University of Michigan Cardiovascular Center

THE MICHIGAN DIFFERENCE

U-M Cardiovascular Center
300 North Ingalls Building, 8B02
Ann Arbor, MI 48109-0477
734.615.2125
www.med.umich.edu/cvc

UNIVERSITY OF MICHIGAN
CARDIOVASCULAR CENTER

NEWS AND NOTES

ISSUE 1 SPRING 2006

LIFE IS GRAND!

Transplant patient epitomizes the Cardiovascular Center's care

Jayne Lanigan did everything right. With three children under age 14, the stay-at-home mom ate right and enjoyed physical exercise so much that she played in a women's soccer league. That's why her heart attack was such a shock.

"I was an active, healthy person," Jayne says.

She had just started jogging a few months before the attack. One morning, she waved to her neighbors as she ran by them. Five minutes later, the neighbors went to find out why they hadn't seen her circle back. They found her sitting on a sidewalk, clutching her chest, unable to get her breath. They called 911.

"I never imagined that this was heart-related – not even when I woke up one week later at U-M," Jayne says. Dr. Francis Pagani, professor of cardiac surgery, was at her side soon after she awoke. He explained that a heart-assisting device called an LVAD (left ventricular assistance device) had been implanted in her chest, and was helping her heart pump. "When he said the words 'massive heart attack,' I thought he was in the wrong room," Jayne recalls. "When he talked about me being out jogging and the neighbors finding me, I realized it was me he was talking about."

Jayne had been taken to one hospital, then another, and finally transferred to U-M in a Survival Flight helicopter. At U-M, physicians discovered that Jayne had suffered a heart attack because of a previously undetected heart defect.

Jayne Lanigan

The LVAD had saved her life. Nestled inside her abdomen, and powered by a battery pack on her belt, the LVAD quietly took blood in, and gave it an extra "push" to get to the rest of her body. Jayne was in the right place: the U-M is one of the world's leading LVAD centers. But the device was not the best option for her long-term survival. She would need a heart transplant.

After four weeks in the U-M hospital, Jayne went home to await her chance at a new heart – knowing that many transplant candidates wait years, and some die before a match is found. But just a few weeks later, Jayne got the phone call that would change her life again. "We never thought a transplant would happen that fast," she says. She had the transplant and was home in time to celebrate her daughter's 14th birthday.

"It's been an amazing time," says Jayne. "Life is grand! I feel good. I'm the same person I was before. I just have more medicines to take than I used to."

INSIDE THIS ISSUE...

But when his wife Marion became ill, Mr. Handleman found himself giving thanks of

RESEARCH ROUNDUP:

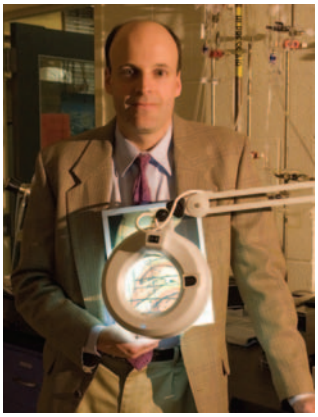
STUDIES THAT ARE MAKING HEADLINES

Minimally invasive procedures for upper-aorta problems

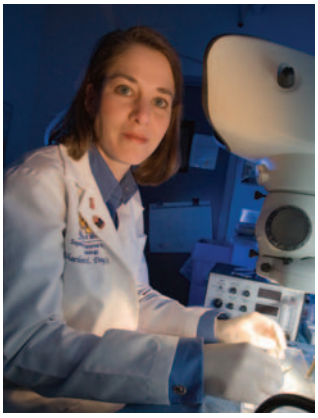
Tens of thousands of Americans live with a "ticking time bomb" in their chests: an aneurysm or other problem in the upper part of the massive artery called the aorta. Now, a new U-M CVC study demonstrates that many of them may not need surgery in order to defuse those time bombs. A team led by cardiac surgeon Himanshu Patel, M.D., recently showed that a minimally-invasive procedure can be successfully used to repair a wide range of problems in this region – instead of open-chest surgery or simply waiting for the aneurysm to burst. The study involved data from 73 patients who had endovascular thoracic aortic repair, or ETAR, at U-M. The positive results may help other hospitals begin to provide ETAR, which U-M surgeons have performed for several years through clinical trials.

Himanshu Patel, M.D.

LITTLE CHANGES = BIG DIFFERENCE



Joseph Metzger, Ph.D.



