The ample lobby in the Queeny Tower building has been transformed, befitting the space where patients and families are welcomed to the Washington University and Barnes-Jewish Heart & Vascular Center. Ever since the lobby opened this summer, entering patients have been connecting immediately with individualized care. The building location offers elevator access to all patient-care and surgical areas and to Cardiovascular Division physicians and services.

The renovated anteroom of the Heart & Vascular Center is warm and welcoming, in keeping with personalized medicine, explains Douglas L. Mann, MD, cardiovascular division chief in the Department of Medicine. The emphasis is part of the Center’s new approach that unifies clinical care, training programs and research on patients’ behalf.

“Nurses and other staff help people navigate through the Barnes-Jewish system,” Mann says. “Clinical testing is integrated with models of care across cardiology, vascular surgery and cardiothoracic surgery. The patient experience will be seamless.”

“Patients and families participate as staff coordinate the stay,” adds Patti Crimmins Reda, RN, MSN, executive director, Heart & Vascular Program, at Barnes-Jewish Hospital. Staff members also assist with way-finding, logistics, problem-solving and arranging for escorts, and they keep referring physicians fully informed throughout the stay. Communication and personal service extend from front door to farewell.

Upon discharge, patients receive everything they will need when they leave—even water for their trip. Questions are encouraged as they learn about their medications, prescriptions and self-care. Says Crimmins Reda: “We want patients’ return home and recovery to be as safe and as positive as their experience with us.”
The following new research awards were made to cardiology faculty from September 2010 through June 2011.

Junjie Chen, PhD: St. Louis Institute of Nanomedicine: Antiangiogenesis nanomedicine of proliferative retinopathy.

Sharon Cresci, MD: Longer Life Foundation: Determination of the genetic contribution of glycemic control and CAD outcomes in patients with DM2 and CAD.

Abhinav Diwan, MD: RO1HL071594: Role of autophagic flux in cardiac myocyte viability.

Joshua Hood, MD, PhD: St. Louis Institute for Nanomedicine: Infectious sentinel node melanoma niche progression with melanin modified exosomes.

Gregory Lanza, MD, PhD: NIH RO1 HL070725: Characterization/bioinformatics-modeling of nanoparticle: complement interactions.

Gregory Lanza, MD, PhD, Dipanjan Pan, PhD, and Katherine Weilbaecher, MD: NIH ROI CA154737-01A1: Next-generation approaches to breast cancer using image guided drug delivery.

Brian Lindman, MD: AHA grant: Stratification of patients with low-gradient aortic stenosis using cyclic variation and speckle tracking torsion.

Daniel Ory, MD: RO1HL067773: Mechanism of oyster activation of membrane cholesterol.

Dipanjan Pan, PhD, AHA: 1186589011: Photonic tomographic approach to diagnosis and treatment of carotid disease.

Hua Pan, PhD: St. Louis Institute for Nanomedicine: Development of nanoparticle multiplexing strategy for rapid clinical translation.

MESSAGE FROM THE CHIEF

The summer of 2011 is exciting for the Cardiovascular Division for a number of reasons, which I am delighted to share with you in this issue of our biannual Cardiology newsletter. New faculty and fellows have arrived, a new academic year has started and we recognize and congratulate the fellows who recently completed their training [page 3]. I am very pleased to announce that we’ve recruited four new outstanding faculty members. Anita Bhandiwad, MD, who trained at Beth Israel Hospital in Boston, works in West County and at Barnes-Jewish Hospital. She has expertise in MRI and echocardiography. Daniel Cooper, MD, former chief medical resident at the School of Medicine and Barnes-Jewish Hospital, has joined the electrophysiology group, as has Luciano Amado, MD, a recent graduate of Johns Hopkins University. Ari Cedars, MD, another superb former fellow, brings his talents to our adult congenital heart disease team.

Our new first-year fellows are terrific! Selected from a pool of 500 very qualified applicants, they come from diverse backgrounds, have varied research and personal interests—and are already proving to be a great fit within our program. I’m also very excited to report on the progress within the Heart & Vascular Center, now almost one year old. The Queeny Tower lobby has been renovated and is open to patients [page 1]. It will serve as the entry point for the Heart & Vascular Center, and is intended to help streamline the patient experience.

