

The Stitch

*Advancing the
Science of
Surgical Care*

THE UNIVERSITY OF FLORIDA DEPARTMENT OF SURGERY | SPRING/SUMMER 2012



Inside this issue:

Liver transplant programs reactivated

New developments in gastroesophageal surgery

Online column gives surgeons' perspectives

Two new division chiefs

UF UNIVERSITY of
FLORIDA

UF&Shands Reactivates Adult, Pediatric Liver Transplant Programs

UF&Shands, the University of Florida Academic Health Center, has reactivated its adult and pediatric liver transplant programs.

The United Network for Organ Sharing approved the reactivation on April 20. UNOS is the private, nonprofit organization that manages the nation's organ transplant system and the national transplant waiting list under contract with the federal government.

UF&Shands leaders voluntarily suspended their adult and pediatric liver transplant programs and pancreas transplant program in August 2011 after several key transplant surgeons were recruited by medical centers in larger, more urban areas. The institution's other organ transplant programs were not affected and remained operational.

"As always, our commitment to our patients is the No. 1 priority," said **David Guzick, MD, PhD**, senior vice president for health affairs and president of the UF&Shands Health System. "Transplantation programs combine highly skilled, interdisciplinary medical teams, heroic organ donors, donors' families and a commitment to excellence. It is an honor to be able to help patients in this way, and we take the responsibility very seriously."

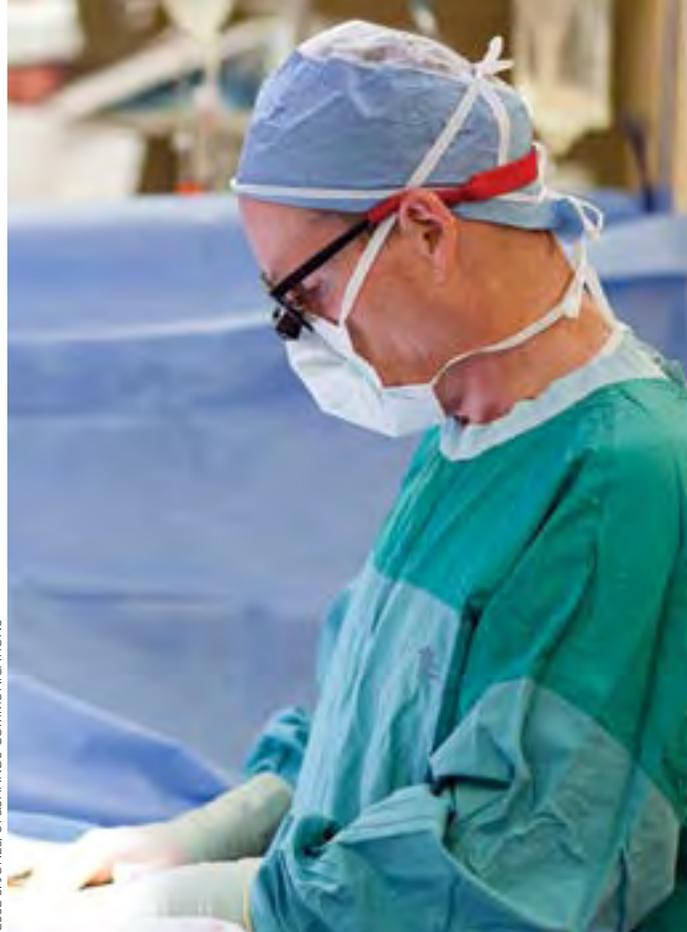
The arrival in March of **Jeffrey Fair, MD**, the new chief of the division of transplantation surgery in the UF College of Medicine's department of surgery, was key to the reactivation of the liver transplant programs. The division focuses on transplantation of abdominal organs, including the kidneys, liver and pancreas.

Fair, a nationally renowned liver, kidney and pancreas transplant surgeon, most recently worked at the Comprehensive Transplant Center at Cedars-Sinai Medical Center in Los Angeles. He also served as a professor of surgery at University of California, Los Angeles.

