

Tender hearts welcome

**COLCOT-T2D
study**

Preventing
heart disease
in people living
with type 2
diabetes

Innovation

The creativity
needed to
innovate

BRAIN-AF study

Preventing
cognitive decline
caused by atrial
fibrillation

Commitment

Sophie
Desmarais:
A woman of
heart and
conviction

From our community to yours

_____ This first-ever issue of our magazine takes you behind the scenes of the Institute and shines a spotlight on the big-hearted people who tirelessly carry out its mission.

Dear Readers,

A few months ago, I completed my first year as the president of the Montreal Heart Institute Foundation. Those 12 months seemed to fly by, but were nevertheless filled with as many wonderful achievements as major disruptions.

I had the pleasure to meet hundreds of people and to collaborate every day with a community of tender hearts. They are the experts who push the limits of science and innovation without ever losing sight of the human element in their work. They are the local partners who give generously to protect the most vulnerable. They are the professionals on the front line who are there, day in and day out, in the heat of the action, providing exceptional care. They are also the compassionate donors and volunteers who support our Institute. All are big-hearted individuals committed to improving the lives of people with cardiovascular disease.

Throughout this year where challenges seemed to multiply, they showed more determination and courage than ever.

It’s therefore with great pride that we recognize their contribution by paying tribute to a few of them in this very first issue of the Montreal Heart Institute magazine. It’s divided into four sections, each corresponding to one of our pillars of activity, which will allow you to discover some of our current projects, as well as key figures who contribute to the ongoing fight against heart disease. I wish all of you happy reading.

Alain Gignac,
Chief Executive Officer
of the Montreal Heart
Institute Foundation



“It’s therefore with great pride that we recognize their contribution by paying tribute to a few of them in this very first issue of the Montreal Heart Institute magazine.”

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Tender hearts welcome

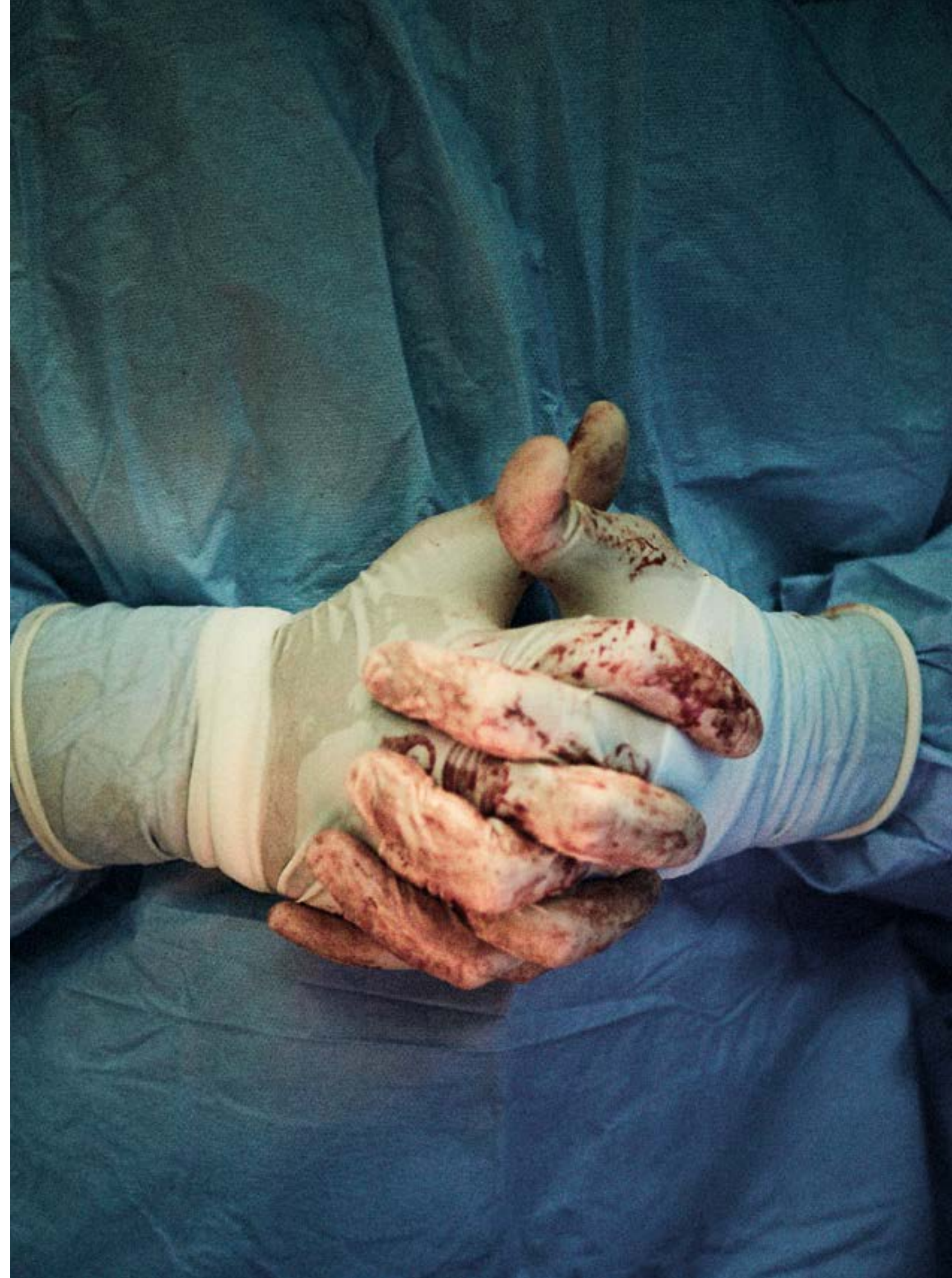
More than just a magazine title, the Foundation's new signature is a rallying cry that evokes our legacy of excellence, vision and innovation.

In addition to the Canada Research Chair in Genetics and Genomic Medicine, the Institute is also endowed with a world-renowned research centre. It is driven by a vision that all technological advances must be in service to human life because behind every illness, there's a patient. And it is for those patients that the Institute continues its fight each day against the number one cause of death on Earth.

Since 1954, the Montreal Heart Institute has brought a tightly knit community together around a lofty goal: protecting tender hearts. This community is made up of brave patients, ambitious experts, and generous allies and contributors, including some of the greatest philanthropists this country has ever known. Some built the Institute's foundations with their own hands, and others are now leading it toward new heights of excellence.

The Institute is surrounded by first-class allies to carry out that fight. Its donors and partners play a key role in the battle against cardiovascular disease. Every year, over 26,000 of them provide support to the Montreal Heart Institute Foundation. Their contributions are as essential for the Institute as a healthy heart is for a patient. They allow it to look to the future and innovate. Innovation means advancing the work of staff and researchers who are shaping the cardiovascular medicine of tomorrow, today. Innovation means helping to train hundreds of professionals and interns every year. In 2019–2020, as a university health centre, we welcomed nearly 700 interns, including 157 medical residents and 32 fellows. Innovation means improving care and prevention, from purchasing cutting-edge medical equipment and developing new treatments to better planning for medical interventions. All this to do more, and do it better.

Determined to continue changing more and more lives, the Institute's extended family is a collective force for good and something Montreal can be proud of. The future of cardiovascular medicine is here, in Montreal. Tender hearts are most welcome.





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500 transplants
In May 1968,
the Institute
performed the first
heart transplant
in Canada. In 2019,
it hit a milestone
by performing its
500th transplant.

