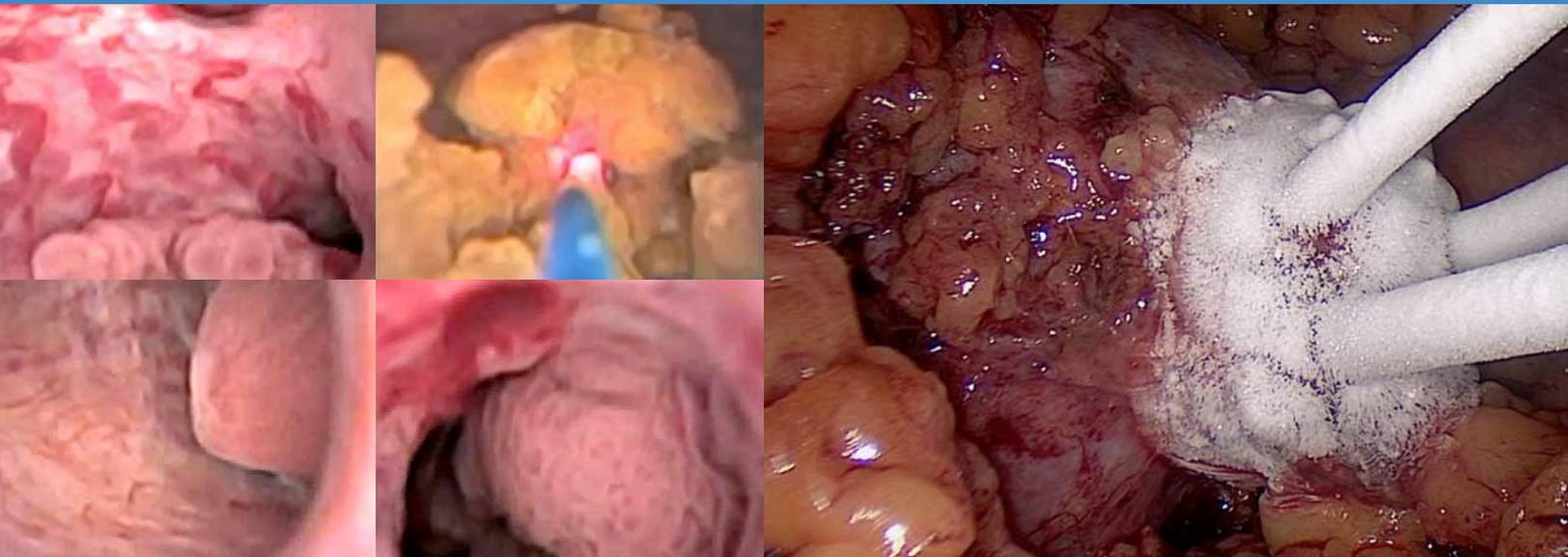




# FAMIS

The Foundation for the Advancement  
of Minimally Invasive Surgery

# 2010-2011 Annual Report



# Update from the President



Dr. Jaime Landman  
President, FAMIS

ON BEHALF OF THE BOARD OF DIRECTORS, it is my great pleasure to present FAMIS's fifth annual summary report.

In reflecting on FAMIS's six years of operation, it is remarkable how FAMIS has evolved into such a well-organized and supported organization. It is thanks to you, our dedicated and generous supporters, that the FAMIS team can report outstanding accomplishments and achievements in support of kidney cancer research and education. In fact, we are proud to report that FAMIS just had its most successful year ever!

Please take a moment to review the FAMIS 2010-2011 Annual Report, which summarizes our accomplishments over the past year. It is through your generous support that we hope to be able to continue to grow FAMIS and expand the scope of our research and educational efforts to combat kidney disease.

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## Education: FAMIS Fellows

By disseminating information and teaching minimally invasive surgical skills, FAMIS will expand the number of health care professionals who can help to treat, and eventually cure, kidney disease. FAMIS "fellows" are talented students, doctors in training, and even fully-trained physicians who wish to expand their skills to provide their patients with the best minimally invasive treatment for kidney cancer and other kidney diseases. FAMIS has supported domestic fellows from twelve states and from countries including Argentina, Canada, Mexico, Peru, Russia, Spain, Turkey, United Kingdom, and Venezuela.



**Adam C. Mues, MD** completed his residency training in urology at the Ohio State University. He is currently a FAMIS-sponsored fellow in invasive oncology and endourology at Columbia University Medical Center. Adam has been involved in the development of laparoscopic and endourologic surgical instruments. Currently, he is evaluating outcomes after minimally invasive surgery in kidney cancer patients who have just one kidney.



