

# Surgical Solutions

## Collaboration is Key to Treating Complex Vascular Diseases and Conditions



Drs. Taki Galanis, Geno Merli, Walter Kraft, and Luis Eraso, comprise the vascular medicine component of the Jefferson Vascular Center—now caring for patients in Center City, Methodist Hospital, and Northeast Philadelphia.

As one of the highest-volume vascular practices on the East Coast, the Jefferson Vascular Center (JVC) brings together the physicians, surgeons and pharmacists needed to deliver coordinated, convenient patient care.

The JVC's integrated, multi-disciplinary approach is extremely effective in diagnosing, treating and monitoring vascular diseases (diseases of blood vessels) and thrombotic (blood-clotting) disorders – including complex arterial and vein thrombosis, peripheral artery disease, lymphedema, post-thrombotic syndromes, chronic venous insufficiency, varicose veins, vasculitis and congenital vascular conditions.

Launched in 2009, the JVC is led by Co-Directors Paul J. DiMuzio, MD, FACS, the William M. Measey Professor of Surgery and Director of the Division of Vascular and Endovascular Surgery, Geno Merli, MD, Senior Associate Chief Medical Officer of Thomas Jefferson University Hospital (TJUH), and Laurence Needleman, MD, Associate Professor of Radiology and Director of the Division of Abdominal Imaging. Dr. Merli has long been a nationally recognized expert in deep vein thrombosis (DVT), a potentially deadly blood clot in the leg.

Housed on the sixth floor of the Gibbon Building at 11th and Chestnut Streets, the JVC recently completed a

renovation that tripled its footprint and brought the angioplasty center, staffed by an interventional cardiologist, in close proximity. JVC faculty members also care for patients at Methodist Hospital and in Northeast Philadelphia, serving a total of about 1,500 patients annually.

As a medical specialty, vascular medicine is relatively new. Jefferson's Taki Galanis, MD, received Board certification in vascular medicine by being sponsored and mentored into the specialty. More recently, physicians have been able to pursue fellowship training. One such specialist is Luis H. Eraso, MD, who joined Jefferson in June 2011 after completing three years of fellowship training at the Cardiovascular Division of the Hospital of the University of Pennsylvania. Dr. Eraso, who received Jefferson's Marjorie A. Bowman, MD, '76 Early Career Investigator Award for Primary Care Research for his work on novel biomarkers of peripheral arterial disease, emphasizes the value of an integrated, multi-disciplinary center.

"Other programs offer treatment for problems affecting the arterial, venous and lymphatic circulatory systems, but very few do so in one physical location," he says. "The Jefferson Vascular Center brings together medical, surgical and pharmacy specialists, which offers benefits to patients and improvement in care coordination and delivery."

Vascular medicine physicians also manage the vascular wound care program, an integral part of the JVC which provides advanced vascular wound services, such as multilayer compression and absorbent dressing (MCAD) therapy, outpatient surgical debridement, application of bioengineered skin grafts and substitutes, and/or use of hyperbaric oxygen therapy. Additionally, some of the certified vascular medicine physicians are involved in the interpretation of vascular ultrasound studies performed at the JVC vascular laboratory.

Equally important, Dr. Eraso says, are the roles of Walter Kraft, MD, who is board certified in both internal medicine and clinical pharmacology, and Lynda Thomson, PharmD, who joins the vascular medicine physicians in staffing the Jefferson Anticoagulation and Thrombosis Service (JATS). JATS is a busy inpatient and outpatient consult service dedicated to coordinating the transition of care as patients with complex vascular conditions move back into community-based primary care. JATS also provides guidance in the medical management of venous thromboembolic disease in special populations, including pregnant patients. Working closely with Maternal-Fetal Medicine, Jefferson's high-risk obstetrics team, the medical and pharmacy staff at the JVC helps to manage anticoagulation therapy throughout their pregnancy.

"Our multi-disciplinary approach helps prevent overlap in care—ensuring that two specialties within the same system aren't dealing with the same disease in different ways," he concludes. "Here, multiple specialists practice side by side. We consult with each other and collaborate in real time, which enables us to provide a more seamless experience and support better outcomes for our patients."

