

The story of
Félix and Annick
Full story on page 16



The magazine

Volume 04 — 2024

**Tender
hearts
welcome**

**Paying
tribute**
70 years
of medical
history

**No one
is immune**
9 people out
of 10 have
a risk factor

**Protecting
sensitive
hearts**
A different
way of treating
patients

**Giving life
to the future**
Inspiring
hope

**Committing
to the cause**
Rallying
together

The art of saving lives



Saving a life is not a one-person endeavour. Behind every heart that beats before, during and after heart disease, an entire ecosystem is at work. Whether a heart beats too fast, too hard, or too gently, the Montreal Heart Institute’s healthcare professionals come together as one to set the right tempo.

Brilliant work away from the limelight

Selflessness, humility, ambition. These three words embody the work highlighted in the fourth edition of our magazine. You’ll read about promising research projects that have the potential to make significant advances in personalized medicine; highly specialized, human-centric care that changes lives; and the transmission of leading-edge knowledge that could revolutionize how cardiovascular medicine is practised here and around the world. This edition is a testament to how our desire to give back unites us and is our greatest asset.

The importance of selfless giving

We’re all driven by a common goal: to always do more for those with heart disease. Like you, we’re focused on reducing the rate of mortality caused by cardiovascular diseases by 30% in the next 10 years.

Now more than ever, your dedication paves the way for the medicine of the future. To our healthcare staff, researchers, philanthropists, and patients: I truly believe that together, we’ll change the course of cardiovascular medicine.

From the bottom of my heart, thank you for standing by our side.

Happy reading!

“Whether a heart beats too fast, too hard, or too gently, the Montreal Heart Institute’s healthcare professionals come together as one to set the right tempo.”

Alain Gignac,
President of the Montreal
Heart Institute Foundation

01

The art of saving lives

A word from Alain Gignac, President of the Montreal Heart Institute Foundation

Paying tribute

06

Remaining humble in the face of success

Dr. Jean-Lucien Rouleau, cardiologist inducted into the Canadian Medical Hall of Fame



No one is immune

16

Growing up with heart disease: the inspiring story of Félix and his mother Annick

Félix, patient of the Institute since the age of 18

20

New heart, new desire to support the cause

Frank Nguyen, heart transplant patient



Protecting sensitive hearts

26

Julie Richard: making surgeries possible

Julie Richard, operating room coordinator



Giving life to the future

44

Using technology to treat valvular heart disease in a minimally invasive way

Dr. Anita Asgar, interventional cardiologist

48

Collecting, analyzing, interpreting, predicting... and acting

Ian Mongrain, Director of Operations at the Beaulieu-Saucier Pharmacogenomics Centre

52

The CHIP-Cardio project: when research leads to changes in practice

Dr. Marie-Pierre Dubé, Director of the Beaulieu-Saucier Pharmacogenomics Centre

Committing to the cause

58

Yves Roy: following his heart to support the cause

Yves Roy, board member and major donor



Credits

Photography

Antoine Saito
Élizabeth Matte
Jimmy Hamelin
Rachid Sawadogo
Raphaël Ouellet
Stéphanie Nantel

Writing

Danièle Belley
Joannie Tremblay

Printing

Transcontinental

Paper

The pages of this magazine were printed on Enviro Print Text FSC 160M, and the cover was printed on Enviro Print Cover FSC 200M.

10

Julie Todd: Ensuring the MHI's medical legacy lives on

Julie Todd, Director of the Infocentre department

30

A different way of treating patients

Isabelle Gauthier, spiritual care practitioner

34

Amélie Brasiola: leading the Surgical Intensive Care Unit

Amélie Brasiola, Head of the Surgical Intensive Care Unit

38

Orderlies: pouring their hearts into caring for cardiovascular patients

Anick Lamontagne, orderly



61

The heartwarming story of the Migliara brothers, siblings dedicated to the cause

Salvatore and Giovanni Migliara, major donors and volunteers

Paying tribute

70 years of medical history

We're now able to demonstrate the undeniable impact the Montreal Heart Institute has had on the lives and health of Quebecers thanks to the work of visionaries like Dr. Jean-Lucien Rouleau, a cardiologist inducted into the Canadian Medical Hall of Fame.

"If a patient with heart disease now lives longer than the average life expectancy in Quebec, it's undeniably because of the MHI and the legacy of (MHI founder) Dr. Paul David's vision." —Julie Todd, Director of the Infocentre department



←
In May 1968,
the Institute
performed
the first heart
transplant in
Canada.

Remaining humble in the face of success

— An interview with Dr. Jean-Lucien Rouleau,
a cardiologist inducted into the Canadian Medical
Hall of Fame

On June 22, 2023, Dr. Jean-Lucien Rouleau was inducted into the Canadian Medical Hall of Fame. He's an accomplished researcher and cardiologist who has received numerous awards for his contribution to the advancement of medicine. He told us about his enriching and multifaceted career, one that he's led with humility, generosity and a drive to excel.

Pushing the limits of medicine

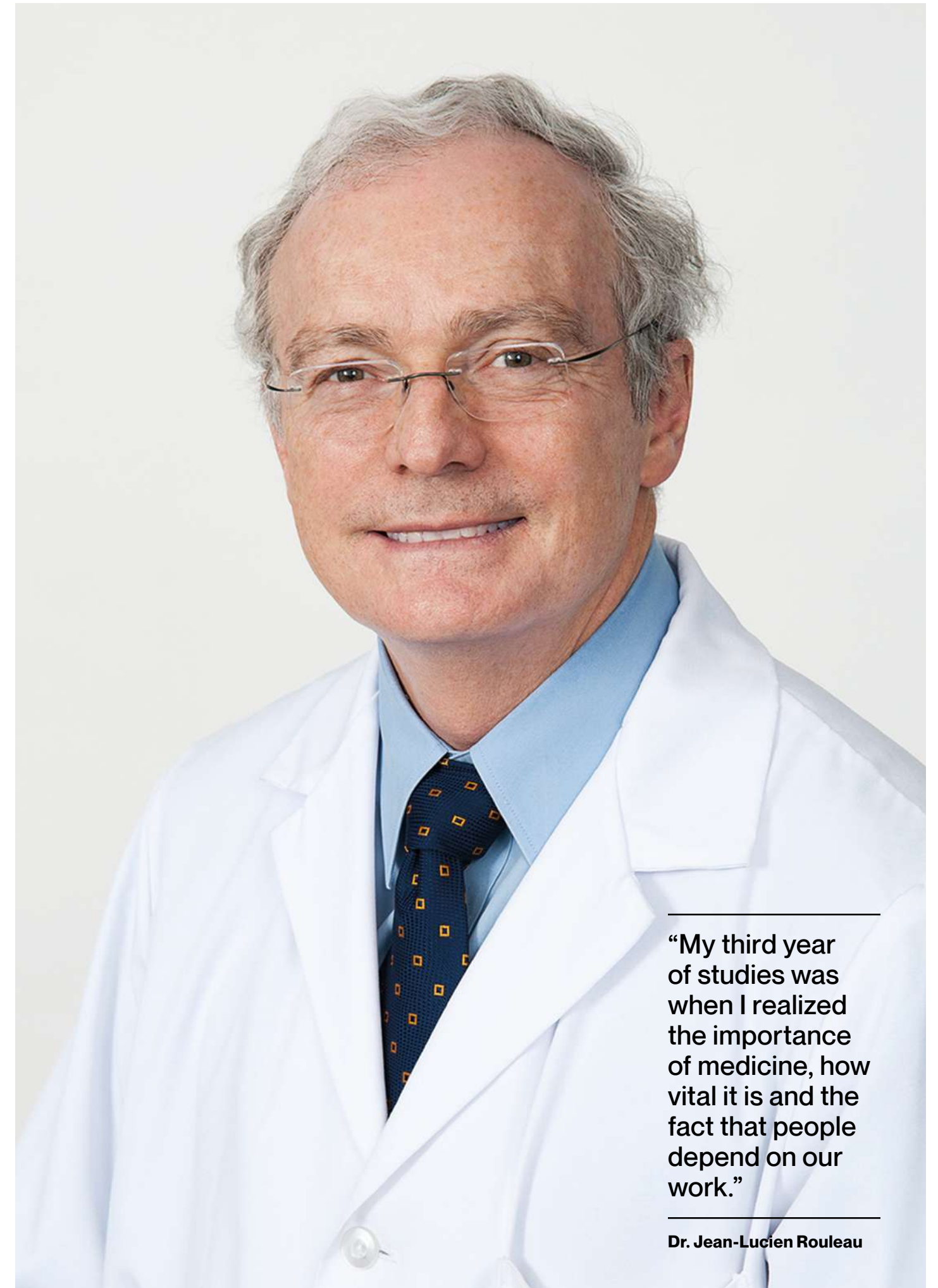
Dr. Rouleau was born in Ottawa and grew up in a tight-knit family, surrounded by his loving parents and siblings—one sister and two brothers who inspired him. He chose to pursue a career in the healthcare sector by instinct at first, but his passion for medicine soon became apparent. “My father was a physician, so medicine was a way to follow in his footsteps, and I did so without putting too much thought into it at first. My third year of studies was when I realized the importance of medicine, how vital it is and the fact that people depend on our work. That's when I started to take it more seriously. When I turned 20, my father had a major heart attack and developed heart failure. He passed away less than a year later. That was what made me turn to cardiology and why I started looking into heart failure,” he said.

As for his interest in research, it was sparked by an event that occurred when he was a young resident on call. “It was the weekend and I was on call in the intensive care unit. A

29-year-old woman had just given birth and gone into heart failure. Her condition became critical, and that's when I remembered the effect of vasodilators on heart failure, because I had read about the topic. I told the cardiologist on call that we should try that to help her, that it could work. We sprang into action and her condition improved. She left the hospital with her baby, but unfortunately, she died three months later. That's when I realized there was work to be done. That's when I began to research heart failure,” said Dr. Rouleau.