**Joseph Graversen, MD** completed his residency at the LSU/Ochsner program. He is currently a FAMIS-sponsored fellow in the first of a two-year program in minimally-invasive urology at Columbia University Medical Center. Most recently, he investigated the degree of ureteral trauma associated with various sheaths used to access the kidney during kidney cancer surgery.



**Chad Ritch, MD** was born and raised in Kingston, Jamaica and attended the University of Chicago Pritzker School of Medicine and Booth School of Business, where he obtained his MD and MBA degrees. He is currently a resident in the Department of Urology at Columbia University. After residency Dr. Ritch hopes to obtain a fellowship where he can combine minimally invasive and oncologic training.



**Matthew Truesdale** was born in Durham, NC, and attended Dartmouth College, where he studied psychology. He is currently a student at Columbia University College of Physicians and Surgeons. Between the third and fourth years of medical school, he worked with the FAMIS team on efforts to better understand the biology of kidney cancer. Please see our research update for more on Matthew's accomplishments.



**Allison Polland** was born and raised in Great Neck, NY. She graduated from Yale University, where she studied biomedical engineering. She is currently a student Columbia University College of Physicians and Surgeons. She recently worked with the FAMIS team on a new device to close the kidney after a tumor has been surgically removed. The device was developed in collaboration with Dr. Landman and has been experimentally tested.

## FAMIS Fellowship Alumnus

One of FAMIS's first fellows, **Dr. Franzo Marruffo** from Venezuela, spent one year doing research and training in minimally invasive surgical techniques. Five years later, thanks to his fellowship, Dr. Marruffo has become one of Venezuela's preeminent kidney surgeons. He is currently a consulting faculty member of the Department of Urology at the Central University of Venezuela, and he is director and founder of UroMed, a minimally invasive urological and endourological laser center ([www.urologiauromed.com](http://www.urologiauromed.com)). We congratulate Dr. Marruffo on all his wonderful accomplishments, and we will continue to provide updates on the achievements of FAMIS fellows.



# Research Projects

FAMIS supports numerous important clinical and laboratory research studies. These projects range from the development of new surgical techniques and technologies, to the application of molecular biology to improve the diagnosis of cancer. While diverse in their nature, all of these projects have the same central core goal: to make surgery less invasive and more tolerable for patients.

## Fighting kidney cancer at the molecular level

The battle against kidney cancer will ultimately be won only when doctors and scientists understand the molecular biology of this terrible disease.

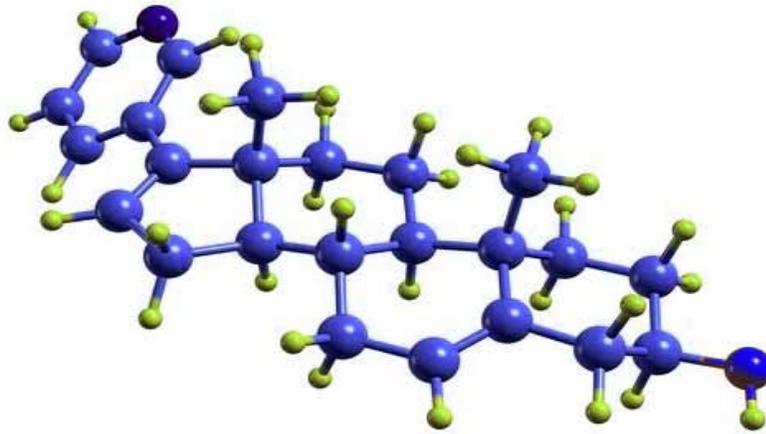
FAMIS-sponsored scientists and fellows are currently combining clinical and laboratory efforts to understand the role of immune system molecules in the treatment of kidney cancer.

It is well-known that the surgical removal or destruction of some kidney cancer cells activates the immune system, which starts fighting cancer cells using the body's own innate anti-tumor response.

To date, however, it is not known how well the different kidney cancer treatment options activate this response.

FAMIS-sponsored researchers are thus carefully evaluating treatments such as cryoablation and laparoscopic partial nephrectomy to better understand how well these procedures stimulate the immune system.

In addition, our teams are trying to examine how the immune system fights cancer, so that one day we may be able to manipulate these strategies to eliminate tumors without any surgery being required at all!



## PAM: A new friend in the operating room

The Parenchymal Apposition Mechanism (PAM) is a breakthrough new device that helps surgeons close the kidney after a tumor has been removed using minimally invasive technique. The design of the device is based on the concept of using tissue "anchors" rather than traditional sutures. The device is in the prototype phase and has undergone initial testing. PAM has the potential to simplify complex procedures, therefore allowing more surgeons to offer their patients effective minimally invasive treatment for kidney cancer.

