

Col. Darnell Waun's Second Chance at Life

Colonel Darnell Waun has been a critical care nurse for all 28 years of his career in the Air Force Nursing Corps, but only after a 2005 liver transplant at Jefferson has he fully experienced life, as he says, on "both sides of the bed rails."

In 1998, while serving as Commander of the 8th Medical Operation Squadron and Chief Nurse at Kunsan Air Force Base, Korea, Col. Waun was diagnosed with Primary Sclerosing Cholangitis (PSC). This disease, which causes the bile ducts to narrow through inflammation and scarring, progresses slowly, resulting in a 7-to-10 year life expectancy. After undergoing a partial liver resection, Col. Waun enjoyed many years of relative good health, even flying with the Air Force Air Vac Unit until 2003.

In June 2004, Col. Waun was stationed at Dover Air Force Base (AFB) in Delaware—an assignment that he highlights as a

"I'd like to be able to make a similar kind of difference in the lives of others."

"twist of fate," as it ultimately brought him to Jefferson. He knew Jefferson oncologist Edith Mitchell, MD (a former reservist), who referred him here for a hepatology assessment. Symptoms related to PSC recurred, and he was placed on the transplant wait list on Valentine's Day 2005. "The waiting is the hardest part,"



Liver transplant patient Colonel Darnell Waun is entering retirement in excellent health and considering a second career as a transplant coordinator.

he explains, "because there may be no end date. Your life revolves around staying close to the transplant center." He grew sicker, ultimately having to sleep leaning over the couch so his abdomen would not fill with fluid.

On October 29th, 2005, the Colonel learned he was the back-up recipient for a liver. "It was a huge rush," he says, "but I also was aware that this could be my very last procedure." On Halloween Day, a matching liver became available, and Cataldo Doria, MD, performed the surgery. Col. Waun was discharged within 16 days and back at work on January 3,

2006, as the Commander of the 436th Medical Group at Dover AFB. He has since communicated with the donor's family, who has experienced both sides of transplant surgery. The donor's brother had received a heart transplant.

Col. Waun retires this summer from the Air Force, but is considering becoming a transplant coordinator. "I'd like to be able to make a similar kind of difference in the lives of others," he says, "although I firmly believe that there is also something bigger that plays a hand."



The Surgeon Speaks

"Every liver transplant is extremely difficult. However, Col. Waun's 8-hour surgery stands out as one of the most complex of my career. His previous liver surgeries—a liver resection, where part of the liver is removed, and a bile duct reconstruction—contributed to changes in how the organs were arranged in the abdomen. The liver becomes very hard, as the venous system that brings blood to the tissue has become obstructed, and the walls of the veins enlarge. Every time a surgeon opens and closes the abdomen, there may be inflammation and adhesions. In subsequent procedures you are not provided with the usual anatomical reference points and must envision how previous surgeries modified the anatomy. In some cases previous surgeries can cause a patient to be deemed untransplantable. Col. Waun's case demonstrates that—even against the greatest odds—it is possible to save a life through a transplant. As a transplant center, Jefferson continues to embrace even the most difficult cases."

Cataldo Doria, MD, PhD

Interim Director, Transplant Division

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CHARLES J. YEO, MD
Samuel D. Gross Professor and
Chair, Department of Surgery

These are exciting times at Jefferson! This year we “graduated” five top-notch chief residents, and are welcoming our new PG1 residents.

This issue highlights our growing solid organ transplant program, now headed by Dr. Cataldo Doria. Our liver and pancreas volumes continue to grow, and our kidney program remains sound. In the vascular surgery arena, endovascular stent grafts and a multidisciplinary approach to aortic disease are offered in our aortic program, directed by Dr. Joseph Lombardi.

Please join us in welcoming several new members to the surgical team—Dr. Thomas d’Amato (Thoracic Surgery), Dr. Francis E. Rosato Jr. (General and Advanced Laparoscopic Surgery) and Jennifer Brumbaugh, MA (Webmaster & Editor of this newsletter).