"Our transplant programs have earned a stellar reputation with our long-standing commitment and service to transplant patients from across the state," said **Kevin Behrns, MD**, chair of the department of surgery. "This enabled us to recruit a top-caliber transplant chief while maintaining outstanding relationships with our patients and peer transplant centers during this transition."

UF&Shands leaders also plan to reactivate the pancreas transplant program this summer, after they hire another pancreas transplant surgeon and receive approval from UNOS.

With Fair, UF&Shands has three experienced and highly trained abdominal transplant surgeons. **Ivan Zendejas, MD**, an assistant professor of surgery, is an expert in multi-organ transplantation of the liver, kidney and pancreas; and **Thomas Peters, MD**, a professor



JESSE S. JONES/UF&SHANDS COMMUNICATIONS

Dr. Jeffrey Fair has helped to reactivate the liver transplant programs at UF&Shands.

of transplantation at UF and the Methodist Medical Center Professor of Surgery at the UF College of Medicine—Jacksonville, specializes in kidney transplantation. Department of surgery leaders say they plan to hire three more liver and pancreas transplant surgeons.

During the deactivation period, UF&Shands continued to provide post-transplant care for patients.

"Special thanks go to all our transplant colleagues, including our dedicated faculty and our exceptional transplant coordinators, who provided continued support to patients and their families," said **Tim Goldfarb**, chief executive officer of Shands. "Thanks to them, many patients who have transitioned to other transplant centers and still await transplants may return to Shands for transplant care."

Fair said the UF liver and pancreas transplant teams at UF&Shands remain strong and will continue to grow.

"UF possesses the depth of clinical and academic excellence to rebuild an outstanding liver transplant program," Fair said. "We are committed to developing all our transplant services to make UF&Shands the state's premier provider with national consequence and fulfill our mission as an academic medical center, providing outstanding patient care, education and innovation in discovery."

New Developments in Gastroesophageal Surgery at UF&Shands

Gastroesophageal surgery at UF&Shands keeps moving forward to stay at the forefront of developments in the field.

According to **Kfir Ben-David, MD**, an assistant professor of surgery and director of bariatric surgery at UF&Shands, UF gastroesophageal surgeons perform an estimated 99 percent of their operations laparoscopically. Laparoscopic surgeries are performed through a few small incisions — or sometimes, just one. The use of small incisions instead of large ones reduces patients' pain, Ben-David said.

An article published in the January 2012 issue of *Surgical Endoscopy* shows UF&Shands achieves impressively consistent, positive results performing minimally invasive esophagectomies — operations in which surgeons remove part of a patient's esophagus. Typically, people who undergo this surgery do so because of cancer.

The article describes UF surgeons' successful performance of 100 consecutive minimally invasive esophagectomies at UF&Shands and the Malcom Randall Veteran's Affairs Hospital. Ninety-nine of the patients recovered and left the hospital. One death occurred that was unrelated to the surgical procedure.

"We've become the referral center for a lot of patients requiring benign and malignant gastroesophageal surgery," Ben-David said.

UF gastroesophageal surgeons also are using a new surgical robot to perform certain operations.



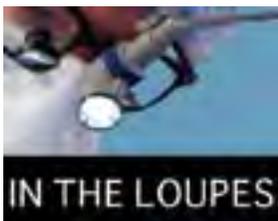
JESSE S. JONES/UF&SHANDS COMMUNICATIONS

Dr. Kfir Ben-David strives to keep the gastroesophageal surgery service at UF&Shands on top of new developments that benefit patients.

"This (robot) has three working arms and a camera," Ben-David said. "It allows for better visualization while performing the surgery. You could almost see it in 3-D, which allows you to be a little bit more meticulous."

Procedures performed robotically also make use of small incisions, instead of the large ones required for open surgery. Ben-David said the team plans to eventually perform some surgeries using an endoscope, a long, thin tube inserted into the mouth or other body cavities and maneuvered to reach the surgery site. Small tools such as a camera or cutting devices can be affixed to an endoscope, allowing surgeons to see inside the body and perform surgeries.

"We're always trying to find new ways to advance our delivery of care for patients," Ben-David said.