## Minimally Invasive Surgery on a Budget?

While minimally invasive surgery has obvious patient advantages including less pain and expedited healing, the technologies that allow these procedures to be performed are very expensive.

As such, FAMIS sponsored researchers are currently performing a cost-containment evaluation to minimize expenditures for endoscopic urologic procedures while maintain the quality of the surgical technique. The objective of this study is to improve the cost-effectiveness of minimally invasive kidney cancer procedures while maintaining good clinical outcomes.

The Columbia University Department of Urology and FAMIS hosted the fourth annual "Doctors for a Day" program at New York/Presbyterian Hospital.



24 third- and fourth-graders from Brooklyn's Community Partnership Charter School (CPCS) participated in this year's newly expanded event, designed to stimulate interest in science and medicine among tomorrow's leaders.

The CPCS was founded in 1989 by Carol and Joseph Reich to assure low-income, under-served children could have access to a high quality education. Carol and Joseph Reich attended the one day event in which distinguished Columbia University faculty prepared presentations for the students.

Lectures designed for children by world class

experts were on topics including surgical innovation, nutrition, micro-organisms that cause disease, and organ transplant.

Many lectures included hands-on activities. Dr. Jeffrey Newhouse, Professor of Radiology and a student favorite, presented on body imaging and used ultrasound technology to show the students their own organs in real time.



As usual, the highlight of the student's visit was the laboratory session in which each student was allowed to do advanced laparoscopic surgical training in the Columbia University Simulation Center.

# Collaboration



For the very first time, FAMIS has collaborated with the American Urological Association to create a national level course to teach urologic surgeons advanced techniques for the treatment of kidney cancer.

On November 12th and 13th, 2010, in Miami, Florida, 62 surgeons from the United States, Canada, and Europe participated in the AUA Tissue Ablative Course for kidney and prostate treatment.

The course was co-directed by Professor Raymond Leveillee of the University of Miami and FAMIS President Dr. Jaime Landman. It the first course ever to teach urologic surgeons advanced percutaneous and laparoscopic techniques for the treatment of kidney cancer.

Dr. Leveillee and his research team developed new training techniques in designing this course that will certainly set a new standard for surgeon education in the future.

FAMIS helped design the AUA course and provided a training grant so that residents and fellows could attend its many remarkable sessions.



Dr. Aldiana Soljic

Dr. Aldiana Soljic, one of the residents sponsored to attend the course, said, "On behalf of the urology residents of the University of Miami, we want to thank FAMIS. Your generosity allowed us to participate in this great educational opportunity. This collaborative course allowed us to see an even balanced presentation of the principles, benefits, and controversies of ablative therapies for the treatment of kidney cancer."

FAMIS will continue to work with other domestic and international organizations to provide innovative educational events for physicians.

# SPOTLIGHT

## Person of the Year: Mark Spiecker



We are pleased to announce Mr. Mark Spiecker as the FAMIS person of the year. Mr. Spiecker serves as chief executive officer for Sharklet Technologies. Sharklet Technologies has rapidly developed a new bacterial inhibition technology, called Sharklet, that will potentially reduce infection rates for all patients no matter what procedure they are undergoing!

The simplicity and revolutionary nature of the Sharklet technology is truly remarkable. When asked about the technology, Mr. Spiecker noted, "We have used nature as our laboratory. Scientists noted that after millions of year of evolution, sharks have developed scales with tremendous resilience to the growth of marine microorganisms.

We are now able to apply micro-scale manufacturing techniques to create a sharkskin-inspired pattern onto numerous surfaces. We have demonstrated in the laboratory that we can minimize the growth of bacteria on these surfaces without using any antibiotics or other medications. We hope to save millions of lives by reducing infection rates in coming years."

We are excited to see how Mark, Sharklet and the FAMIS research team will progress with this amazing technology, and we will provide updates on our progress.

## Visiting Professor: Olivier Traxer, MD



This year, FAMIS is proud to announce it will sponsor its first international visiting professor!

Dr. Olivier Traxer is a professor of urology at the University of Paris (Pierre et Marie Curie). He is internationally recognized for his many contributions to the field of minimally invasive urology, specifically his research and expertise in kidney cancer, urinary stone disease and kidney stone management, as well as his dedication to education and to improving the quality of treatment for patients.

FAMIS is proud to help this distinguished speaker share his vision and experience with minimally invasive surgeons here in the United States.

For more information, or to make a donation,  
Please contact Dr. Jaime Landman at [landman.jaime@gmail.com](mailto:landman.jaime@gmail.com) or visit [www.FAMISurgery.org](http://www.FAMISurgery.org)