The Stitch

Advancing the Science of Surgical Care

THE UNIVERSITY OF FLORIDA DEPARTMENT OF SURGERY | WINTER/SPRING 2011

Inside this issue:

UF | UNIVERSITY of FLORIDA

STUDIO 601

University of Florida Breast Center Director Dr. Stephen Grobmyer, a UF associate professor of surgery, and Dr. Judith Lightsey, a UF assistant professor of radiation oncology, discuss the Intrabeam system, an intraoperative radiation technology now available for patients at Shands at UF.

UF Offers Intrabeam Therapy to Shorten Breast Cancer Radiation Treatments

Last fall, the University of Florida Shands Multidisciplinary Breast Cancer Program became the first health care entity in Florida to offer Intrabeam treatments for breast cancer.

"It's a technology that's been recently validated as an approach for drastically shortening the period of treatment for early-stage breast cancer," said **Stephen Grobmyer, MD,** an associate professor of surgery in UF's College of Medicine who specializes in researching new treatments for breast cancer patients.

JESSE S. JONES/UF HSC PHOTOGRAPHER

UF President Bernie Machen and U.S. Congresswoman Debbie Wasserman Schultz cut the ribbon during a November ceremony launching the Intrabeam treatment program at Shands at UF.

Traditional methods for delivering radiation to breast cancer patients target the entire breast and require daily treatments at a radiation center for as long as six weeks. In some cases, Intrabeam therapy can shorten the duration of a woman's radiation treatment to a single day, Grobmyer said.

For other patients, the device is used to administer an initial "boost" of internal radiation before external radiation therapy begins, allowing for a shorter treatment time.

Administering the treatment inside the breast also means less healthy tissue is exposed to radiation and ensures therapy is delivered directly to the former tumor site.

Surgeons insert the device directly into the breast during a lumpectomy, or resection operation, to deliver a single dose of radiation therapy to the site where the tumor once was. The device is not meant to treat women undergoing mastectomies.

"In a period of about 25 minutes, you get the radiation to the breast and then it's done," said Grobmyer, who also is affiliated with the UF Shands Cancer Center.

continued on page 2

UF Breast and Bariatric Programs Earn COE Designations

Two multidisciplinary patient care programs – the UF Breast Center and the UF Weight Loss Surgery Center – recently were designated as Centers of Excellence.

The UF Breast Center has received accreditation as a National Center of Excellence in Breast Cancer by the National Accreditation Program for Breast Centers.

"Because the accreditation process is so comprehensive, it demands that we, as a multidisciplinary group of patient care providers, develop processes and procedures that are consistent with the best practices currently existing in breast care," said **Stephen Grobmyer, MD,** a UF associate professor of surgery and director of the UF Breast Center. "That institutional and personal commitment to best practices in every facet of patient care leads to our patients receiving the highest standard of multidisciplinary care available anywhere in the world."

With UF's accreditation, only six Florida breast centers are designated as Centers of Excellence.

The UF Weight Loss Surgery Center also recently earned Center of Excellence status from the American Society for Metabolic and Bariatric Surgery.

Under the leadership of **Kfir Ben-David, MD,** a UF assistant professor of surgery, UF surgeons offer a patient-centered program that is committed to all of their patients' health care needs.

"The program's emphasis is on comprehensive patient care and long-term follow up to ensure patients' success," said Ben-David.

To earn the Center of Excellence designations, each UF program underwent extensive review processes by their accrediting organizations.

Shands at UF Transplant Programs Reach Milestones and Earn Awards

JESSE S. JONES/UF HSC PHOTOGRAPHER

Melissa Kuhlman, RN, lung transplant coordinator; Dr. Baz, medical director, lung transplant program; Dr. Staples, surgical director, lung transplant program; Bhowani Sharma; Racoomarie Sharma; and Dave Sharma

In December, Bhowani Sharma, a 68-year-old Orlando man, received the 500th lung transplant performed at Shands at UF.

Just two weeks later, Sharma said he was "feeling fine" and excited about news from his surgeon that he could leave the hospital the next day.