01 ——— Legacy

A pioneer in cardiology since 1954

In 1954, the Institute and its allies joined forces to provide tender hearts with the care they need. From the start, their desire to save lives was alive and well, and it quickly led them to major triumphs that solidified the Institute's position as a leader in the field of cardiovascular medicine.

Since then, several Canadian and world firsts have taken place at the Institute, including Canada's first adult heart transplant, in 1968. And in 2004, the Institute became the first Canadian healthcare facility to be recognized by the WHO for its disease prevention activities. However great the challenge, our extended family unfailingly sought to innovate and press on, with both skill and compassion. Our experts' ambitious achievements paved the way for advances that bring hope and, every day, save thousands of lives.

A true Quebec powerhouse, the Institute has always been able to count on its network of collaborators and philanthropists who distinguished themselves with their generous commitment to the most vulnerable. The legacy of these pioneers is one of not only excellence and innovation, but also humanity and resilience. Today it inspires us and drives us to outdo ourselves by seeing the patient behind the illness. To the big-hearted individuals who came before us, thank you.

Friendship can work miracles

——— A heart-to-heart with Suzanne Lévesque, President of the Jean-Louis Lévesque Foundation.

In 1974, Suzanne Lévesque joined the J.-Louis Lévesque Foundation, set up by her father in 1961. By that time, the organization dedicated mainly to the support of medical research and innovation was already well established, and under her stewardship enjoyed remarkable growth that led to its current success. Ms. Lévesque has been president of the foundation for nearly 40 years now.

A lot has changed since its early days, but one constant remains—the ability to forge strong ties. “Friendship can work miracles,” says Ms. Lévesque. This firm conviction, which she demonstrates daily, came from her father.

When she accompanied her father to meetings with Dr. Paul David, she witnessed a personal relationship blossom into a major project from which she’s drawn inspiration throughout her career. That project was supporting the Montreal Heart Institute Research Fund. After her father’s death, Ms. Lévesque made it her mission to keep the relationship that sparked many important advances at the Institute alive.

Her thirst for knowledge and innovation is an endless source of inspiration. She reads everything she’s sent, speaks personally to the researchers who receive support from the Foundation, and learns something new every day. “My role allows me to keep a finger on the pulse of the community, which I find very exciting,” she explained.

For the last five years or so, Ms. Lévesque has invited researchers and collaborators she’s befriended to dinners hosted in her backyard. These experts stem from a wide range of research fields—an unlikely meeting of the minds that sparks stimulating conversations, which sometimes result in large-scale projects. In fact, it was at one of these dinners that the idea for a partnership between the Mira Foundation and the specialists in Alzheimer’s disease at the Douglas Mental Health University Institute emerged. Ms. Lévesque was right—friendship can lead to great things.

Like most of us, she has found the past year very challenging, both from a human perspective and in terms of foundation work. Many foundations rely on event programming to raise funds, and countless initiatives ended up being shelved.

Nonetheless, Ms. Lévesque believes that 2020 taught us many lessons and encouraged us to slow down, live in the moment and nurture our personal relationships. She sees these things as essential and going hand in hand with the power of friendship. “My dad always said, ‘Suzanne, remember that it’s important to be present and to get involved, rather than simply writing a cheque,’” she recalled. Those words, etched in her memory, perfectly illustrate the passion that has burned within her since the very beginning.

**Ms.
Suzanne
Lévesque**

“My role allows me to keep a finger on the pulse of the community, which I find very exciting.”





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The fellows' presence
helps improve the quality and accessibility of ultra-specialized care.

Teaching: At the heart of the Institute's mission

— Each year, the Institute welcomes some 20 cardiac care specialists to its fellowship program.

The Montreal Heart Institute is one of the largest training centres in cardiovascular health in Quebec and in Canada. Since our goal is to save as many lives as possible from cardiovascular disease—the world's leading cause of death—we see the acquisition and sharing of knowledge in the field of cardiology as cornerstones of quality specialized care, both here at home and across the globe.

Every year, the Institute's internationally renowned fellowship program welcomes some 20 cardiologists, cardiac surgeons and other specialists from around the world. In addition to providing an extraordinary human experience for these health professionals, this complementary training allows them to make a difference in the lives of the 68,000 patients who are treated at the Institute each year.

The fellowship program

The sheer volume of clinical activities, the variety of pathologies observed, access to cutting-edge diagnostic methods, learning in the field of precision medicine, and the possibility of collaborating on research projects make the Institute a hospital of choice for physicians looking to further their knowledge. The quality of teaching and training provided also draws them to Montreal.

Known as fellows, the medical specialists who spend 12 to 24 months at the Institute receive advanced training in a specific field. Since the fellowship program was created in 1954, more than 500 fellows have been carefully selected for training in one of the 11 specialties available:

Specialized training

- 1. Cardiac anesthesiology
- 2. Clinical cardiology
- 3. Adult congenital heart disease
- 4. Interventional cardiology
- 5. Cardiac surgery
- 6. Echocardiography
- 7. Electrophysiology
- 8. Advanced heart failure and heart transplantation
- 9. Cardiac prevention and rehabilitation
- 10. Cardiac magnetic resonance
- 11. Surgical intensive care

The patient, a priority for the Institute

The fellows' presence helps improve the quality and accessibility of ultra-specialized care to patients in Quebec and all over the world who are living with cardiovascular disease.

Once back home, the fellows apply the expertise they acquired at the Institute, thereby contributing to the sharing of best practices and the continuous improvement of care provided to patients abroad. The ties forged with the teams at the Institute also promote the creation of partnerships with various centres around the world for the implementation of projects focused on cooperation and exchange.

Continuing to invest in knowledge

With support from the Foundation, the Montreal Heart Institute mounted a training scholarship to ensure the continuity of its fellowship program and to support the medical specialists who come from all over the world to develop their expertise.

Thanks to generous contributions from donors, the Institute continues to invest in teaching and share its knowledge in the field of cardiology on a global scale, to the benefit of its patients.

Many thanks to our generous donors who supported the fellowship program in 2019 and 2020:

the heart surgeons at the Institute, the cardiologists affiliated with the Institute, the Institute's critical care physicians, Mr. Richard Dawe, the Norman Fortier Foundation, Mr. Paul Morimanno, Fondation Ariane Riou et Réal Plourde, Mr. Mirhossein Valavy, Le Groupe Centco Inc., Novartis, Bonaparte Restaurant, Distributeck Electricque Inc., the Foundation of Greater Montréal / the Paul A. Fournier Foundation, Œuvres Régis-Vernet, the R. Howard Webster Foundation, and Fasken Martineau DuMoulin S.E.N.C.R.L., s.r.l.



↑
Cardiac surgery is one of 11 specialties offered at the Institute.

Two years of intensive learning

—— From Argentina to Montreal, Dr. Laura Vidales continues her specialization in congenital heart defects.

Each year, cardiologists from around the world come through the doors of the Montreal Heart Institute to join one of 11 fellowship programs under the supervision of high-level experts.

In 2020, Argentinian cardiologist Laura Vidales began her second year of fellowship at the Institute, where she continued her super-specialized work in congenital heart defects. This innovative branch of cardiovascular medicine has blazed a path for itself with rapid advances over the last few years.

Thanks to the support of the Foundation's donors, Dr. Vidales and many other doctors have become acquainted with the Canadian healthcare system.

The ability to adapt—an essential skill in 2020

Dr. Vidales can attest that the upheavals of the past few months have had an impact on the teaching, care and research typically offered at the Institute. It implemented measures to protect patients and staff, and whatever can be done remotely is done so. But for her, it's far from being the first foray into the unknown.

In the last year, she had to overcome a series of challenges that strengthened her expertise, including mastering a new language and a new environment, not to mention working in a field that seems to evolve every day.

