



*Dr. Carolyn Teng performs a minimally-invasive cardiac procedure.*

## STRAIGHT FROM THE HEART

**How your generosity is saving the lives of cardiac patients at Southlake.**

As one of the largest heart programs in Ontario, Southlake's Regional Cardiac Care Program provides a full spectrum of advanced cardiac care close to home for thousands of patients each year from across York Region, South Simcoe and Dufferin Counties, and as far north as Muskoka.

Over the past year, while many things changed because of the pandemic, two things remained the same: our uncompromising commitment to providing leading edge cardiac care to our communities, and your generous support that made this possible. Your thoughtful gift helped us care for the thousands of cardiac patients who came to us in their time of urgent need.

As you read on about how Southlake's innovations are enabling cardiac patients to return to their lives, their families, and all the things they love, we invite you to celebrate with us because you are an integral part in these inspirational stories.

## A PERSONAL MESSAGE OF THANKS FROM THE FRONT LINE:

Words can't fully express the gratitude we feel for the donors like you who have been by our side through this challenging year. Because it's not something you say – it's something you feel. And we feel you with us in the work we have been doing every day. Your support is the reason we have the tools we need in our hands to continue providing innovative and minimally-invasive, life-saving procedures, and get patients home sooner to be with their families. The peace of mind that you've provided means that we can focus on providing our patients with compassionate care while they have been in hospital without their loved ones there for support during these challenges times due to COVID-19.

**Morgan Krauter** Nurse Practitioner, Regional Cardiac Care Program



# PUTTING A FACE TO THE HEARTS YOU HEAL

## JOHN'S STORY: A second chance at life following groundbreaking heart procedure

**Imagine you couldn't rely on the regularity of your next heartbeat.** For engineer John, this uncertainty had been a fact of life for decades. He lived with intermittent atrial fibrillation (AF). The triggers were varied and inconsistent: sometimes a smell, a certain sitting position, physical activity, or even simply a sneeze. Due to the ever-present risk for blood clots even with anticoagulants, his life increasingly revolved around anticipating and trying to prevent these triggers. But in 2019, that trigger uncertainty ended – his intermittent condition had become permanent.

Over a decade ago, John stopped going on vacations. He avoided group settings. **The illness that had dominated so much of his life seemed to be consuming the rest of it.**

By chance, when touring the Heart Rhythm Suites at Southlake, the program manager told John "I know just the EP to pair you with," anticipating that the analytical minds of the two men would work well together. John was impressed by this concept of pairing a doctor and patient based on personality. That Electrophysiologist was Dr. Verma.

Dr. Verma was patient, thoughtful and methodical, John remembers of their first meeting. He was surprised that a doctor, especially a specialist,

would spend over an hour talking with a prospective patient. During their initial meeting, Dr. Verma mentioned a new ablation modality called Pulsed Field Ablation (PFA). John soon recognized the significant potential benefits of the procedure. **Soon after, he joined Southlake's groundbreaking PFA study as its first participant.**

John was struck by how closely he and his wife were consulted. "They kept us totally informed throughout the study. There was complete transparency." Soon after Health Canada and other approvals were obtained in late 2019, the pilot phase proceeded and John became the first patient in North America to have the PFA procedure.

Since then, John has had only a single AF episode, which lasted just a few hours. **While he's back to gardening and shoveling snow, he found that the biggest change has been in his personality. "The stress is gone. I seldom think about AF. I'm actually planning to travel again."**

**Thank you for helping John and so many others continue making plans. Your generous support as a donor enables doctors like Dr. Verma to continue to innovate in our ongoing effort to develop the best new treatment options for every patient.**

..... “ .....  
**We believe this technology will allow us to eliminate problem areas without causing collateral damage, which is very exciting. It's a technology that is not only more effective, but safer.**  
..... ” .....

**Dr. Atul Verma** Electrophysiologist & Director of Arrhythmia Services





Dr. Atul Verma

## VITAL SIGNS: Your Impact by the Numbers\*

**4<sup>TH</sup>**  
LARGEST  
REGIONAL  
CARDIAC CARE  
PROGRAM IN  
ONTARIO

**80,000+** DIAGNOSTIC EXAMS  
DELIVERED

**996** CARDIAC SURGERIES  
PERFORMED



**927** PACEMAKERS  
INSERTED



**7,615** CARDIAC CATHETERIZATIONS  
& ANGIOPLASTY PROCEDURES

CONTINUING TO EXPAND ADVANCED SPECIALTY CARE:

**124** TRANSCATHETER AORTIC VALVE  
IMPLANTATIONS

\* Statistics reflect annual numbers from most recent hospital data available.