Edward D. Staples, MD, an associate professor of thoracic and cardiovascular surgery and surgical director of the program, performed the surgery to give Sharma a new left lung. **Maher Baz, MD,** a professor of medicine and medical director of the Shands at UF Lung Transplant Program, cared for Sharma after the surgery.

The operation was Sharma's second lung transplant surgery. He received a double lung transplant in September 2008 to treat pulmonary fibrosis, but suffered complications, including his body's rejection of the left lung.

Before his release Jan. 4, Sharma praised the doctors and nurses for the personal care they gave him, and said their optimism about his progress was contagious.

"They treat(ed) me with such compassion," he said.

Shands at UF Honored for Organ Donation, Transplantation

Shands at UF received silver and bronze Medals of Honor from the U.S. Department of Health and Human Services' Health Resources and Services Administration in November for increasing the number of organs available for transplantation.

The hospital received a silver medal for overall organ donation rate (77.8 percent) and rate of donation after circulatory death (31.4 percent). Shands at UF has received a medal each of the six years they have been awarded.

The Shands at UF Kidney Transplant Program received a bronze medal for its high transplant rate. The program's rates of deceased donor transplants and one-year graft survival were significantly higher than expected, while the mortality rate among people on the program's waiting list was significantly lower than expected.

Intrabeam continued from page 1

The convenience of the Intrabeam procedure is a marked improvement for patients.

"We feel Intrabeam will make lumpectomy a more viable option for women," Grobmyer said. "Previously, some women could not travel daily to a radiation center or lived too far away and they would choose mastectomy simply because they could not get radiation. The Intrabeam will solve this problem for these patients."

Trials to measure the treatment's effectiveness began in 2000. An article published in a July 2010 issue of The Lancet showed no significant difference between rates of local recurrence of breast cancer for patients receiving radiation therapy via the Intrabeam machine (14 percent of these patients also received traditional external radiation therapy) and traditional methods.

A $346,000 grant from the Health Resources and Services Administration, an agency of the U.S. Department of Health and Human Services, helped pay for the machine.

UF also is collaborating with other institutions offering Intrabeam therapy "to work on formulating ongoing clinical investigations and trials for expanding the use of the technology," Grobmyer said.

To learn more or schedule an appointment, call the UF Breast Center at 352.265.7070.

Patient Success Story

Climbing Mountains Again…

Varicose Vein Therapy Leads to Regaining an Active and Pain-free Lifestyle

MARIA FARIAS/UF HSC PHOTOGRAPHER

Terry Clark has suffered from painful and unsightly varicose veins in her legs for years.

She called the veins "my mess." The source of "a lot of discomfort and pain," varicose veins prevented Clark from doing many of the things she likes to do. This affected all aspects of her life, from simply wearing shorts to major activities, such as mountain climbing.

Decades ago, Clark underwent a surgical procedure commonly known as "vein stripping" in an effort to eliminate her vein problems.

"The doctors didn't get all the veins," she said.

Varicose veins continued to plague her everyday life, but her primary care provider told her they were "just" varicose veins and nothing could be done to fix them. She lived with them.

Then Clark heard about a free vein screening hosted by the University of Florida Comprehensive Vein Center and its director, **Peter Nelson, MD.** Nelson also is an assistant professor of surgery in UF's College of Medicine.

"They were giving free vein testing," she said. "I thought 'Well, I'm just going to go in there and see what they can do.'"

Clark recalled her visit to the vein clinic with joy.

"I saw Dr. Nelson and he looked at my mess and said that, yes, things could happen. He could do it. It'll take some time. It'll take a little bit of work, but he can solve these problems that I have on my legs."

Since then, Clark has undergone endovenous ablation, a relatively new, minimally invasive procedure that has replaced stripping as the primary treatment for varicose veins. After the ablation treatment, she also underwent ambulatory phlebectomy, a procedure to remove some veins that continued to give her problems.

She has noticed a marked improvement in her legs, and in her self-image.