Dr. Vidales highlighted the patience, respect and compassionate approach of the doctors who welcomed her at the Institute. These things inspire her on a daily basis, not to mention lend themselves well to her subspecialty.

Everyday empathy

"Since the day they were born, the majority of my patients with congenital heart defects have had to endure countless medical appointments, percutaneous procedures, surgery, and the list goes on. This is a harsh reality for both them and their families. It's essential to not only provide them with medical care, but also treat them with compassion and a positive, empathetic attitude," said Dr. Vidales.

She admires this duality she's observed in experts at the Montreal Heart Institute—they are at once elements in a well-organized system and warm-hearted individuals who always see the patient behind the illness.

It's true that there are many differences—resources, systems, approaches—from one country to the next. But Dr. Vidales believes this vision of medicine is something we can all agree on. And she'll surely bring it with her when she returns home.



Dr. Laura Vidales

"It's essential to not only provide patients with medical care, but also treat them with compassion and a positive, empathetic attitude."



A specialized institute unlike any other

The Montreal Heart Institute has the wind in its sails—a strong wind powered by years of experience, the footsteps of giants, and historic moments.

We're at the cutting edge of innovation. With the support of kind-hearted collaborators, we've built a highly distinctive ecosystem, piece by piece. And it's thanks to this that we're able to push the limits of cardiovascular medicine and change more lives by focusing on four key elements: research, teaching, care, and prevention.

With the Canada Research Chair in Genetics and Genomic Medicine, we are also endowed with a world-class research and teaching centre. Our facility was the first in Canada to focus exclusively on cardiology, and we are Quebec's largest centre for preventive medicine.

All of our initiatives, treatments and research projects tackle tangible problems that touch each of us, either directly or indirectly. They are driven by a vision that places technological progress in the service of tender hearts. We're seeing science evolve to better serve humans—and we've had a hand in this evolution. And we're just getting started.

Continuing the battle against type 2 diabetes during a pandemic

— This past year, the Diabetes Prevention Clinic pivoted to telemedicine in order to provide support services for the new context—a decision that really paid off.

If you could reverse your type 2 diabetes diagnosis through exercise and healthy eating, would you do it? That was the challenge taken up by patients of the Diabetes Prevention Clinic sponsored by Sun Life at the Montreal Heart Institute in 2018. At the end of its second year, which saw the clinical team have to reinvent itself to maintain an optimal level of support, everyone involved is thrilled with the progress made by the 223 participants.

“I’m impressed with how close the participants have come to turning their health condition around, even in the face of the challenges posed by the pandemic,” Jacques Goulet, President of Sun Life Canada, said. “The current crisis has underscored how diabetes can lead to serious complications for people who contract COVID-19. This, in turn, has highlighted the importance of continuing to equip people with the tools to manage their health.”

“We’re pleased that we were able to maintain the clinic’s services even though the EPIC Centre’s activities had to be suspended. The results we’ve seen in our patients confirm

the positive impact of regular exercise on blood sugar levels and insulin sensitivity, and show that when combined with a high-quality diet, physical activity helps prevent and mitigate the effects of type 2 diabetes,” noted Dr. Martin Juneau, Director of Prevention at the Montreal Heart Institute and Supervisor of the Diabetes Prevention Clinic sponsored by Sun Life.

The results we’ve seen in our patients confirm the positive impact of regular exercise on blood sugar levels and insulin sensitivity.

Dr. Martin Juneau

Progress of the Clinic’s 223 participants in 2020

60% reduced their waist size
↓ average of 5 cm

48% lowered their circulating insulin levels
↓ relative average of 7%

58%* improved their glycated hemoglobin
↓ relative average of 6.8%

24% increased their “good cholesterol” (HDL)
↑ relative average of 6.6%

*average blood sugar level over 3 months

66% lost weight
↓ average of 4 kg (8.8 lb)

52% improved their fasting glucose levels
↓ relative average of 7%

48% lowered their triglyceride levels
↓ relative average of 8%

54.9% of patients brought their fasting sugar levels and their glycated hemoglobin within normal range.

Fast-tracked because of lockdown, telehealth has allowed remote follow-ups during the pandemic as well numerous tools to be shared with patients to help them adopt healthier lifestyle habits. Group seminars, training sessions and one-on-one meetings were promptly offered online. And to make up for not being able to receive patients in its gymnasium, the EPIC Centre made videos serving up health advice and suggesting exercises to do at home or outdoors available to the public. This has helped participants stay on track to meet their goals.

A tailored program to meet growing demand

The Diabetes Prevention Clinic’s mission is to turn the tide on diabetes through early detection and healthy lifestyle changes. The program meets a growing demand for preventive services for patients living with diabetes and prediabetes, chronic conditions that currently affect 1 in 3 Canadians. Cardiovascular disease is the most common complication and the leading cause of death in patients with type 2 diabetes.

Studies show that people with type 2 diabetes who make lifestyle changes, such as eating a high-quality diet, doing regular moderate-to-vigorous physical activity, quitting smoking, and drinking alcohol only in moderation, lower their risk of premature death from cardiovascular disease.

The only one of its kind in Canada, the multidisciplinary program at the Diabetes Prevention Clinic sponsored by Sun Life is based at the Montreal Heart Institute’s EPIC Centre. This project was made possible by a generous \$450,000 donation from Sun Life.

A world-class breakthrough in cardiology

— Praised the world over, the MHI's COLCOT study paves the way for new avenues for patients who've had a heart attack.

Cardiovascular disease is the world's leading cause of death. In Canada, it is the leading cause of death in women. In fact, heart attacks kill nearly 1 in 4 women.

Faced with this alarming statistic and in the hope of finding new solutions for patients, in 2014 researchers at the Montreal Heart Institute launched a global study titled COLCOT (COLchicine Cardiovascular Outcomes Trial). The goal was to determine whether colchicine, a widely available drug, could prevent the risk of heart attack in patients who had already experienced this kind of event.

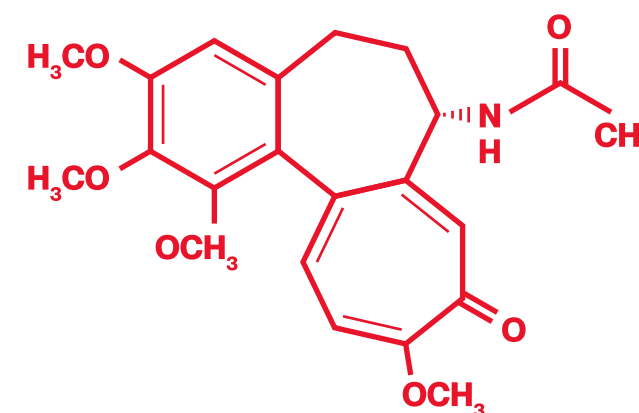
Understanding heart attacks

To understand why researchers at Canada's largest cardiology research centre began looking into colchicine, it's important to grasp what happens during a myocardial infarction, commonly known as a heart attack.

This serious and potentially fatal health problem arises when a coronary artery, which brings oxygen to the heart, becomes blocked. This blockage is often caused by atherosclerosis, which is a buildup of fat that prevents blood from flowing to the heart. The resulting obstruction is very dangerous, as it can limit the heart's ability to pump blood to the rest of the body.

The first signs of a heart attack are a sharp pain in the chest, neck, or arm, and shortness of breath. If you experience these symptoms, dial 911 immediately.

What is colchicine?



Because inflammation of the coronary arteries significantly increases the risk of a heart attack, the COLCOT study researchers focused on determining if colchicine had the potential to slow or prevent cardiovascular inflammation.

