

## Current Clinical Trials at the USC Cardiac and Vascular Institute

In its capacity as a component of a leading academic medical center, the Cardiac and Vascular Institute engages in government- and industry-sponsored clinical trials on a regular basis. Trials currently accepting enrollment include:

**Post Approval Study of the Biocor Heart Valve**  
This is a study to evaluate the Biocor porcine tissue valve in the aortic or mitral position. The valve has full FDA approval. This is an FDA-approved study to evaluate the hemodynamics of the valve for 5 years in patients who receive the valve.

*Entry criteria: Age > 18 years; Diagnosis of the need to replace the aortic valve.*

**An Observational, Prospective Trial of the Trifecta Valve**  
This study is to evaluate the Trifecta pericardial tissue valve in the aortic position. This is an FDA-approved study. The valve is a low-profile, stented valve.

*Entry criteria: Age > 18 years; Diagnosis of the need to replace the aortic valve.*

**CURE-AF Clinical Trial/Permanent AF: Concomitant Utilization of Radiofrequency Energy for Atrial Fibrillation**  
The trial will enroll permanent AF patients as defined by a patient who has failed a DC cardioversion at any time in the past. The patient must currently be in atrial fibrillation requiring concomitant cardiac surgery (such as a valve replacement, CABG etc.).

*Entry criteria: Age > 18 years; Diagnosis of permanent atrial fibrillation; Requires cardiac surgery.*

**CURE-AF Clinical Trial/Persistent AF: Concomitant Utilization of Radiofrequency Energy for Atrial Fibrillation**  
The trial will enroll persistent AF patients as defined by a patient who is in atrial fibrillation for approximately seven days or longer and has not had an attempt at DC cardioversion. The patient must currently be in atrial fibrillation requiring

concomitant cardiac surgery (such as a valve replacement, CABG etc.).

*Entry criteria: Age > 18 years; Diagnosis of persistent atrial fibrillation; Requires cardiac surgery.*

**CHAMPION**  
CardioMEMS Heart Sensor Allows Monitoring of Pressure to Improve Outcomes in NYHA Class III heart failure patients. PI: Leonardo Clavijo, MD.

*Entry criteria: Age ≤ 18 years; Diagnosis of HF ≤ 3 months (preserved or reduced LVEF); history of NYHA Class III symptoms; subjects with reduced LVEF on stable medical management; 1 HF related hospitalization within the past 12 months.*

**HOMEOSTASIS II**  
Hemodynamically Guided Home Self Therapy in Severe Heart Failure Patients: Preliminary Safety and Efficacy Evaluation.

*Entry criteria: Age > 18 and ≤ 85; Diagnosis of HF ≥ 6 months (preserved or reduced LVEF); subjects with reduced LVEF on stable medical management; history of NYHA Class III or Class IV symptoms; 1 HF related hospitalization within the past 12 months or 1 presentation to the emergency department or clinic requiring IV therapy.*

**PEERLESS-HF**  
Prospective Evaluation of Elastic Restraint to Lessen the Effects of Heart Failure (PEERLESS HF) Trial.

*Entry criteria: NYHA Class II or Class III HF due to ischemic or non-ischemic cardiomyopathy; on stable medical and device therapy for HF ≥ 3 months; EF ≤ 35%; HF duration ≥ 6 months.*

**VALOR II**  
Evaluation of the safety and efficacy of the Valiant Thoracic Stent Graft System in the treatment of Descending Thoracic Aneurysms of degenerative etiology in subjects that are candidates for endovascular repair.

*Entry criteria: Fairly healthy patients age > 18 and ≥ 85; Diagnosis of Descending Thoracic Aneurysm confirmed by M2S system and meet all anatomic criteria.*

**CORAL**  
Cardiovascular Outcomes In Renal Atherosclerotic Lesions—Prospective, multi-center, unblinded, two-arm, randomized trial testing the hypothesis that medical therapy with stenting of significant renal artery stenosis in patients with systolic hypertension reduces the incidence of adverse cardiovascular and renal events compared with medical therapy alone. Sponsored by the National Heart Lung and Blood Institute of the NIH.

