



SARAH KIEWEL/UF HSC PHOTOGRAPHER

## Endovascular Repair of Aortic Aneurysms: UF Surgeons Reach Patient Care Milestone

**W. Anthony Lee, MD** (right), an associate professor of vascular surgery, and **Philip J. Hess, Jr., MD**, an assistant professor of thoracic and cardiovascular surgery, perform an endovascular repair of a thoracic aortic aneurysm using a specially designed catheter to deliver and deploy a stent graft. The procedure, performed May 15 at the Shands at

UF academic medical center, marked the 1,000th endovascular procedure by UF surgeons for the treatment of aortic aneurysms. Research shows hospitals with higher volumes of endovascular procedures have better patient outcomes.

The x-ray image shows dye being flushed in the aorta to ensure proper placement of the stent graft, a wire mesh tube covered in fabric. Once the stent graft is deployed blood flows through the device instead of pushing against the thinned walls of the aneurysm.

The UF and Shands endovascular team – which includes vascular and cardiovascular surgeons, and highly trained nurses, technicians and endovascular-equipment specialists – now repairs approximately 60 percent of aortic aneurysms using endovascular techniques.

Striving to advance patient care, UF is working on multiple clinical trials studying new and next generation stent grafts.



SARAH KIEWEL/UF HSC PHOTOGRAPHER

## Two Fellowship-Trained Colorectal Surgeons Join UF



Dr. Huang



Dr. Tan



Dr. Rout

**Emina H. Huang, MD**, an associate professor, and **Sanda A. Tan, MD, PhD**, an assistant professor, recently joined **W. Robert Rout, MD**, an associate professor, in the UF division of general surgery, to create the colorectal surgical team.

Rout, who has directed the colorectal surgical program at UF for more than 20 years, pioneered the use of transanal endoscopic microsurgery in the state of Florida. The addition of Huang and Tan expands the range of minimally invasive surgeries being offered at Shands at UF.

The team offers open, laparoscopic, and minimally invasive anal procedures for benign and malignant diseases of the colon, rectum, anus and pelvic floor. These clinicians are experts in colorectal cancers, ulcerative colitis, Crohn's disease, and fecal constipation and incontinence.

In addition, Huang is conducting research on colon cancer stem cells, which she is examining for specific markers to identify cells that must be killed to prohibit future cancer recurrence. She also will conduct research on inflammation, a known risk factor for cancer development. Patients who have long-term Inflammatory Bowel Disease have up to a five-fold increase in colon cancer incidence.

For more information visit:  
[www.surgery.ufl.edu/GI\\_Colorectal](http://www.surgery.ufl.edu/GI_Colorectal)



## UF Weight Loss Surgery Center

### Striving To Eliminate Morbid Obesity, Associated Co-Morbidities

SARAH KIEWEL/UF-HSC PHOTOGRAPHER

**T**wo UF surgeons are collaborating with UF physicians from numerous disciplines to create a bariatric surgery center of excellence that addresses all aspects of care for morbidly obese patients seeking weight loss surgery.

“Obesity has reached epidemic proportions in the United States, with more than 15 million American adults considered morbidly obese,” said **Kfir Ben-David, MD**, an assistant professor of surgery. “Such extremes are directly related to increased incidences and severity of co-morbidities such as diabetes, hypertension and sleep apnea, all of which combine to drastically reduce life expectancy of morbidly obese people.”

Ben-David, director of the UF Weight Loss Surgery Center at Shands at UF, emphasizes the necessity of a multi-disciplinary approach to surgical weight loss, which is the only proven, reliable and long-term weight loss solution for morbid obesity.

“Our approach is unique in that we take care of the whole patient and the entirety of their health problems —

“Our approach is unique in that we take care of the whole patient and the entirety of their health problems—not just their surgery.” — Dr. Ben-David

not just their surgery,” said Ben-David. “Although the program is driven by the surgical team, our collaboration with UF experts from psychiatry, cardiology, pulmonology, medicine, nephrology and nutrition strives to identify and resolve the extensive co-morbidities associated with morbid obesity, both before and as a result of the weight-loss surgery.”

Ben-David, who earned a combined fellowship in laparoscopic and bariatric surgery from Duke University College of Medicine, and **Juan Cendan, MD**, an associate professor of surgery, provide the full range of advanced laparoscopic surgical options for weight loss, including Roux-en-Y gastric bypass, inflatable adjustable gastric banding, sleeved gastrectomy, and biliopancreatic diversion (duodenal switch) procedures. Combined, Ben-David and Cendan have

performed more than 500 laparoscopic bariatric procedures with excellent outcomes. Ben-David noted that the program at Shands has all of the necessary elements to become a bariatric center of excellence.

Ben-David says that, while not a cure, weight loss surgery is a rapidly growing intervention for the management of morbid obesity, and potentially some forms of diabetes, and patients who have undergone bariatric surgery have decreased their overall mortality, better maintain their weight loss, and have remarkable resolution of co-morbidities.

“All of this contributes to an improved survival rate and reduction in health care costs for morbidly obese patients,” said Ben-David.

[www.surgery.ufl.edu/bariatrics](http://www.surgery.ufl.edu/bariatrics)

## Limb Preservation

**The primary goal of UF vascular surgeons treating patients with peripheral arterial occlusive disease is preservation of their limbs.** Use of high-end endovascular treatments results in more limited surgical procedures to help elderly and high-risk patients through their treatment regimens and to preserve their limbs.