"After my surgeries, now I can do a lot of things. I can climb mountains. And my legs don't hurt," Clark said. "Everything is improving. I feel better about myself."

Clark is scheduled to undergo sclerotherapy, a saline injection that collapses small, problematic "spider veins," to alleviate her few remaining problems.

She said her legs "will never be perfect," but the drastic improvements she's experienced have moved her to recommend the UF Vein Center to others.

"I'm a family practice nurse and I educate my patients when they come in and ask me questions about varicose veins," Clark said.

With permission from her employer, Clark recommends her patients with varicose vein problems see Dr. Nelson.

"He gave me hope and he always listened. He always answered my questions. He always put my mind at rest, especially when the surgeries came about," she said. "In all of this, I trust him. I trust him deeply with my legs."

Call 352.265.8402 to reach the UF Vein Center.

MARIA FARIAS/UF HSC PHOTOGRAPHER

Atrial Fibrillation

UF surgeons and cardiologists collaborate to offer a new hybrid procedure.

Learn more online about the full spectrum of atrial fibrillation treatments offered by UF physicians:
www.surgery.ufl.edu/spotlight/afibhybrid

Dear Friends:

The past few months in the department of surgery have been exciting. We have welcomed nine new surgeons to the faculty, and this talented group will allow us to offer expanded or new services to our patients and referring physicians.

While we know that these new, energetic surgeons will add to our repertoire of surgical options for various diseases, we are intent on helping them provide the best service to our patients and referring physicians. Therefore, in partnership with Shands, we have hired **Debbie Dean** as a referring physician relations manager. Debbie will assist not only these new surgeons, but our entire faculty in visits to the offices of our referring physicians or to those offices that may know less about the services we offer. We seek to improve the patient experience by offering timely and complete service, and we look to make the referral process as smooth and efficient as possible. We encourage you to meet Debbie and the surgeons when they visit your practice and offer your feedback on how we can better serve your practice.

In addition, our department has an intense focus on the outcomes for patients. Our quality, outcomes and research program is dedicated to ensuring the optimal experience for our patients. We have been tracking quality metrics globally in the department, but soon we will embark on an extensive program to measure the quality, safety and outcome of every patient. **Holly Creel, RN, MSN,** has been hired to assist **Darwin Ang, MD,** who leads this program. This extensive data collection and analysis of the outcomes of every patient will set a new direction in quality and outcomes and allow us to be a leader in surgical care.

We look forward to offering our patients and referring physicians new and improved services. Please drop us a note of feedback, using the enclosed postcard. We are eager to meet the needs of all.

Best wishes,
Kevin E. Behrns, MD
Chairman

New Division Chiefs Arrive

Since August, UF's department of surgery has welcomed three new division chiefs: **Steven Hughes, MD,** chief of general surgery; **Bruce Mast, MD,** chief of plastic and reconstructive surgery; and **Raja Kandaswamy, MD,** chief of transplantation.

Hughes, previously an associate professor of surgery at the University of Pittsburgh and chief of GI surgery at the institution's medical center, earned his medical degree at Mayo Medical School and completed his general surgery residency at University of Michigan hospitals. Also at Michigan, he finished a fellowship in surgical critical care and an NIH surgical oncology research fellowship.

His surgical interests include treatment of GI cancers and diseases, especially minimally invasive treatments. Hughes was the first at UF to perform the "laparoscopic Whipple," a minimally invasive surgical procedure. He said he wants to add more treatments for patients with GI cancers, with an emphasis on neoadjuvant therapy.

Mast, who previously worked in private practice in Gainesville, served as an assistant professor of surgery at UF from 1995 to 2000.

He said he is excited to rejoin the university and that his vision is to "make UF a national leader in plastic surgery by taking the strengths of a world-class academic medical center and combining them with the nuances of private practice surgery."

Mast specializes in cosmetic surgery, surgical treatment of skin cancer and breast reconstruction and reduction. He earned his medical degree from the Robert Wood Johnson Medical School. He completed his general surgery training at the Medical College of Virginia and his residency in plastic and reconstructive surgery at the University of Pittsburgh.