*Entry criteria: Age > 18 years; Documented history of HTN on > 2 antihypertensive medications and /or renal dysfunction defined as Stage 3 or greater and > 1 renal artery stenosis > 60% and < 100%.*

**RHEOS Pivotal**  
Randomized, double-blind, parallel-group trial to demonstrate the efficacy and safety of the RHEOS system (implantable device that innervates carotid baroreceptors) in subjects with uncontrolled HTN.

*Entry criteria: Age 21-80; BP equal to or greater than 160/85 in the previous three months and a minimum of three readings; on at least three antihypertensives, with one being a diuretic.*

**PRIORITY**  
Multi-center, multi-national, two-stage dose-selection Phase I/II trial. Stage 1 will determine safety of Human Plasmin in escalating doses to patients with thrombosed infrainguinal native arteries or bypass graft. Stage 2 will determine safety and efficacy of 2 dosages of Plasmin in a blinded, randomized fashion based on arteriographic evidence of thrombolysis.

*Entry criteria: Age > 18 years; diagnosis: thrombosed infrainguinal graft/native artery, symptomatic < 14 days with unilateral limb ischemia.*

# USC CONSULT

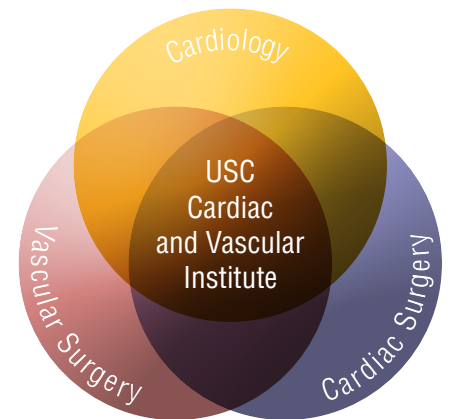
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## The USC Cardiac and Vascular Institute Offers Innovative Interspecialty Collaboration

It is understood that there is what can be diplomatically described as a healthy sense of competition between cardiologists and vascular and cardiac surgeons when it comes to the treatment of heart disease. Unlike the field of cancer care, in which the collaboration between specialists across multiple disciplines is commonplace, cardiac care has typically suffered from a somewhat single-minded, blinkered approach.

Vaughn A. Starnes, M.D., Hastings Distinguished Professor and Chairman of the Department of Cardiothoracic Surgery at the Keck School of Medicine at the University of Southern California, explains: “For example, coronary disease has been managed almost exclusively by cardiologists, who make the initial diagnosis and often prescribe the treatment, such as stents. Under that model, those patients may never have an opportunity to consult a surgeon to get another perspective on their particular problem.”

This lack of a wider view regarding the treatment of cardiac patients prompted Starnes’ creation of the multidisciplinary USC Cardiac and Vascular Institute in 2006. With Starnes leading the effort as Executive Director, the Cardiac and Vascular Institute includes clinical faculty—cardiologists, vascular surgeons, cardiac surgeons and others—as well as a research faculty. As Starnes puts it, “It’s ‘one-stop shopping.’ A referring physician can call the Cardiac and Vascular Institute, and we will get that patient directed to the right consultant.”



Starnes’ vision is especially prescient as interspecialty collaboration is increasingly seen as a crucial response to the changing clinical landscape. As the population ages, conditions such as atherosclerosis, CAD, PAD and heart failure will increase and call for multidisciplinary care models.

This multidisciplinary approach has proved to be an advantage for referring physicians and their patients. At the Cardiac and Vascular Institute, a referred patient’s case is reviewed by a team of heart specialists consisting of a cardiologist and a cardiac and/or vascular surgeon. Similar to an oncology tumor conference at a cancer center, this approach ensures that a broader view is taken, and that the patient will have access to all available treatment options.