Peripheral arterial occlusive disease due to arteriosclerosis of the arteries in lower extremities affects about 10 percent of people over age 65, according to **James Seeger, MD**, professor and chief of vascular surgery and endovascular therapy.

“Recognizing this threat is important on two levels,” said Seeger. “First, restricted blood flow to the extremities puts patients at high risk of gangrene, lingering wounds and loss of limbs, and second, patients with peripheral arterial occlusive disease also are at an increased risk level for cardiovascular problems such as coronary artery disease or heart disease.”

Traditional treatments include risk-factor modification and medical therapy for less acute cases; endovascular therapies, such as angioplasty and stenting; and traditional surgical treatments, such as bypass of the lower extremities.

The peripheral vascular therapy program at Shands at UF utilizes all of these options, as well as novel gene therapies and clinical trials that attempt to increase collateral blood vessel development.

“What sets the program at Shands at UF apart from other facilities is the extent of our experience during the past 20 years – both in the volume and level of complexity of cases treated – and our aggressive use of cutting-edge therapies and trials to preserve patients’ limbs and quality of life,” said Seeger.

Although diagnosis of occlusive disease is achieved easily through routine physical exams and blood flow tests performed in non-invasive vascular laboratories, Seeger said the solution is not so simple.

“Many physicians view amputation as the best solution because it appears to “solve” the problem permanently, requiring no further care on the part of the physician. Of course, this is not as helpful for the patient because it dramatically and permanently changes their life,” said Seeger. “While trying to do some of these fairly complex bypasses and get complicated wounds to heal takes a lot of work, we certainly are committed to trying to do that and always begin the process by looking first at limb salvage.”

Seeger noted outcomes at Shands at UF are good, even for patients at the most critical, end stage of the disease. At one year, limb salvage is in the 70 percent range; at five years, limb salvage is 50-60 percent.



*This photo shows the size comparison between the previously FDA-approved HeartMate XVE and the newly approved HeartMate II.*

## UF Surgeons Offer New Device for Patients Awaiting a Heart Transplant

**The Food and Drug Administration recently approved the use of a new left ventricular assist system (LVAS)**

for heart failure patients awaiting a transplant. UF was one of 44 centers in the U.S. to participate in the Thoratec HeartMate II clinical trial, which confirmed the efficacy of the device, as well as advantages, such as improved quality of life. UF surgeons can now offer the device as a “bridge-to-transplantation” treatment option for patients suffering from advanced-stage heart failure.

**Chuck Klodell, MD**, an associate professor of thoracic and cardiovascular surgery, said more than \$2 billion a year is spent on heart failure patients and the approval of this device is a huge step forward for the health care management of these patients.

The HeartMate II is a mechanical circulatory support device, designed to provide long-term cardiac support. It is implanted alongside a patient’s heart and takes over the pumping ability of the weakened heart’s left ventricle. When compared to the previous generation of devices, the HeartMate II has longer functional life and operates more simply and quietly.

According to the American Heart Association, more than 5 million Americans are living with heart failure, which is when the heart does not pump efficiently. Approximately 550,000 new cases are diagnosed each year. Through medication and lifestyle changes, many people with heart failure can live full lives, however, when the problem advances further intervention, such as surgery, may be necessary. Transplantation is considered only after all other avenues are exhausted.

## Battling Recurrent Melanoma: Isolated Limb Infusion

**For patients battling recurrent melanomas** in their arms or legs, UF physicians offer isolated limb infusion, a minimally invasive procedure used for drug delivery.

Requiring the coordination of a team of specialists from multiple disciplines, including surgery, interventional radiol-

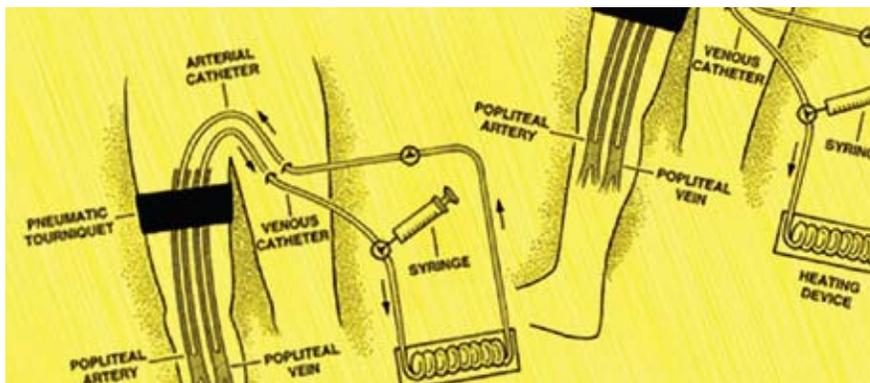
ogy, anesthesiology and pharmacy, isolated limb infusion allows the medical team to deliver maximum heated chemotherapy doses to the tumor without the cancer-fighting drug going throughout the entire body.

The procedure can be used to treat a subgroup of

patients, about 10 to 15 percent, who develop recurrent melanoma in an extremity following the standard surgical treatment.

“About 2/3 of patients derive significant benefit from the treatment and have a complete response or complete disappearance of the tumor or a partial response or significant shrinkage of the tumor,” said **Steven N. Hochwald, MD**, director of surgical oncology. “These

...continued on page 5



## Providing Breast Cancer Patients with Full Spectrum of Breast Reconstruction Options, Including DIEP Flap

**From early detection and diagnosis of breast tumors** to advanced MR-guided surgery, chemo- and radiation therapy and beyond, the multidisciplinary team of UF physicians at the UF Breast Center provides patients with the full continuum of cancer care, including reconstructive surgery of the breast following full or partial mastectomies.