A prolific career

Over the course of his remarkable career, Dr. Rouleau has worked at McGill as the head of the coronary unit at the Montreal General Hospital, at Université de Montréal as dean of the faculty of medicine, at Hôpital du Sacré-Cœur as head of the coronary unit, and at the Montreal Heart Institute. He was also the director of the cardiology department at Université de Sherbrooke and worked at the University of Toronto as the director of cardiology and of the Cardiovascular Program of the UHN and Mount Sinai Hospital. He's also been part of myriad groups of experts in North America and Europe. In addition to his extensive travels and medical practice, he continues to conduct research on heart failure in a context where funding is hard to come by and the challenges are great.



“My third year of studies was when I realized the importance of medicine, how vital it is and the fact that people depend on our work.”

Dr. Jean-Lucien Rouleau

“When I look back at everything I’ve done, I’m quite stunned, I’d even forgotten about a few of my projects!”

Dr. Jean-Lucien Rouleau

Dr. Rouleau joined the MHI in 1993, first as the director of medical intensive care, then as the deputy director of research. He conducted several clinical research projects that culminated in a revolutionary medication called sacubitril/valsartan, which would go on to have a global impact in cardiology and become one of the four pillars of heart failure therapy. To date, Dr. Rouleau has published nearly 600 articles, including 27 in the prestigious New England Journal of Medicine. His articles have been cited more than 100,000 times.

Today, Dr. Rouleau is renowned for his exceptional contributions to the field of research, his leadership in administration and the major impact he’s had on education, clinical care and public health. His numerous accomplishments span multiple sectors, from the development of healthcare networks and the implementation of medical facilities to the improvement of healthcare efficiency and medical policies. For instance, he helped develop the patient-partner approach in teaching, care and research. Moreover, as the dean of the faculty of medicine at Université de Montréal, he helped open a branch campus in Mauricie in response to the dearth of healthcare professionals in that underserved region of Quebec. Dr. Rouleau was also the scientific director of the Institute of Circulatory and Respiratory Health, part of the Canadian Institutes of Health Research (CIHR), and oversaw their most ambitious and groundbreaking program: the Strategy for Patient-Oriented Research (SPOR).

He’s earned several prestigious awards, such as the Order of Canada, the Order of Montreal, the Exceptional Merit Award from the Fonds de recherche en santé du Québec (FRSQ), the Canadian Centennial Medal, and the Quebec Medical Association’s Prestige Award, to name but a few.

Progress based on meticulousness and a human-centric approach

Dr. Rouleau’s career has been marked by excellence. It has also been shaped by humility and devotion, two values his parents instilled in him that represent a precious legacy. “‘Do the right thing and do it right.’ In hindsight, I’ve always really enjoyed seeing others succeed, so I’ve never envied anyone. That’s helped me enormously in my career, because people around me know that.”

Being inducted into the Hall of Fame: An opportunity to take stock

As someone who sees himself working away from the limelight, Dr. Rouleau’s recent induction into the Canadian Medical Hall of Fame came as a wonderful surprise. “It’s a huge recognition and a surprise. It feels like throughout my career, I’ve never had a specific goal. Every time I’ve been approached to take part in a major project, or to take on a leadership position, I’ve always been surprised but happy to take on the challenge. This mindset has led me to work in research, administration, teaching... When I look back at everything I’ve done, I’m quite stunned, I’d even forgotten about a few of my projects! I think I’m a jack of all trades, master of none,” he added, good-naturedly.

New challenges for the Canadian Heart Function Alliance

Dr. Rouleau doesn’t intend to hang up his lab coat anytime soon. In fact, he recently became the head of the Canadian Heart Function Alliance, a pan-Canadian initiative created with support from the CIHR in partnership with the Heart and Stroke Foundation of Canada. It brings together more than 200 researchers and 31 institutions from across the country. Over the next few years, its experts will be working in close collaboration with patients to curb heart failure. “We currently have access to treatments that reduce the number of deaths due to heart failure, but the mortality rate remains very high. About 35% to 40% of people with heart failure will die from the condition within five years—a figure comparable to the rate of mortality of several types of cancer. In fact, heart failure is the leading cause of hospitalization for Canadians aged 65 and over. So, yes, we’ve got to continue our work,” he said.

Jean-Lucien’s heart

If Jean-Lucien’s heart could speak, here’s what it would say:

The best thing that ever happened to me was meeting and marrying my wife, Pat. For her, doing the right thing the right way and being respectful to those around us was paramount. She has been the light that guided me through everything—she’s inspired and supported me during the good times and the harder ones. I’ve learned so much from her. Those who know us are aware that I married someone better than me, someone who has made me a better person.



Julie Todd: Ensuring the MHI's medical legacy lives on

— An interview with Julie Todd,
Director of the Infocentre department

As the Montreal Heart Institute celebrates 70 years of greatly impacting the lives and health of Quebecers, it can proudly showcase its legacy thanks in large part to the work and vision of Julie Todd, Director of the Infocentre department. Throughout her career, she's shown an exceptional ability to rally key players in the healthcare sector around critical issues. In addition to a degree in sociology with a focus on healthcare, this formidable problem-solver—who's passionate about data and loves to take on challenges—also has a master's degree in statistical and epidemiological concepts, as well as a certificate in psychology.

“I needed to find the ways in which individuals are connected to large-scale group phenomena.”

Julie Todd

→
In 1957, Pierre Whissel became the first patient to undergo open-heart surgery thanks to the heart-lung pump prototype.



A multidisciplinary background

After taking part in various research projects on medical communication, Julie joined the physical health branch at the Agence de la santé et des services sociaux. “My mentor at the time asked me to oversee obstetrics and childbirth. Because I was able to solve the ongoing issues, I became involved with cardiology and neurology. I set up regional committees, and that’s when I met a few physicians from the MHI and started building ties with the Institute. When the Agence was abolished in 2015 as a result of the healthcare reform, Dr. Peter Guerra asked me to come work at the MHI. I immediately accepted,” she said.

Archives that tell a heartfelt story

The MHI had no structure for keeping records of figures when Julie first began working there. This was a challenge for someone so passionate about analyzing statistical data. “There was nothing for me to analyze in order to determine what was going well and what could be improved. I therefore started building a data architecture, and over time, we were able to implement the basis of a structure,” she said.

During a visit to the documentation centre in search of archival photos, Julie was given

two large binders containing a plethora of paper clippings. She couldn’t have known then that she was holding history in her hands. “The clippings were from the 1950s. It was like finding lost treasure! It also included a copy of every year’s annual report, including key facts—all written by the Institute’s founder, Dr. Paul David. It was a piece of history that was on the verge of being forgotten. I became completely invested in the project. The more I discovered, the more I realized the importance of sharing this history. We needed to digitize everything to preserve it.”

70 years of medical history preserved thanks to data convergence

“I realized in 2020 that some departments were missing data. We went so far as to pore over all the information, from the very earliest records to the present day, using an approach that was nearly archeological. Prior to undertaking this massive analytical endeavour, we didn’t really know just how big of an impact the Institute has had on Quebecers. We now have a crystal clear picture. No other hospital in Quebec has done what we have!” she said, enthusiastically.

Milestones that have marked the history of cardiology

Thanks to the tireless work of the Infocentre team, a wealth of information on the health of Quebecers is now available, including data on the rate of obesity, diabetes and heart attacks over the past half-century. But it’s the undeniable impact of cardiovascular medicine that thrills Julie. “If a patient with heart disease now lives longer than the average life expectancy in Quebec, it’s undeniably because of the MHI and the legacy of Dr. Paul David’s vision. Prevention (which is one of the MHI’s missions), smoking cessation and our surgical treatments have had a huge impact. Today, our patients live twice as long and spend 75% less time in the hospital. That is simply massive!” she said.

Julie’s heart

If Julie’s heart could speak, here’s what it would say:

It’s an honour to let the figures tell the story of each new chapter and each act carried out by the thousands of people who are devoted to a cause that has profoundly changed our society for the better. We’re all contributors to an Institute that’s paving the way for a brighter future. I’m truly grateful for its success. What about you?

No one is immune

Unpredictable.

9 out of 10 Canadians have at least one risk factor for cardiovascular disease. Some will exhibit a range of symptoms, but for others the onset of heart disease will come as a complete shock.

Very suddenly, this 45-year-old father started experiencing shortness of breath while he was on vacation in New Jersey with his family. “I started to feel bad. Even taking a few steps tired me out. And it was getting worse.”

Frank Nguyen
Transplant patient



Growing up with heart disease: the inspiring story of Félix and his mother Annick

— A few moments with Félix and Annick

While disease drastically changes the lives of the people affected, it also has the power to transform and bring them together. Annick's son Félix suffers from a congenital heart defect. Together, they've navigated hardships and challenges as well as successes and moments filled with hope. All with a sense of infinite love. They told us how the strength of human connections always triumphs.

Growing up with heart disease

Félix was born after an uneventful pregnancy. The perfect birth, according to his mother Annick. Félix was only a few minutes old when everything changed. There was a problem with his heart, and he had to be transferred urgently to Sainte-Justine Hospital to receive specialized care. Because his heart was the top priority, no one realized at that point that he also had Down Syndrome. At Sainte-Justine, Félix was quickly cared for by Dr. Joaquim Miró, a cardiologist who remained by the family's side throughout Félix's childhood.

"They told us that despite his heart disease, Félix would probably not undergo surgery until he turned five. At 13 months, he'd already suffered several pneumonias and had to have an operation. Then, everything went well until the age of 11. After he returned from summer camp one day, he began coughing a lot. Then his lips and fingers turned blue. That was the start of a terrible ordeal. He was hospitalized and had wires coming out of everywhere. They put him on a BiPap to help him breathe, then used a catheter to go see what was going on with his mitral valve. He was in the intensive care unit for several weeks. We really thought we were going to lose him. He was hospitalized for two and a half months, but he got through it... There's not much that can stop Félix," said Annick.