Lastly, we are delighted to feature the sixth Samuel D. Gross Professor, and Chairman of Surgery for over two decades, Dr. Francis E. Rosato Sr. Dr. Rosato contributed to the education of hundreds of Jefferson residents and medical students, and has provided us, as part of his legacy, with two stellar faculty members, Drs. Ernest (Gary) and Francis E. Rosato Jr.



Dr. John Moore stresses the importance of refining surgical techniques and encouraging the research endeavors of young surgeons.

Trends in Plastic and Reconstructive Surgery

As a teaching hospital, Jefferson benefits from being on the cutting edge of the latest techniques and technologies, including in the area of plastic and reconstructive surgery. Clinical Professor, John H. Moore Jr., MD, explains that part of the Jefferson philosophy is to encourage research among the residents, as surgeons move toward increasingly effective techniques that draw upon the body’s own tissues.

“With breast implants, for example, we were doing a TRAM-flap procedure, using tissue from the abdominal wall,” Dr. Moore explains, “Now we have switched to using a latissimus dorsi flap (from the back), which seems to be even safer with fewer complications and without sacrificing the final result.” Jefferson residents and college students are now compiling data from more than 700 patients as part of a 10-year study by the Department of Surgery evaluating the safety of this newer procedure.

The use of stem cells is another trend that has begun to show considerable promise, as the cells can be grown into bone, cartilage and fat in any desired shape. In breast

augmentation, natural tissues do not cause the local scarring that can be associated with saline and silicone implants, although this use is currently experimental. For reconstructive surgery, stem cell tissue maintains its shape and size more effectively than conventional soft tissue implants. In

2003, former Jefferson resident Stephanie Houser Caterson, MD, won the American Society for Aesthetic Plastic Surgery’s Anastasi Award for her work on stem cells. She and her husband, E. J. Caterson MD, PhD, also a

“We are training the next generation of surgeons to be even better.”

Jefferson alumnus, conducted research on the ability to propagate stem cells into soft tissues such as bone, cartilage and muscle. Both are now surgical fellows at Harvard.

Further research in this area continues at Jefferson under the direction of Dr. Moore’s young colleague Gary Tuma, MD. “We hope to design a method to develop tissue-engineered fat-derived stem cells for soft tissue augmentation,” says Dr. Tuma. While more research is needed, he hopes for funding that will allow him to open a tissue engineering lab at Jefferson in early 2007.

Dr. Moore points out the benefits of the diverse research interests of Jefferson’s Plastic Surgery faculty. “We are training the next generation of surgeons to be even better,” he says, “and are always striving for a new standard of excellence.”

Please welcome

MEET OUR SURGICAL INTERNS

Jefferson surgeons are currently assisted by an exceptional group of categorical interns. The interns are pictured with the original Gross operating table and portrait of Dr. John H. Gibbon Jr. These doctors, who recently matched with Jefferson, started on July 1, 2006 (l to r):

Jason Comeau, MD, Jefferson Medical College; Alex Arriaga, MD, Cornell University Medical College; Sarah Fernandez, MD, University of Miami School of Medicine;



Robert Adamo, MD, SUNY Downstate Medical School; Nathan Richards, MD, University of Utah School of Medicine; David Rittenhouse, MD, Jefferson Medical College

We are also pleased to welcome Jefferson graduates: Peter Amenta, MD, Avi Galler, MD and Melissa Lasar, MD as preliminary general surgery interns.



Joseph Lombardi, MD, prepares for an endovascular procedure using a 3D computer model of the patient's anatomy. A custom model is generated for each patient using CT and MRI scans.

Visualizing New Possibilities in Vascular Surgery

Assistant Professor Joseph Lombardi, MD is helping transform the treatment of Jefferson's vascular surgery patients. Since completing a vascular fellowship in 2003 at the University of Pennsylvania, Dr. Lombardi (JMC Class of 1996) has been practicing at Jefferson, stenting blockages and grafting aneurysms. This new and exciting field is called endovascular surgery, in which therapy is directed through catheters and wires within the blood vessels. The stents, which hold open the wall of the diseased vessel, along with endovascular grafts – fabric tubes used to make a new path for blood to flow – are placed inside a diseased vessel without traditional open surgery. This minimally invasive approach allows most patients to go home the same day.