Fellowship-trained plastic and reconstructive surgeons **Loretta Coady-Faribozian, MD, Mary Lester, MD, and Matthew Steele, MD**, who are assistant professors in the department of surgery, offer comprehensive reconstruction options, from relatively simple implant-based procedures to cutting-edge procedures that use excess tissue and muscle from the patient's body to recreate one or both breasts.

One of the most advanced reconstructive procedures available is the DIEP flap performed at Shands at UF. The Deep Inferior Epigastric artery Perforator (DIEP) flap procedure utilizes the patient's excess abdominal skin and fat to recreate a more natural breast for patients.

“The major advantage of the DIEP flap over implants is that, since it is made from living tissue, the breast looks and feels more natural and will change with the patient's changes in weight or body habitus,” Coady says. “It also preserves the abdominal or gluteal muscles and connective tissue, resulting

in less post-operative pain and decreased risks of bulges and hernias. Purely autologous tissue reconstruction also avoids the well-known complications of implants, such as capsular contractures and leakage.”

UF reconstructive surgeons discuss all options with patients and their surgical oncologists before cancer treatment and help them decide which is optimal for their particular case and most closely aligns with their goals.

Although breast reconstruction can occur months or years after cancer treatment, Steele says reconstruction immediately following mastectomy generally provides the best cosmetic results.

“Breast reconstruction helps women undergoing treatment for cancer preserve their sense of femininity and help them feel ‘normal’ again,” says Steele. “And with the DIEP flap procedure, women have the added benefit of having an abdominoplasty (tummy tuck) as part of their breast reconstruction.”

According to the Women's Health and Cancer Rights Act of 1998, any insurance that covers a mastectomy also covers breast reconstruction (and contralateral balancing of the other breast).

*For more information call the UF Breast Center at 352.265.7070.*



## Pediatric Minimally Invasive Surgery

**Minimally invasive pediatric surgery at Shands Children's Hospital** has expanded to care for children of all ages, ranging from tiny premature babies to maturing teenagers.

The recent addition of **Saleem Islam, MD, MPH**, director of pediatric minimally invasive surgery, to the UF pediatric surgical team has expanded their capabilities to provide a wide range of advanced laparoscopic and thoracoscopic procedures for Shands' young patients.

"In talking specifically about minimally invasive surgery we are able to provide the entire gamut," said Islam an associate professor. The wide range of minimally invasive procedures includes operations for conditions in the lungs, esophagus, diaphragm, chest and abdomen, as well as congenital anomalies.

**David W. Kays, MD**, chief of pediatric surgery, said "His skill and experience make him a valuable asset to the children of this state, and he is an excellent teacher for the other members of this division as we expand our skills as well."

With strict criteria in ensuring the same or better post-operative results are being achieved as with open surgery, Islam said he is always evaluating to see if a procedure can be performed in a less invasive fashion.

"Not every patient will be a candidate for a minimally invasive procedure," Islam noted. "Until we see them, talk with them and review things, we aren't able to determine the best route."

*For a complete list of procedures, visit [www.surgery.ufl.edu/pediatric](http://www.surgery.ufl.edu/pediatric)*

---

### Isolated Limb Infusion, continued from page 4

responses are quite good compared to other available treatment options. It is an excellent option for those left with no other treatment options, or those confronted with amputation."

Hochwald added, the procedure is not useful as the initial treatment of choice for a newly discovered single melanoma confined to the extremity; however, if the melanoma were to recur and be confined to an extremity, then the treatment may be of significant benefit. It also is helpful for a subset of patients with sarcoma that have advanced tumors for which there are limited treatment options.

A multidisciplinary team of UF physicians from the UF Shands Cancer Center were the first in the state to offer isolated limb infusion in 2006. UF researchers, in collaboration with other institutions, are studying ways to make the chemotherapy used in the procedure even more effective.

## VATS Lobectomy

**For early-stage lung cancer patients**, UF thoracic surgeon **David A. Wyatt, MD**, offers video-assisted thoracic surgery.

According to Wyatt, an associate professor of thoracic and cardiovascular surgery, video-assisted thoracic surgery, or VATS, has been commonly performed in the past for pleural diseases and biopsy purposes. In recent years the use of this less-invasive technique for anatomic lobectomy has slowly developed.

Since the initiation of these procedures at Shands at UF, Wyatt concludes that patients do benefit from VATS lobectomy. His findings are supported by multiple hospitals in the United States now reporting studies that consistently demonstrate a three to five-year survival rate, which equals that of traditional open procedures. Survival at five years is reported by some centers to be as high as 97 percent.

"It is now known that VATS offers a shorter average hospital stay and lower complication and mortality rates. Patients are shown to have better pulmonary function, less pain and higher quality-of-life scores post operatively," Wyatt said. "These benefits also have been shown to exist for high-risk and elderly patients. Most patients may return to normal activities within two weeks."

Early-stage lung cancers (tumors under 3 cm that have not spread beyond the lungs) or undiagnosed solitary pulmonary nodules suspicious for bronchogenic carcinoma, now are candidates for VATS lobectomies.

## Atrial Fibrillation

**More than 2.2 million Americans are affected by atrial fibrillation**, caused by erratic electrical activity in the heart.