Sharlene Day, M.D.

Just one little amino acid makes all the difference in protecting the heart from the harmful effects of heart attack and cardiac failure, according to research by a U-M CVC team led by Joseph Metzger, Ph.D. and Sharlene Day, M.D. Called histidine, it could be the key to a new therapy for cardiovascular disease.

They made the discovery by creating a modified form of a heart muscle protein called troponin I and measuring how it improved cardiac function in mice and in damaged human heart cells. Now, they're studying the protein further to see if it could become the basis of a new gene therapy or cell-based therapy.

MAKING HEART CARE BETTER

Three multi-hospital projects led by U-M cardiologists have recently reported tremendous success in improving the quality and safety of care for heart patients. All of these projects rely on the leadership of U-M experts, the cooperation of doctors and nurses at each hospital, and the financial support of project sponsors.

Mauro Moscucci, M.D.

Mauro Moscucci, M.D., and colleagues recently reported positive results from an effort to reduce the risks faced by patients who are having angioplasty and other procedures. Seventeen hospitals are taking part in the study, and all have made great strides.

Kim Eagle, M.D.

Meanwhile, Kim Eagle, M.D., and colleagues showed that 26 percent fewer patients died in the first year after their heart attack when 33 participating hospitals used quality-improvement tactics to prevent crucial heart-care steps from "slipping through the cracks."

And the first results are in from a heart-failure quality improvement project led by Todd Koelling, M.D. Use of a quality-improvement toolkit in eight hospitals was associated with significant decreases in both 30-day mortality and 180-day rehospitalization, compared with results from six control hospitals not using the toolkit.

CARDIOVASCULAR CENTER

KUDOS

SEEING THE HEART MORE CLEARLY

International recognition has come to two recent research studies by CVC thoracic radiologists who specialize in medical imaging of the heart. Both projects involve the detection of unexpected abnormalities and other problems using high-resolution CT scans. Led by Drs. Smita Patel, Baskaran Sundaram and Ella Kazerooni, the research was recognized by the Radiological Society of North America and the World Congress of Thoracic Imaging. The authors say their data show just how important it is for trained radiologists to view heart CT scans, as is done at the U-M CVC, rather than having the scans read by heart specialists alone.

Ella Kazerooni M.D.

36 FACULTY AMONG THE 'BEST DOCTORS IN AMERICA'

Thirty-six physicians from the CVC have been named among the Best Doctors in America, a list compiled from an annual peer review survey of more than 31,000 doctors. The 36 are drawn from all areas of the CVC, including Cardiac and Vascular Surgery, Interventional and Thoracic Radiology, Adult and Pediatric Cardiovascular Medicine, and the Stroke Program.

DR. JAMERSON NAMED VP OF ISHIB

The International Society on Hypertension in Blacks, a professional medical society that established the first-ever guidelines for treating hypertension in African Americans, has appointed cardiologist Kenneth A. Jamerson, M.D., as its 2005 - 2007 vice president.

Kenneth Jamerson, M.D.

DR. PITT RECEIVES HERRICK AWARD

Bertram Pitt, M.D., FAHA

Bertram Pitt, M.D., FAHA, emeritus Professor of Cardiovascular Medicine, received the prestigious Herrick Award from the American Heart Association in a special celebration at its annual Scientific Sessions meeting. One of the AHA's highest honors, the award recognizes a physician for scientific achievements that have contributed profoundly to the advancement and practice of clinical cardiology. Dr. Pitt is known worldwide for his work on new treatments aimed at blocking the harmful heart hormone called aldosterone. He has led several studies whose results are changing the way physicians treat severe heart failure.

TWO VASCULAR SURGEONS HONORED

Drs. Lazar Greenfield and Gilbert Upchurch, Jr., both received Dean's Awards from the U-M Medical School recently. Dr. Greenfield was recognized with an Innovation Award for co-inventing the Greenfield Filter, a device that is placed in the largest vein in the abdomen to trap blood clots that break loose in the lower body and threaten to travel to the lung. Dr. Upchurch received the Kaiser Permanente Award for Excellence in Clinical Teaching, for his widely acclaimed teaching of medical students in their pre-clinical courses.

If you would like more information or if you'd like to receive this newsletter via e-mail, please contact...

Fritz Seyferth (734) 615-7452 • fritz@umich.edu
Marcy Miller (734) 615-2441 • marcmill@umich.edu