IN THE LOUPES

The UF department of surgery is excited to introduce *In the Loupes*, a monthly online column meant to give a general audience a glimpse of what it's like to be a surgeon. UF department of surgery faculty and

surgical residents will write the columns on a variety of selected topics related to working in the field of surgery.

Columns reflect the thoughts of the individual writer on topics such as the day-to-day practice of surgical medicine, and personal motivations for working as a surgeon or conducting biomedical research. *In the Loupes* also will feature columns by surgical residents about their development as surgeons as they go through residency training.

We hope you enjoy reading *In the Loupes*.

<http://surgery.med.ufl.edu/in-the-loupes/>

FREE PARKING now available for patients, their visitors

UF&Shands, the University of Florida academic health center, now offers free parking for patients and their visitors. Free parking is available at UF's Gainesville campus locations and at Shands outpatient pharmacies. Valet parking costs \$3 for all patients not visiting an emergency room, and their visitors. Patients and visitors must ask for a parking voucher at the check-out area, nurses' station or other designated area when leaving their appointment or location of service and present it to the parking garage or valet attendant.

For more detailed information, visit:

freeparking.ufandshands.org

Surgeon's Personal Attention Helps Family Fight Cancer

Heather Smith was just 25 years old when she learned she had breast cancer in 2005.

She received the diagnosis on her daughter's second birthday.

"It was kind of a stressful, shocking situation," she said. "You have to relearn how to feel feminine. My husband and I were young, and it affected us."

Smith knew she would need surgery and immediately sought advice on her options for breast reconstruction after the removal of her left breast. Initially, she met with a breast surgeon from another health-care organization who recommended she not be concerned with reconstruction so soon after her diagnosis.

But Smith knew paying attention to this part of the process was important, even at the outset. At the recommendation of her doctor, she met with **Bruce Mast, MD**, a plastic and reconstructive surgeon then working in private practice in Gainesville. Mast had worked as an assistant professor of surgery at UF from 1995 to 2000 before transitioning to private practice. He would return to UF in 2010 as chief of the department of surgery's division of plastic and reconstructive surgery, five years after Heather Smith became one of his patients.

"I met him the day that I was diagnosed," she said. "He came and closed his office down and met with me."

Mast recommended Smith select **Edward Copeland, MD**, now a distinguished professor of surgery at UF, to perform the mastectomy. When she underwent the procedure, Mast was there to insert an expander, the first step in reconstructing her left breast.

After the mastectomy, Smith received chemotherapy treatments in an effort to kill any remaining cancer cells. Between rounds of chemo, she made visits to Mast, who inserted a needle through her skin and into a nozzle in the expander to enlarge it. By doing so, he made room under the skin for an implant.

"Dr. Mast was very helpful in helping us decide on the best course of treatment," Smith said. "We went for the least invasive of all the reconstructions. I wanted to be able to pick my daughter up still, and I wasn't willing to be out of work for

six and eight weeks, which some of the other surgeries make you have to do."

But before Smith could get the implant, she got more bad news. Genetic testing revealed she had a genetic mutation that greatly increased the chances of cancer occurring in her right breast.

"I had a 90 percent chance of a secondary cancer," she said, "so we made the decision, my husband and I, to go ahead and just have a prophylactic" mastectomy on the other breast. Prophylactic procedures are meant to prevent possible future health problems.

Because Smith's right breast did not yet show any signs of cancer, Mast performed the second mastectomy. He again inserted an expander to begin the reconstruction process.

In November 2005, Smith underwent yet another operation to receive breast implants in place of the expanders. It had been almost a year since her diagnosis and first surgery.

Throughout the whole process, she said, Mast and his staff were invaluable guides for her and her husband.

"I could call his office every day," she said. He helped us with "any questions we had, any pictures we wanted to see, any discussions we felt the need to have."

After Smith received her first set of implants, she had trouble adjusting to the new look they gave her.

"I'm really narrow and they just didn't look right on my build," she explained. "I didn't know if it was possible to have anything better. Dr. Mast wasn't happy with it and immediately said, 'Nope, we're going to fix this. We're not going to stop till you're happy with it.'"

After some adjustments, Smith felt better about her new breasts.

