



Brian Keast, Dr. Bob Kiaii, and Nick Paparella (left to right)

Ironmen

Consisting of a 2.4-mile swim, a 112-mile bike and a full marathon run of 26.2 miles, Ironman Triathlons are not for the faint of heart.

Thankfully, for local Ironmen Brian Keast and Nick Paparella, Dr. Bob Kiaii, Chair/Chief, Cardiac Surgery, and the rest of the Cardiac Care team at London Health Sciences Centre (LHSC) were there to make sure their hearts were up to the challenge.

For Brian, after winning his age group at the 2006 Ironman World Championships in Hawaii, he began to experience difficulties while training. After a visit to his family doctor and an arsenal of tests, the source of the nagging cough and pain was uncovered: he had a complete blockage of the left anterior descending artery.

Having already run more than 20 marathons – including the Boston Marathon – Nick was preparing for the Mont Tremblant Ironman triathlon in 2011 when he was diagnosed with a heart issue and told he needed mitral valve surgery.

For both Brian and Nick, the news immediately triggered fears of losing the active lifestyle that meant so much to them.

“My entire lifestyle revolves around being active... to be told that I needed to have bypass surgery wasn’t just surprising – it was shocking.”

- Brian Keast

“I was really worried and concerned about losing my very active lifestyle. I am someone who has a lot of energy to burn and racing is a great way to stay active, stay fit and stay young – at heart at least,” Nick says.

Continued on next page

Continued from previous page

Both Ironmen met Dr. Kiaii, who understood their desire to maintain their active lifestyle, having run half marathons himself. Dr. Kiaii explained the many benefits of minimally invasive surgery versus undergoing traditional bypass surgery, including a reduced recovery time as the robotically assisted surgery would eliminate the need to open up the chest cavity.

"In the days after the surgery, I couldn't walk 30 metres. But slowly, I regained my strength and made my way back mainly because of the minimally invasive surgery. I was back to running within a few weeks and within a year, I competed in New York in a Half Ironman," Nick says.

In 2016, Nick returned to Mont Tremblant to conduct unfinished business, successfully completing the Ironman, and in 2017, Brian once again returned to Hawaii for the Ironman World Championship.

"It was a terrific way to celebrate my 20th Hawaii Ironman and 10th anniversary of heart surgery at LHSC," Brian says. "I couldn't think of a better way to express my appreciation to Dr. Kiaii and the team at LHSC than by demonstrating the effectiveness of their work!" ■



Helping Patients Transition from Hospital to Home



Jennifer Beal

In 2017, the Connecting Care to Home (CC2H) program introduced a Heart Failure (HF) Navigator position to assist patients in the cardiology inpatient units at University Hospital.

The HF Navigator, Jennifer Beal, has been working in the role since May 2016

to help develop the criteria and process for this new role, targeting low and intermediate risk heart failure patients.

Beal's work with patients has the potential to lead to a more stable health care trajectory for a patient leading to fewer hospital admissions, ED visits, and a greater understanding of how to manage their heart failure symptoms and knowledge of their plan of care.

Beal interacts directly with individual patients and their families to manage their care. Patients can rely on the HF Navigator for support, knowledge, and direction towards their appropriate care path after discharge from hospital, and ensure follow-up appointments and community services are set up. CC2H patients also have access to a support phone line for 24-hour-a-day consultation.

"It's been absolutely superb. The confidence the program instills in you is magnificent. I learned about exercises to do, how to check my fluid and salt levels, and every day you follow the same routine. Jennifer Beal let me know when someone would visit to check in, and I have the 24-hour number if I have an issue," patient Tineke (Tina) Huiting says.

The HF Navigator role was interesting to Beal as a Registered Nurse who had previously worked in cardiac care, the ED, as a cardiac clinical educator, and as a regional stroke education coordinator.

"A majority of a patient's life is in their home and community, not the hospital, so the opportunity to help design a program to help keep patients healthy for longer periods at home is exciting," Beal says. ■

Donors Support New Cath Labs



Dr. Terry McPherson, Interventional Cardiology, and Dr. Raymond Yee, Chair/Chief, Division of Cardiology

In a typical year, the Cardiac Care Program at LHSC performs more than 110,000 diagnostic tests, 1,400 cardiac surgeries and 3,900 cardiac catheterizations.