At the same time, the collaboration at the Cardiac and Vascular Institute extends

*On behalf of The Doctors of USC, USC University Hospital and USC/Norris Cancer Hospital, we are pleased to offer this “consultation” with you, the Los Angeles-area physicians with whom we proudly partner.*

*This newsletter highlights services offered by The Doctors of USC that may be helpful to you in the management of those patients requiring specialized care. We look forward to your feedback, and we appreciate the opportunity to work with you.*



Carmen A. Puliafito, M.D., M.B.A.  
Dean, Keck School of Medicine of USC

Debbie Walsh  
CEO, USC University Hospital and USC/Norris Cancer Hospital



The Doctors of USC is a group of more than 500 physicians and specialists who are full-time faculty members of the world-renowned Keck School of Medicine of the University of Southern California. The Doctors of USC see private patients at facilities all across Los Angeles, including the Tenet California-owned USC University Hospital, one of “America’s Best Hospitals” in 2007, and USC/Norris Cancer Hospital, which provides patient care for the USC/Norris Comprehensive Cancer Center, one of only six institutions in California designated by the National Cancer Institute as a Comprehensive Cancer Center.



USC University Hospital—888-700-5700 • USC/Norris Cancer Hospital—800-700-3956 • The Doctors of USC—800-872-2273

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To refer a patient to the USC Cardiac and Vascular Institute, call 1-866-764-2884.

“It’s ‘one-stop shopping.’ A referring physician can call the Cardiac and Vascular Institute, and we will get that patient directed to the right consultant.”

Vaughn Starnes, M.D.

to new research. According to Starnes, “Laboratory findings will be rapidly translated into patient care, thanks to the collaboration between our physicians and scientists, who share core facilities and other resources within the institute.”

### Technology Supports the Care Model

The Cardiac and Vascular Institute and its patients also benefit from advanced technologies offered at USC University Hospital (USCUH), such as a pair of robotic da Vinci® Surgical Systems, which can provide surgeons with better visualization, dexterity, precision and control than with open surgery in certain minimally invasive procedures such as valve repair or replacement, while enabling operation through 1-2 cm incisions.

Cardiac and Vascular Institute interventional procedures are conducted at USC University Hospital. USCUH Nursing Director for Critical Care Valerie Joy Hunt says, “We have an 18-bed cardiovascular/thoracic ICU and a 34-bed step-down unit where patients are managed by nurses who are experts or experts-in-training in caring for the patient populations that are served within this Institute.” Procedures commonly seen at the hospital include left/right ventricular assist devices, intra-aortic balloon pumps and ECMO (extracorporeal membrane oxygenation).

The Institute also offers its physicians access to powerful imaging technologies, including the latest 3T MRI systems housed at both USCUH and Healthcare Consultation Center II (HCCII) (see story, p. 6), which offer superior resolution to the older 1.5T MRI versions.

### Communication and Collaboration Across Cardiovascular Disciplines

Starnes’ vision is to continue to gather outstanding cardiac specialists and researchers under one roof, bringing all their abilities to bear in the fight against cardiovascular disease. The institute-based concept means the Cardiac and Vascular Institute serves as a single point of contact for the referring physician, which facilitates his or her ability to track a patient through the Institute.

In addition, the Cardiac and Vascular Institute’s “one-stop shop” approach increases patient satisfaction by having all appointments and procedures done at a single facility. With these patient and referring physician benefits, the Cardiac and Vascular Institute is serving as a model for other multidisciplinary cardiovascular centers across the nation. ■

#### REFERRAL NOTES

*Cardiac and Vascular Institute patients often have access to leading edge treatments through government- and industry-sponsored clinical trials.*

*We offer a rare multidisciplinary approach to cardiovascular care, where cardiologists and cardiac and vascular surgeons collaborate to arrive at the most appropriate treatment for patients.*

*To refer a patient, call the USC Cardiac and Vascular Institute: 1-866-764-2884.*



Vaughn Starnes, M.D.  
Executive Director,  
USC Cardiac and  
Vascular Institute

An authority on cardiovascular disease and cardiothoracic surgery, Dr. Vaughn Starnes serves as chairman of the Department of Cardiothoracic Surgery at the Keck School of Medicine of USC and as the Hastings Distinguished Professor of Cardiothoracic Surgery.