After this life-shaking event, everything slowly went back to normal. Félix continued to be monitored by Dr. Miró at Sainte-Justine, and he became the confident, resilient and fulfilled young man he is today.



“I’ve got so many dreams. I want to continue to enjoy sports like basketball and running, and I want to take up a racket sport. I’ve also had a girlfriend since 2013. My biggest dream is to wake up every morning next to her, to live with her.”

Félix

The synergy between the Montreal Heart Institute and Sainte-Justine Hospital

When Félix turned 18, Dr. Miró told Annick that there was good news and bad news. He asked which she wanted to hear first. “I told him to get to the bad news first! He informed us that because Félix was now 18, it was time to transfer his care and monitoring to the Institute. The mother in me was anxious... I wondered how this change, this big step into the adult world, would go. What was it going to be like at a different hospital with its own specific requirements? Dr. Miró then told me: ‘The good news is that I’ll still be in charge of Félix’s care at the Institute.’ We were very surprised and extremely relieved,” said Annick.

Thanks to the strong ties between these two hospital centres that work closely

together to provide human-centric care, Félix’s transition to the Montreal Heart Institute went smoothly. He would also continue to count on the physician he’d built a trusting relationship with over the years. “Félix was immediately seen as a person in his own right. He was welcomed at the Institute with lots of kindness and compassion,” added Annick.

Moving forward and continuing to dream

Félix is now 28 and his heart is beating stronger than ever. Despite his mitral regurgitation, another surgery is not in the cards for now. “He is monitored regularly, and resources are always available. It’s extremely reassuring to know that we can count on the Institute’s support because even if everything is going well, there’s always a lingering worry,” said Annick.

Due to her son’s neurological condition, Annick travels with Félix to his work and to all his medical appointments. She also makes sure he takes his medication. In other words, Annick’s dedication to her son defines her daily life. She describes the efforts Félix puts into developing his autonomy as a long-term endeavour, one for which they can count on loved ones as well as the Institute’s professionals.

Looking to the future with confidence

Félix has a long list of goals that he readily shared with us. “I’ve got so many dreams. I want to continue to enjoy sports like basketball and running, and I want to take up a racket sport. I’ve also had a girlfriend since 2013. My biggest dream is to wake up every morning next to her, to live with her.”

Annick’s heart

If Annick’s heart could speak, here’s what it would say:

I want to thank life because it wasn’t easy at the beginning. My son changed everything. The heart is all that matters. And the disease is what made me realize that.

Félix’s heart

If Félix’s heart could speak, here’s what it would say:

It’s important to continue to fight every day. My daily fight starts in the morning: I wake up to stay alive. And when I go to bed at night with the fear that my heart might stop beating, someone is there to remind me, “I’m by your side and here for you.”

New heart, new desire to support the cause

— An interview with heart transplant patient Frank Nguyen

Frank Nguyen was active and healthy. That's why the events that took place in the summer of 2019 came as a total shock. His health deteriorated to the point where he required a heart transplant, giving him a second chance at life. His moving story has touched many people, from the caregivers at the Institute to the staff at the Foundation.

No one is immune

Frank was on vacation with his family in New Jersey when he started experiencing shortness of breath, a symptom that was completely out of the blue for this 45-year-old father. "I started to feel bad. Even taking a few steps tired me out. And it was getting worse," he said. Physicians in the U.S. diagnosed him with severe heart failure and four days later he was airlifted to the Montreal Heart Institute. Because he was at high risk of cardiac arrest and sudden death, he was

implanted with a defibrillator. After failing to respond to medication, he was put on the heart transplant waiting list. Without a new heart, his life expectancy was estimated at one year. Fortunately, Frank was able to receive a new heart in an exceptionally short amount of time and since then, he's worn it on his sleeve.

"I was extremely lucky to have been admitted to the Montreal Heart Institute. My family and I now owe them everything. I had a photo of my wife and daughter with me on the day of my surgery. Right before the procedure began, I asked the nurse to hold it in front of my eyes before they put me under. I wanted to see them one last time because I didn't know if I was going to wake up again... Since the transplant, I've felt a sense of duty that I've never experienced before. Now, it's an intrinsic part of me," said Frank, his voice heavy with emotion.

"I was extremely lucky to have been admitted to the Montreal Heart Institute."

Frank Nguyen



In the shadows

Not all healthcare workers are in the operating room. Some work in the shadows, caring for patients in other ways. Behind every life that's saved and every person who recovers is an entire ecosystem of people who put their heart into what they do every day.

“We don’t do enough to emphasize the importance of taking care of the person’s inner heart, of their suffering and emotional well-being. And yet without it, a part of the patient may continue to suffer. After all, a hospital is much more than a place that dispenses physical care.”

Isabelle Gauthier
Spiritual care practitioner



Julie Richard: making surgeries possible

— A profile of Julie Richard,
operating room coordinator

Julie Richard is a pillar of the Montreal Heart Institute. She oversees the surgical wing with boundless energy, supervising the activities related to the numerous surgeries performed at the MHI every year. She told us about her passion for her job and the projects she's implemented to improve patient care.

A balancing act

When we asked Julie about her work, she emphasized the importance of balance and versatility: "My entire career has revolved around striking the right balance between the various factors I deal with as the surgical wing coordinator. I'm like a pendulum, always looking for the right equilibrium between the need to care for patients and the need to make sure our teams are not overworked," she said.

As part of her daily tasks, Julie plans and coordinates the surgeries while deploying the

resources required to carry them out efficiently. She also supports the surgical wing's teams of specialists. These include perfusionists, respiratory therapists, nurses, orderlies, medical device reprocessing unit attendants, and the surgical anesthesiology research team.

Julie is also in charge of the annual surgery calendar. "I schedule the surgeries for the coming year in line with the resources we have and our needs. I work with the team responsible for managing the list of patients in the preoperative phase and we try to optimize every time slot using various indicators. The head of surgery also provides a vital contribution. As a result, this year we've been able to schedule 2,000 operations. My goal is to increase this figure to 2,500 per year before I retire. That would require us to continue streamlining the flow of care we provide," said Julie.

A day in the life of Julie

What do 24 hours in the shoes of a surgical wing coordinator look like? “It starts very early in the morning... and ends very late at night!” she said with a smile. “At 4 or 5 a.m., I’m already planning and managing incoming messages to ensure we maximize our time slots for the upcoming day. We want to perform as many surgeries as possible and cancel as few as possible. I then visit the various teams in the surgical wing to support them in their work,” she said.

Improving the system by treating more patients with better care

Julie spent 20 years as a respiratory therapist in the surgical wing before deciding to focus her efforts on improving work methods. Her goal was to effect positive change in the team’s approach to care. For the past nine years, she’s helped to improve the systems developed to support patients. “I became a manager because I felt we weren’t always putting the patient at the core of our activities and decisions. I believe that when we put them at the heart of our approach, we can make the best decisions. We can bypass optional steps and make the process more organic and efficient,” she said.

Reducing hospital stays thanks to the AJC project

The AJC project is due in part to Julie. Its goal is to have patients arrive at the hospital the day of their surgery. “The patient no longer needs to stay overnight before their procedure. Same-day hospital admissions allow us to improve the flow of our care. This also represents a gain in terms of finances and human resources. As a result, we can increase the number of people we treat every day.”

Enhancing patient involvement with the ERACS program

Julie also helped to implement the Enhanced Recovery After Cardiac Surgery (ERACS) program, which aims to transform the patient’s journey in the hospital. “It’s a way for the patient to become a partner in their surgery, to feel involved in the process. They’re better prepared thanks to virtual classes and videos they can access before their surgery. We want to optimize their recovery by making them an active participant in the process, such as having them walk to the operating room. In the postoperative phase, we motivate them by setting hospital discharge dates and encouraging them to maintain their muscle mass and energy. These are only a few examples, and each patient’s journey is supported at every step. It’s a comprehensive approach based on education, inclusion and empowerment.”

“At 4 or 5 a.m., I’m already planning and managing incoming messages to ensure we maximize our time slots for the upcoming day.”

Julie Richard

The Foundation: a key ally
Julie knows just how important the Foundation and its donors are to the Montreal Heart Institute. “The Foundation is a very precious ally in raising the funds missing from government budgets, funds we need to provide cutting-edge care. The money raised not only allows us to benefit from technology developed in other countries, but it also gives us the means to create new ways to save lives. The MHI has become a vector of change in Quebec and abroad, and this is thanks to the support of the Foundation,” she said.



Julie’s heart

If Julie’s heart could speak, here’s what it would say:

I’ve dedicated a huge part of my career to taking care of patients, but also to supporting the people who care for these patients. It’s a life of self-giving. That’s what it takes to do what I do. It’s understanding the importance of empathy.



A different way of treating patients

—— A profile of Isabelle Gauthier, spiritual care practitioner

“First and foremost, it’s about listening. Providing compassionate, personalized support without judgment or an agenda.”

Isabelle Gauthier

Isabelle Gauthier has been a spiritual care practitioner at the Montreal Heart Institute for eight years. She’s always ready to lend an ear or a hand to anyone navigating the hustle and bustle of the hospital. Her work even earned her the 2023 Dr. Denis Roy Award of Excellence, in recognition of her exceptional contribution to the field. She told us more about this little-known profession and the vital importance of her role—one based on a sensitive approach to disease that benefits many patients every day.

Getting to the heart of the matter with spiritual care

What does a spiritual care advisor do? We asked Isabelle to take on the tricky task of defining her profession, and her response was an honest one. “That’s a good question, because our work can seem so enigmatic. People sometimes jokingly call me Sister Isabelle. Some people see my profession as having a religious angle, but religion rarely enters the equation,” she said.