This orally administered drug has long been prescribed to treat pericarditis, gout, and Familial Mediterranean fever. Colchicine can be beneficial for patients and is very safe. It can also be advantageous for public health care systems because it is extremely affordable.

When added to standard treatments such as aspirin and statins, colchicine was shown to have a preventive effect, reducing heart attack survivors' risks of suffering other cardiovascular events.

COLCOT:
COLchicine
Cardiovascular
Outcomes
Trial

An international breakthrough in cardiovascular medicine

The COLCOT study, led by Dr. Jean-Claude Tardif, Director of the Montreal Heart Institute's Research Centre, was carried out over a five-year period. When the results were published in the November 2019 issue of the prestigious New England Journal of Medicine, this important discovery in the field of cardiovascular medicine garnered the attention of health care specialists from all around the world.

This major study, which involved 4,745 patients in 167 hospitals across 12 countries, confirmed that colchicine could help significantly reduce the risk of a first cardiovascular event as well as the risk of subsequent cardiovascular events in heart attack survivors.

Real hope for patients

Patients are the Institute's top priority. This world-class discovery in cardiology underscores the importance of financially supporting basic and clinical research to achieve the highest standards of excellence in the fight against cardiovascular disease.

Thanks to the dedicated donors who made this study possible and to our highly specialized researchers, heart attack survivors can feel hopeful when it comes to their health outcomes.

Many thanks to our generous donors:

J. Armand Bombardier Foundation, J.A. DeSève Foundation, Cogeco Inc., SoundBite Medical Solutions, Saputo Inc., Business Development Bank of Canada, Estate of Lorna Haworth-Henry, Carsley Family Foundation, and Jesra Foundation.

Towards a better understanding of congenital heart disease

—— The new André Chagnon research chair offers tremendous support to this fast-growing branch of cardiovascular medicine.

Last August, the Montreal Heart Institute Foundation announced the creation of the André Chagnon Research Chair in Congenital Heart Disease. Thanks to a \$2 million donation from Sojecci, this new research chair will help develop innovative approaches to the care and treatment of patients with congenital heart disease, a heart defect present from birth.

It will also contribute to a better understanding of the complex issue of sudden death in children and young adults born with this condition. “Research is critical to advancing knowledge about congenital heart defects. With this research chair, my hope is that together we can give children and young adults with this condition the best chances of having a healthy life,” said André Chagnon, chairman of the board of Sojecci, the Chagnon family management company.

What are congenital heart defects, exactly?

Ranging from mild to severe, congenital heart defects affect 1% of newborns. Until recently, only a third of such children survived to adulthood. Today, thanks to advances in pediatric heart surgery and the care given to young patients, the vast majority of these children live long lives. The adult population of people with this condition is therefore now larger than the pediatric population. The management of adult patients with congenital heart defects has thus become a cardiology specialty in and of itself. Their medical needs remain diverse and complex, which means that research in this field must continue.

Significant support

The André Chagnon Research Chair has a bright future, and it has already provided considerable support to a fast-developing branch of cardiovascular medicine. Specifically, it will help:

- establish a provincial cohort of over 100,000 patients with a congenital heart defect
- create registers in order to better assess the risk factors associated with this condition
- establish an international research network of leading experts
- fund several promising programs

These include a program led by Dr. Paul Khairy, cardiac electrophysiologist and scientific director of the Institute’s Adult Congenital Heart Centre, on the prevention of sudden deaths related to congenital heart defects. This unique program studies cardiac arrhythmia in patients with congenital heart conditions, and in the next 10 years it hopes to reduce their sudden death rate by 25%.

“The Montreal Heart Institute is an international centre of excellence for treating congenital heart defects. The new research chair will allow us to develop our expertise and continue welcoming complex cases from around the world,” noted Dr. Khairy during the announcement.



To Mr. André Chagnon and Sojecci,
thank you for protecting tender hearts.

Building the Institute of tomorrow

——— A heart-to-heart with Dr. Peter Guerra, Chief of Medicine and Cardiology at the Montreal Heart Institute.

“Peter, there’s a cardiac arrest in the ER. C’mon, let’s go!” When Dr. Peter Guerra worked in internal medicine, a senior resident grabbed him to help out with an emergency cardiac procedure. As is often the case when the heart is involved, someone’s life was on the line. At that exact moment, he knew he had found his calling.

Helping people and their families is what drives him every day. In fact, the Chief of Medicine and Cardiology for the past eight years talks about his work with a passion that’s truly infectious.

“Choosing a career in medicine is kind of like wanting to be a superhero,” he said with a smile as he turned towards a picture of Batman hanging on his office wall. “Which explains why I put this picture up behind me.”

Building the Institute of tomorrow

An electrophysiologist by training, he plays a leadership role at the Institute, which means he has a hand in major projects.

For instance, Dr. Guerra is very excited about the Investing in Excellence plan to modernize the hospital’s facilities, as it will allow the Institute to maintain its commitment to excellence on every level, namely by adding a medical intensive care unit, a surgical intensive care unit, and a new emergency

department. “It’s a wonderful opportunity to rethink and design the physical space in which future approaches in cardiology will be practised,” he noted.

Training the next generation

Aside from his part in updating the hospital’s facilities, Dr. Guerra is also actively involved in shaping the next generation of doctors as they hone their skills at the Institute, to the benefit of its patients.

This past year, the COVID-19 pandemic disrupted the progress of the fellows he’s been mentoring. However, they all adapted to the circumstances and worked miracles in their handling of the critical situation in the Institute’s emergency room, which, like so many others, was severely overcrowded.