A cardiac catheterization takes place in a specialized examination room (referred to as a cath lab) with diagnostic imaging equipment used to visualize the arteries and chambers of the heart and help treat any issues or abnormalities found.

Their generous support will improve patient care by providing higher-quality diagnostic images, keep LHSC staff and physicians safe by meeting current standards for radiation exposure, and make the entire process faster and more efficient.

The fluoroscopy units – which use X-rays to obtain real-time moving images – in the cath labs are in need of replacement, as they are subject to frequent repairs and downtimes that affect the cost of operations, patient scheduling, and patient care. Recognizing the age of the

equipment and their importance to patient care, donors to LHSF have helped to begin the process of replacing the fluoroscopy equipment, upgrading one of the four cath labs in need so far.

Their generous support will improve patient care by providing higher-quality diagnostic images, keep LHSC staff and physicians safe by meeting current standards for radiation exposure, and make the entire process faster and more efficient.

“LHSC has a strong tradition of developing innovative heart tests to better understand various heart diseases and using that knowledge to develop new treatments or better ways to deliver those therapies. The future in heart therapies now lies in developing new heart imaging techniques and using them to deliver the therapy precisely to where it will achieve the greatest benefit for the patient,” Dr. Raymond Yee, Chair/Chief, Division of Cardiology, says. ■

Dr. Yee and the cath labs were recently featured as part of CTV's Medical Marvels series. Watch the video at www.lhsf.ca/cathlabs



Donor-Supported Hybrid OR on the Horizon



Thanks to the generous support of donors from Windsor and throughout Southwestern Ontario, LHSC's Cardiac Hybrid OR project is becoming a reality.

The goal of the project is to transform an outdated operating room into a sophisticated suite that will enable collaboration between diagnostic imaging teams and surgeons, advancing cardiac patient care and increasing efficiencies for heart patients at LHSC and in our region.

With an updated goal of opening the Hybrid OR in October 2018, the Cardiac Care Program is currently working with LHSC to confirm the design and layout of the room while finalizing the selection of auxiliary equipment. After extensive research, the Cardiac Care Program selected the Siemens ARTIS pheno as the centerpiece of the new Hybrid OR.



The Siemens ARTIS pheno

Engineered to be patient-oriented, ARTIS pheno is a unique angiography system for individualized preprocedural planning, intraoperative guidance, and immediate assessment – regardless of patient condition or procedure complexity.

The ARTIS pheno will allow physicians to treat any patient in the Hybrid OR regardless of their size, condition, or positioning needs. The Cardiac Care team will be able to optimize intraprocedural quality control and confidently handle each patient's specific needs.

It will also help the team take on the most complex procedures while potentially lowering complication rates, and improving the surgical outcomes. Excellent imaging

capabilities, optimal integration into the Hybrid OR, and unmatched features make procedures safer and technically easier while enhancing LHSC's reputation as a centre of world-class cardiac care.

Thanks to the foresight and generosity of our donors, we are close to raising the \$4 million necessary for the Hybrid OR and LHSC remains on track to be one of the first hospitals in Canada to feature the ARTIS pheno, which was approved by Health Canada in February 2018. ■

Rhonda's Story

It's hard to imagine that getting hit by a truck could be good for your health, but this is exactly what happened to Rhonda Scholtz.

A cycling accident in her hometown of Goderich sent her to the local hospital, which led to a surprising discovery – her blood pressure was extremely high, especially for someone as fit and active as this mother of two.

An angiogram was ordered and Rhonda was shocked to learn that one of the main arteries in her heart was completely blocked. "The possibility of a massive heart attack was very real," she says. "It was a time bomb waiting to happen."

Rhonda needed to have coronary bypass surgery. She remembered her uncle and the huge scar that ran down his chest from his open-heart surgery. She also recalled his painful recovery period and how it took him months to feel normal again. How would she manage work, her family responsibilities and her active life?