**Thomas Beaver, MD**, an associate professor of thoracic and cardiovascular surgery, said the major

concern is that atrial fibrillation causes 15 to 20 percent of all strokes.

Treatments vary, but typically start with drug intervention to either control the heart rate or restore a normal heart rhythm.

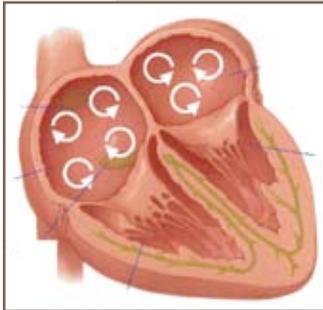
Beaver said atrial fibrillation is most successfully treated in recently diagnosed patients who have

paroxysmal episodes.

When medical management fails or patients prefer to not be on lifelong medication, catheter- and surgical-based interventional approaches are used to eliminate “triggers.” The most recognized surgery for atrial fibrillation is called the “maze” operation.

The new “mini-maze” procedure is a minimally invasive technique using burn lines on the heart to isolate triggers. Beaver has performed more than 30 “mini-mazes” with more than 90 percent success in maintaining a normal heart rhythm in patients with paroxysmal afib.

“We now can place even more lines on the atrium, which prevents reentrant atrial arrhythmias,” said Beaver. “We also are better able to test with advanced pacing techniques so we can confirm the lines are intact before leaving the OR.”



## Minimally Invasive Esophagectomy

**UF surgeons are among a handful of surgeons nationwide** offering minimally invasive esophagectomy as a surgical therapy for patients with high-grade dysplasia of the esophagus, pre-cancerous malignancies or locally advanced tumors.

Performed by experts in surgical oncology and laparoscopic surgery, the minimally invasive esophagectomy enables surgeons to visualize the entire procedure instead of relying solely on tactile sensory perception, which leads to decreased blood loss and more accurate tumor and lymph node removal.

**Steven N. Hochwald, MD**, an associate professor and director of surgical oncology, and **Kfir Ben-David, MD**, an assistant professor, teamed up to bring the minimally invasive procedure to Shands. Advantages of the procedure include less bleeding, post-surgical pain, hospitalization and recovery time than traditional open trans-hiatal or transthoracic esophagectomies.

Although the incidence of esophageal cancer is dramatically increasing in the U.S., Hochwald and Ben-David say that they are able to offer the minimally invasive approach to most of the patients that they evaluate with this disease.

“Studies at the limited number of centers capable of performing this procedure consistently demonstrate a survival that is at least as good as standard open procedures, with a lower average hospitalization and lower complication and mortality rates,” added Hochwald. “In our experience at Shands, patients also have better pulmonary function, less pain and quicker return to activities of daily living.”



### One Smile at a Time

*UF plastic surgeons make second trip of the year to perform reconstructive surgeries in Honduras. For the complete story, visit [www.surgery.ufl.edu](http://www.surgery.ufl.edu)*

## Lifetime Achievement Award *Former Chairman Retires*

**Edward M. Copeland III, MD**, a world-renowned breast surgeon and former chairman of the UF department of surgery, was recently honored with a Lifetime Achievement Award for his dedication to surgical care throughout his 25-year career at UF, marking a poignant end to his storied tenure.

Copeland, the Edward R. Woodward distinguished professor of surgery, who retired in July, will be recognized again on October 24 during a Health Science Center-wide program to honor all of his achievements and contributions during his quarter-century career at UF, and to inaugurate the Copeland Professorship.

"You're often never king or queen in your own castle," Copeland said. "For your own institution to honor you is truly the greatest honor you can receive."

His UF career began in 1982 when he was named professor and chairman of the department of surgery.

"Ted Copeland is a masterful clinician and the quintessential role model for the academic surgeon," said **Edward R. Block, MD**, chairman of the department of medicine. "He served with great distinction as chair of the department of surgery for 21 years and during those years created a national reputation for the department of surgery at UF."

Through the years, Copeland watched once-fledgling surgical programs evolve into world-class centers for medical care.

Throughout his career, he gained recognition for his contributions to advances in breast cancer surgery and treatment. While Copeland named training residents and serving as interim dean in 1996 among his most satisfying experiences, he also was director of the UF Shands Cancer Center and president of UF Physicians, and served as the president of the American College of Surgeons.

"My legacy is in the people I influenced during their formative years," he said. "More than anything, I'll miss patient contact. My personality is such that I thought I did a good job of helping people through difficult times in their lives."



SARAH KIEWEL/UF HSC PHOTOGRAPHER

Dear Colleagues:

Thank you for entrusting UF surgeons with the care of your patients. Our goal is to provide patients the highest quality of surgical care and to proactively communicate with you to ensure our shared patients have continuity of care.

While we are proud of our tradition of excellence in surgical care, we strive to improve that care by offering new procedures and programs that integrate multidisciplinary care along with advanced technologies for the treatment of benign and malignant conditions. Our continual quest for improved outcomes has led to the birth of new care lines in the Division of General Surgery. We created focused service lines in the groupings of: pancreas and biliary, colorectal, gastroesophageal and bariatric, and breast/melanoma/sarcoma/endocrine to optimize our patients' care. These new teams are led by experts in each field and provide streamlined care for patients.