"Most people who didn't know me then wouldn't look at me in clothing and have any idea that I've had anything done, which is, I guess, the result that you look for," she said.

Smith has undergone several additional procedures with Mast to adjust the look of her new breasts. She emphasized that she elects to have these procedures done, and says Dr. Mast does not push her into anything.



Heather Smith said she and her husband, Chad Smith, benefited greatly from working with Dr. Mast during her battle with breast cancer and her breast reconstruction. Photo courtesy of Heather Smith.

Read the rest of the story at:
<http://surgery.med.ufl.edu/about-us/news-archive/>



Dear Friends:

The economic downturn over the past several years has resulted in stagnant or decreased research funding and has many universities and departments of surgery curtailing research programs.

However, in the department of surgery at the University of Florida, we have been growing our research portfolio in a competitive climate. Since July 2010

we have hired 21 surgeons, many of whom have well-established research programs. In addition, our existing research program has blossomed with the addition of several new National Institutes of Health grants. Furthermore, we altered our clinical training program so that all general surgery residents will participate in discovery and scholarly activity.

The fruits of these labors were evident in our recent Annual Research Day on April 20. Our visiting professor for the event, **Ronald Maier, MD**, from the University of Washington, presented his work titled "Resuscitation of the Injured Patient: the Enemy of Good is Better" and critiqued our 33 research presentations. The celebration was also notable for the bestowing of two department-funded, \$25,000 research career development awards to junior faculty members **Salvatore Scali, MD**, and **Catherine Chang, MD**. Both are members of the division of vascular surgery.

Obviously, the department of surgery has invested heavily in our research mission. We have experienced early rewards, including rising in the Blue Ridge Institute for Medical Research rankings for NIH funding in departments of surgery. Our current rank of 30 is a much improved position, but we are not satisfied and are intent on increasing our research portfolio with specific emphasis in the areas of inflammation biology, vascular biology, cell death and cell signaling and outcomes research. Although the road to increased funding and research productivity will not be easy to navigate, we have an excellent group of hard-working faculty who are dedicated to training the next generation of surgical scientists. Stay tuned as we pursue our goal of conducting high-quality, clinical translational research that improves the care of our patients. It should be an exciting ride!

Kevin E. Behrns, MD
Chairman

Three New Surgeons Join Department



Daniel Meldrum, MD, has joined UF's department of surgery as chief of and a professor in the division of thoracic and cardiovascular surgery.

He comes to UF from Indiana University School of Medicine and Indiana University Health, where he was a professor of cardiothoracic surgery.

His clinical expertise is in coronary artery bypass grafting, valve surgery, aortic surgery and thoracic oncology. His research expertise is related to adult stem cell research and gender differences in heart disease.

He has authored more than 250 original publications, received several NIH grants, including three RO1 grants, and served as mentor for multiple training grants from the NIH and American Heart Association. Meldrum was inducted into the American Surgical Association in April.



Jeffrey Fair, MD, has joined the department as chief of and a professor in the division of transplantation surgery.

Fair, an accomplished transplant surgeon and an innovator in liver stem cell therapies, comes to UF from Cedars-Sinai Medical Center's department of surgery, where he was director of translational research. He also served as a professor of surgery at the University of California, Los Angeles' David Geffen School of Medicine.

His research interests include using stem cells to restore function to damaged or diseased livers through gene therapy, and to grow new, healthy liver cells in patients whose livers do not function properly.

As the division moves forward, Fair plans to improve its research, educational and clinical missions and build on state-of-the-art transplantation practices.



Adam Katz, MD, has joined the department as an associate professor in the division of plastic and reconstructive surgery.

Katz most recently worked as an associate professor in the University of Virginia School of Medicine's departments of plastic surgery, medicine and biomedical engineering. He also directed the department of plastic surgery's Laboratory of Applied Developmental Plasticity.

His clinical interests include breast and body contouring, facial trauma repair, aesthetic surgery and general reconstructive surgery for trauma, cancer or other causes.

His research interests include "adipose-derived cells and matrix components, and their therapeutic application and translation within the broader context of tissue engineering and regenerative medicine."