Under his leadership, USC surgeons have performed more than 15,000 open heart surgeries for valve repair and replacement and coronary artery bypass and more than 10,000 surgeries for diseases of the lungs, esophagus and chest wall.

Starnes has been affiliated with the Keck School of Medicine since 1992.

To refer a patient to the USC Cardiac and Vascular Institute, call 1-866-764-2884.

## Clinical Trial Now Open for Patients Suffering From Drug-Resistant Hypertension

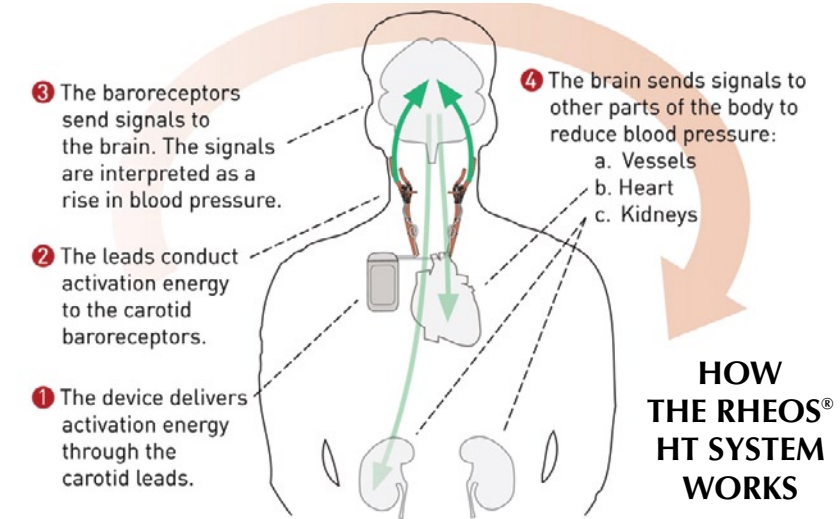
Under the direction of USC Center for Hypertension and Renovascular Care co-directors Fred Weaver, M.D., Chief of Vascular Surgery and Endovascular Therapy; and Mitra Nadim, M.D., a Hypertension Specialist in the Division of Nephrology; the USC Cardiac and Vascular Institute is conducting a clinical trial of the Rheos® Baroreflex Hypertension Therapy™ System. USC is the only center on the West Coast participating in this trial, which may offer new hope to millions who suffer from resistant essential hypertension. The trial is in its early stages and is accepting patients at this time.

According to Weaver, “It’s estimated that there are more than 72 million people in the United States with high blood pressure. Ninety percent of them have essential hypertension, and the only management for that in the current setting is medication.”

However, for a certain percentage of people suffering from essential hypertension, drug therapy is ineffective.

Now there may be hope for patients suffering from drug-resistant hypertension. CVRx®, a privately held medical company based in Minneapolis, Minn., has developed the Rheos Baroreflex Hypertension Therapy System, an implantable device designed to treat patients with high blood pressure that cannot be controlled with medications. The Rheos system is designed to work by electrically activating the body’s baroreceptors—sensors located on the carotid artery that regulate blood pressure.

When activated by the Rheos system, the baroreceptors send signals to the central nervous system, which interprets these signals as a rise in blood pressure. The brain then works to counteract this perceived rise in blood pressure by sending signals to other parts of the body, including the heart, kidneys and blood vessels, to reduce blood pressure. In essence, the Rheos system is designed to reduce high blood pressure by “tricking” the brain into directing the body’s own control mechanisms to do so.



So far, results are encouraging. Nadim says, “The patients whom we’ve implanted are not just leading a more normal life now and in the future, but also, after more study, they may be able to reduce or eliminate some of their medications.”

Many referring physicians have patients who may benefit from this technology. Weaver says, “Every internist and family practitioner has a number of these patients in their practice. Until this became available, there was nothing you could do for them.” ■

### Trial Candidate Requirements and Procedure

The Rheos Pivotal Trial is a randomized, double blind, parallel design trial and is ongoing at USC University Hospital. To be considered, candidates must suffer from significant hypertension (systolic blood pressure greater than 160 mmHg) despite being on three or more anti-hypertensive medications.