In addition, as you will see in this issue, our vascular and thoracic and cardiovascular surgeons are pioneers in the endovascular treatment of aortic diseases. Similar accomplishments are regular occurrences in our other divisions of Transplantation and Hepatobiliary Surgery, Plastic and Reconstructive Surgery, and Pediatric Surgery. In upcoming issues of *The Stitch*, division chiefs will highlight the latest advances in clinical care. Our department has grown over the past year and we now have even more specialty trained surgeons who can provide the latest in surgical care, including advanced minimally invasive procedures.

Everyday I walk by windows framing the future of our cancer patients' care. The Shands at UF Cancer Hospital is scheduled to open next fall, and with its opening, this state-of-the-art facility will allow us to grow our cancer programs along with permitting further expansion of existing programs in our current facility.

I am excited about our development of new clinical programs, but even more enthusiastic about the faculty's accomplishments and continual pursuit of excellence. Our collective goal is to provide you and your patients with outstanding service. Please let us know how we can best assist you.

Best wishes,  
Kevin E. Behrns, MD  
Interim Chairman



# UF's Burn Center Tests Virtual Reality Disaster Training

Forget the stethoscope — the video game controller could be the newest item you find in your doctor's black bag.

Medical trauma doctors and nurses throughout Florida will begin testing an interactive training program developed by UF experts to model a mass disaster involving patients with burn injuries.

The federally funded program, "Burn Center," simulates an explosion at a theme park and teaches life-saving skills needed to treat up to 2,000 victims of burns, bombs and blasts. Health professionals care for virtual patients, making crucial decisions and dealing with potential complications from their injuries. The game features multiple scenarios, and players receive scores based on response time and accuracy of care provided.

"Burn Center targets trauma surgeons and nurses to provide training regarding what they would encounter in burn and blast injuries — something they may not see every day," said **David W. Mozingo, MD**, a professor and director of the Shands Burn Center at UF, who collaborated with UF simulation expert Sergei Kurenov, the Florida Department of Health, ProMedia, and Orlando-based 360Ed, to create the fast-paced training program to simulate a terror attack involving mass casualties.

"Every time you play the game it is going to be different because the complications and patient problems are put in a 'controlled randomness' where it is an appropriate complication to occur, but may not occur every time you play the game," said Mozingo, who developed the patient training scenarios with the help of other Florida burn and trauma physicians.

The nation only has about 1,800 burn beds, with just 60 in Florida, limiting opportunities to care for patients in the aftermath of a mass disaster. Opportunities also are limited to prepare key medical practitioners for the unexpected. Eventually the program will be made available nationally.

"We knew we would have to provide some training so that the burn care usually provided at burn centers could be



SARAH KIEWEL/UF-HSC PHOTOGRAPHER

applied in other hospitals, specifically trauma centers for the more seriously injured," said Mozingo.

The game offers three educational components to teach skills needed to treat patients with burns or other injuries from bombs and blasts. The first requires players to make quick decisions at the disaster site about initial medical care and then triage patients to the appropriate hospital. The next interactive element focuses on in-hospital care, where players manage the patients' care over a 36-hour (time-elapsed) period. The final part offers multimedia lectures, which also involve immersive learning elements such as engaging background scenery to keep the learner interested.

"We looked toward innovative, new technologies of teaching to provide a product that would fulfill a unique training need," added Mozingo.

**Richard Gamelli, MD**, a former president of the American Burn Association, said the program's range of learning levels, ability to test players' decisions, and self-study format give the game diverse utility.

"There are few things out there that can do what this program does," said Gamelli, who is chairman of the department of surgery at the Loyola University Chicago Stritch School of Medicine. "What is nice about this program is that it builds on existing programs and that someone can do the training program over and over."

**Burn Center** is UF's second project prompted by the Florida Department of Health's response to a nationwide directive from the Office of Homeland Security to ensure effective disaster response. The first program, a lecture-based format also developed by Mozingo, was adopted by the U.S. Health Services and Resources Administration in 2005 and is now used nationally.



## UF's Surgical Residency Program Meets Needs of 21<sup>st</sup> Century Care



George A. Sarosi, MD  
Associate Program Director  
General Surgery Residency

**The past years have been marked by new changes in the department's resident education program.** The most significant change has been an expansion of the surgical residency.

With the enlargement of the department and the need for more physicians and surgeons in Florida, the department now has five categorical general surgery positions. With the adaptation of the 80-hour week for resident physicians, one of the significant challenges has been to provide the same training in a more efficient fashion. To meet these challenges, a formalized approach to surgical skills training and didactic education has been developed.

With the expansion of laparoscopic and thoracoscopic procedures offered by our faculty, residents need to come to the operating room with more advanced skills in minimally invasive surgery. To facilitate OR training, and to maximize intra-operative learning, the department instituted a formal surgical skills curriculum.

Using the Technical Skills and Simulation Lab, residents train and achieve proficiency in advanced laparoscopic skills. These skills are then honed in a series of in vivo labs. Our virtual reality trainers allow for simulation of an entire procedure, such as laparoscopic colectomy, before the resident is involved with their first real operation.

To foster didactic learning, we have a graded series of courses. Interns concentrate on the basic science underpinnings of modern surgery, and second-year

residents focus on the principles of emergent surgical management of patients. During the third and fourth years of residency, students learn evidence-based surgery by reviewing literature and developing the skills necessary for lifelong learning. Chief residents concentrate on polishing the fine details of surgical decision making.

These are challenging and exciting times in surgical education as the old paradigm of learning by watching is replaced by time-constrained focused learning. With the new educational approach, our department is ready for the challenge of the 21<sup>st</sup> century.