It was Rhonda's cardiologist who suggested an alternate solution. "He explained that there was a new way of doing bypass surgery and that it was much less invasive," she says. "London was one of the few places in Canada doing this – and he referred me right away."

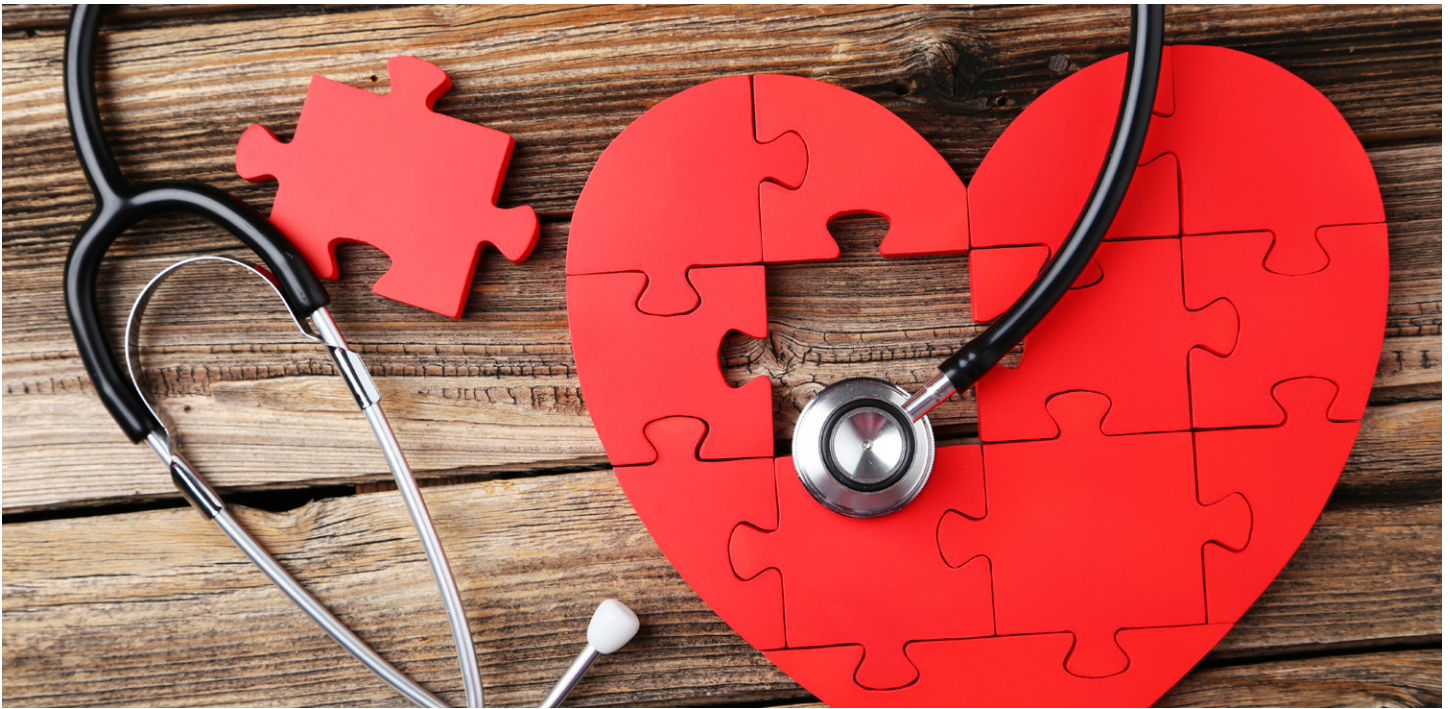
Rhonda's life-saving, robotic-assisted bypass surgery was performed over a seven-hour period through just three tiny incisions. This dramatically different and less invasive type of surgery meant that Rhonda's recovery would be far less traumatic than her uncle's experience. Both the sophisticated robotic equipment and the advanced robotic surgical skills are available at LHSC in large part due to ongoing donations to London Health Sciences Foundation (LHSF) by patients, community members and corporations.