“First and foremost, it’s about listening. Providing compassionate, personalized support without judgment or an agenda. We want to provide the patient with a space where they can share their truth in its entirety. Everything moves quickly in a hospital, and for the patient it can be quite hectic—they find themselves in a whirlwind of prognoses and medical procedures. The simple fact of sitting down with them and giving them that space, that time, and asking them what they’re going through, opens doors to help them cope with the disease. It’s actually very hands-on,” she said.

“What I can do is soothe open wounds.”

Isabelle Gauthier

Treating more than the body

Isabelle’s work is focused primarily on establishing a helping relationship by providing patients with support that goes beyond the physical treatments they receive. It’s a holistic approach to care. “Disease has a way of making us lose our bearings and disrupting the bonds we have with loved ones. When I meet someone who’s going through an enormous upheaval, who’s trying to find some meaning, I try to carve out a zone of trust—a place where they can see how much they have within themselves. Of course, treating the body is important, and we have extraordinary teams who take care of that. What I can do is soothe open wounds. I might not be able to do anything for them in a physical sense, but everyone has an inner garden and I try to cut through the brambles and thorns to make it bloom a little bit. Another way of putting it is that I clear away the ashes and blow on the embers to reignite the flame. My work isn’t about saving lives, but rather helping people achieve some calm, to make their journey a bit more serene. I try to get the person to leverage their greatest assets, be it family, love, or the people they’re closest to. It might not seem like much, but when you take care of what’s on the inside, the outside benefits too,” she explained.

The importance of moral support in the face of heart disease

For the past eight years, Isabelle has been offering her support to those who set foot inside the MHI—a choice that is anything but random and a response to the inherent needs of those affected by cardiovascular disease. “There’s something very sudden, very dramatic about heart disease. Heart issues can completely change a person’s life. That means it’s a condition that’s accompanied by fear, shock and bewilderment. There’s no time to make sense of it... The head understands what’s going on, but the heart hasn’t caught up. I try to help the person through this transition and learn to live with their new reality. It’s about figuring out how to come to terms with the situation emotionally, because heart disease can appear so suddenly. A heart is everything, and when patients learn something’s wrong with theirs, it can wreak havoc on the mind. There’s a lot to digest, both for the patient and their loved ones,” she said.

From one heart to another: the moving story of Frank Nguyen

Isabelle could tell hundreds of meaningful stories. She agreed to share the story of Frank Nguyen, who recently received a heart transplant.

↑
Read Frank’s story on page 20.

“Frank was about to have his heart transplant surgery. I stopped by his room to support him through that life-changing event. He was holding a photo of his wife and daughter, and told me he was doing it for them. At that point, there was no one supporting and no one being supported—we were in it together, a moment of truth. He told me about his fears, his worries, how he had come to terms with the transplant. Sensing he needed someone beside him, I waited with him in the preoperative unit. I held his hand and he said, ‘I’d like you to put your hand on my heart. You’re going to be the last person who will feel it beat.’ That’s what’s so beautiful about my job. I’m not the only one giving the other person space to express themselves and to feel. They do the same thing for me. It was an extraordinary gift. Feeling a heart that has experienced love, fear, and so many other things. Feeling that heart for the last time... It was a moment of grace. I’d never experienced anything like it, nor have I since,” she said.

Advocating for spiritual care

In the current social context, where governments are increasingly moving towards secularization, the essential yet misunderstood work of Isabelle and her colleagues is under threat. “The subtleties of our tasks are not always understood. I’d like this profession as a whole to be more widely recognized, and to see a greater appreciation of the value and contribution of spiritual care practitioners in hospital settings,” added Isabelle.

A role the Montreal Heart Institute deems important

Isabelle also wanted to thank the Montreal Heart Institute for recognizing the value of spiritual care. “We’re lucky at the MHI, because the teams, nurses, and physicians here know what we do. They see the impact we have on patients and their families. They’re the first to see the benefits of our work and understand how we bring dignity to the process, how we bring a little bit of light to it. When I was nominated for the Award of Excellence, Dr. Roy said, ‘We don’t do enough to emphasize the importance of taking care of the person’s inner heart, of their suffering and emotional well-being. And yet without it, a part of the patient may continue to suffer. After all, a hospital is much more than a place that dispenses physical care,’ and I wholeheartedly agree with him,” she added.

Isabelle’s heart

If Isabelle’s heart could speak, here’s what it would say:

I would like to quote philosopher Louis Lavelle. “The greatest good we can do for others is not to show them our value, but to reveal theirs to them.”
That’s what drives me as a spiritual care practitioner.

Amélie Brasiola: leading the Surgical Intensive Care Unit

— An interview with Amélie Brasiola,
Head of the Surgical Intensive Care Unit

As head of the Surgical Intensive Care Unit (SICU), Amélie Brasiola is dedicated to improving postoperative activities at the Institute. She is also the recipient of the 2023 Montreal Heart Institute Managers' Association Award in recognition of her exceptional contribution to the development of innovative projects and her outstanding commitment to employees. She spoke to us about the importance of her unit and the key role the Foundation plays in supporting it.

From nurse to head of her unit

Amélie was drawn to the healthcare field, specifically nursing, because she believed it would fulfill her need to have close contact with her fellow humans. During her studies, she developed a keen interest in cardiology, a complex field brimming with exciting and promising research projects. Joining the team at the Institute was a natural step for her: "I wanted to work in the best centre dedicated to cardiology, so I came to the Institute. That was 15 years ago. I started as a nurse in the SICU and I never left. For the past four years, I've been the head of a unit that has allowed me to grow professionally," she said.



“With my several years of experience as a nurse, I fully understand their challenges and needs.”

Amélie Brasiola

The SICU: a key transition zone

The SICU is where patients go after their surgery. “We support them during what we call the post-acute recovery phase—the moment in their treatment when they have the greatest needs. Whether a patient undergoes a transplant or any other type of surgical procedure, they all spend time here. When they first arrive, they are intubated and connected to all sorts of wires. They’ll wake up in the recovery room and we’ll monitor them for several days after the surgery. We aim to get them up and out of their wheelchair that same day: once earlier in the day and once at the end of the day. If everything goes well, the patient can be transferred to another unit the next day and then eventually be discharged. Every room in the unit is equipped to welcome families and designed to help the patient recover optimally,” said Amélie.

Helping the teams excel

Amélie has been the head of the SICU for the past four years. Her daily tasks include overseeing a multidisciplinary team that includes nurses specialized in cardiology and intensive care, intensive care physicians, attendants, and specialists who work in the SICU to meet the patients’ needs. “I support the staff in their work, making sure everything runs smoothly and that they’re not overworked. I also help them navigate any changes, such as when we’ve implemented new programs or equipment. It’s a human-centric management approach that’s based on attentiveness and a relationship of trust. With my several years of experience as a nurse, I fully understand their challenges and needs.”

As the leader of the SICU, Amélie also acts as a bridge between the surgical teams and the staff in the unit. She ensures that transitions are smooth and that there are enough human resources available to take care of new patients recovering from surgery.

Relieving pain thanks to the Postoperative Pain Management Service (SAPO)

Thanks to her boundless energy, Amélie wears many hats at the Institute. She leads the Enhanced Recovery After Cardiac Surgery (ERACS) program as well as the Postoperative Pain Management Service (SAPO), an interdisciplinary clinical service whose primary mission is to provide personalized pain relief and management to patients who undergo surgery at the Institute. “SAPO is a collaboration between a nurse and an anesthesiologist who make daily rounds to surgical patients to assess their comfort and adjust their care as required. We combine various pain relief techniques to optimally manage acute postoperative pain,” said Amélie.

This leading-edge postoperative expertise not only reduces patients’ pain, but it has also led to the development of specific projects over the past few years. “Implementing a service like SAPO has allowed us to take our expertise to a whole new level and optimize our methods to ensure we can provide recovering patients with the very best care.”

An ambassador for the Foundation

As ambassador of the MHI Employees Generosity Campaign, Amélie has become an advocate for the Foundation. “As unit heads, we are extremely dedicated to the cause. We work for patients, and we see the direct impact of the Foundation’s support. We know how cutting-edge equipment makes a difference in the lives of patients. That’s why I wanted to become involved with the Foundation and foster employee engagement. I’m very happy to help demonstrate the positive impact the Foundation has on our work and on the quality of the care we provide. I want to highlight how important the Foundation is for the future of the Institute.”

Amélie’s heart

If Amélie’s heart could speak, here’s what it would say:

I’ve been at the Institute for 15 years now. I see all the work, dedication and commitment of those around me. What motivates me most is the excellence of the care staff—their joy, their exuberance, their devotion to their patients. Their strength fuels me and helps me give the best of myself.

Orderlies: pouring their hearts into caring for cardiovascular patients

— An interview with Anick Lamontagne, orderly

Anick Lamontagne spent 17 years as an orderly in CHSLDs and CLSCs, and as an in-home attendant helping with end-of-life care. She never thought she'd end up working in a hospital setting. But after five years at the Montreal Heart Institute's Critical Care Unit, she couldn't imagine herself working anywhere else. As she put it: "Once you've worked in cardiology, it's hard to leave."

Colleagues who go above and beyond

"Cardiology, especially critical care, is not for everyone. Codes (cardiac arrests) are called quite often. You can't be scared, and you've got to be fully committed to the job. From the moment I joined the Institute, the team felt like a big family. The feeling of unity I'd experienced during my interview turned out to be real. In every unit I've worked in, I've always received helpful answers to my questions—it really feels like everyone wants me to have the tools I need to perform my duties. I've been learning since day one. And that's true for every member of the healthcare team, from the physicians and the nursing staff to my orderly colleagues who've always been there for me: Mireille Potvin, Carl Dion, Richard Rondeau... I could go on and on," said Anick.

"Cardiology, especially critical care, is not for everyone. Codes (cardiac arrests) are called quite often. You can't be scared, and you've got to be fully committed to the job."

Anick Lamontagne



“Even if you’re not the one whose chest has been opened, you need to understand what that would feel like.”