The procedure itself involves surgery to expose the carotid sinus in the patient’s neck. The carotid sinus looks like a slight dilation in the carotid artery, where the baroreceptors reside. The Rheos implantable pulse generator stimulates the carotid bodies in the left and right carotid sinuses through carotid sinus leads that connect the carotid body to the pulse generator, which is implanted under the skin, near the collarbone. From a patient’s point of view, the time for recovery from the procedure is quite rapid. “Typically, a patient is implanted in the morning, observed for 24 hours, and discharged the following day,” says Nadim.

#### REFERRAL NOTES

*The Rheos Baroreflex Hypertension Therapy System may offer hope for patients suffering from drug-resistant (refractory) essential hypertension.*

*The Rheos system is undergoing clinical trial at USC University Hospital.*

*Patients suffering from significant hypertension despite being on more than three anti-hypertensive drugs may be eligible for enrollment in the trial.*

*For patient enrollment, contact Cara Pappas, Research Coordinator, USC Division of Vascular Surgery and Endovascular Therapy: (323) 442-5752.*

## Pioneering Internet-Based Cardiac Monitoring at USC

To Leslie Saxon, M.D., Chief of Cardiovascular Medicine at the Keck School of Medicine, networked medicine—what she calls “body computing”—is an obvious next step in the patient-doctor relationship. In the article “Body Computing: How Networked Medical Devices Can Solve Problems Facing Health Care Today” published in the *Journal of Cardiovascular Electrophysiology* in December 2007, co-author Saxon says, “Body computing represents the new frontier for modern health care by emphasizing ‘on-demand’ medical care.”

“Dr. Saxon will see a patient, treat him or her for an arrhythmia and then send the patient back to his or her referring physician. That doesn’t really happen a lot anymore.”

Cynthia Stolicky, Nurse Coordinator

“I view body computing as the answer to a lot of the gaps in cardiovascular health care,” she explains, “because networked information has the possibility of linking a patient’s health care status to his or her doctor, much like you might check your bank balance online.”

To Saxon, the traditional office visit may not be the best way to get an accurate assessment of a particular patient’s situation. “I always think that my encounter with a patient is such an artificial point in time,”

she says. “Instead, why not get physiologic measurements from the patient all the time—like how do they look after eating a pizza versus after exercising?” This is the primary benefit of “body computing”—the ability to get on-demand real-time physiologic information from patients as they are going about their daily lives.

In a body computing model, traditional one-way devices, such as implantable defibrillators, can have two-way capabilities. For instance, now a defibrillator might monitor heart failure status. For Dr. Saxon, that translates to better care. “You can tailor therapy,” she says.

As an example, Saxon points to a new device that measures left atrial pressure with a defibrillator and then feeds that information back to the patient through a PDA. The patient then receives a message from Saxon through that PDA to take a certain medication at a certain dosage to counteract the pressure increase. This “instant warning” feature of body computing could reduce the cost to patients, too. Saxon says, “By treating a patient at the first warning signs of a problem, physicians could significantly reduce hospitalizations, which cause the majority of costs associated with chronic diseases.”

Cynthia Stolicky, Nurse Coordinator for Cardiac Electrophysiology at USC University Hospital, says, “Dr. Saxon has been pushing this for a long time, and now the technology has caught up with her so we can actually implement it.” Though it is in the vanguard

of new network technologies, Stolicky mentions the fact that the USC Cardiac and Vascular Institute is somewhat old-fashioned in the way it handles patient referrals.

“Dr. Saxon will see a patient, treat him or her for an arrhythmia and then send the patient back to his or her referring physician. That doesn’t really happen a lot anymore.” ■

### REFERRAL NOTES

For patient enrollment, contact Leslie A. Saxon, M.D., Chief, Division of Cardiovascular Medicine, (323) 442-6130.