Going forward, a major focus will be on strengthening our research programs. We have ongoing searches for a Director of the Center for Cardiovascular Research (CCR), as well as Director of the Center for Cardiac Outcomes Research (CCOR). We have strengthened our educational programs and planned a spectacular series of cardiology grand rounds speakers for the academic year. I would also like to invite you to the annual Advanced Revascularization Chapter (ARCH) conference in January 2012. Jasvindar Singh, MD, is chair (page 4). We would love to hear back from you and learn about what you are doing by email at cards_alumni@dom.wustl.edu or through our Facebook page. Log on to www.facebook.com, search for Washington U. Cardiovascular Alumni and click “Like” at the top of the page. In the meantime, my best wishes to you and your families for the summer!

Douglas L. Mann, MD
Chief, Cardiovascular Division

Heart Failure and Cardiomyopathy Fellowship

Andrew Krainik, MD
Electrophysiology Fellowship

Daniel Cooper, MD
Ari Cedars, MD
Yogeesh Patel, MD

Our New Fellows at a Glance

by Andy Kates, MD
Fellowship Program Director

Our 10 new fellows are exceptional. They hail from institutions such as Washington University, Boston University, Duke, Northwestern, UCSF, the University of Virginia and Yale. Three physicians are on faculty and a fourth received a grant for clinical research from the University of Minnesota; still another, an MS in engineering from the University of Minnesota; another, an MS in clinical research from the University of Virginia and a fourth received a grant for clinical research at the Institut de Tourraine in France. As part of our mission to develop national leaders in cardiovascular medicine, we are excited about their diverse medical interests, which include international health. One doctor has just returned from mission work in North Africa. These fellows’ strengths and backgrounds will enrich our program.

Many fellowship activities, including vital research to further innovations in cardiovascular care, are funded in whole or in part through the generosity of our alumni. If you are interested in giving back to Washington University and future cardiology fellows, please contact Doug Mann, MD, or Andy Kates, MD, at 314-747-3031.

Cardiovascular Division
Washington University School of Medicine
Campus Box 8086
660 S. Euclid Ave.
St. Louis, MO 63110
Administration Office
314-747-3031
Fellowship Office
314-362-1297
Ava Yaguarre, coordinator
ayaguar@dom.wustl.edu
On the web: cardiology.wustl.edu

Clinical Offices/Patient Appointments
Center for Advanced Medicine, WUMC:
314-362-1291
Relief:
573-308-1301
South County:
314-362-1291
West County:
314-362-1291
Toll-Free Appointment Line:
888-210-8375

C O N T A C T  I N F O R M A T I O N

Became a fan of Washington U. Cardiovascular Alumni on Facebook

Many fellowship activities, including vital research to further innovations in cardiovascular care, are funded in whole or in part through the generosity of our alumni. If you are interested in giving back to Washington University and future cardiology fellows, please contact Doug Mann, MD, or Andy Kates, MD, at 314-747-3031.

Message from the Program Director

ALUMNI

News & Awards

ALUMNI Update: David Lanfear, MD
Currently

Demonstrating the scope of academic medicine, David Lanfear, MD, is senior staff physician for Advanced Heart Failure and Cardiac Transplantation at Henry Ford Hospital, research scientist focusing on pharmacogenetics at the Center for Health Services Research and assistant professor at Wayne State University, in Detroit. He teaches residents and fellows and delivers clinical lectures.

Favorite Ways to Spend Time Away from Work

David enjoys caring for his three preschoolers, who are 4%, 2%, and 10 months old.

In His Words: Favorite Fellowship Memories

1. “My fondest memory (fit for print) relates to the photo below, taken at Pat O’Brien’s on Bourbon Street on a night out during the 2004 ACC meeting in New Orleans. We had very good representation at the conference, and everyone showed up, ready for fun.”

2. “Dr. Barzilai saying, ‘David, I judge fellowship classes by how many complaint calls I get, and so far, you guys are doing great.’”

3. “Reading echoes with Julio Perez because he was such a gentleman scholar—ultra-nice, polite to literally everyone, and a super educator.”