Anick Lamontagne

Empathy as a path to healing

As with other healthcare professionals, empathy and dedication are among the strengths of orderlies. These qualities play an essential role in their work in close proximity to patients, even if it sometimes takes place in the shadows. “You’ve got to love what you do. Really. You need to know how to put yourself in the other person’s shoes. Even if you’re not the one whose chest has been opened, you need to understand what that would feel like. You need to be attentive and emotionally available. Does the patient want to talk about their anxiety? Would it be better to soothe them with a care routine in silence and offer an opening if anything changes? Sometimes, the comfort and serenity of silence is enough. And if we start to feel burned out, there’s always a colleague who’s ready to step up and help in difficult situations,” she said.

A little goes a long way

One of the responsibilities of an orderly is to help patients resume their activities of daily living (ADL). That might mean learning how to sit without any help or brushing their teeth. Every step is part of the recovery process.

“Take a patient who’s just been transferred from the intensive care unit and hasn’t washed their hair in a week... Our goal is to help them regain a semblance of normal life. For that patient, it’s not just about washing their hair—it’s the act of doing so that makes all the difference. Patients tell us how good it makes them feel, and they’ll often become emotional when doing so. We also monitor their progress. We work closely with the nursing team to determine what we can do according to the patient’s condition. Could we walk together in the hallway, or would it be better for them to stay immobilized? We’ll see them arrive in our unit in very serious condition and, often, we see them get better. When patients visit us after they’ve recovered, I like to remind them that I’d told them they’d be walking again. It’s very rewarding and motivating to encourage patients to regain their autonomy and to realize we’ve played a part in their recovery.”

Caring for a patient’s body while remaining attentive to their emotional well-being

“Changing a patient’s underwear, washing them, or helping them into a new position is part of our daily tasks. But our work is also profoundly human-centric. Holding a hand or offering some comforting words at the right time can impact a person’s mindset. Nurses and medical staff don’t have enough time with patients to create those moments. The minute you set foot in a room you feel the patient’s energy. You need to know how to decipher it. Even if a patient is intubated and can’t communicate, I tell them what I’m doing. I establish contact with them. I want to comfort them and be attentive to their needs. In my unit, many patients are in vulnerable situations and that requires a continuously gentle approach. I give what I’d like to receive. It’s as simple as that,” she added.

A job that demands physical and mental strength

Because orderlies work very closely with patients, they’re never far when their condition deteriorates. “When a code blue is called, when you’re performing a cardiac massage and you meet the patient’s eyes, it’s a really emotional moment. I once performed three cardiac massages in one day. You never know what’s going to happen and you always need to be ready. In these extremely critical situations, team synergy takes on a whole new meaning. We communicate, we help each other, we work side by side to maximize the patient’s odds of survival. You need to have a strong heart,” she said.

Anick’s heart

If Anick’s heart could speak, here’s what it would say:

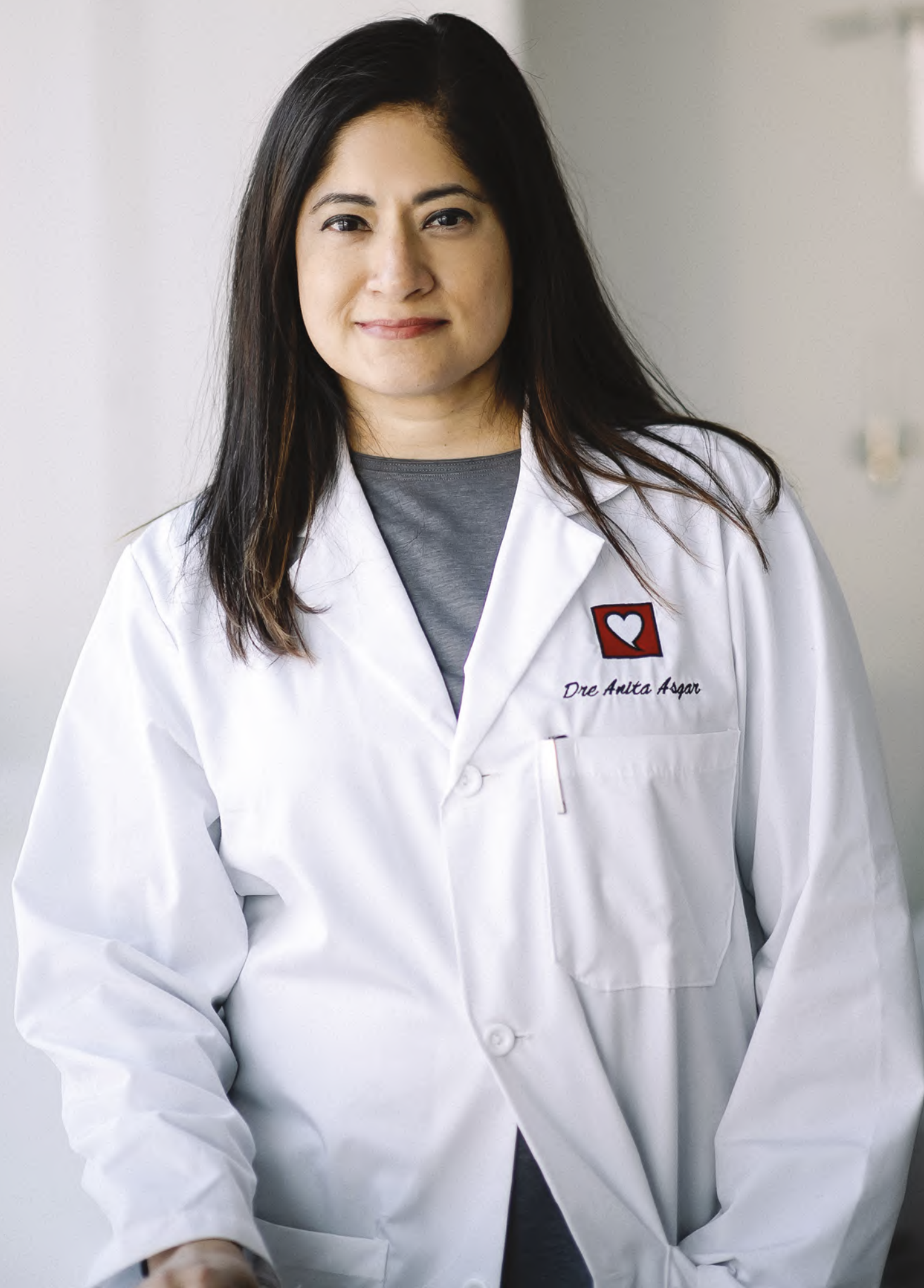
I’m grateful when a patient takes a moment to look at me or take my hand; when a patient says my name and thanks me. It’s extremely gratifying! These moments are why I do this job.

Hope.

That's what guides the researchers and physicians who are paving the way for the future of cardiovascular medicine. In addition to treating more patients with less invasive, revolutionary devices, we're also looking forward to being able to predict disease—and therefore start treatment sooner—thanks to precision medicine.

“We’ll be able to use a small blood sample, taken at birth or when the patient is a young adult, to sequence their DNA and guide clinical decisions throughout their life.”

Ian Mongrain
Director of Operations, Beaulieu-
Saucier Pharmacogenomics Centre



Using technology to treat valvular heart disease in a minimally invasive way

— An interview with interventional cardiologist Dr. Anita Asgar

Dr. Anita Asgar has been working at the Montreal Heart Institute since 2009. She specializes in hemodynamics, a field that studies the dynamics of blood flow in the cardiovascular system. As an interventional cardiologist, she uses innovative, minimally invasive techniques to treat patients with valvular heart disease. She spoke to us about the Transcatheter Valve Therapy (TVT) Clinic and the innovative, non-invasive procedures that can transform the lives of patients.

The TVT Clinic: cutting-edge care for valvular heart disease

We asked Dr. Asgar to describe the work that's taken place at the TVT Clinic since it was opened in 2010. "It's a clinic for patients with valvular heart disease. Its goal is to use a transcatheter approach to repair or replace the aortic valve. That means we don't need to perform open-heart surgery to treat the patient, we can use a percutaneous procedure instead. In other words, we make a small incision in the skin to insert a catheter," she said.

Using transcatheter implantation to treat aortic stenosis
Aortic stenosis is a degenerative disease that develops over many years. The catheter approach has had a positive impact on those who suffer from this heart disease. “The aortic valve is the largest of the four valves in the human body. It is located between the heart and aorta and controls blood flow to the organs. As we get older, this valve can become less effective and narrow. As a result, the heart works harder to pump blood. This is aortic stenosis. Symptoms include shortness of breath, chest pain and decreased exercise tolerance. When the wear on the valve reaches critical levels, it must be replaced. If not, the heart could stop functioning. With transcatheter implantation, we can replace the worn valve with a new, biological valve. All without invasive surgery,” said Dr. Asgar.

What started out as a less-invasive option for high-risk surgical patients became the standard practice for treating valvular stenosis. “At first, we wanted to come up with a solution for patients for whom surgery was very risky—people who couldn’t undergo surgery for various medical reasons. But today, studies have shown that transcatheter implantation is beneficial for low-risk patients as well. It’s a technique that has been approved in many aortic stenosis cases. It’s also much less invasive for the patient.”

Treating mitral regurgitation with the MitraClip
Mitral regurgitation is another valvular heart disease. It occurs when the mitral valve, located in the heart between the atrium and left ventricle, fails to close tightly enough. As a result, blood flows in the wrong direction. Since 2010, the TVT Clinic has offered a mitral valve repair program using a device called the MitraClip. This has led to the Clinic being named a Centre of Excellence in Canada. Dr. Asgar oversees this type of repair daily and was extremely eager to describe the benefits of this technology. “Studies prove that using the MitraClip reduces the risks of hospitalization and mortality, something heart surgery was never able to demonstrate. Surgery is therefore not ideal for those with this condition. The reality is that we are now able to treat people for whom there was no solution before the advent of this technology. It not only improves their odds of survival, but it also enhances their quality of life. Moreover, the MitraClip is very safe, even for patients who are over 90. They come to the clinic and leave quickly. The recovery period is easy, and the results speak for themselves. I’ve treated more than 600 patients with this technology since 2010,” she said.