Student Researcher Wins Award for Quest to Improve Liver Recovery After Injury



MARIA FARIAS/UF&SHANDS COMMUNICATIONS

Richa Vijayvargiya's work in a department of surgery research laboratory won her a College of Medicine University Scholar award.

Richa Vijayvargiya is an award-winning researcher — and she hasn't even earned her bachelor's degree yet. Vijayvargiya is in her junior year as an undergraduate student at UF majoring in microbiology and cell science. She plans to minor in Spanish.

She recently won a University Scholar award to continue her work in the department of surgery's Cell Death and Cell Signaling Laboratory under the supervision of **Jae-Sung Kim, PhD**, an assistant professor of surgery. His research mainly focuses on preventing and reversing ischemia/reperfusion injury — damage done to a liver when it is separated from the flow of blood and oxygen, often during surgery, and then the flow is restored.

Currently, Vijayvargiya is collaborating with a postdoctoral researcher to investigate ways to

boost autophagy, a cellular process that allows cells to dispose of old parts and remain functional.

"I'm looking at a drug called desipramine right now, that I've shown to induce autophagy in liver cell samples," she said.

If desipramine ultimately proves successful in jumpstarting autophagy in human liver cells, it may help patients who undergo liver surgery, including liver transplants, overcome a major medical hurdle.

"Her study may be a stepping stone for developing therapeutic strategies to improve liver function after liver transplantation and resection surgery," said Kim. "Currently, no single agent has been known to enhance autophagy without causing substantial side effects."

Such a technique might also lead to major improvements in the realm of liver transplantation.

"It (may) be a useful mechanism to restore damaged livers and increase the number of donor livers," Vijayvargiya said. "There are a lot of people with liver disease in the United States, but there's a huge shortage of donor livers. Any way we can increase the number of donor livers is great."

As of mid-April 2012, 16,081 people in the U.S. were awaiting a liver transplant, according to the U.S. Department of Health and Human Services' Organ Procurement and Transplantation Network.

Vijayvargiya said she's "always had an interest in science," and recalls visiting a UF biomedical research laboratory on a field trip with her advanced placement biology class in high school.

"We were in one of the labs and we got to do a little experiment," she said. "I just thought the lab environment was really cool and I liked investigating problems. It's kind of different than being in class where it's all passive and you're just taking in information. Here, you have to analyze different sources of information, and kind of build on it."

UF's reputation as a solid research institution drew her here for her undergraduate years, she said. She also wants to attend medical school, and plans to pursue a career as a surgeon.

UF Surgical Resident Honored for Humanism, Teaching

UF surgical resident **Tad Kim, MD**, received the Hugh A. Walters Humanism in Medicine Award in April. The annual award honors the memory and legacy of surgical resident Hugh Walters, who died in 2008. Surgical residents at UF select the recipient each year. At the award ceremony, **Dean Yamaguchi, MD**, last year's award recipient, gave a guest lecture titled "Science, Service and the Surgeon." Kim is a two-time winner of this award. He also received the Hugh M. Hill Award for Most Outstanding Resident Teacher in 2012 and 2011.

Humanism Counts

The Chapman Chapter of the Gold Humanism Honor Society inducted 32 new members from UF's College of Medicine in February. One of the 2012 inductees was **Constance Lee, MD**, a UF surgical resident and one of five residents inducted then. Lee earned her medical degree at the University of Virginia. She will begin a pediatric surgery fellowship at UF in the summer of 2013.

Read the rest of the story at:
<http://surgery.med.ufl.edu/about-us/news-archive/>