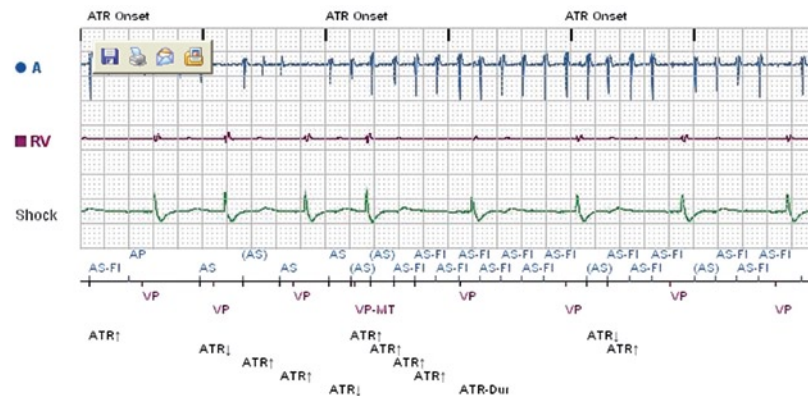
Network technology may offer a solution to some of the communication gaps that can occur.

The Cardiac and Vascular Institute has made significant investment to ensure uniform patient reporting across all studies and same-day reporting back to the referring physician.

Reporting is available by traditional fax or mail communication or via a protected network portal.

Networked monitoring through devices such as implanted defibrillators allows physicians to monitor patients’ physiologic information in real time and on demand.

This example shows remote transmission of an abnormal heart rhythm sent over the Internet in a patient with an implantable defibrillator. The doctor is able to obtain this information remotely and make important medication adjustments immediately. This data is also sent with weight and blood pressure information to allow the physician to assess the patient’s overall condition.



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## USC Cardiac Transplant Program Achieves National Ranking

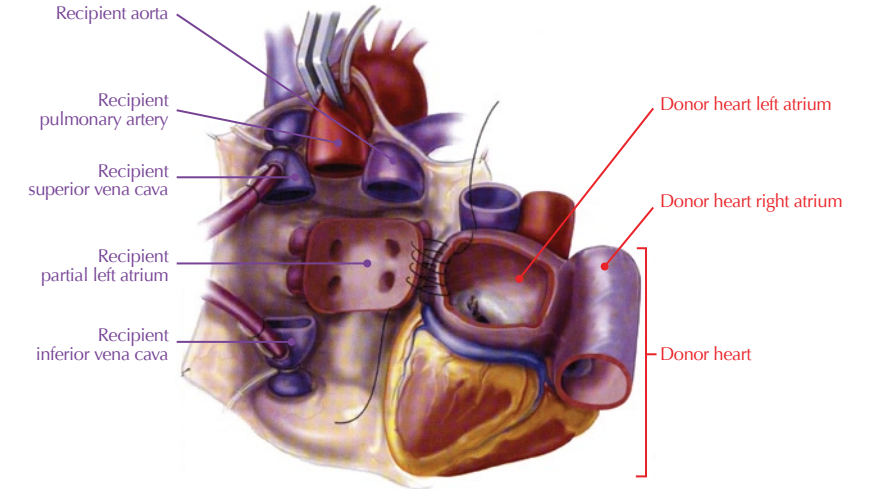
According to a report recently released by the U.S. Transplant Scientific Registry of Transplant Recipients (SRTR), the Heart Transplant Program at the USC Cardiac and Vascular Institute is among just three of 125 programs in the nation whose outcomes are above the national average. The “above average” ranking in this case is somewhat unusual.

Mark Barr, M.D, Associate Professor of Cardiothoracic Surgery at the Keck School of Medicine of USC and Co-Director of the Cardiothoracic Transplant Program with Vaughn Starnes, M.D., explains: “When the SRTR does their risk adjustment of what is called ‘observed to expected outcomes,’ they risk-adjust so that actual results are compared to what’s expected based on the patient population. If they simply averaged the outcomes, programs performing lower-risk procedures would come out on top. With the risk adjustments in place, no one program should be better than the national average.”