### Two New Fellowship Programs Approved

**The UF department of surgery recently received approval for pediatric surgery and laparoscopic surgery fellowship programs.**

The pediatric surgery fellowship marks the state's first nationally accredited program through the Accreditation Council for Graduate Medical Education.

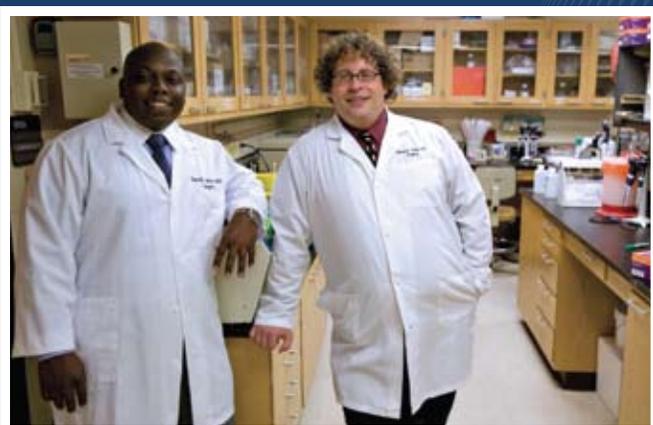
The two-year training program includes all aspects of pediatric surgery. In the first year, fellows will spend three to six months on electives such as neonatology, critical care, cardiothoracic surgery and research. During the second year the fellow will serve as chief resident of the pediatric surgery service.

Both nationally and statewide, there is a need for more surgeons in this field.

"The number of pediatric surgeons in this country is fairly limited to about 500 to 600 practicing pediatric surgeons," said pediatric surgery residency program director **Mike Chen, MD**, an associate professor. "We need more."

The one-year general surgery minimally invasive training program provides clinical training in advanced laparoscopic and bariatric surgery. The program's focus includes minimally invasive approaches to treating diseases of the foregut, colon, solid organs, hernia, and treatment of morbid obesity.

**Kfir Ben-David, MD**, an assistant professor of surgery and director of the UF Weight Loss Surgery Center, is the fellowship program director.



SARAH KIEWEL/UF HSC PHOTOGRAPHER

## Schooling Surgeon Scientists

Two UF general surgery residents earn their Ph.D. For the complete story, visit [www.surgery.ufl.edu](http://www.surgery.ufl.edu)

## Research Briefs

### Liver Surgery and Research

**A UF study published in the Journal of the American College of Surgeons** revealed patients with liver cancer who have no other treatment options might benefit from more aggressive operations once considered too risky. UF scientists also recently published findings in *Hepatology* yielding insight into ways to protect the liver during surgery.

Surgeon **Alan Hemming, MD**, chief of transplantation and hepatobiliary surgery, has shown that using a more aggressive approach to liver surgery can prove successful in patients who were deemed inoperable by traditional standards.

“We are doing things that are very complex that could not be done a few years ago and yet getting the same success rates that standard, less complex liver surgery was getting 10 years ago,” said Hemming. “If you are a patient who is told you only have six months to live and there are no options but then all of a sudden you are given a more than 30 percent chance of survival with admittedly complex surgery, you would think that is a good option.”

Hemming said the work UF basic science researchers are conducting to identify ways to protect the liver during surgery also could help increase the number of patients who could benefit from liver surgery and possibly make more livers viable for transplantation.

Composed of a large amount of blood — approximately 20 percent — the liver is greatly affected when the blood supply is cut off during surgery. This causes ischemia, which leads to a lack of oxygen to the organ.

“Paradoxically, ischemia is OK, but the real problem is when blood returns to the liver,” said principal investigator **Jae-Sung Kim, PhD**, an assistant professor of surgery and of pharmacology and therapeutics.

UF findings revealed the underlying problem is caused by more than one factor and that the cell’s “power plant,” known as mitochondria, is one of the crucial elements.

“We found that if we use the autophagy process and selectively remove damaged mitochondria, it actually keeps the cell alive after the oxygenated blood is delivered back to the liver,” said Kim.

In animal studies, UF researchers found the activation of a key enzyme that is naturally produced when oxygen returns to the liver depletes two proteins that help regulate the cell’s ability to dispose of its weakened elements.

Kim said the next step is to work with pharmacologists to develop drug treatments that will bolster the proteins to keep the cell’s natural house-cleaning process on track, preventing cellular injury and improving liver function after surgery.

### Cancer Therapy Research

**New therapies must target a key protein interaction** to destroy aggressive cancer cells’ protective force field, UF scientists reported at the American Association for Cancer Research’s annual meeting.

The barrier deflects damage from radiation or chemotherapy, making some cancer cells difficult to destroy, but researchers from UF and the University of North Carolina at Chapel Hill may have discovered why. The study revealed that mutations in the tumor-suppressing p53 protein lead to overabundance of a second protein called focal adhesion kinase, or FAK, which makes the cells less vulnerable to attack.

“These findings are significant to future cancer research and the development of new therapies,” said **Vita Golubovskaya, PhD**, a research assistant professor, who presented the findings. “The high correlation between these two markers is critical for predicting patient prognosis.”

The next step will involve developing cancer therapies that target this interaction, Golubovskaya added.

Both p53 and FAK are found in low levels in normal, healthy cells. The p53 protein ensures that cells strike a wholesome balance between growth and death. In its normal state, p53 suppresses the FAK protein and weakens the molecular force field around cancer cells. But mutations in the p53 protein can interfere with this regulatory function.