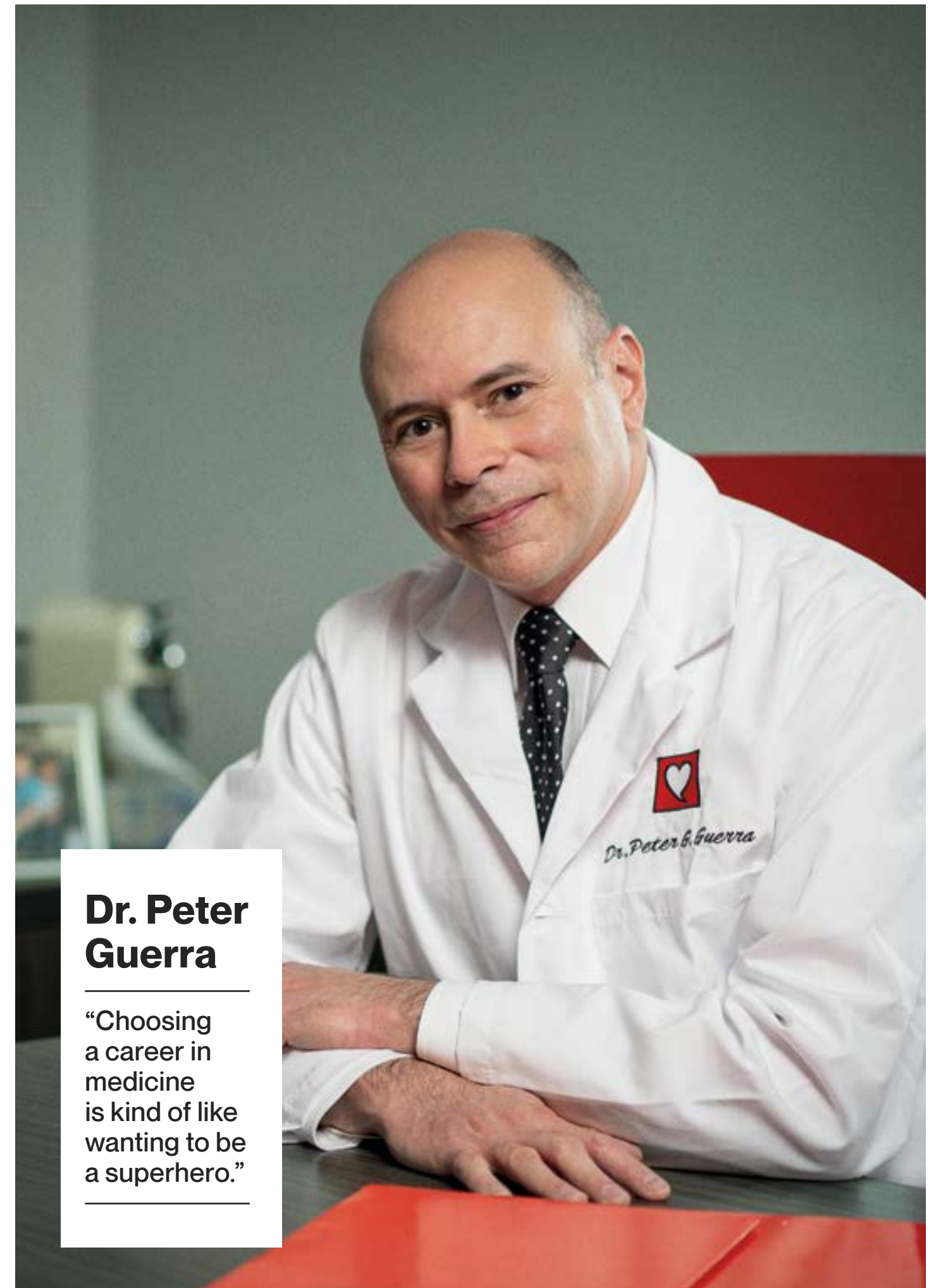
COVID-19

As for the unprecedented public health crisis sweeping the world, Dr. Guerra has seen many people go above and beyond:

First, he commends the work of expert researchers, who have had to overcome huge logistical challenges. With patients being more reluctant to participate because of the pandemic, it’s been harder to conduct clinical trials.

He also applauds the valiant healthcare workers who’ve been on the front lines of intensive care for the last several months.

“It’s not only the patient’s life that’s in danger, but their own as well. It takes a lot of courage, and I’m inspired by their determination. It’s humbling,” he explained, in obvious admiration of these highly dedicated people who are real-life superheroes.



Dr. Peter Guerra

“Choosing a career in medicine is kind of like wanting to be a superhero.”



With a proud legacy of excellence and innovation, our extended family has the unique ability to tackle today's problems by looking to tomorrow.

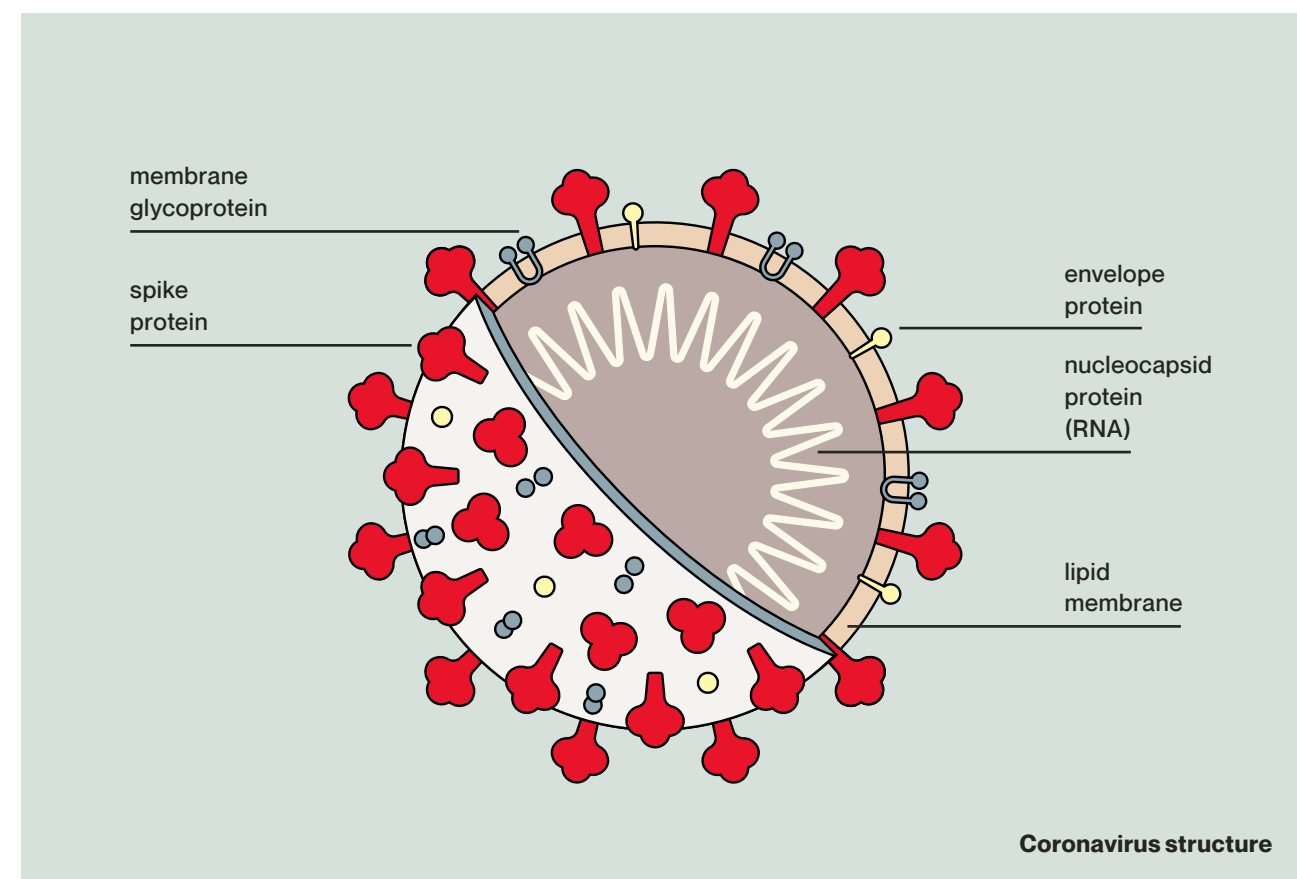
Innovation is at the heart of everything we do. Day after day, our experts spare no effort to find new treatments. Always eager to go further, we continue to expand our research work to change lives—and, most importantly, to save lives.

Our team, our doctors and our researchers are among the best in the world. With heart health as their top priority, they have a solid footing in the medicine of the future. And this medicine is genetic. Personalized. It allows for care to be optimized, on both the human and operational levels. We're convinced we're on the right track, and we hope to maintain our momentum towards new territories of innovation.

In order to get there, we need your help. We're grateful to be moving forward with people like you beside us—allies who wear their heart on their sleeve and who are always ready to join us to show their support for the cause. Your presence makes all the difference and drives us towards a better, healthier world. Thank you for being part of our community.

03 ——— Innovation

The future of cardiovascular medicine is here in Montreal



Towards a better understanding of COVID-19 symptoms

—— The COLCORONA genetic study.

On March 23, 2020, the team at the Montreal Heart Institute's research centre launched COLCORONA, a large-scale clinical study aiming to determine if colchicine could have a preventive effect on the major inflammatory storm in the lungs observed in some adults

suffering from serious COVID-19 complications. In parallel, geneticists wondered whether it was possible to better understand why certain patients react so differently to this infection.