Research Briefs

Jae-Sung Kim, PhD, Receives \$1.3 Million NIH Grant for Liver Research

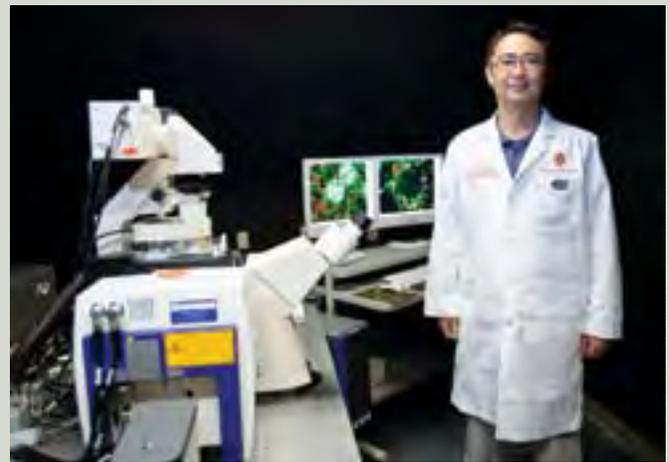
Throughout our lives, our livers work hard to keep us healthy — removing waste, packing away the nutrients we need and converting our food into energy.

As we get older, all this work can take a toll on the body's largest organ.

Liver disease is one of the 10 most common causes of death in the U.S., according to the American Liver Foundation. As cases of liver disease increase, so does the need for liver resections and transplants. Successful outcomes from these surgeries depend largely on the liver's ability to bounce back after all or some of its blood supply is cut off during surgery.

When surgeons cut off all or some of a liver's blood and oxygen flow during an operation, then later restore it, the liver can be seriously damaged. This happens frequently in older patients' livers.

UF surgical researchers are investigating this type of damage, called ischemia/reperfusion injury, and ways to prevent or reverse it. **Jae-Sung Kim, PhD**, an assistant professor in the UF College of Medicine's department of



JESSE S. JONES/UF&SHANDS COMMUNICATIONS

Jae-Sung Kim, Ph.D., is working to find ways to help livers recover after surgery.

surgery, has received a \$1.3 million, four-year grant from the National Institute of Diabetes and Digestive and Kidney Diseases to fund his research on the topic.

Kim proposes that boosting autophagy, the process by which cells remove old parts to remain functional, would enhance liver cells' ability to recover after ischemia/reperfusion injury. He has designed two experimental models to test the validity of this idea using cells in the lab.

UF Resident Takes Second Place in National Competition

Alex Cuenca, MD, a UF surgical resident, took second place in the American College of Surgeons' Committee on Trauma national competition for "Best Basic Science Presentation." He received the award in March for presentation of a research project comparing burn and thermal injury response in humans and certain laboratory models used for study.

The Body's Great Balancing Act

Understanding how to modify and even predict immune responses in patients could revolutionize treatment and open the door for a new kind of personalized medicine. Learn more about the work UF researchers, including Lyle Moldawer, PhD, a professor and vice chairman of research in the department of surgery, are doing to advance the complex science of immunology.

Visit <http://bit.ly/KZNH10> for the complete story.

Nature Medicine Blog

The Nature Medicine blog "Spoonful of Medicine" quoted UF surgical researcher Lyle Moldawer, PhD, in a March post about B cells and their role in fighting viruses.

Read the blog post here: <http://bit.ly/KmYT7C>

Visit surgery.med.ufl.edu/about-us/news-archive/ for news about other research initiatives.



Shaw Appointed Cancer Liaison Physician

Christiana Shaw, MD, MS, an assistant professor of surgery at UF, has been appointed Cancer Liaison Physician for the cancer program at UF&Shands.

The American College of Surgeons Commission on Cancer established the Cancer Liaison Physician program in 1963 “as a grassroots network of physician volunteers willing to manage clinically related cancer activities in their local institutions and surrounding communities,” according to the college’s website.

Shaw will be responsible to evaluate and report performance data for the UF&Shands cancer program, promote quality improvement efforts based on that data, carry out Commission on Cancer initiatives at UF&Shands and collaborate with affiliated agencies, such as the American Cancer Society. Her appointment will last for three years.



Moore Selected as Fellow

The Society of Critical Care Medicine has selected **Frederick Moore, MD**, as a Master Critical Care Medicine Fellow. Moore and 19 other health-care providers have received the designation, which was awarded for the first time at the society’s 41st Clinical Care Congress in Houston in February.

Moore, chief of the UF department of surgery’s acute care surgery service and a professor of surgery, previously worked as head of the division of surgical critical care and acute care surgery and a professor of surgery at Weill Cornell Medical College; as vice chairman of surgery and chief of general surgery at the University of Texas-Houston Medical School; and as chief of surgical critical care at Denver General Hospital and an associate professor of surgery at the University of Colorado Health Science Center.