Dr. Lombardi's main research interest involves diseases of the aorta. Aortic aneurysms can occur in the chest and/or abdomen, where a "bulge" develops in the vessel wall that can rupture and result in death if left untreated. Thoracic aortic dissection is a sudden event where the lining of the aorta tears, allowing blood to flow into the middle layer of the aorta, causing a cutoff of blood flow to vital organs. Endovascular surgery has revolutionized how these maladies are currently treated, and ongoing clinical

trials look to improve minimally invasive options for these complex cases.

Dr. Lombardi is the Global Principal Investigator of a multinational dissection study, sponsored by COOK Inc., to treat thoracic aortic dissection. This study, pending FDA approval, will explore procedures that cover the tear and support blood flow via a stent that holds the natural wall open. "This condition has plagued surgeons for decades," says Dr. Lombardi. "Acutely, the lining of the

"This technology is critical to the planning of all aortic reconstructions done in the entire practice."

aorta is like wet tissue paper and is extremely hard to repair with open surgery, and if successful, the mortality rate is still about 50 percent." This new procedure offers many benefits without having to cut open the aorta itself.

Dr. Lombardi is also the director of a new aortic program at Jefferson, which combines vascular, cardiothoracic and cardiology expertise to evaluate patients with aneurysms and recommend the appropriate treatment.

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Jennifer Brumbaugh, MA

When the Department of Surgery hired new Webmaster Jennifer Brumbaugh in March, they gained a professional who bridges traditional academic training and modern technological savvy. In 1999, Jennifer received a master's degree in medical illustration from the Johns Hopkins School of Medicine, 1 of only 4 accredited programs in the U.S.

At Hopkins Jennifer met now-Jefferson Chair of Surgery, Charles Yeo, MD, while working on her master's thesis project, a Website for pancreatic cancer patients and their families. Upon graduating, she was hired by Johns Hopkins University and spent the next 7 years anticipating and translating patient needs into user-friendly online resources. Dr. Yeo was so pleased with her efforts that, upon his arrival in fall 2005, he asked her to manage the Department of Surgery's online presence.

Jennifer's current role draws upon not only her artistic skills (honed at the Pennsylvania Academy of Fine Arts), but also her ability to develop interactive content of interest to patients, physicians, and recruits. "My experience at Hopkins really



opened my eyes to the Web as a patient education resource and subsequently a fund-raising tool," she says, as grateful donors (many whose only connection to the hospital is the Website) continue to donate several hundred thousand dollars each year for pancreatic cancer research at Hopkins.

"Patients today are so savvy that many want access to doctors' most recent published articles and their research endeavors," Jennifer observes, "We're striving to create online resources that address a wide spectrum of needs." Keep an eye on www.jeffersonhospital.org/surgery to see the results.

"The program makes it possible for patients with aortic disease to be thoroughly evaluated for all minimally invasive options and advanced clinical trials." Patients that are not eligible for such therapies can have a traditional surgical approach.

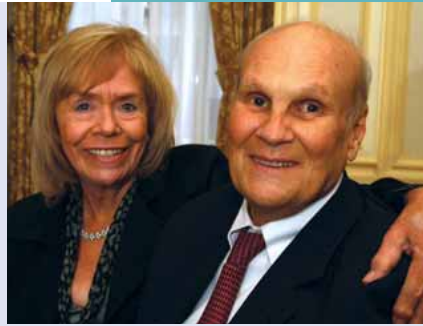
Finally, Dr. Lombardi's office is the site of an exceptional piece of new technology: a three-dimensional TeraRecon workstation. The system, obtained in the spring of 2006, compiles CT scans and MRIs to create a composite image revealing layers of muscle, organ tissue and blood vessels. When preparing to do a stent graft for an aneurysm, Dr. Lombardi can examine the patient in this virtual sense with extreme

precision to know exactly what to expect during the procedure. "Eighty percent of the surgery is done at this workstation beforehand," he explains, seated at his desk and rotating the vibrant, detailed images on the screen. "This technology is critical to the planning of all aortic reconstructions done in the entire practice," he says. "The procedures are becoming so sophisticated that detailed imaging and measurements are imperative to operative success."