Possible links between genes and COVID-19

A genetic study is currently underway involving volunteers who had participated in COLCORONA. Led by Dr. Marie-Pierre Dubé from the Université de Montréal's Beaulieu-Saucier Pharmacogenomics Centre at the Montreal Heart Institute, this study analyzes the genetic makeup of people with COVID-19 to better understand why some develop a more severe form of the virus.

The study will allow researchers to establish links between genes and COVID-19 in order to uncover the biological mechanisms involved in the body's response to the infection and in the illness's severity. It will also guide the development of more effective treatments to fight the current pandemic and prevent future ones.

Plus, by observing the coronavirus's genome sequence that infected the patients, researchers will attempt to determine parallels between the severity of the illness and mutations detected in the virus's genome, which evolves rapidly. This link between the patient and the virus will help us to better understand the disease's epidemiology.

A sequencer to interpret patients' DNA

Studies in precision medicine, also called personalized medicine, are possible thanks to the enormous technological progress in the field of genomics. This revolutionary new discipline allows patients to be characterized according to their DNA, which in turn allows care and medication to be optimized.

With the COLCORONA genetic study, we hope to lead the work that will allow patients to receive the best possible care, based on a simple blood sample.

Bringing about that kind of medical advance requires the use of a cutting-edge robotic device: the NovaSeq 6000 DNA sequencer. This innovative piece of equipment provides unparalleled speed and power. It can adapt to the needs of various types of research projects. More specifically, this unique and indispensable tool can determine the DNA makeup of patients and the virus

that causes COVID-19. It's with the support of the Montreal Heart Institute Foundation community that the Beaulieu-Saucier Pharmacogenomics Centre team can acquire this device and thus increase the precision of their work.

Quick responses to save millions of lives

In the current context of a coronavirus pandemic, the generosity and support of big-hearted donors are crucial to immediately transform the lives of millions of people in a tangible way. Thanks to their assistance, the COLCORONA genetic study will quickly provide scientific proof essential to the urgent fight against COVID-19. The genomic information gathered will also be made available to the international research community in order to contribute to a better global response to coronavirus and to ensure everyone is more prepared when the next virus comes around.

Many thanks to our generous benefactors:

the estate of Mr. Robert O'Brien, the J. Armand Bombardier Foundation, the Gelmont Foundation, Canadian Pacific, Sun Life, TF1 International Inc., the Mary M. Marlin Trust, and the Sibylla Hesse Foundation.

The creativity needed to innovate

——— A heart-to-heart with Dr. Marie-Pierre Dubé, Director of the MHI's Beaulieu-Saucier Pharmacogenomics Centre.

When you look at it in detail, human life has an almost mathematical structure. The more we study it, the better we grasp its complexity and the closer we come to making discoveries that could save lives.

Fascinated by the possibilities offered by medical genetics, Dr. Marie-Pierre Dubé has devoted her career to this branch of medicine.

As Director of the Université de Montréal's Beaulieu-Saucier Pharmacogenomics Centre at the Montreal Heart Institute for nearly 10 years now, she oversees a team of some 20 experts and wears several hats, including researcher, associate professor and scientific author. She loves her work and enjoys sharing that passion with others.

What is precision medicine, exactly?

At the Beaulieu-Saucier Centre, Dr. Dubé focuses her efforts on precision medicine. This innovative vision of medicine involves tailoring therapies and drugs to the genes that make a person unique.

Even when a drug that's being developed is found to be ineffective in a given segment of the population, it may still be beneficial for people in certain subgroups. Dr. Dubé's research helps identify these distinctions so that the development of new medications can be optimized.

The COLCORONA clinical trial, led by Dr. Jean-Claude Tardif, is a prime example. Whereas the clinical trial aimed to determine the impact of colchicine on complications associated with COVID-19, Dr. Dubé's genetics study explores patients' response to the drug based on their DNA. Together, experts are increasing the chances of finding a solution that can save lives.

Coming up with new recipes

But innovation comes at a price. While the road to progress has its share of obstacles, Dr. Dubé is categorical—you've got to get creative. "Research involves demonstrating plenty of ingenuity fuelled by a thirst for discovery, a desire to understand how things work," she explained.

To the public, research seems orderly, methodical. Like following a recipe. Dr. Dubé understands this perception, but makes a distinction. "Sure, you have to start with a base. But research means coming up with a new recipe." To innovate, you have to break it down, see things from a different angle, be able to navigate uncertainty.

Her creativity has served her well this past year, when she was required to build a comprehensive logistics system to safely ship DNA samples from the homes of patients with COVID-19 to the laboratory at the Beaulieu-Saucier Centre—a difficult task that she and her team managed with great success.

Dr. Marie-Pierre Dubé

"Research involves demonstrating plenty of ingenuity fuelled by a thirst for discovery, a desire to understand how things work."



Funding, a fundamental issue

Creativity comes in handy when facing other obstacles, too. In innovative research, one of the biggest is funding. Government grant applications take up a lot of a geneticist’s time, and every year the competition only gets fiercer.

As director, Dr. Dubé must confront this issue, which has a direct impact on the projects she leads. She explains that you have to show some ingenuity to stand out from the crowd and secure the financial support to move forward.

She highlights the generous and much-needed contribution from the Montreal Heart Institute Foundation that’s vital to the researchers’ achieving their vision. The donation will make it possible to purchase a NovaSeq 6000 DNA sequencer, which will allow the Centre’s team to expand the scope of its study of human DNA.

The Montreal Heart Institute brings together world-renowned experts who are dedicated to heart health. The way Dr. Dubé sees it, her researchers share the same sense of curiosity and the same genuine desire to improve the lives of those who are vulnerable.

She’s a part of this highly devoted community, and her mission is ongoing.

→
Patient Gaétan St-Pierre
having a PET scan at the Nuclear Medicine department.



Preventing heart disease in people living with type 2 diabetes

—— Thanks to the support of donors, Dr. Jean-Claude Tardif is launching the second phase of his major international study.

In November 2019, Dr. Jean-Claude Tardif, Director of the Montreal Heart Institute’s Research Centre, presented the results of the centre’s latest major international study, COLCOT (Colchicine Cardiovascular Outcomes Trial).

This clinical study revealed a significant breakthrough in the field of cardiology, showing that colchicine, combined with standard treatments, reduced the risk of repeat cardiovascular events.

To take the study even further, Dr. Tardif, with the support of the Montreal Heart Institute Foundation’s donors, launched COLCOT-T2D, the second phase of the study. The goal was to demonstrate that colchicine can also prevent heart disease in people with diabetes.

People with diabetes are more prone to heart disease

Diabetes affects over 463 million people around the world, 90% of whom have type 2 diabetes. This form is characterized by the body's inability to properly use insulin and is sometimes accompanied by insufficient insulin production. Insulin plays a very important role in metabolism—it allows glucose (sugar) to penetrate the body's cells and provide energy.

In Quebec alone, 880,000 people have diabetes—more than 10% of the population. The good news about type 2 diabetes is that it can often be avoided by adopting healthy lifestyle habits. And it's potentially reversible.

However, if diabetes isn't properly controlled, there can be serious consequences. There's an increased risk of:

- narrowing of the arteries
- myocardial infarction (heart attack)
- stroke

People with diabetes are three times more likely to die from heart disease than those without diabetes. Research is key to prevent people living with diabetes from developing heart disease.

A large-scale clinical study with roots in Montreal

Beginning in 2021, the COLCOT-T2D study will recruit 10,000 patients with type 2 diabetes who have never had any known heart disease.