For more information about the JVC, please visit [Jefferson.edu/JVC](http://Jefferson.edu/JVC)

### Surgeon Speaks



"Patients with extensive acute deep vein thrombosis (DVT) of the legs provide an excellent example of why effective medical-surgical collaboration is so important.

"These patients typically benefit from emergency catheter-directed thrombolysis, an endovascular procedure performed by vascular surgeons. Subsequent medical management is directed toward preventing re-thrombosis and preventing the long-term complications of DVT. At the Jefferson Vascular Center, vascular medicine specialists initiate and transition that care, as well as provide long-term management of blood thinners and other medical measures.

"Across vascular diseases and conditions, Jefferson's vascular medicine specialists provide many outpatient services. In addition to the excellent care they afford, this collaboration allows the surgeons to focus on complex surgical and endovascular procedures."

**Paul J. DiMuzio, MD, FACS**  
William M. Measey Professor of Surgery  
Director, Division of Vascular and Endovascular Surgery

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**Charles J. Yeo, MD, FACS**

Samuel D. Gross Professor and Chair  
Department of Surgery

## Progress with the Affordable Care Act (ACA)

Most of us have been following the news concerning the ACA. The first open enrollment period closed on March 31, 2014. A late surge pushed the number of enrollees through the individual marketplaces to about 8 million, which exceeded Congressional Budget Office (CBO) expectations. The coverage gains mandated for young adults have decremented their number without health insurance by between 1 and 3 million. All health care plans must now meet comprehensive benefits standards (bronze, silver, gold and platinum levels), and over 28 states and D.C. are moving forward on Medicaid expansion.

For the individual marketplaces 8 million new enrollees is the start, with the CBO projecting up to 25 million gaining insurance via the marketplaces by 2017. Moreover, perhaps 5 million people may gain coverage in 2014 directly from insurers, partially prompted by the individual mandate. Of note, the requirement that enrollees use lower-priced providers (narrow networks) and charge substantially more when individuals go out of network may prove challenging for the delivery of tertiary surgical care at teaching hospitals.

Overall, the CBO estimates that the ACA will decrement the number of uninsured in America by 26 million by 2017. Polls suggest that the portion of U.S. adults lacking insurance has fallen from 18% to just 13% over the last year. The experience varies by state, and those states not electing to expand Medicaid are projected to have less benefit. Finally, the sustainability of the ACA depends upon many items, the most important of which may be the ability to sustain cost control across the spectrum of care.

Although estimates vary, somewhere between 10 and 20 million Americans appear to have gained coverage or have enrolled in a new plan under the provisions of the ACA since enrollment opened on October 1, 2013. No matter where one sits in the political spectrum, we as health care providers (and as citizens of the U.S.) should feel proud of this accomplishment.

## Jefferson Combats Deadliest Form of Skin Cancer

When people think of skin cancer, they often think of basal cell and squamous cell cancers. But the deadliest form is melanoma.

As surgical oncologist Adam Berger, MD, FACS, explains, melanoma comes from a different type of cell in the skin. Unlike basal cell and squamous cell cancers, which usually do not spread, melanoma is much more aggressive. In fact, while melanoma accounts for less than 2 percent of skin cancer cases, it causes a large majority of skin cancer deaths.

In addition to melanoma excisions (surgical removal of lesions), Dr. Berger performs a diagnostic procedure known as a sentinel lymph node biopsy. With certain melanoma tumors most likely to spread to the lymph nodes, this procedure involves removal and testing of a single node. Regardless of tumor type, all melanoma patients need to be followed closely over the long term due to the aggressive nature of this cancer.

*"...while melanoma accounts for less than 2 percent of skin cancer cases, it causes a large majority of skin cancer deaths."*

Jefferson participates in clinical research to help advance the diagnosis and treatment of melanoma. One such trial is the MSLT-2 study – a follow-up to the landmark MSLT-1 study that established the sentinel node biopsy as the standard for patients with melanomas greater than a certain depth. With patients across North America, Europe and Australia – including about 15 enrolled through Jefferson – the MSLT-2 trial is testing further surgical treatment following a positive sentinel node biopsy.

