinical Component of Fellowship: The major clinical responsibility during the year is the clinical care of minimally invasive oncology patients at UC Irvine Medical Center. The fellow will have active involvement in a wide range of laparoscopic, robotic, ablation and endourology procedures. The fellow will work with the faculty and residents on minimally invasive oncology cases. The fellow will also have his/her own clinic one half day per week at our urology patient care center. Historically, the fellow has been able to generate a significant number of minimally invasive urology cases through this clinic which are initially scheduled with proper faculty support. Later in the year, it is expected that the fellow will be able to perform the cases generated from his/her own clinic independently while teaching residents to perform these cases.

Responsibilities

The fellow will be expected to perform clinical duties in preparation for all cases he/she performs. Chart review to understand each patient's history, obtaining and evaluating all relevant radiographic studies, and review of relevant laboratory results are all responsibilities of the fellow who should consider each case as if he/she were the primary physician. The fellow will be on the faculty call rotation; usually 1 in 6 weeks. During this year, it is anticipated that the fellow will be preparing manuscripts regarding the basic research completed during the fellowship. In addition, ongoing or new clinical research protocols will likely be initiated,

advanced, and/or completed. **The fellow will also be required to fulfill all of the responsibilities of the Endourological Society** including, but not limited to, preparation of a clinical case log and preparation of a manuscript for submission to the fellow's essay contest. Graduation from the UC Irvine minimally invasive urology fellowship will be **contingent on obtaining Endourological Society credentialing**. Administrative support will be available to the fellow via Dr. Landman's administrative assistant and with the department personnel analyst.

Teaching and Training

Training, Education, Experience, and Other Requirements: Candidates must be board eligible urologists or have recently passed the FLEX exam with application made for Urology Board eligibility.

Physical Demands

Must be able to assist in patient handling during emergencies and fulfill all of the duties outlined above.

Vacation and Educational Leave Policy

The fellow is required to notify Dr. Landman, in written form, for of any period of absence whether due to vacation or educational leave. This is essential to insure the smooth operation of the UC Irvine minimally invasive urology team. The fellow should make arrangements to have all of his/her responsibilities covered (eg. clinic, call schedule, laboratory meeting presentation, OR, and laboratory responsibilities. Educational leave shall be granted and not be counted as vacation if the fellow is either presenting the results of research or if he/she is undergoing clinical training as part of an education program. All other time away (i.e. job interviews, etc.) will be counted in the three weeks that are available for personal vacation.

The UC Irvine minimally invasive urology team will fund reasonable expenses for the endourology international meeting during the clinical fellowship year and for the annual AUA meeting during year assuming the fellow has substantial material to present at the meeting.

Salary

The fellows are paid through UC Irvine as per their policies. The annual fellowship salary is \$60,000 per year. **All fellows are employees of University of California, Irvine with benefits**

provided through UC Irvine.

For more information contact

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Office: 714.456.3330

E-mail: landmanj@uci.edu

Visit the Endourological Society web site

www.endourology.org/