Recognizing Dr. Edward Copeland

In March, the Cancer Center Leadership Council honored UF Distinguished Professor of Surgery, **Edward Copeland, MD**, with a portrait of him they had commissioned. Copeland was the UF Shands Cancer Center’s first director. UF recruited him from the University of Texas M.D. Anderson Hospital and Cancer Institute in 1982, where he already was a nationally known surgeon. He served as the center’s formative director between 1994 and 1999.

As director, Copeland was instrumental in laying the foundation upon which the center now stands. Under his leadership, the Davis Cancer Pavilion was constructed as a joint effort between UF and Shands to serve as the clinical home for the cancer center and to house the department of radiation oncology.

Copeland fostered the inter-departmental multidisciplinary collaboration for the delivery of cancer care still in place today and was instrumental in establishing the UF Breast Center and its early research and clinical care initiatives. He continues to be one of the leading breast cancer surgeons in the world.

Copeland stepped down as director of the Cancer Center in 1999, but left a rich legacy of clinical research and patient care. **Paul Okunieff, MD**, currently leads the center.



Former Cancer Center directors (l-r) Dr. Stratford May and Dr. Edward Copeland with current director, Dr. Paul Okunieff.



ERIC ZAMORA/UF NEWS BUREAU

(l-r) Lyle Moldawer, PhD, a professor and vice chairman of research in the department; Drs. Ronald Maier, Salvatore Scali and Catherine Chang; and Kevin Behrns, MD, the Edward R. Woodward Professor and chairman of the department, on Research Day 2012.

Research Day 2012

The department of surgery held its eighth annual Research Day on April 20. **Ronald V. Maier, MD**, the Jane and Donald D. Trunkey Professor and Vice Chair of Surgery at the University of Washington and surgeon-in-chief at Harborview Medical Center, was the Lester R. Dragstedt Visiting Professor for this event. The day featured 33 research presentations by department researchers. Maier also gave a presentation, titled “Resuscitation of the Injured Patient: The Enemy of Good is Better.” **Catherine Chang, MD**, and **Salvatore Scali, MD**, both assistant professors in the division of vascular surgery and endovascular therapy, each won a research career development award for their presentations. The awards, provided by the department, are worth \$25,000 each. **Amanda LoGuidice, PhD**, a postdoctoral fellow in the department, and **Kenneth DeSart, MD**, a surgical resident, both won \$500 awards for their abstracts. LoGuidice won the award for “Best Basic Science Abstract,” while DeSart won the award for “Best Clinical Science Abstract.”

LINDY BROWNLEY/UF&SHANDS COMMUNICATIONS

The Stitch

www.surgery.ufl.edu

EDITORS

Jennifer Brindise, Laura Mize

352.265.0646

TheStitch@surgery.ufl.edu

CONTRIBUTORS

Lindy Brounley, Maria Farias, Jesse S.

Jones, Heather Smith, Eric Zamora

DESIGN

JS Design Studio

UF DEPARTMENT OF SURGERY

352.265.0646

Kevin Behrns, MD, Chairman

GENERAL SURGERY

352.265.0761

Steven Hughes, MD, Chief

- Acute Care Surgery
Frederick Moore, MD, Chief
- Gastrointestinal Surgery
Steven Hughes, MD, Chief

PEDIATRIC SURGERY

352.273.8825

David Kays, MD, Chief

PLASTIC AND RECONSTRUCTIVE SURGERY

352.273.8670

Bruce Mast, MD, Chief

THORACIC AND CARDIOVASCULAR SURGERY

352.273.5501

Daniel Meldrum, MD, Chief

TRANSPLANTATION SURGERY

352.265.0606

Jeffrey Fair, MD, Chief

VASCULAR SURGERY AND ENDOVASCULAR THERAPY

352.273.5484

Thomas Huber, MD, PhD, Chief

RESEARCH LABORATORIES

352.265.0494

Lyle Moldawer, PhD, Vice Chairman



Department of Surgery

P.O. Box 100286

Gainesville, FL 32610