"Today, when evidence of melanoma is found in a lymph node, the next step is to remove more lymph nodes," Dr. Berger explains. "In the MSLT2 trial, one group of patients is having more nodes removed, but the other is undergoing a less invasive approach. Instead of having more surgery, these patients are being watched closely through



Dr. Adam Berger, Director of the Section of Surgical Oncology in the Department of Surgery, specializes in the surgical treatment of melanoma and encourages patients to take advantage of the clinical trials underway at Jefferson.

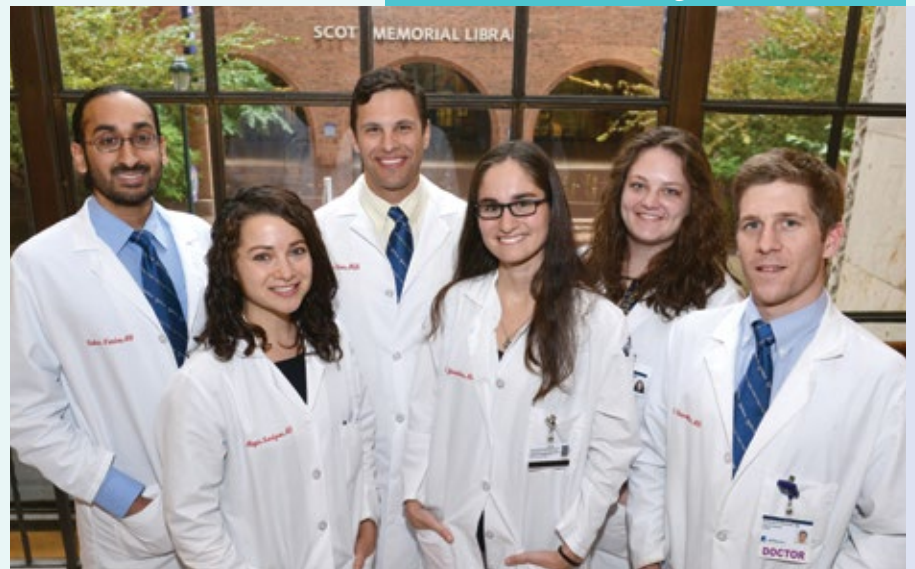
ultrasound examination." Patients in this trial are now being followed, with results expected in the next two to three years.

Jefferson is also preparing to participate in another clinical trial related to melanoma. Sponsored by biotechnology company Amgen, this trial will test a vaccine designed to help a patient's own immune system fight the spread of melanoma. The vaccine will be injected in patients' melanoma lesions and their lymph nodes.

"The hypothesis is that the vaccine will shrink the lesions themselves, and will also offer protection for the rest of the body," Dr. Berger explains, adding that the vaccine trial is slated to begin patient enrollment later this year.

*For more information about clinical trials related to melanoma, please contact Jamie Rothstein, clinical research nurse and project manager for the Department of Surgery, at 215-955-9359.*