“These findings put together another piece of the complex cancer puzzle and open the way for highly specific molecular cancer therapy that can target the p53-FAK interaction,” said **William Cance, MD**, a professor of surgical oncology.

Recently Cance authored a perspective article in the journal *Science Signaling* discussing the importance of new therapies targeting protein interactions.

---

*For more details about these findings and other research breakthroughs and discoveries, visit [www.surgery.ufl.edu/news.asp](http://www.surgery.ufl.edu/news.asp)*

## Surgeon General Honors UF Contributors to State's Trauma Plan

Florida Surgeon General **Ana M. Viamonte Ros, MD, MPH**, recently recognized seven faculty members from the UF's Gainesville and Jacksonville medical campuses for their leadership in implementing the Florida Trauma Strategic Plan.

Gainesville-based surgeons **John H. Armstrong, MD**, an assistant professor and assistant director of trauma services, **Lawrence Lottenberg, MD**, an associate professor and trauma medical director, and **David W. Mozingo, MD**, a professor and director of the Shands Burn Center at UF, were honored with Awards of Excellence during the Florida State Committee on Trauma meeting. This honor also was received by Jacksonville-based faculty **Eric R. Frykberg, MD**, a professor and chief of general surgery, **Andrew J. Kerwin, MD**, an associate professor of surgery, **Joseph J. Tepas, III, MD**, a professor and chief of pediatric surgery, and **Pam Pieper, MSN, ARNP**, a clinical associate professor of nursing, who works with the division of pediatric surgery.

They were part of a group of professionals recognized by the Department of Health for their expertise and professionalism on behalf of Florida's residents and visitors. The Florida Trauma Strategic Plan is designed to sustain the state's trauma system and to ensure a high level of medical readiness for disasters.

---

## New Faculty Join UF Department of Surgery

**Robert J. Feezor, MD**, is an assistant professor of vascular surgery and endovascular therapy. His clinical interests include open and endovascular surgical procedures for aortic disease and peripheral arterial disease. He will focus his research efforts on clinical outcomes and inflammation biology.

**Mary E. Lester, MD**, is an assistant professor in the division of plastics and reconstructive surgery. Her clinical focuses include DIEP breast reconstruction, breast surgery and body contouring surgery. Her research interests include the impact of preoperative imaging on perforator flap surgery for breast reconstruction.

**Darwin N. Ang, MD, PhD, MPH**, an assistant professor of acute care surgery, specializes in trauma and emergency surgery. His research interests include clinical outcomes in critical care, injury prevention in trauma, and translational science.

**Scott B. Armen, MD**, an assistant professor of acute care surgery, who joined the faculty earlier this year, recently completed service in Iraq as a U.S. Army reservist and returned to Gainesville in August. His clinical and research interests include trauma and critical care surgery, surgical emergency and surgical education.

---

*To learn more about these surgeons, visit [www.surgery.ufl.edu](http://www.surgery.ufl.edu) to view their profiles.*



**William Cance, MD**, professor of surgical oncology, became president of the Society of Surgical Oncology at the society's annual business meeting. Cance also serves as a member of the

Board of Scientific Councilors of the National Cancer Institute. He has written extensively on breast and colon cancer, and has several ongoing National Institutes of Health-funded research projects.



**Thomas Huber, MD, PhD**, a professor of vascular surgery, recently received a \$1.1 million National Institutes of Health grant to examine the predictors of maturation for

autogenous hemodialysis accesses. Huber, who also serves as vascular surgery's residency program director, will lead a multidisciplinary UF team focusing on the modulation of shear stress in the vessel wall by local and systemic factors.



**Lawrence Lottenberg, MD**, an associate professor of surgery and anesthesiology, is currently serving as president of the Florida Chapter of the American College of Surgeons.

Lottenberg is a past chairman of the Florida Committee on Trauma and formerly served as the state of Florida trauma medical director. He has been at UF since 2004 and serves as trauma medical director for the Shands at UF Level 1 Trauma Center.



**James Seeger, MD**, professor and chief of vascular surgery and endovascular therapy, recently joined the Society for Vascular Surgery's board of directors.

The appointment, announced this summer, marks his second term on the board. He also serves as chair of the Education Council. Seeger's interests include lower extremity disease, arterial occlusive disease and endovascular stent grafts.