Meet the Fellows
First-Year Clinical

Alphonso (Alex) Aguin, MD
Jonathan Davis, MD
Caré Kapadia, MD
Kathryn (Kate) Landley, MD
Jason Meyers, MD
SuJalil Ramamurthy, MD
Justin Sarbu, MD
Sarah Sandberg, MD
Robert Sharp, MD
Deepak Thomas, MD, PhD
Veli Topkara, MD

Second-Year Clinical

Elias Bailey, MD
Jeremiah Depta, MD
Derek Finster, MD
Cary Foster, MD
Jeffrey Liu, MD, PhD
Kay Lavine, MD, PhD
Sara Martinez, MD, PhD
Shomri Shah, MD
Sheivah Shams, MD
Justin Valler, MD

Third-Year Clinical/Research

Atik Bachewar, MD
Rosa Cohen, MD
Chirag Gar, MD
Lisa Maheshker, MD, PhD
Shane Lallun, MD
William McLain, MD
Ashish Narkechond, MD
Mohammed Saghri, MD
Jay Shah, MD

Advanced Research Fellows

Giselle Amat, MD
(Kansas City, paid by AHA)
Siva Epelman, MD
Christopher Haley, MD, PhD
Ajit Janardhan, MD, PhD
C. Huey Lin, MD
Scott Marcus, MD, PhD
Arfan Thakurani, MD

Electrophysiology Fellows

Jefferson Lee, MD (1st yr. EP)
Thomas (Bobby) Kieran, MD
(1st yr. EP)
John Verbiski, MD, PhD (1st yr. EP)

Interventional Fellows

Tigga Pant, MD
Michael Yeung, MD

Our Newest Alumni

(As of 6/30/12)

Ari Cedars, MD
Daniel Cooper, MD
Pei-Hsia Hung, MD
Andrew Krainik, MD
Jiufu Du, MD
Anupama Rau, MD
Je Ren, MD, PhD
Kristen Scott-Teilley, MD

 Become a fan of Washington U. Cardiovascular Alumni on Facebook

Tops: Enjoying down time on Hilton Head Island, SC. David Lanfear and his wife, Sara, who did her residency in pediatrics at Barnes-Jewish Hospital, and their children (l. to r.) Rachel, 10 months, Ethan, 4 1/2, and Natalie, 2 1/2. Bottom: A page from the Lanfear scrapbook. Fellows and staff gathered in New Orleans for the 2004 American College of Cardiology conference.
Faculty Spotlight: Jasvindar Singh, MD

Jasvindar Singh, MD, performs complex coronary and peripheral vascular interventions. To address coronary laceration injuries, he developed a “jailed balloon” technique, placing a balloon alongside the stent to trap it and maintain access to the branch. In nearly 125 procedures, no side-branch closures have occurred. He presented the technique at the 2010 Transcatheter Cardiovascular Therapeutics (TCT) conference and is submitting a paper.

Another paper, in review, demonstrates that intravascular ultrasonic guidance during coronary angioplasties and stents produces a significantly lower event rate later on, compared with angiogram. “I teach fellows a hands-on clinical approach,” says Singh. “And I treat them like my kids. I care about their education, I’m strict, and they walk away in touch.”

On June 18, Jasvindar Singh received the Craig K. Reiss, MD, Award for Excellence in Teaching, a gift of Harvey and Linda Saligman. The award honors an outstanding teacher in the Cardiovascular Division, as recognized by students, house staff, fellows and faculty colleagues.

### Optimal Cardiac Health is Focus of West County Events

Two evening events this spring showcased the Cardiovascular Division’s renovated West County location, now part of the Washington University and Barnes-Jewish Heart & Vascular Center. At the Division’s Continuing Medical Education meeting, Anne Goldberg, MD, spoke about aggressive therapy in managing hyperlipidemia. Next, a community event focused on the topic “Living with Heart Disease: Expert Perspectives,” with a lecture by Joe Workman, 2010. Both evenings included an open house. Washington U. cardiologists answered questions, and guests enjoyed tours, cooking demos and delicious healthful food.

![Image of Optimal Cardiac Health](image)

### The Best Cardiomyopathy Textbook Just Got Better

Braunwald’s Heart Disease: A textbook of Cardiovascular Medicine has been the leading textbook in cardiology since Eugene Braunwald, MD, edited the first edition in 1980. The ninth edition, which is co-edited by Douglas L. Mann, MD, and features chapters by Washington University Heart and Vascular faculty including Alan Braunwyn, MD, Robert Thompson, MD, and Luis Sanchez, MD, was just updated. Mann says it represents “a significant departure from the eighth,” with 24 completely new chapters that are accompanied by nearly 2,500 figures and 600 tables. The textbook also features an online version with video files, podcasts, and frequent updates on clinical trials and scientific advances.