“I’ve treated more than 600 patients with this technology since 2010.”
Dr. Anita Asgar

The benefits of shorter hospital stays
Since September 2023, certain patients who have undergone percutaneous aortic valve replacement to treat their aortic stenosis can be admitted to the short-stay unit instead of being hospitalized at an in-patient unit. This option was already available to patients with mitral regurgitation. The benefits are major: “Patients tolerate it well, recovery is quicker, and the results are the same. We can treat more people and alleviate the process for each patient. They can come here and leave 36 hours later with an improved quality of life,” said Dr. Asgar.

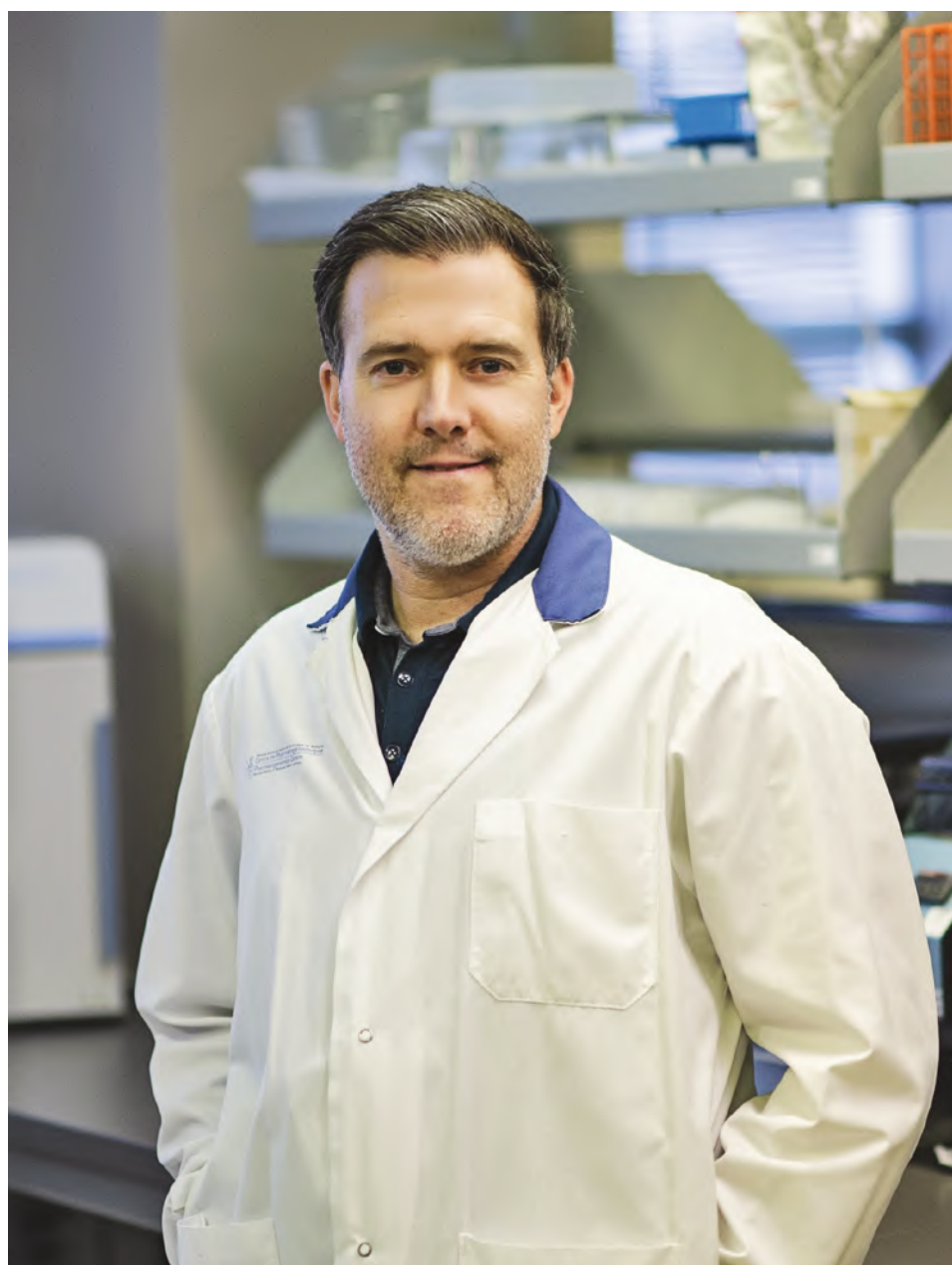
Saving lives: a team effort
We also asked Dr. Asgar what she believes makes all the difference when it comes to the Institute’s ability to provide this cutting-edge technology. Her answer was unequivocal: “The great thing about our clinic is that we have a multidisciplinary team. We can rely on medical sonographers, radiologists—an entire team of experts who work together to make sure the patient receives the right care, something a physician alone cannot provide. And we leverage numerous skill sets to do so. Behind every doctor who meets with a patient, there’s an entire team.”

The Foundation’s essential contribution
“When the TVT Clinic was first launched, the government didn’t pay for valves. The Foundation helped us obtain the equipment we needed to treat as many patients as possible. It took years for the government to start funding this technology. Without support from the Foundation, we wouldn’t have been able to treat all those people. Moreover, the Foundation is currently funding a major study to assess whether we can treat patients with moderate mitral regurgitation before their condition becomes severe. Breakthroughs are only made possible with the help of donors,” she said..

Anita’s heart

If Anita’s heart could speak, here’s what it would say:

I joined the Institute in 2009 and I have greatly enjoyed my time here. I’ve had the opportunity to develop new technologies to treat even more people. I’ve been able to see just how much the profession has changed in the last 15 years. When I started, changing a valve was a pipe dream. Today, it’s a reality. Helping patients who had no other option, improving their life as well as their quality of life, seeing the positive impact I’ve had on these people—it’s all very rewarding. And because technology never ceases to progress, I believe that if I can’t treat a patient today, I’ll be able to treat them in a year. This is a huge source of strength and fills me with hope for what comes next.



Collecting, analyzing, interpreting, predicting... and acting

— An interview with Ian Mongrain, Director of Operations at the Beaulieu-Saucier Pharmacogenomics Centre

How the Pharmacogenomics Centre is driving the future of medicine

Ian Mongrain has directed operations at the Beaulieu-Saucier Pharmacogenomics Centre for more than 10 years. He has borne witness to how the team brings scientific innovations to life every day. He told us how the Biobank works and how, in the near future, the combined strength of ongoing clinical studies and statistical analyses will enable scientists to prevent diseases and provide patients with personalized care.

The cornerstone of personalized medicine

Since it was created in 2008, the MHI's Pharmacogenomics Centre has been dedicated to advancing knowledge and promoting discoveries in precision medicine through pharmacogenomic research. As the director of operations, Ian Mongrain summarizes the Centre's goal this way: "It's an organization dedicated to promoting personalized medicine, which means using a patient's information, a study, or samples and data to explain a medical phenomenon and improve the treatments available. In other words, what the Pharmacogenomics Centre does is to collect and interpret data to ensure that we provide treatments that are adapted to each patient."

The MHI's Biobank: a unique repository of samples

The MHI's Biobank, housed at the Pharmacogenomics Centre, was created to turn clinical studies into tangible applications. "The Centre's Biobank was built using data from the MHI patients who agreed to take part in this project. We created the Biobank to have as many samples from patients in our freezers as possible so that in future projects, we can carry out genetic analyses cross-referencing medical information," said Ian.

What sets the MHI's Biobank apart from others is not only the number of samples it contains (more than 500,000 collected to date), but that it is continuously evolving. "The biggest advantage of our Biobank is that it allows us to study longitudinal data. Because the MHI's patients are monitored over a period

of time, we can update the research data. That means the Biobank is always evolving. This in turn allows researchers to explain, interpret and compare data over time. It represents a wealth of information that we can track. We can also contact patients again to invite them to take part in additional studies, for instance if we want to validate a discovery pertaining to the efficacy of a drug. Because it is a hospital cohort, we can combine the genetic information in the samples we analyze with data collected from the hospital. That way, we have a global view of healthcare data, which can lead to in-depth analyses."

Leveraging the strength of a multidisciplinary team to collect and interpret data