# THE EQUIPMENT YOU INVESTED IN TO SAVE LIVES



Dr. Carolyn Teng

William's exhaustion was growing worse every day. He struggled with the smallest tasks. Sure enough, doctors found severe narrowing of his aortic valve. As a high-risk patient who had already undergone bypass surgery, it would have been extremely dangerous for him to go through traditional open-heart surgery. His options were slim. But Dr. Carolyn Teng had a different idea. She used a new procedure that allowed her to replace the narrowed valve with a remarkable prosthetic device called a Transcatheter Aortic Valve Implantation (TAVI).

Performed through a tiny puncture in the artery in his right groin, this non-invasive operation did not require opening the breastbone, or even putting him under anesthesia. **For a patient like William, a standard procedure could have proven fatal. Instead, he was able to be discharged the next day with a new valve and a new lease on life.**

We're able to do this because our cardiac team has an unrivalled commitment to efficiency, safety, quality, and a zest for providing advanced, leading edge treatments. **Here, innovation isn't an abstract ideal: it's a standard of care we strive to provide every day – and the equipment your gift enabled us to purchase this past year makes this possible.** William was one of the early patients to benefit from this innovative treatment. Thanks to the continued support of donors like you, Dr. Teng had the equipment she needed to help 120 patients last year using this same procedure.



The equipment our generous donors make possible is about so much more than having the latest gadgets. **It's the reason our patients don't have to drive past us to go to Toronto for care. It's the reason that the best and most talented physicians including Dr. Teng, Dr. Verma, and so many others are proud to call Southlake home.** Thanks to the donor support that funded our most urgent equipment needs last year, we have had the opportunity to do great things right here at home at Southlake. We have been able to provide treatments you can't get anywhere else and offer the best cutting edge cardiac care for our communities.



**Dr. ZaeV Wulffhart**

Physician Leader of Southlake's Regional Cardiac Care Program



Dr. Yaariv Khaykin (left) and Dr. ZaeV Wulffhart



Here are just some examples of the difference caring donors like you have made for our communities:

**FOUR ADDITIONAL ECHO CONSOLE UNITS**, including one portable unit, have **increased our ability to perform innovative procedures, such as the one that saved William's life**. This vital diagnostic equipment enables surgeons to assess the condition of a patient's heart with greater precision prior to surgery by providing an ultrasound of the heart in 3D. Without this advanced digital imaging technology, cardiac patients at Southlake would not have local access to the minimally-invasive, life-saving procedures performed by leading surgeons like Dr. Teng. Additionally, **during the pandemic, the portable unit has played a significant role in patient and staff safety**, eliminating the need to transport a potentially infected patient through the hospital for testing.

**TWO ADDITIONAL INSTRUMENT TRAYS** have doubled our capacity to perform procedures through the smaller incisions used in minimally-invasive open-heart surgeries. Originally, there were just two trays shared between a few surgeons. Combined with the necessary sterilization time between surgeries, this was a limiting factor in the number of patients helped. Now, more of these life-saving procedures occur, and **patients that were unable to undergo invasive surgeries to save their life have hope**.

**BLANKETROL III** enables our clinical team to safely maintain a patient's body temperature using its advanced temperature regulation system. Patients who experience cardiac trauma, such as a heart attack, can go into cardiogenic shock, which can cause hypothermia. The low circulation while in this state can cause further tissue damage, **impacting the patients' recovery and quality of life**.

## Full-Spectrum Cardiac Care

Serving a population of 1.8M for cardiac care, Southlake's physicians are often the first to perform leading edge procedures in Ontario, Canada, and even the world. They're leaders in their fields, published all over the world and consulted by programs of all sizes. They choose to work at Southlake because it's a place where they can push the limits of their craft and set new standards for others to follow.

From the first consultation to the final stages of recovery, patients find the entire range of cardiac care close to home. Each of these areas are full of innovative approaches, including Cardiac Diagnostics, Cardiac Surgery, Electrophysiology, Interventional Cardiology, Structural Heart Program, and the Cardiovascular Prevention and Rehabilitation Program.



*A cardiac team at work in Southlake's Electrophysiology (EP) Suite.*

# LOOKING TO THE FUTURE

Here are three innovations that we're envisioning in the coming year and beyond to deliver leading edge cardiac care close to home:

## MEDICATION TITRATION INITIATIVE

For patients living with heart failure, care can be complex and requires careful management and regulated increases of multiple medications, particularly in the first three months after cardiac surgery when patients are at a higher risk for readmission to the hospital. **Many of these patients aren't nearby and coordinating these appointments in a timely way can be challenging, particularly with the current COVID-19 restrictions.** After months of diligent work, we are looking forward to the launch of our new Medication Titration Initiative within the Heart Function Clinic in April. This clinic will help us provide our patients with better support to reach their optimal medication dosage faster by using remote home monitoring tools, eliminating the challenges and delays that can occur with in-person follow-up appointments. **For patients, this will mean better symptom management and the best opportunity for recovery, all from the comfort of home.**