### Selected Publications


**Kovács SJ. How the (pediatric) heart works when it contracts application of left ventricular “isovolumic acceleration” as a load-independent index of contractility. J Am Coll Cardiol. 2011 Mar 15;57(9):1109-10.**


**Mann DL. The emerging role of innate immunity in the heart and vascular system: for whom the cell tolls. Circ Res. 2011 Apr 29;108(9):1335-45.**


### Research Spotlight

**Leveraging discovery and technology to improve clinical care**

Peter Crawford, MD, PhD, and his group have used novel model systems to discover that the heart is able to autonomously shift its metabolic fuel preference despite delivery of highly abundant ketone bodies—prospective evidence of an adaptive mechanism to protect against metabolic toxicity from overuse. Future testing will increase understanding of the natural variations in populations’ response to commonly followed low-carbohydrate diets, as well as why some Type I diabetics suffer worse cardiac disease than others.

Brian Lindman, MD, researches molecular pathways altered in aortic stenosis, in both the valve and the ventricle, to identify novel targets for medical therapy. He is exploring ways to address associated pulmonary hypertension and hypertrophic LV remodeling. Using sophisticated echocardiography and MRI analyses, he is studying how ventricular structure and function is altered in response to the pressure overload from aortic stenosis. In several pilot studies, he is investigating potential medical therapies that may—for the first time—improve clinical outcomes in aortic stenosis.

Michael Rich, MD, and colleagues from St. Louis University determined complication rates in hospitalized patients aged 18 and older who had received implantable cardioverter defibrillators (ICDs). The complication rate was roughly twofold higher in patients over age 80, while mortality was 2 percent, compared with slightly less than 1 percent among those 79 or younger. (Arch Intern Med. 2010;170, No. 7, Apr 12, 2010). Following defibrillator implantation, older people and especially those over 80 are at greater risk for problems, particularly inappropriate shocks.

Rich’s editorial opinion: “There are relatively few situations for which I believe ICD implantation is appropriate for patients over 80.”

Alan Zajarias, MD, investigates why aortic stenosis develops and why racial disparities exist in its occurrence and treatment. At Barnes-Jewish Hospital, situated on an urban medical campus, only 4 percent of patients who receive aortic valve replacements are African American and 96 percent are Caucasian—but the numbers are very different for people undergoing coronary artery bypass surgery. Zajarias is investigating the underlying reasons.

Profile of valve utilized for transcatheter aortic valve replacement

Zajarias is also a co-investigator for a large multicenter trial. Utilizing a smaller delivery system in healthier patients, the researchers are testing a less-invasive route for aortic valve replacement in patients with aortic stenosis. Zajarias “is extremely encouraged by the results.”

For information about the multicenter PARTNER trial: 314-747-4421.

John Lassala, MD (center), with American Heart Association officials Tracy Brunhalot, executive director (J), and Laurie B. Burst Eckelkamp, Jr., chairman of the board.

John Lassala, MD, PhD, professor of medicine and director of the Cardiac Catheterization Laboratory at BJH, has received the 2011 AHA’s McCulloch Award Honors a Distinguished Career

John Lassala, MD, PhD, professor of medicine and director of the Cardiac Catheterization Laboratory at BJH, has received the 2011 AHA’s McCulloch Award Honors a Distinguished Career.

AHA’s McCulloch Award Honors a Distinguished Career

John Lassala, MD, PhD, professor of medicine and director of the Cardiac Catheterization Laboratory at BJH, has received the 2011 AHA’s McCulloch Award Honors a Distinguished Career.
Collaborative research using noninvasive electrocardiographic imaging (EGGI) is uncovering previously inaccessible details of how the heart’s electrical system behaves during atrial fibrillation (AF). Phillip Cuculich, MD, assistant professor of medicine, and Yoram Rudy, PhD, the Fred Saigh Distinguished Professor of Engineering and Professor of Medicine, who developed ECGI, published their findings (Circulation. 2010 Oct 5;122:1364-72).

For more than 140 years, cardiologists have imaged the heart’s electrical system with an electrocardiogram (ECG). “ECGI represents a technological leap forward, producing images of electrical activation on the surface of the entire heart in a single beat,” Cuculich says. In the published manuscript, most patients with paroxysmal AF had focal sites of activation (triggers) near pulmonary veins, the site Cuculich and his colleagues target in their ablation procedures.

“In paroxysmal AF, the patterns were simpler, with fewer wavelets activating the heart. We saw the specific areas that seemed to contribute to the patient’s AF,” Cuculich reports. “As people developed longer-standing or persistent AF, the patterns showed more wavelets and sites of initiation. The overall trend was that the longer a patient was in AF, the more complex the activation patterns. “This is an important step toward tailored AF therapy,” he continues. “Our future research will include identifying a patient’s specific mechanism for AF and targeting that with personalized treatment plans.”