Kandaswamy comes to UF from the University of Minnesota, where he served as a professor of surgery and as director of pancreas transplantation and the transplant fellowship program. He earned his medical degree from Kilpauk Medical College at the University of Madras in his native India. He completed residencies in transitional medicine and general surgery at Howard University Hospital in Washington, D.C., and a fellowship in multi-organ transplant surgery at the University of Minnesota.

His research interests include islet transplantation and immune tolerance, while his clinical interests are multi-organ abdominal transplants, pancreas transplantation, islet auto transplantation and minimally invasive surgery, including robotic-assisted surgery.

Kandaswamy said he will be the first surgeon to perform an islet auto transplant at UF. In addition, he is working to establish the UF Institute of Transplantation, which he will direct.

JESSE S. JONES/UF HSC PHOTOGRAPHER

Educationally Vibrant:

Annual Education Retreat Focuses on Training Renewal and Enrichment

Michele Silver, MEd, assistant director of education and general surgery residency program coordinator

Each year, the UF department of surgery hosts a retreat designed to enhance the educational value of the general surgery residency program. This is a huge effort that involves planning, developing, and organizing an agenda that ultimately leads to a more educationally vibrant general surgery training program.

Our collective approach to educational renewal has greatly enriched our residency program, as well as our surgical fellowship programs, as we receive input from all of our surgical divisions during the retreat. Over the years, we have introduced several high-yield programmatic improvements born of the annual educational retreat.

During the education retreat last September we jumped out ahead of a national accreditation initiative to develop milestones for residents to meet during training. The Accreditation Council for Graduate Medical Education (ACGME) sets educational and technical standards for graduate medical education programs in the country. Experts at the organization already have concluded that academic milestones, co-developed and endorsed by professionals and educational leaders, will guide and define new standards and expectations for all future accredited graduate medical education programs.

In a 2008 column in the ACGME bulletin, Thomas Nasca, MD, the council's CEO, described milestones as "the articulation of the level of performance expected at entry into the unsupervised practice in each specialty. Early in surgical training, they provide assurance that residents are on a path to proficiency."

Our 7th Annual Education Retreat focused on improving the overall educational value of the program by setting functional academic milestones for residents in the general surgery training program at UF. Our retreat workgroups focused on the development of a comprehensive set of junior-level and senior-level milestones and corresponding means to measure achievement. In total, more than 90 academic milestones were vetted in discussions at the education retreat. Trainees at all levels of our general surgery residency will be educated, equipped, encouraged and prepared to meet the majority of about 20 level-specific milestones.

Retreat goals this year afforded us the opportunity to make educational improvements while embracing national standards for educational excellence via development of academic milestones.

Michele Silver, MEd, pictured above with surgical residents, was invited to present at the 2010 Surgery Education Week in San Antonio, Texas. Her presentation to residency coordinators from around the country focused on the benefits of conducting a retreat and the steps involved in constructing an education retreat in their home program.

Meet Your Future Surgeon

An inside look at the field of surgery is one step in this student's journey from a rough past to a brighter future.

Visit *www.surgery.ufl.edu/spotlights/mentor* for the complete story.

JESSE S. JONES/UF HSC PHOTOGRAPHER

Research Briefs

New Device Allows for Bedside Analysis of Genes, Proteins

UF researchers have helped develop a device that quickly identifies genes and proteins in body fluids — a technique that could make a vital difference for trauma patients.

In a study published in the September 2010 issue of Nature Medicine, scientists describe how they developed a new way to isolate and analyze cells from patient samples. The microfluidic cassette allows precise analysis of very small volumes of fluids and is used to study patients' genes and proteins.

With "this technique … you can isolate any cell population quickly and efficiently at the bedside," said **Lyle L. Moldawer, PhD,** a professor in the department of surgery. "In this case we isolated blood neutrophils, but we've also isolated T cells, mixed leukocytes, monocytes. Theoretically, you can isolate any cell population, under any disease, and rapidly get nucleic acids to produce a genomic signature."