## FIRST HOSPITAL IN CANADA TO USE THE TRICUSPID CLIP

Dr. Teng and her team are working towards becoming the first hospital in Canada to use next-generation equipment like the Tricuspid Clip, a state-of-the-art Mitral Clip device. This will offer a welcome alternative

for high-risk patients, such as many elderly people in need of a bypass or valve surgery. Because open-heart surgery is not always a viable option due to its invasive nature and long healing process, **Southlake's innovations in cardiac care will give these patients reason to hope.**

## VIRTUAL CARDIAC SURGEON TRAINING

Dr. Kevin Teoh spearheads Southlake's Sutureless Aortic Valve Program, using specialized artificial valves that are compressed to insert into blocked or damaged valves, and hold themselves in place once expanded without the need for any stitches at all. This offers more options to patients with smaller valves, or valves hardened with calcium that can't be penetrated with a needle. This also leads to faster procedure times, meaning **surgeons can perform multiple surgeries at once for patients who are high risk**, and typically have longer recovery times following surgery.

Dr. Teoh regularly welcomes cardiac surgeons from around the world who are eager to learn the pioneering techniques he uses. With the pandemic preventing such opportunities, Dr. Teoh has been focused on creating teaching opportunities through virtual methods to enable continued advancements in cardiac surgery, both at Southlake and beyond. This means **cardiac surgeons everywhere will continue to benefit from the advancements Dr. Teoh and the team here at Southlake have made, and more patients will be given the chance to live their lives to the fullest.**







*Dr. Zaev Wulffhart, Physician Leader of Southlake's Regional Cardiac Care Program*

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We've made a conscious choice to be more innovative, not just to give our patients the latest in care, but to help them get out of the hospital sooner and go back to living their lives. Generous donor support means that we can stay at the cutting-edge of care, acquiring the latest advancements in technology and attracting the top talent to our team. It means that we can dream big with our vision for the future, keeping patients in our communities at the forefront and ensuring that they can continue to trust Southlake to provide the leading edge care that leads to the best possible outcomes. And it means we can do it all right here, closer to home.

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**Kaylyn Ward** Director, Regional Cardiac Care Program

# THANK YOU



**Your support has enabled us to provide cardiac patients with the leading edge care they expect and deserve right here, close to home.**

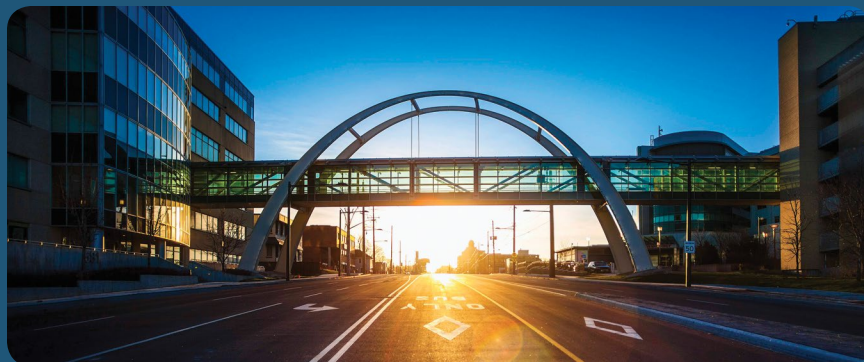
Since funding from the government does not cover new or replacement equipment, Southlake relies on the generosity of our communities to ensure that we are able to provide leading edge care close to home for the 1.8 million people who depend on us for cardiac care. **From our cutting-edge technology to the innovative procedures performed by our leading cardiac surgeons, you've played a critical role in making amazing things possible at Southlake.**







We are committed to pushing farther and reaching beyond old limitations towards new possibilities. The attributes that set Southlake apart – our agility, our collaboration, and our ambition – combined with the support of generous donors like you make it possible for our communities to continue to depend on us for the life changing and life saving cardiac care closer to home. As we look to the future, we hope you will continue to be by our side as a partner in our vision to always strive to provide the most innovative care for the best possible patient outcomes to get people back to living their lives.



**Jennifer Klotz-Ritter** President and CEO, Southlake Foundation



**Southlake Regional Health Centre Foundation**  
289.319.3234 | [foundation@southlakeregional.org](mailto:foundation@southlakeregional.org)

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Your support is so important to us. We simply can't do it without you.

Questions? Looking for more information about the difference your gift has made? We are here to help.

We invite you to contact us at 289.319.3234 or [foundation@southlakeregional.org](mailto:foundation@southlakeregional.org)

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