## Meet Our Surgical Interns

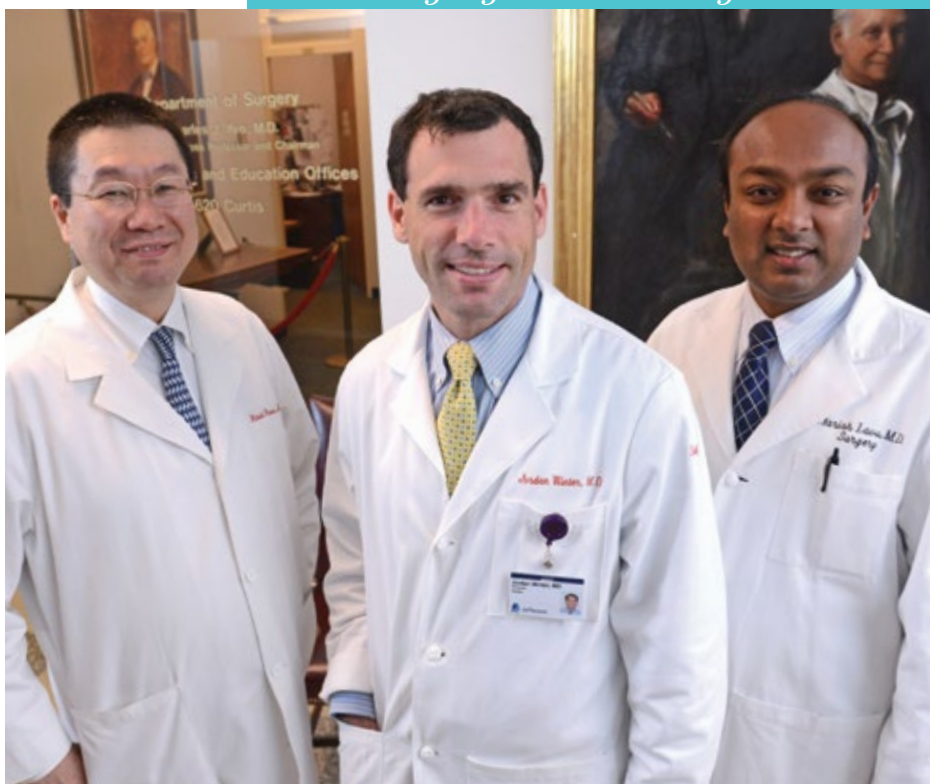


The Department has welcomed an impressive new group of categorical interns, three of which are graduates of Sidney Kimmel Medical College (formerly Jefferson Medical College). The interns were selected from over one thousand applicants to our program. These doctors, who recently matched with Jefferson, started on June 20, 2014.

Please welcome (from left to right):

**Kulvir Nandra, MD**, Florida State University; **Megan Lundgren, MD**, Sidney Kimmel Medical College; **Jonathan Stem, MD**, Wake Forest University; **Christina Jacovides, MD**, University of Pennsylvania; **Jennifer Kincaid, MD**, Sidney Kimmel Medical College; **Will Chevrollier, MD**, Sidney Kimmel Medical College.

We are also pleased to welcome back the following Sidney Kimmel Medical College 2014 graduates as preliminary interns in general surgery: Daniel Hirsch, MD, and Hong Truong, MD.



Drs. Hitoshi Hirose, Jordan Winter, and Harish Lavu are among the many clinician researchers in the department conducting randomized clinical trials to investigate and improve treatment options for their patients.

## RCTs: 'Gold Standard' for Medical Research Targets Improved Outcomes

For decades, prospective randomized clinical trials (RCTs) have been the "gold standard" for medical research. These studies randomly assign patients to one of two groups: half receive the standard treatment, and half undergo the experimental approach. As Associate Professor of Surgery Harish Lavu, MD, FACS, explains, randomly assigning patients helps eliminate even subconscious bias on the part of researchers. Dr. Lavu notes that while there is widespread agreement that RCTs are the best way to conduct research, these studies are complex and often costly. Funding often comes from institutional sources, government sponsored research grants, philanthropic organizations, or pharmaceutical companies.

"From conception to completion, a high-quality prospective RCT can take two to 10 years. By contrast, retrospective studies – in which researchers analyze an existing data set, such as a large collection of patient charts – are typically much faster and easier," Dr. Lavu says. He adds that while retrospective studies can provide early findings suggesting that a new method may be beneficial or merits further investigation, the gold standard to test the hypothesis is often a full-scale RCT.

Jefferson's Department of Surgery has a number of RCTs in various stages – including the HYSLAR (Hypertonic

Saline) Trial and the Celiac Nerve Block trial for pancreatic cancer patients as well as a trial analyzing sternal pain after cardiac surgery.

The 264-patient HYSLAR Trial studied the type of fluid used during the Whipple procedure (pancreaticoduodenectomy). The standard approach is to administer Lactated Ringer's solution for fluid replacement. The study hypothesized that with a more concentrated saline, surgeons could administer less fluid and improve outcomes.