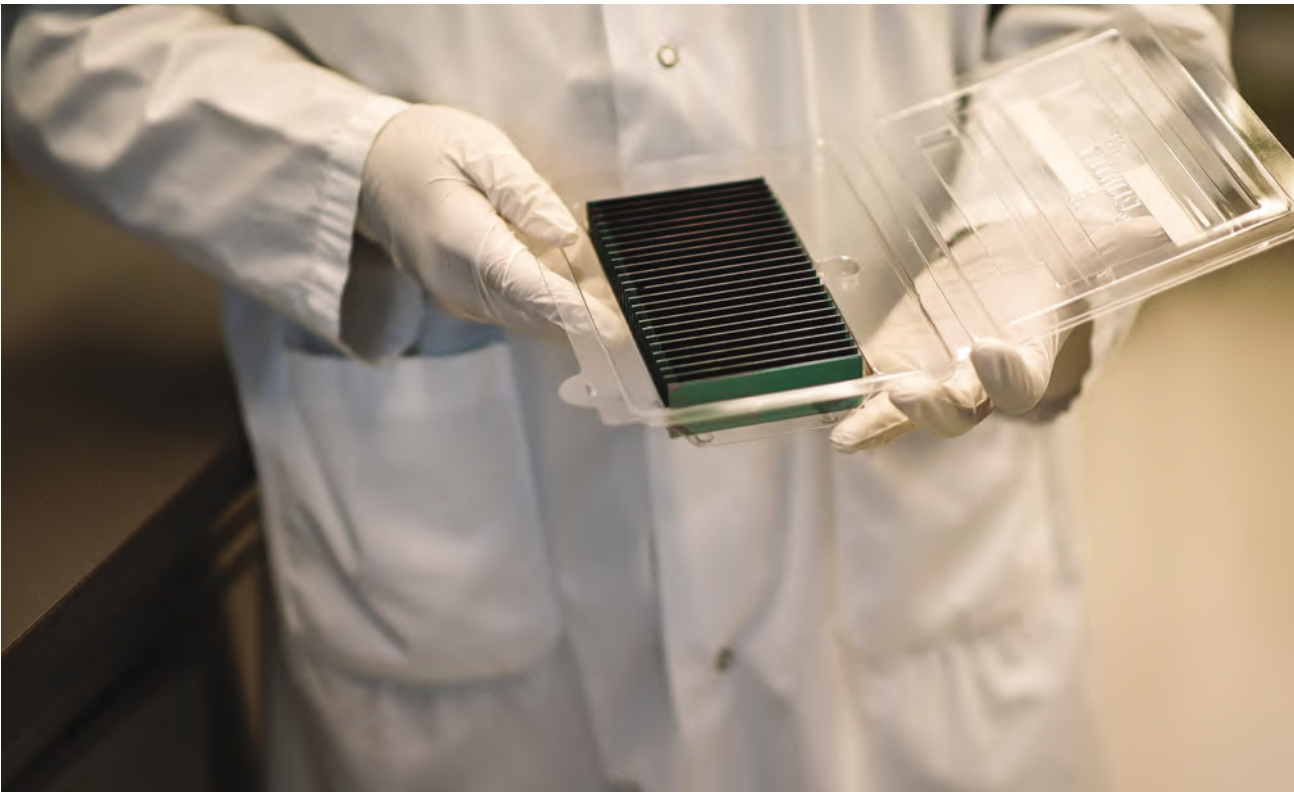
The Pharmacogenomics Centre has developed a stellar reputation in the pharmaceutical field thanks to the scientific rigour of its approach and its capacity to analyze the data collected. "Our strength is being able to house both laboratory and statistical skill sets under one roof. These two teams come together to conduct clinical studies and extract and analyze relevant information. That means we need nurses, physicians and managers at the Biobank along with technicians, researchers and IT assistants who can build the data collection tools used in the lab. We also have statisticians and IT specialists to analyze this data. When we proceed with analyses, we follow very stringent laboratory practices from the get-go. These enable us to achieve the highest standards of quality. We now have immense credibility within the industry: when we publish the results of a new study, they're highly valued because everything has been done in line with best practices," said Ian. As proof of the exceptional quality of the Centre's work, it recently obtained the North American CAP/CLIA certification, which has rarely been awarded in Quebec.

The dal-GenE study

According to Ian, the dal-GenE study is a perfect example of the Centre’s analytical and interpretation abilities. “A few years ago, pharmaceutical giant Roche had to end a major study on the efficacy of a drug to reduce cardiovascular events in patients with acute coronary syndrome due to inconclusive results. A global study indicated that the medication was no more beneficial than a placebo. In collaboration with Dr. Jean-Claude Tardif, our team at the Pharmacogenomics Centre conducted a genetic review of the data stemming from this study. We were able to determine that some patients had a genetic variant that allowed them to derive

a significant benefit from the drug. Meaning that it was probably efficient, but only for certain people. When traditional clinical studies fail, we now have ways of understanding the data and we can deliver new solutions thanks to advanced genetic analyses. Today, the clinical study has resumed, but only in patients with the genotype we identified. That’s what precision medicine is all about.”

He added: “Developing a molecule or a drug in the lab is one thing. Everything gets much more complex once we’re in the clinical stage. We often don’t understand why the drug doesn’t work as planned. Cogenetic data allows us to comprehend and use that information to treat patients more efficiently.”



Personalized medicine: acting to prevent

What will precision medicine look like in the next few years? This is a broad and intricate question about a field that is experiencing tremendous growth. But Ian has an idea: “I expect we’ll be able to use a small blood sample, taken at birth or when the patient is a young adult, to sequence their DNA and guide clinical decisions throughout their life. This is the part of preventive medicine that will focus on screening and prevention rather than treatments. There will be fewer cases of chronic diseases and fewer negative impacts of ill-suited drugs because we will know the relative efficacy of the medication on a patient according to their genetic profile. That’s significant considering that side effects from medication are a major source of hospitalizations in the U.S. and Canada. Even today, randomized studies have proven that precision medicine reduces the number of hospital admissions. It’s time to change mindsets and to quickly conduct the clinical studies needed to convince the healthcare sector that acting in a preventive way is a win-win situation for everyone,” he said.

Ian’s heart

If Ian’s heart could speak, here’s what it would say:

The future is in good hands with personalized medicine. I’m sure that very soon, there will be major scientific breakthroughs in precision medicine—not only in cardiovascular medicine but in every field.

The CHIP-Cardio project

— An interview with Dr Marie-Pierre Dubé,
Director of the Beaulieu-Saucier Pharmacogenomics Centre

When research leads to changes in practice

Dr. Marie-Pierre Dubé is a researcher who specializes in analyzing genomic data. In collaboration with Dr. Jean-Claude Tardif and hematologist Dr. Lambert Busque, she's been focusing on a highly fascinating genetic phenomenon that has immense potential for the healthcare sector. She was excited to share the details of this major scientific breakthrough pioneered by her team. It's a project that gives us all a reason to be hopeful about the future.

What is CHIP?

We first asked Dr. Dubé to explain what CHIP means. "CHIP is a condition characterized by a genetic mutation of the blood cells. When we test for CHIP, we don't study a person's genetic makeup at birth—we measure the genetic mutations that have appeared in their blood cells over the course of their lifetime. We already know that these mutations sometimes lead to cancer. In fact, recent studies have shown that CHIP also increases the incidence of heart disease, diabetes, cognitive impairment, and heart failure. CHIP is a new biomarker, a measurable biological characteristic that has the potential to revolutionize the way we predict and intervene in these diseases. We're at the cutting edge of cardiology-related discoveries," she said.

"We're at the cutting edge of cardiology-related discoveries."

Dr. Marie-Pierre Dubé



“CHIP-Cardio is the perfect embodiment of precision medicine.”

Dr. Marie-Pierre Dubé

The potential to treat genetic mutations

The CHIP-Cardio research project focuses on studying these mutations. “Each cell in every organ contains DNA. Over our lives, this DNA undergoes minute mutations that can manifest in different ways, such as age spots. The CHIP phenomenon, which stands for clonal hematopoiesis of indeterminate potential, occurs when these mutations confer blood-producing cells with a proliferative advantage, leading to a clonal expansion of these mutant progeny cells. When you’re sick, your blood cells are in high demand—this is namely the case in situations of acute or chronic inflammation. What our work has revealed is that inflammation is at the core of a major vicious cycle: the greater the CHIP, the greater the inflammation, and vice versa. The CHIP-Cardio project aims to determine if the use of anti-inflammatory drugs can break this vicious cycle.”

The Pharmacogenomics Centre: Providing the means to achieve great things

As director of the Beaulieu-Saucier Pharmacogenomics Centre, Dr. Dubé is very aware of the exceptional resources the MHI has made available to the project team. “We’re fortunate to have highly effective tools that enabled us to quickly develop a high-precision technique to detect CHIP. In fact, the technique is so accurate that we can measure the condition’s changes over time. That’s what allowed us to study these mutations’ mechanisms of action and understand why and how they lead to heart disease. Thanks to the strength of the MHI when it comes to leading clinical studies, we’ll be able to evaluate if anti-inflammatory drugs affect the impact that CHIP has on these diseases,” she said.

CHIP-Cardio and precision medicine

The CHIP-Cardio project is part of the pioneering field of precision medicine, which aims to personalize treatment according to each individual’s genetic makeup. “CHIP-Cardio is the perfect embodiment of precision medicine because we can carry out tests that not only identify people with CHIP, but also what types of CHIP they have. Using this information, we’ll be able to adjust their treatment. With precision medicine, the patient receives drugs that are adapted to their genetic profile and specific situation. In other words, not all

patients will receive the same medication. However, there are still many questions that remain unanswered, like the differences between men and women regarding CHIP and inflammation, the link between CHIP and neurocognitive disorders, and so on. There’s an entire world begging to be explored, and that’s extremely stimulating,” said Dr. Dubé.

Practical applications in the near future

Dr. Dubé and her colleagues are driven by the scientific discoveries related to this new biomarker and how they can be applied to the field. When we asked Dr. Dubé what the future has in store, she was extremely enthusiastic. “It’s very, very exciting. The applications will soon be tangible. We have all the resources necessary to have a major impact in the short run and develop technology we can make available throughout Quebec and even abroad. This biomarker makes anything possible. It’s a new source of information that we can use to treat the patient. The data has the potential to guide how medicine is practised.”

Current analytical methods are very demanding because everything is done manually. Scientists are still in the discovery phase, but that could change thanks to funding. “The technology is not yet automated. We want to make it functional and transpose it into an application that will allow us to innovate our medical ecosystem. This technology has the potential to be used on a very large scale, in hospitals and various medical settings. Having the financial resources we need will enable us to make scientific advances and increase our understanding of basic medicine. It will drive change in practices on a global scale. I believe this technology will become part of standard practice within a few years, and we’ll be proud of having pioneered this change. This is a project that will go down in history, and patients at the MHI will be able to benefit from the medical advances that will follow,” said Dr. Dubé.

Marie-Pierre’s heart

If Marie-Pierre’s heart could speak, here’s what it would say:

Life is about contributing as much as you can. My personal ikigai is to contribute to medicine through scientific research. My heart says let’s go, it’s worth it, carry on! And I’m surrounded by exceptional, hard-working team members. I’m very proud of the results. Seeing the progress is very stimulating.

Committing to the cause

Together.