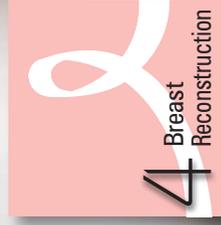
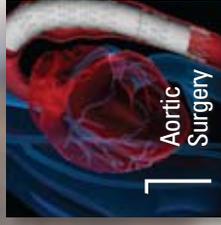
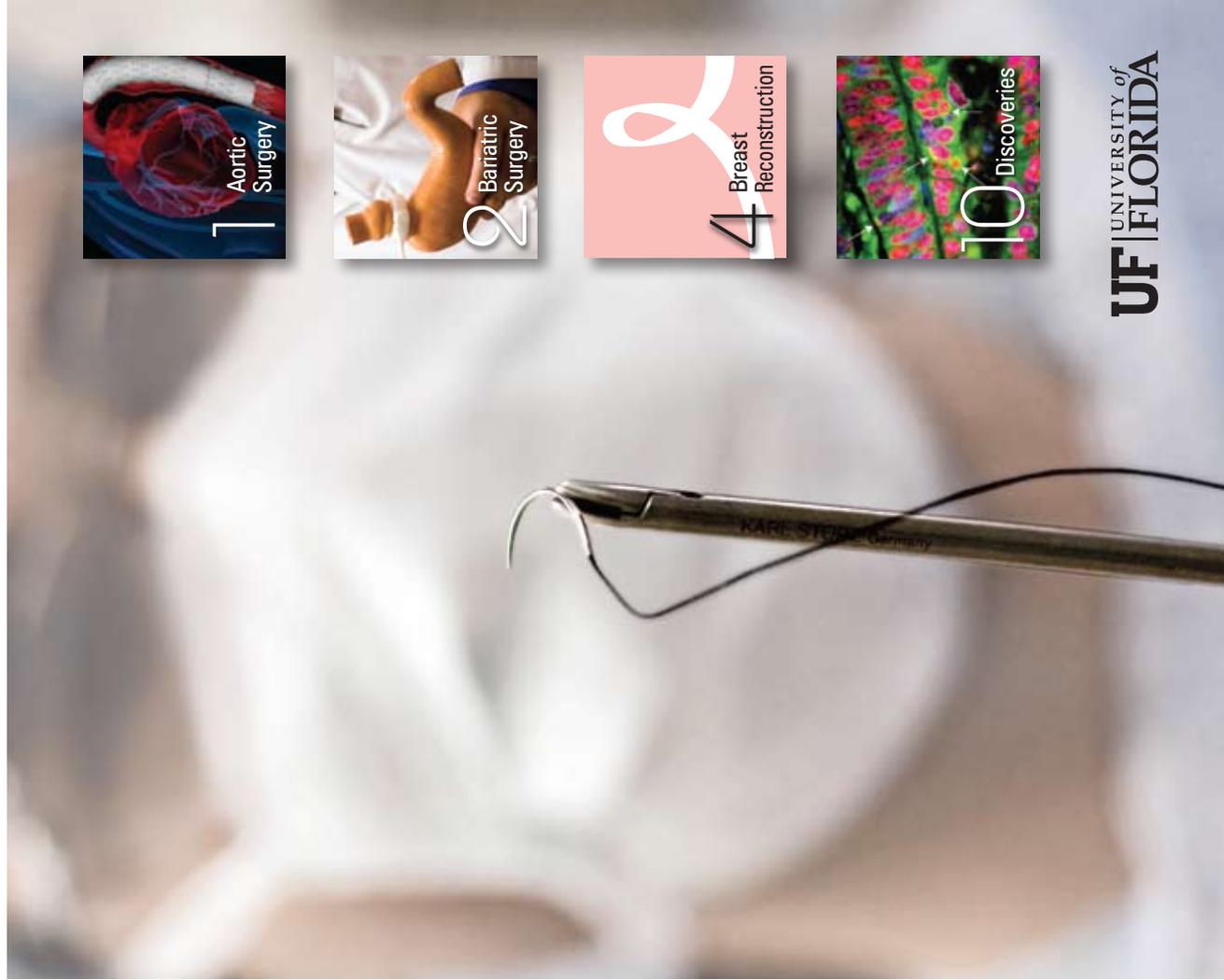
**Curtis Tribble, MD**, chief of thoracic and cardiovascular surgery, was recently elected to be a director of the American Board of Thoracic Surgery.

There are 12 directors at any given time, and Tribble is only the second director ever elected from Florida. The board's purpose is to ensure that new surgeons entering the field of thoracic surgery meet the high standards expected of professionals in this specialty.

# The Stitch

Advancing the  
Science of  
Surgical Care

THE UNIVERSITY OF FLORIDA DEPARTMENT OF SURGERY | FALL 2008



UF UNIVERSITY of FLORIDA

UF UNIVERSITY of FLORIDA

Department of Surgery  
PO Box 100286  
Gainesville, FL 32610

The Stitch

[www.surgery.ufl.edu](http://www.surgery.ufl.edu)

EDITOR

Jennifer Brindise

352.265.0646

[jennifer.brindise@surgery.ufl.edu](mailto:jennifer.brindise@surgery.ufl.edu)

CONTRIBUTORS

Mickey Cuthbertson, Sarah Kiewel,  
Andrew Ragsdale, Katherine Sims and  
Melissa Thompson

UF DEPARTMENT OF SURGERY

352.265.0646

Kevin Behrms, MD, Interim Chairman

GENERAL SURGERY

352.265.0761

Kevin Behrms, MD, Chief

• Acute Care Surgery

Larry Martin, MD, Director

• Gastrointestinal Surgery

Kevin Behrms, MD, Director

• Surgical Oncology

Steven Hochwald, MD, Director

PEDIATRIC SURGERY

352.392.3718

David Kays, MD, Chief

PLASTIC AND

RECONSTRUCTIVE SURGERY

352.273.8670

M. Brent Seagle, MD, Chief

THORACIC AND

CARDIOVASCULAR SURGERY

352.273.5501

Curt Tribble, MD, Chief and Vice Chairman

TRANSPLANTATION AND

HEPATOBIILIARY SURGERY

352.265.0606

Alan Hemming, MD, Chief

VASCULAR SURGERY AND

ENDOVASCULAR THERAPY

352.273.5484

James Seeger, MD, Chief and Vice Chairman

RESEARCH LABORATORIES

352.265.0494

Lyle Moldawer, PhD, Vice Chairman