This knowledge can help doctors diagnose diseases and may allow them to predict how individual patients will respond to trauma and what treatments to order. The approach also could be used with patients who have other conditions.

Moldawer, a co-author of the paper, said the team that developed the cassette did so to isolate neutrophils and analyze the proteins they produce. These proteins indicate how genes regulating the immune system respond to trauma, which may allow health care providers to quickly identify patients more likely to develop serious complications.

The device was constructed at Massachusetts General Hospital and sent to UF for initial testing. **Elizabeth Warner, MD,** a surgical resident and co-author of the paper, spearheaded the testing. Scientists from other institutions, including Stanford University, the University of Rochester, the University of Washington, Pacific Northwest National Laboratory, Harvard University and Washington University in St. Louis, also co-authored the paper.

The institutions are participants in the "Glue Grant" program established by the National Institute of General Medical Sciences.

Previous devices required several milliliters of fluids, the work of a highly skilled technician and several hours for analysis.

"We're getting 100 nanograms of RNA with 0.15 (milliliters) of blood and we're doing it all in 30 minutes," said Kenneth Kotz, PhD, a research fellow in the department of surgery at MGH. "No one's really ever been able to do this for neutrophils. No one's been able to demonstrate the speed and the sample quality with these small blood volumes."

UF Scientists Find Clues to Aid Recovery in Aged Livers, Improve Transplant Success

UF scientists have identified a cellular process involved in age-related damage to the liver — and ways to reverse that damage by manipulating genes or administering drugs.

The findings, presented in late October during a meeting of the American Association for the Study of Liver Diseases, could ultimately help shorten the national liver transplant waiting list by allowing the use of livers donated by older adults.

"If we can improve the function and health of livers, and increase donations from seniors, then we can significantly improve the success rate of transplantations," said lead researcher **Jae-Sung Kim, PhD,** an assistant professor of surgery and a member of the UF Institute on Aging, who led the research along with UF post-doctoral associate **Jin-Hee Wang, PhD.**

Just as the brain and muscles lose function as people age, the liver also becomes less resilient. As a result, liver surgery in elderly patients often is unsuccessful, and livers donated by older adults frequently are unusable. Recipients who do get livers from elderly donors often need a new transplant within a year.

Surgery to remove portions of the liver or transplant the entire organ requires clamping off blood vessels, which temporarily deprives the organ of blood flow and oxygen. Suddenly restoring blood and oxygen after surgery causes stress-related damage known as ischemia/reperfusion injury. Older livers have more difficulty recovering than younger livers.

Existing treatments have not made a substantial difference in how patients fare after transplantation, partly because liver injury mechanisms are not well understood.

UF researchers were interested in a process by which the body removes damaged cellular components. In particular, they looked at the clearing away of damaged mitochondria, the energy centers of cells.

In laboratory studies, Kim and colleagues found that disruption of this cellular cleanup is linked to the inability of aged livers to recover from surgery-related stress. They discovered an age-related decrease in levels of one of the main proteins, called Atg4B, that orchestrates the process.

The researchers used gene therapy to replenish the depleted protein, and observed liver function afterward in liver transplant mouse models whose ages correspond to those of people in their late 20s to early 30s, and in their 80s.

The approach reduced mitochondrial dysfunction and promoted recovery after ischemia/reperfusion injury, boosting the performance of livers from old animals beyond that of normal middle-aged animals.

Visit www.surgery.ufl.edu/news.asp for the complete articles and more news about other research initiatives.

Behrns Elected to American Board of Surgery

Kevin E. Behrns, MD, chairman of the UF department of surgery, has been elected to a six-year term on the American Board of Surgery. He was nominated for the position by the American College of Surgeons.

Huang Earns NIH Grant Funding

Emina Huang, MD, an associate professor of surgery, received a $1.52 million grant from the National Institutes of Health to fund her research into the origins of colon cancer. The five-year grant will allow her to investigate whether there is a way to prevent benign ulcerative colitis from progressing to cancer.