Our goal of reducing the rate of mortality and morbidity associated with heart disease by 30% in the next 10 years is only possible with you by our side.

Thank you to our donors from the bottom of our hearts.

“Their ambition goes above and beyond offering the best care to Quebecers and their drive is simply infectious. It’s inspiring to know that thanks to research and education programs, the funds donated can make a huge difference here and around the world.”

Yves Roy

Member of the Foundation’s board
of directors and major donor



Yves Roy: following his heart to support the cause

_____ A profile of Yves Roy, board member and major donor

The Montreal Heart Institute Foundation is proud to recognize the exceptional devotion of Yves Roy and Sylvie Filion, his life partner of more than 50 years. Yves is a dedicated philanthropist who’s led an impressive career that’s taken him to the four corners of the world. In addition to sitting on the Foundation’s board of directors, Yves has been providing unwavering financial support over the past 10 years through numerous one-time donations as well as planned giving. We wanted to find out more about this generous man who believes there are many ways to give.

The importance of giving back

We asked Yves to tell us why philanthropy is so important to him. “Sylvie and I have been fortunate when it comes to our finances. And because we don’t have children, we want the financial resources we’ve accumulated to benefit other people. This drive to ‘pass it on’ involves organizations and institutions that are very dear to our hearts. I first became involved in philanthropy with Les Grands Ballets Canadiens, the Fondation Marie-Vincent, and the Montreal Museum of Fine Arts. Our support for Université Laval came naturally because that’s where Sylvie and I went to university. In fact, our time there changed the course of our lives. That’s when giving back got even more personal.”

Why choose to support cardiovascular medicine?

“I’ve always been interested in life sciences. That’s why my support for my alma mater focuses on their Faculty of Medicine. Over the course of my career, I mostly invested in biotech startups. Meeting former Foundation board members Jean-Claude Lauzon and Henri-Paul Rousseau made me aware of the importance of the MHIF. However, meeting Mélanie La Couture was the spark that really ignited my desire to support the Institute. I was immediately swept up in her enthusiasm for the organization and its mission.”

“It’s inspiring to know that thanks to research and education programs, the funds donated can make a huge difference here and around the world.”

Yves Roy

How would you describe your sense of belonging to the Montreal Heart Institute and its Foundation?

“I am first and foremost fascinated by the human strength behind the Institute. I’ve been amazed by the fertile mind of Dr. Jean-Claude Tardif, Director of the Research Centre, the passion of Dr. Peter Guerra, Chief of Medicine and Cardiology, the vision of Dr. Serge Doucet, Director of Education, and—last, but not least—the dedication of the renowned Dr. Martin Juneau. Their ambition goes above and beyond offering the best care to Quebecers, and their drive is simply contagious. It’s inspiring to know that thanks to research and education programs, the funds donated can make a huge difference here and around the world. In other words, by donating or by being involved in any way you can, you make helping others possible. You help save more lives. I always enjoy taking a moment to appreciate the magnitude of what’s been accomplished in the past 10 years.”

Yves’s heart

If Yves’s heart could speak, here’s what it would say:

I want to congratulate everyone who has chosen to serve the mission or cause that’s dear to them. To those who work in the field: thank you for everything you do. It’s the most generous way to give, and I’m always moved when I think of the immensity and beauty of your contribution.

The heartwarming story of the Migliara brothers, siblings dedicated to the cause

— An interview with Salvatore and Giovanni Migliara, major donors and volunteers



“I’ve also learned that we really need to support research because it’s vital.”

Salvatore Migliara

Since it was created, the Montreal Heart Institute Foundation has been fortunate to benefit from the devotion of exceptional individuals who put their strength and energy into the cause. Salvatore and Giovanni Migliara, two brothers involved with senior care homes in Montreal, are a perfect example. They’ve shared their story with us, revealing a dedication that continues to flourish in a world of ever-growing needs.

The start of Coeurs Universels

Salvatore became aware of the MHI Foundation in 2002 when one of his friends invited him to take part in a fundraising event. “My friend Adrien Perron, a very generous man whom everyone lovingly called Papa and who supported various causes, came to see me and said, ‘You know Vittorio DiVito, owner of the Auberge Universel? The Montreal Heart Institute has saved his life three times. He wants us to create a group that will organize a yearly fundraiser for the Foundation.’ So I told Papa Perron, ‘OK, I’m in!’ And since Vittorio DiVito owned the Auberge Universel, Adrien’s idea was to call our initiative Coeurs Universels. That’s how it started, with a small group of Vittorio’s friends—generous businesspeople who wanted to get involved and make a difference,” said Salvatore.

A growing group of donors

For about 15 years, Salvatore got together with the other members of the Coeurs Universels organizing committee to plan annual galas. “The first few years, we hosted the events at the Auberge, but over time, the event turned into such a big affair that we reached the Auberge’s maximum capacity... Which was a good problem to have! We found a new venue and the team kept expanding,” he said.

Passing the torch and pursuing charity work

A few years ago, Adrien Perron, the papa and friend who had convinced Salvatore to join Coeurs Universels, fell ill. “I’ll never forget that moment. His son called me and said, ‘My father wants to see you and you have to come quick, he’s going to leave us this weekend.’ That was Saturday afternoon. He passed away on the Sunday. I’ll always remember our conversation. He was still very lucid and said, ‘Son, I have a favour to ask and you’re going to promise me one thing. You’re the only one who can keep Coeurs Universels going, so promise me that it won’t die with me.’ I was very moved, and I remained true to my word. For years now, even if it’s a lot of hard work, anytime I think of passing the torch to someone else, I still hear Papa Perron’s voice telling me to keep at it,” said Salvatore.

Salvatore wanted to breathe new life into the organization in 2019 and asked his younger brother Giovanni to join the group. This marked the beginning of a new phase

where innovation was at the forefront. “When COVID hit—and with it, the constraints making large gatherings impossible—we had an idea. Because my brother and I are vintage car collectors, we decided to donate a few of them for a raffle. That’s how Le tirage du coeur came to be. It was an instant success. The first year, we raised \$225,000—the most we’ve raised in any year. When Adrien Perron started this endeavour, we were a small group of 4 or 5, but since 2002, we’ve managed to raise more than \$2 million... That’s not bad!”

A reminder of the importance of supporting cardiology

Why do the Migliara brothers believe it’s important to stay involved, even after all these years, and why cardiology? Their answer is clear: “Our lives, and our parents’ lives, began in the East End of Montreal, so it’s natural for us to support the hospitals and institutions that are located there. As the owners of senior care homes, cardiology is a huge concern for us because heart problems directly affect many of our residents. We know that the needs are growing—we see it every day—and that has made a mark on us. We want to give back to a field we’re involved in, where we can see the direct impact of our support. Two-thirds of our residents have been treated or will be treated at the Institute, and that’s huge. I believe it’s our duty as businesspeople to give back. The Institute and its cause are close to us. In fact, both our parents received treatment there,” said Giovanni.

“The needs are great, and I know that with the Institute, donating has a tangible impact—equipment, technological developments, expertise, ... I’ve seen the progress over the years.”

Salvatore Migliara

“All causes and foundations are worthy, but those that come into your life are the ones you form a personal attachment to. That’s why I chose the Institute more than 20 years ago. The needs are great, and I know that with the Institute, donating has a tangible impact—equipment, technological developments, expertise, ... I’ve seen the progress over the years. I’ve also learned that we really need to support research

because it’s vital. It helps elevate the Institute to another level, to international acclaim, and that’s admirable. On a personal note, I had a work accident in 1990 that led me to discover the EPIC Centre. I’m now a member. The Centre helped me get back into physical shape and I’m very grateful,” said Salvatore.

Salvatore’s heart

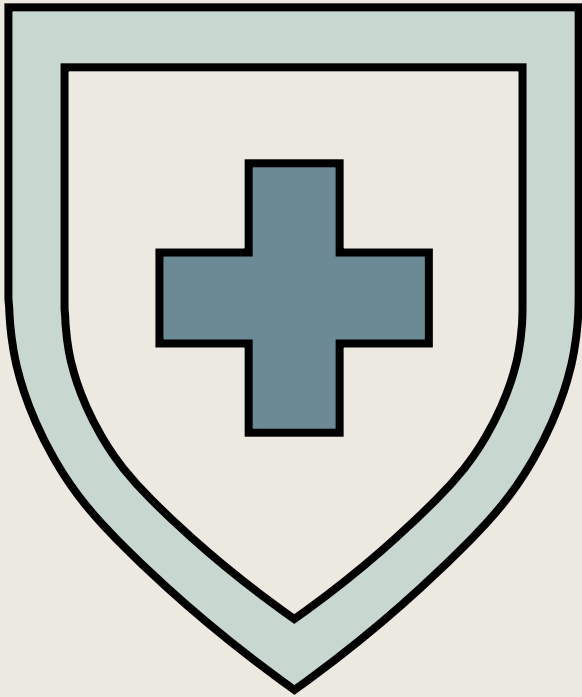
If Salvatore’s heart could speak, here’s what it would say:

We need to help the Foundation because while all causes are good ones, we have one key organ, and that is the heart. We can live without a leg or a kidney, but not without a heart. No heart means no life.

Giovanni’s heart

If Giovanni’s heart could speak, here’s what it would say:

We need to give because one day, we’ll be the ones needing help. You don’t understand how important it is until you go through it yourself. You realize that without the funds, you can’t move forward. We need to be proud and remember that every dollar counts, that donating is a way to invest in ourselves. Giving back to society is good for everyone. For us, it’s the pride that comes from being part of the Institute, and having helped shape the outstanding reputation it has earned.



United to save thousands of lives.

TC Transcontinental is proud to support the mission of the Montreal Heart Institute Foundation.



tc • TRANSCONTINENTAL



**Together, we can
change the course
of heart disease.**

**Listen to your heart.
Donate today.**



**MONTREAL
HEART
INSTITUTE
FOUNDATION**