An animation of a TeraRecon 3D patient model can be viewed at

www.jeffersonhospital.org/aortic

A Legacy of Leadership: Dr. Francis E. Rosato Sr.



Dr. Francis E. Rosato Sr., and his wife of 44 years, Trudy.

Francis E. Rosato Sr., MD, has had a long and distinguished career at Jefferson. He was the Samuel D. Gross Professor and Chair of Surgery from 1978 through 2000. His career also included four years as the first Chair of Surgery at the then new Eastern Virginia Medical School and 14 years at the University of Pennsylvania, where he attained the rank of professor. At each

“... I wasn't surprised that they followed me into medicine as well.”

location Dr. Rosato found his patient practice was always the most important part of his work.

Although Dr. Rosato stepped down as chair in 2000, he continues to come in twice a week to the office at 11th and Walnut. He is surrounded by familiar faces there, having created quite a legacy within the department. His son Ernest (Gary) L. Rosato, MD, is currently Jefferson's Director of the

Division of General Surgery and his namesake, Francis E. Rosato Jr., MD, joined the faculty in August. His daughter Anne Rosato, MD, is a pediatrician in King of Prussia, PA. “I taught them how to ski, to play tennis, and how to hit a baseball,” says Dr. Rosato, “so I wasn't surprised that they followed me into medicine as well.”

A passion for medicine apparently runs both up and down the Rosato family tree. Dr. Rosato's father was a general practitioner who ran his practice out of the family home. Dr. Rosato recalls seeing patients on a day-to-day basis as a child. “I appreciated how happy and fulfilled my father seemed to be,” he says.

Dr. Rosato has had the benefit of the long view of the institution over several decades. “When I came in 1978, Jefferson was a number of

loosely integrated departments that functioned fairly independently. By the time I stepped down, the administration played a greater role and budgets were much higher, although funds were harder to come by,” he recalls.

Dr. Rosato's legacy lives on through the Francis E. Rosato Sr., MD, Surgical Research and Education Fund, supported primarily through gifts from grateful patients and the Jefferson Surgical community. The fund allows residents to present their research at national conferences and pays for essential materials such as journal subscriptions and loupes (high-precision magnifying lenses used during surgery). Contributions to the fund are ongoing.

To make a gift to the Department of Surgery, please contact Diane Calder at 215-955-4126 or Diane.Calder@Jefferson.edu



Drs. Rosato, Cohn and Carabasi

- The Dean's Awards were held on May 24, 2006 at the Union League. Dean Nasca presented Awards for Faculty Mentoring to **R. Anthony Carabasi, MD** and **Murray J. Cohen, MD**. Citations for Significant Contributions to the Advancement of Education were awarded to **Herbert E. Cohn, MD**, **Ernest L. Rosato, MD** and **Andrew deMichele, MD**.
- **Francis E. Rosato Jr., MD** (JMC Class of 1999) has joined the Department of Surgery's Division of General Surgery. Dr. Rosato recently completed a fellowship in laparoscopic surgery at the Hospital of the University of Pennsylvania. He specializes in minimally invasive surgery.
- **Thomas A. d'Amato, MD, PhD** (JMC Class of 1990) has joined the Department of Surgery's Division of Cardiothoracic Surgery. After many years of practice with both the U.S. Navy and as a staff surgeon in California, Dr. d'Amato completed an advanced fellowship in minimally invasive surgery at the University of Pittsburgh Medical Center. He specializes in thoracic surgery.
- **Jason Comeau, MD** and **David Rittenhouse, MD**, two of our new interns, were recognized at Jefferson Medical College's Class Day 2006. Dr. Comeau accepted the Philip P. Repepi, MD Prize in General Surgery, awarded to a senior medical student pursuing a career in general surgery and deemed most worthy by the JMC surgical faculty. Dr. Rittenhouse accepted the Leonard Tow Humanism in Medicine Award presented by The Arnold P. Gold Foundation. The award is given to an outstanding student demonstrating exemplary compassion in doctor/patient relations.
- Visit www.jeffersonhospital.org/surgery/news for a list of recent publications by members of Jefferson's Department of Surgery.

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