These patients will randomly receive either a low dose of colchicine or a placebo. They will be monitored for four years to assess the risk of heart attack and stroke, as well as the appearance of cancers, cognitive disorders and dementia.

What is colchicine?

Colchicine is an orally administered drug currently prescribed to treat pericarditis, gout, and Familial Mediterranean fever, among other things. This powerful anti-inflammatory is derived from the autumn crocus plant. In addition to the previously mentioned benefits for patients with heart disease, colchicine can also be advantageous for public healthcare systems because it is extremely affordable.

Hope for the prevention of heart disease

The COLCOT-T2D study represents a real hope for preventing the development of heart disease in people with type 2 diabetes.

Thanks to generous donations from the Foundation's benefactors, teams at the Institute, like the one led by Dr. Tardif, are able to carry out international scientific studies to explore new avenues to prevent heart disease.

The COLCOT-T2D study is in the process of securing financing, and the Foundation is once again counting on its donors' largesse to make this major project possible.

Many thanks to the study's generous benefactors: the Molson Foundation, Dr. Serge Carrière and Serge Archambault.



↑
Patient Robert Blouin getting ready for his next day's heart surgery.



Major benefits for patients

— A highly effective teaching method, case simulation helps improve care and reduce risks.

With the highest educational standards always in mind, the Montreal Heart Institute sees acquiring and sharing knowledge about cardiology as the linchpin in the fight against heart disease.

Every year, over 25 international fellows choose the Institute to complete their medical training—and this is in addition to the Quebec residents and students. They are mentored by seasoned experts who employ the most cutting-edge teaching techniques.

Simulating real cases to foster learning

Medical simulation-based education has grown significantly in the past few years. Several publications have shown how useful it is and that it can reduce error when it comes to real medical interventions.

In this spirit, the Institute's Centre de formation et d'Excellence Bell en Santé Cardiovasculaire (CESC Bell) will soon offer new curricula as part of its simulation-based education program. Among these, the

cardiovascular catheterization program has garnered a great deal of interest with healthcare professionals.

To make this program possible, the Institute, with the help of the Foundation's donors, will acquire a new high-tech device to improve training for residents, nurses, fellows and other medical professionals: the ANGIO Mentor cardiovascular catheterization simulator. Currently, this simulator is the most complete in Canada in its category. Equipped with several teaching modules, the machine will be integrated into training for residents and fellows.

This tool provides a realistic clinical environment with a full-body mannequin. Its numerous education modules allow students to practise a variety of techniques, such as the dilatation of a coronary artery, placement of a coronary stent, and transcatheter aortic valve implantation. The trainers can then correct any issues right away, as well as offer guidance and additional information to students during an intervention.

Being properly prepared for 6,000 interventions every year

In interventional cardiology, cardiac catheterization is used to perform various tests and interventions, such as:

- measuring the pressure in the chambers of the heart
- assessing heart function
- detecting heart abnormalities
- determining if further intervention is necessary

It can also serve for therapeutic purposes, including:

- treating heart defects
- dilating a stenotic valve
- unclogging an artery

The Institute carries out nearly 6,000 cardiac catheterizations every year, including almost 3,000 interventions and 300 delicate and extremely technical non-coronary structural procedures. Training must be top quality—our patients deserve nothing less. There's no room for mistakes when a patient's life hangs in the balance.

In this branch of interventional cardiology, treatments involving blood vessels are minimally invasive for patients, but require very precise and technical movements. The new program will allow residents and fellows to better prepare thanks to the simulations that can reproduce standard clinical situations and less common complications.

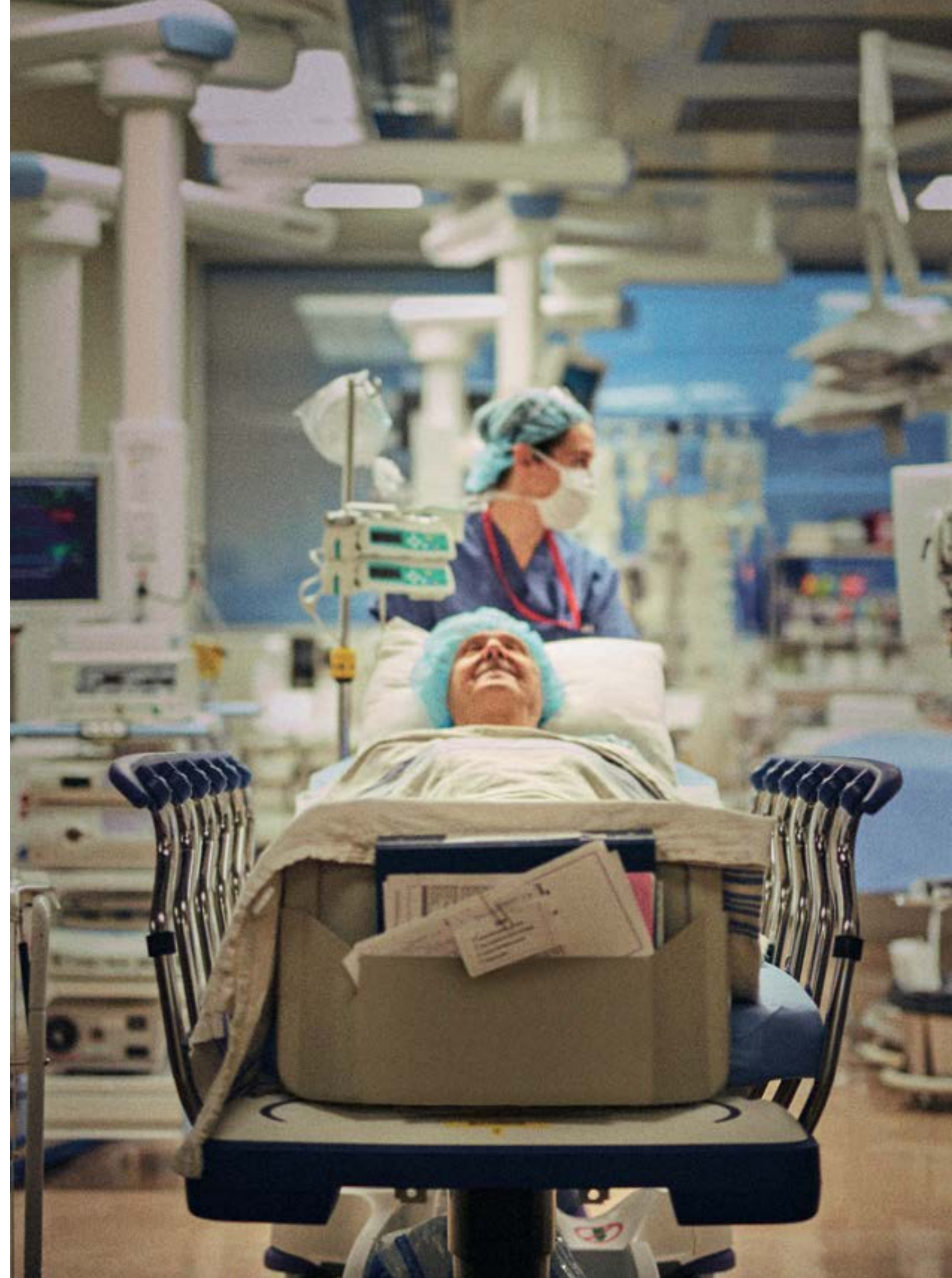
Benefits for patients and medical teams

The implementation of the simulation-based education program for cardiovascular catheterization with the simulator will have a positive impact on healthcare workers and students, which will in turn improve patient care.