*"...while retrospective studies can provide early findings suggesting that a new method may be beneficial or merits further investigation, the gold standard to test the hypothesis is often a full-scale RCT."*

"In our trial, surgeons used the standard amount of Lactated Ringer's solution with half of the patients, while the other half received the concentrated form of intravenous fluids known as hypertonic saline," he says. "We found that with hypertonic saline, we were able to get patients through surgery and the recovery period with less total fluid administered. In fact, reducing fluid by several liters resulted in a 25-percent reduction in post-surgical



Renee Juliano (center) and her colleagues – including Operations Manager, Beverly Kelter (fifth from right) – keep the department's SMOB outpatient clinic at 11th and Walnut running smoothly.

### Renee Juliano

Whether seeking an initial consultation or receiving post-surgical care, patients of Jefferson's cardiothoracic, colon and rectal, general, transplant and trauma surgeons will see their physicians at Jefferson Hospital's Medical Office Building at 11th and Walnut. A team of about 20 administrative professionals helps keep the "MOB" humming. A key part of that team is Practice Manager Renee Juliano, who supports general surgeons Karen A. Chojnacki, MD, FACS, and Ernest L. Rosato, MD, FACS.

Renee joined Jefferson's Department of Surgery in 1996, working in the Gibbon Building until the surgical practices came together in the MOB in 2001. She has been supporting Dr. Chojnacki and Dr. Rosato for the last 12 years – and has become a go-to resource for her peers.

She enjoys helping her colleagues tackle everything from computer glitches to patient relations. To be sure, Renee takes

pride in assisting patients – serving as an administrative advocate as they schedule a range of procedures. When cancer patients are referred by other doctors, she's the one who ensures that the surgeons see them as quickly as possible. Since Renee isn't a clinician, she doesn't address patients' medical questions. But she is quick to provide a listening ear and a kind word to individuals who are feeling anxious about their diagnosis or upcoming procedure.

"I get to interact with our patients every day, and I always try to make their situation a little bit better," Renee says. "I listen to them and assure them that they're in good hands – that the people in our office are here to help them."

With daily patient volume as high as 90, Renee admits that the MOB can sometimes get hectic. Even so, she always operates by her own golden rule: "Treat your patients and co-workers the same way you'd like to be treated. It really does make a difference."

complications such as edema and fluid build up in the lungs." Dr. Lavu and colleagues published the results in the September issue of *Annals of Surgery*.

From 2008 to 2013, Jefferson also enrolled pancreatic cancer patients in the Celiac Nerve Block Trial. All told, 485 individuals enrolled and have

forward to presenting our findings in December at the Annual Meeting of the Southern Surgical Association."

In the Division of Cardiothoracic Surgery, an analysis of patients who underwent coronary artery bypass showed that compared to conventional sternal wire, rigid fixation using sternal plates led to a reduction in postoperative pain and shortened ventilation time, ICU stay and hospital stay. Hitoshi Hirose, MD, PhD, FACS, led the RCT that further investigated those outcomes – and confirmed a trend of shorter intubation time and lesser narcotic requirements with rigid fixation versus wire closure.

These trials are just a sample of the gold-standard research at Jefferson. As Dr. Lavu notes, numerous other RCTs are ongoing and in development – including studies of vaccines and neoadjuvant treatment in both melanoma and pancreatic cancer and the efficacy of fibrin sealants to control blood loss during surgery.

been helping researchers understand whether or not injecting concentrated ethanol into the celiac nerve during surgery lessens severe abdominal pain and improves quality of life.

"This is a double-blind placebo-controlled trial – meaning that neither the researchers nor the patients know who has received the ethanol nerve block and who has received the saline as a placebo," Dr. Lavu says. "We are currently analyzing the data and look

## Grateful Patient Sends Heartfelt Letter, Generous Gift to Jefferson



John Kessler, of Blackwood, NJ, is grateful for the exceptional care he has received from dozens of Jeffersonians, especially Drs. Nathaniel Evans and Charles Yeo, over the last six years.

In June 2008, John Kessler was just shy of his 56th birthday – and had been experiencing several days of severe pain from a familiar source: kidney stones. He remembers that it was Friday the 13th when he and his wife, Mary, made the decision to drive from their home in Blackwood, New Jersey, to the Emergency Room at Thomas Jefferson University Hospital.