This was no anomalous occurrence. For the period covering the prior six months, USC’s Heart Transplant Program was the only one in the U.S. that ranked above the national average. While it is uncommon enough for this to happen, to have it happen two reporting periods in a row is highly unusual. As Dr. Barr puts it: “This is an extraordinary event and we are very pleased. We have worked extremely hard at building the program over the past 15 years.” Dr. Barr emphasizes that the program’s philosophy has always been to make a concerted effort to perform transplants on only those patients who have no other options left, either through conventional surgery or aggressive non-surgical therapy.

He points out that while the program averages 20 adult heart transplants per year—a number that may sound low compared to the volume of transplants that liver and kidney programs perform—in the field of heart transplantation, this number puts USC in the top 19 percent for volume for all centers in the U.S.

When pressed to explain why the program has been so successful, Dr. Barr says,



In this schematic of a transplanted heart, the donor heart’s left atrium is sewn onto the recipient’s left atrium.

“Despite dealing with a high-risk group of patients, these results reflect the fact that our program has always emphasized quality of care and careful attention to the details with minimizing the number of invasive diagnostic procedures post-operatively.” He continues, “This is a true team effort—not just among the doctors—and this unique ranking is a testament to the transplant coordinators and all of the other members of our program working together in the Cardiac and Vascular Institute.”

Dr. Barr’s basic and clinical research has also led to breakthroughs in the treatment of organ rejection and organ preservation. For example, in 1998, Dr. Barr first authored an article in the *New England Journal of Medicine* demonstrating that adding photopheresis (the extracorporeal treatment of blood with light-activated drugs) to standard anti-rejection therapy reduced the number of serious organ rejections, without increasing rates of infection. Thanks in part to that article, Medicare recently approved reimbursement for photopheresis for treatment of heart rejection—even though the FDA still lists it as an off-label use.

In addition to his commitment to the cardiothoracic transplant program at USC, Dr. Barr, in his roles as the past president of the International Society for Heart and Lung Trans-

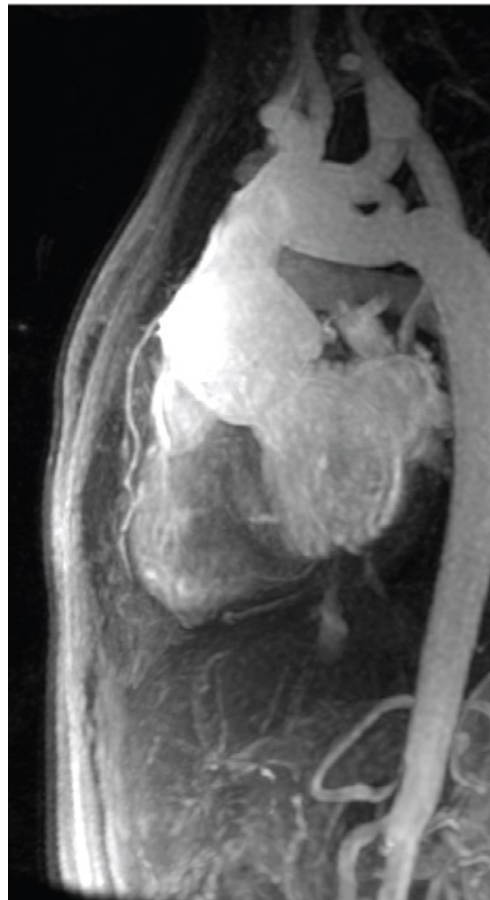
plantation and incoming chair of the Thoracic Committee for the United Network for Organ Sharing (UNOS), has been actively involved in improving the way that organs are allocated and shared in the U.S., so that hearts and lungs get to those patients who are sickest, regardless of geography. As he puts it, “When I retire someday, hopefully a long time from now, I sincerely want to leave the field of transplantation clinically, scientifically and ethically better than when I first entered it almost 20 years ago.” ■

### REFERRAL NOTES

The Heart Transplant Program at USC University Hospital is statistically among the top three in the nation, based on risk-adjusted outcomes.

The Heart Transplant Program achieves its results typically with fewer invasive procedures such as biopsies or angiograms.

To refer a patient, contact the USC Cardiothoracic Transplant Program, (323) 442-6077.