When Rhonda looks back, she sees her accident as a wake-up call. "Someone was telling me to pay attention – and I feel so lucky to be here with my family, with a strong and healthy heart and I know it is all thanks to the leading-edge technologies and skillful physicians at LHSC." ■



Rhonda Scholtz

Pacemaker Progress



LHSC's Cardiac Care Program is the first in Ontario to implant a leadless pacemaker, a tiny pacemaker without cardiac wires known as leads.

Dr. Jaimie Manlucu, heart rhythm cardiologist, successfully implanted the Medtronic Micra™ Transcatheter Pacing System on February 1, 2017 using a minimally invasive technique through the groin.

"Leadless pacemakers are an alternative to traditional pacemakers for patients who are at high risk of infection due to other medical conditions, or do not have the veins needed for a conventional pacemaker," Dr. Manlucu says. "The first patient to receive a leadless pacemaker at LHSC was not a candidate for a conventional or surgical pacemaker, and has done very well with this alternative device."

A leadless pacemaker is the size of a vitamin capsule and is able to deliver the same electrical impulses to keep the heart beating regularly as a traditional pacemaker, without the added generator or wires.

"A patient who is 60 may require multiple pacemaker replacements over their lifetime, and the risk of infection increases each time a pacemaker is replaced," Dr. Manlucu says. Should a pacemaker become infected after replacing its battery, open heart surgery may be required to remove the leads.

"When the battery is depleted on a leadless pacemaker, its electrical currents can be disabled and it can be left in the heart with no risk to the patient," she adds.

Due to their small size, leadless pacemakers also offer an aesthetic benefit as patients will no longer experience scarring on their chest from the surgery or see the generator bulging under the skin.

"Currently, leadless pacemakers provide us with an alternative treatment option for selected patients. As this exciting technology continues to develop, we can expect a broader application of the technology," says Dr. Manlucu. ■



Dr. Jaimie Manlucu

LHSC First in Canada to Perform New Technique

In 2016, the heart team at LHSC became the first in Canada to perform a new surgical technique available to very select and complex patients whose arterial vessels are inaccessible due to calcified and narrowed arteries. The goal of the procedure is to restore normal blood flow through the heart and the rest of the body and reduce paravalvular leakage around the valve.

The transcaval approach was performed by Drs. Rodrigo Bagur, Michael Chu, Pantelis Diamantouros, Patrick Teefy, Dan Bainbridge, Luc Dubois and Bob Kiaii.

"For some patients, the severity of their heart disease means there are limited treatment options available to them. This new catheter-based approach gives them an option they otherwise would not have," says Dr. Rodrigo Bagur, interventional cardiologist, LHSC.

William (Wallace) Snider, from Sarnia Ontario, became the first Canadian patient to undergo this new catheter-based technique. A former truck driver, his heart condition impeded his quality of life and limited his ability to play with his grandchildren or woodwork.



Front row: Wallace Snider (front row, centre) surrounded by his wife Barbara (left) and granddaughter Lyndsay. Back row, from left: Drs. Bob Kiaii, Pantelis Diamantouros, Rodrigo Bagur, Michael Chu, Patrick Teefy, Aashish Goela, Ian Chan, Daniel Bainbridge, and Vincenzo Giambruno

Walking the day after his surgery, Snider spent Easter weekend at the hospital with visits from his wife, daughter and granddaughter and was discharged shortly after the long weekend and just before his birthday. "I'm looking forward to a bit of travelling with my wife, Barbara. I feel lucky and I'm grateful for the excellent care I've received." ■

Thank you for your support and investment in health care excellence for Cardiac Care patients and families in London and Southwestern Ontario!

London Health Sciences Centre's Cardiac Care Program is one of the leading health care programs of its kind in the world. The program offers a wide variety of resources and surgical services to treat diseases and conditions including abnormal

heart rhythm, angina, congestive heart failure, and coronary artery disease, blockage of arteries, deteriorated heart valves and abnormal electrical function of the heart.

At our Foundation, we're accountable to our donors, stewarding with respect, integrity and transparency. Please take a moment to view our 2017 Report to the Community at: www.lhsf.ca/annualreport ■

We'd Be Happy to Hear from You!



Please contact us if you have any comments about this report, questions concerning your philanthropic goals, or inquiries regarding our fundraising efforts for the Cardiac Care Program.

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