He says that by the time he had a CT scan, the stones seemed to have become lodged, reducing the intensity of his pain. But he and wife soon received shocking news: the scan showed that John had stage IV pancreatic cancer.

That diagnosis started a journey at Jefferson that has lasted six years – and counting. His experience has included a Whipple procedure by Charles J. Yeo, MD, a series of eight chemoembolization treatments when the pancreatic cancer spread to his liver, an upper lobectomy performed by Nathaniel Evans, MD, when he was diagnosed with primary lung cancer and, most recently, 34 rounds of chemotherapy to combat a recurrence of pancreatic cancer.

Despite the many challenges he has faced, John remains upbeat, optimistic and very grateful for the care he continues to receive at Jefferson. In fact, in June of this year, he sent a handwritten letter and generous gift to the Department of Surgery to recognize the individuals who have helped him along the way. The gift was split between the Pancreatic Research Fund and Thoracic Surgery Research & Education Fund.

*“Everyone I have encountered, from the intake person in the emergency room to the people who would ask if it was a convenient time to clean my room, have been truly exceptional. I believe the attitude at Jefferson is as healing as the medicine.”*

“The Kesslers’ gift is supporting clinical research in lung and esophageal cancer,” explains Dr. Evans, Director of the Minimally Invasive Thoracic Surgery Program. “Ongoing research in our program is exploring the impact of minimally invasive techniques on patient outcomes and identifying risk factors for recurrence in early stage patients. Grateful patient support like theirs is crucial to getting these types of projects off the ground.”

“The care at Jeff, to me, is just extraordinary, and I believe in commending a job well done,” says John, who has been married to Mary for 32 years and has two grown daughters. “The doctors have been very matter of fact and direct in giving us the best way to go, but at the same time, they’re very courteous and respectful. We experienced that with everyone we met at Jefferson.”

For information about making a contribution to the Department of Surgery, please contact Lara Goldstein in the Jefferson Office of Institutional Advancement at **215-955-8797** or [lara.goldstein@jefferson.edu](mailto:lara.goldstein@jefferson.edu).



# Surgical Solutions

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## News in Brief



**David Ehrlich, MD**, has joined the Division of Plastic Surgery. Dr. Ehrlich recently completed a fellowship in microvascular surgery at the Hospital of the University of Pennsylvania and specializes in breast reconstruction and microvascular surgery.



**Hooman Noorchashm, MD, PhD**, has joined the Divisions of Cardiothoracic Surgery and Surgical Research. Dr. Noorchashm is dual certified in general and thoracic surgery. He recently completed a fellowship in cardiothoracic surgery at the Brigham and Women’s Hospital in Boston.



**David Rittenhouse, MD, (SKMC '06)** has joined the Division of Acute Care Surgery. Dr. Rittenhouse is a graduate of both the general surgery residency program and critical care surgery fellowship program at Jefferson. He will practice in Center City and at Jefferson’s trauma center at Paoli Hospital.

Congratulations to the following faculty members on their recent promotion or advancement: Drs. **Adam Berger** (Professor), **Kris Kaulback** (Clinical Associate Professor), **Francesco Palazzo** (Chief of Surgery at Methodist Hospital, Vice Chair of Surgery at Jefferson), **Jordan Winter** (Associate Professor). Drs. **Herbert Cohn** and **Gordon Schwartz** were also granted emeritus professor status.

**Gerald Isenberg, MD, FACS**, has been elected Vice President of the American Society of Colon and Rectal Surgeons for a one-year term. He has also been named to the Residency Review Committee, appointed by the Accreditation Council for Graduate Medical Education.

News from the Spring awards ceremony: Drs. **Cataldo Doria, Walter Kraft, Francesco Palazzo, Ehyal Shweiki**, and **Jordan Winter** received the Dean’s Award for Excellence in Education. Dr. **James Diehl** received the Dean’s Award for Faculty Mentoring.

If you would like to keep up with Department of Surgery news in between issues, “Like” us on Facebook ([Facebook.com/jeffersonsurgery](https://www.facebook.com/jeffersonsurgery)) and “Follow” us on Twitter ([Twitter.com/JeffSurgery](https://twitter.com/JeffSurgery)).