**New 3T MRI Scans Mean Improved Resolution for Cardiac Imaging**

The primary advantage that new 3 Tesla MRI (3T MRI) systems offer over the older 1.5T units is a doubling of the signal-to-noise ratio. This translates into greater resolution for cardiac imaging, which may allow physicians to diagnose cardiac abnormalities that would have otherwise been missed by a lower-strength MRI system. In addition, test time is typically shortened, reducing patient discomfort and the likelihood of image degradation due to patient motion.

Though 3T MRI has proven to be especially useful in the field of cardiac imaging, a common impediment to its widespread adoption is not its cost (though this is not insignificant) but rather a lack of qualified technologists. Cardiac imaging is one of the most technically challenging areas of MRI, and most radiologists and cardiologists lack the background to utilize them effectively. The staff at USC University Hospital trained under one of the early physician pioneers of cardiac 3T MRI, and their extensive experience contributes to successful outcomes. ■

**REFERRAL NOTES**

*Higher resolution imaging means that a 3T MRI heart scan may find certain cardiac problems that might be missed using the lower resolution 1.5T MRI scan.*

*With shorter test times, even the sickest cardiac patients can be imaged.*

*3T MRI is available in an outpatient setting in the Healthcare Consultation Center II (HCCII) building and in a hospital setting at USC University Hospital.*

**HealthGrades Ranks USC University Hospital Among Nation's Best for Cardiac Surgery and Stroke Care**

According to the Tenth Annual HealthGrades Hospital Quality in America Study, USC University Hospital (USCUH) ranks among the top 10 percent in the nation for cardiac surgery and stroke care services. The study, the largest of its kind, analyzed patient outcomes at virtually all of the nation's 5,000 hospitals over the years 2004, 2005 and 2006.

Additionally, the findings indicate that USCUH is:

- Ranked among the top 10 percent in the nation for cardiac surgery and among the top five percent in the nation for treatment of stroke
- Five-star rated for valve replacement surgery (the highest possible rating)
- Five-star rated for treatment of stroke (the highest possible rating)
- A recipient of the HealthGrades Cardiac Surgery Excellence Award
- A recipient of the HealthGrades Stroke Care Excellence Award



To refer a patient to the USC Cardiac and Vascular Institute, call 1-866-764-2884.

**One of Only a Few Centers in California Offering Comprehensive Aortic Care in One Location**



Aortic Disease Program physicians at the USC Cardiac and Vascular Institute utilize advanced technology—such as this endosuite, a combination operating room and angiosuite—to effectively and comprehensively treat aortic conditions.

The USC Cardiac and Vascular Institute has made a commitment to treating patients at risk for aortic aneurysm and other diseases of the aorta through the creation of The Aortic Disease Program—one of the only programs of its kind in California. The team, which is comprised of members of the Division of Vascular Surgery and Endovascular Therapeutics and the Department of Cardiothoracic Surgery, offers advanced treatments available for conditions affecting the aorta.

According to Fred Weaver, M.D., Chief of the Division of Vascular Surgery at the Keck School of Medicine of USC, "Using endoluminal devices, we can treat just about any segment of the aorta, starting at the aortic valve all the way down to the aortic bifurcation." He continues, "The disease processes we treat include aortic aneurysms, penetrating ulcers of the aorta and aortic dissection, both acute and chronic."

The program was one of the first in Southern California to use aortic stent grafts, a minimally invasive option for patients with aneurysms of the descending thoracic aorta. Weaver says, "We've performed close to 300 aortic stent grafts for abdominal aortic aneurysms, which is the most common type of aortic aneurysm."

Emerging technology also plays a part in the program's success. According to Weaver, "We have a combination operating room and angiosuite at USC University Hospital, called an endosuite, which allows us to more effectively treat these problems as compared to using a C-arm or other kind of equipment." ■

**REFERRAL NOTES**

*The Aortic Disease Program is one of the only programs of its kind in California specializing in conditions of the aorta.*

*To date, the program has performed more than 300 aortic stent grafts for abdominal aortic aneurysm—the most common type of aortic aneurysm.*

*To refer a patient, call 1-866-65-AORTA (652-6782).*