Efron Earns Shock Society Award

Philip Efron, MD, an assistant professor of surgery, was awarded the Shock Society's 2010 Fellowship for Early Career Investigators. The award is for $60,000 over two years, and is designed to support the development of researchers focusing on trauma, shock and sepsis. Efron also is co-director of the Inflammation Biology and Surgical Science Laboratory.

Flynn Elected Chair of ACS Board of Governors

Timothy Flynn, MD, senior associate dean for clinical affairs at the UF College of Medicine and chief medical officer for Shands at UF, now chairs the American College of Surgeons' board of governors. Flynn, a UF vascular surgeon, was elected to the one-year leadership term during the organization's annual meeting this past fall. Also during the annual meeting, **Sanda Tan, MD, PhD,** and **Robert Feezor, MD,** both assistant professors of surgery, were initiated as fellows of the American College of Surgeons. In addition, **Kevin Behrns, MD,** began his term on the ACS Board of Governors.

New Faculty Join the Department






Angel M. Caban, MD, a clinical assistant professor in the division of general surgery, focuses on advanced laparoscopy and bariatric surgery. His research interests include resident education and surgical simulation, as well as natural orifice surgery.

Catherine K. Chang, MD, is an assistant professor in the division of vascular surgery. Her research interests include treatment outcomes, quality improvement initiatives and comparing the effectiveness of the evolving technology in the field of vascular surgery.

Ashley K. Lentz, MD, a clinical assistant professor in the division of plastic and reconstructive surgery, also is completing a pediatric plastic surgery fellowship in Chicago. Her interests include reconstructive surgery, pediatric plastic surgery, tissue expansion and cleft lip and palate repair.

Salvatore Scali, MD, is an assistant professor of vascular surgery. His research and clinical interests include advanced endovascular therapies for thoracic and aortic pathologies; thoracic outlet syndrome; open and endovascular therapies for renal, mesenteric, carotid and peripheral arterial occlusive disease; and outcomes research.

Christiana Shaw, MD, MS, a clinical assistant professor of general surgery, focuses on surgical solutions for cancers of the adrenal, thyroid and parathyroid glands, as well as sarcomas, melanomas and breast cancer. Her research interest centers on obesity's effects on cancer patients.

Ivan Zendejas, MD, is an assistant professor in the division of transplantation. His research and clinical interests include managing diseases of the liver, gall bladder and bile ducts; multi-organ transplantation; multimodal treatment of hepatocellular carcinoma and cholangiocarcinoma; and minimally invasive surgical techniques for liver and biliary diseases and kidney donors.

Department Celebrates Contributions of Retiring Surgeons

The UF department of surgery celebrated the careers of three of its surgeons during a retirement celebration last summer. **Richard J. Howard, MD, PhD,** the Robert H. and Kathleen M. Axline Professor of Surgery; **W. Robert Rout, MD,** an associate professor of surgery; and **M. Brent Seagle, MD,** an associate professor and chief of plastic and reconstructive surgery; each dedicated about 25 years of service to the UF College of Medicine. Surgery Chairman **Kevin Behrns, MD,** recognized them as three of the best educators within the department, saying, "We will allow them some respite, but we will be calling on them for their expertise."

The Stitch

www.surgery.ufl.edu

EDITORS
Jennifer Brindise, Laura Mize
352.265.0646
TheStitch@surgery.ufl.edu

CONTRIBUTORS
Jesse S. Jones, Maria Farias, J.R. Hermsdorfer

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
  David Mozingo, MD, Interim Chief
- Gastrointestinal Surgery
  Steven Hughes, MD, Chief
- Surgical Oncology
  Steven Hochwald, 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
Kevin Behrns, MD, Interim Chief

TRANSPLANTATION SURGERY
352.265.0606
Raja Kandaswamy, 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

UF UNIVERSITY of FLORIDA

Department of Surgery
P.O. Box 100286
Gainesville, FL 32610