As well as advance interventional cardiology training at the university level, this new simulator will increase the appeal of these educational programs and attract highly qualified candidates. It will also reduce the risk of complications during interventions, make them safer, and alleviate stress for both medical teams and patients.

→
Patient Michel Poulin,
accompanied
by respiratory
therapist
Marie-Claude
Allaire, entering
an operating
room.

**Many thanks
to our generous
benefactors:**
Bell, without whom
the Centre de formation
et d'Excellence Bell en
Santé Cardiovasculaire
would not have been
possible, and Royal
Bank, which allowed
us to create the
simulation-based
education program.



The value of research

—— A heart-to-heart with Dr. Lena Rivard, an electrophysiologist and cardiology researcher at the Institute.

Dr. Lena Rivard is an electrophysiologist and cardiology researcher at the Montreal Heart Institute. An associate professor and research scholar, she's always been fascinated by the heart, as well as by the quest for answers.

In 2020, interest in scientific research went beyond the healthcare sector and extended to the general public. The COVID-19 pandemic gave people a new perspective on the role that research plays in our daily lives and shone a light on how it works. "I think that the pandemic has given people a newfound respect for research, because now they better understand its role in society and its impact on our daily lives," said Dr. Rivard.

Seeing beyond the here and now

For Dr. Rivard, the public's growing interest in research and its prominence in the news the past few months are not only positive, but crucial. We ask questions, we gain a deeper understanding of the process, and we better appreciate the need to be able to count on the resources required over the long term to further our knowledge.

"Today, we're finally seeing the impact of dozens of years of research into the technology behind the COVID vaccines. As a result of events like the one we're currently living through, we realize that the work researchers do can have a real effect on people's lives," she noted.

In the majority of cases, the tangible benefits of research aren't immediate. But, when a problem comes up, it's the sum of scientific advances that allow the solution to be found quickly. "Research didn't suddenly come into the service of society. It's always been there," she added.

BRAIN-AF

As the principal investigator of the BRAIN-AF study, Dr. Rivard knows all too well that a scientific solution can sometimes take years to emerge.

"If all goes well, in four years, we'll have answered the question posed in BRAIN-AF: Is there a causal link between the administration of anticoagulant therapy and the prevention of cognitive decline in young patients with atrial fibrillation?" she explained.

This is a long-term mission, the precise outcome of which is still unknown. Whether the results are conclusive or not, the efforts invested will have advanced science for the common good. And that's what we have to bear in mind.



Dr. Lena Rivard

"What could be more intriguing than questions without answers?"

Preventing cognitive decline caused by atrial fibrillation

—— The BRAIN-AF study: A promising treatment to prevent dementia in people affected by this common form of arrhythmia.

The BRAIN-AF trial led by Dr. Lena Rivard, an electrophysicist and cardiology researcher at the Montreal Heart Institute, is the world’s first study to attempt to demonstrate the link between atrial fibrillation and cognitive impairment.

Atrial fibrillation and its effects on the brain

Atrial fibrillation is the most common form of arrhythmia. Often caused by aging or hypertension, it appears as rapid, irregular contractions of the upper chambers of the heart.

Although most people with atrial fibrillation feel heart palpitations or a tightening in their chest, this type of arrhythmia can sometimes go unnoticed.

Left untreated, atrial fibrillation can cause blood clots to form and travel to the brain. This can increase the risk of stroke and is suspected of leading to cognitive disorders like dementia or Alzheimer’s disease. Anticoagulants are indicated in patients who are over 65 or have other risk factors.

According to the World Health Organization (WHO), there are currently 50 million people with dementia in the world and close to 10 million new cases each year. In Canada, there are more than 402,000 individuals living with this condition.

The BRAIN-AF study

BRAIN-AF aims to show that the use of an anticoagulant, rivaroxaban, can lower the risk of cognitive decline and stroke in patients under age 62 who have atrial fibrillation and currently have no indication for anticoagulation.

The main study objectives are to:

Establish a link between silent strokes and cognitive decline in young patients with atrial fibrillation



Show that oral anticoagulants can prevent and/or reduce brain damage in these patients



Reduce dementia cases by 50% globally

A world-class study

Since 2015, the BRAIN-AF study has been carried out in 42 centres across Canada, including some 20 in Quebec. The first phase demonstrated the safety, feasibility and significance of the research hypothesis. Now in its second phase, the study is continuing in Canada and will be expanded to include France, Belgium, Sweden, the United Kingdom, Spain, and Switzerland. Results are expected by the end of 2024.

Considerable benefits for patients

Given that atrial fibrillation is a common health problem affecting four in every 1,000 Canadians, the BRAIN-AF trial brings hope of a treatment for patients living with this disease. In addition to therapy using a lower dose, rivaroxaban could significantly reduce the risk of brain damage, cognitive decline and stroke.

This major study wouldn’t have been possible without the generous contributions from donors of the Montreal Heart Institute Foundation. Philanthropy is vitally important to developing the latest treatments and improving not only the health, but the daily lives of patients with cardiovascular disease.

The BRAIN-AF study is in need of funding, and the Foundation will once again rely on the generosity of donors to keep this large-scale project going.

Many thanks to the study’s wonderful benefactors:

the Godin Family Foundation, SoundBite Medical Solutions, Mr. Bryan Jones, the Jean C. Monty family, and Saputo Inc.

Creation of the Cardiovascular Medicine Innovation Fund

———— The Martial G. Bourassa Cardiovascular Medicine Innovation Fund will support the most groundbreaking projects in cardiovascular medicine.

July 2020 saw the passing of Dr. Martial G. Bourassa. Officer of the Order of Canada and Knight of the National Order of Quebec, Dr. Bourassa is recognized as a cardiology pioneer in Quebec.

“The Montreal Heart Institute is profoundly indebted to Dr. Bourassa, both for its reputation and for the inspiration he has provided to several generations of researchers,” said Mélanie La Couture, President and CEO of the MHI.

Dr. Bourassa was the first director of the MHI Research Centre and the catalyst behind many major discoveries in cardiology on the world stage. One of his greatest achievements was undoubtedly the invention of the Bourassa catheter, used in North America and Europe, and he also published no fewer than 80 chapters in books and monographs, 425 original articles and 260 scientific abstracts.

To honour his legacy in the field of cardiology, the Montreal Heart Institute Foundation established the Martial G. Bourassa Cardiovascular Medicine Innovation Fund.

This fund will support the most innovative and promising projects in cardiovascular medicine aimed at fighting the diseases that are the number one killer in the world. For more than 20 years, the Foundation has awarded the Prix Martial G. Bourassa to young researchers in recognition of their active contribution to science.

For Alain Gignac, President and CEO of the MHI Foundation, “Dr. Bourassa embodies our vision of innovation, and it is as a tribute to him that we are naming this new fund, which will benefit local people and businesses and help improve our patients’ quality of life.”

Dr. Bourassa’s exceptional contribution to cardiovascular medicine is undeniable. Thanks to this fund, his work will continue, achieving breakthroughs that will allow us to save more lives.

From all of us at the Foundation, thank you.

Honours and awards bestowed upon Dr. Bourassa throughout his career

- 1973: **Prix Jean Lenègre, Fondation Claude-Adolphe Nativelle, Paris, France**
- 1981: **Prix d’excellence, Association des médecins de langue française du Canada**
- 1986: **Grand prix de la francophonie, Académie Française, Paris, France**
- 1992: **Research Achievement Award, Canadian Cardiovascular Society**
- 1992: **Commemorative Medal for the 125th Anniversary of the Confederation of Canada**
- 1993: **Officer of the Order of Canada**
- 1993: **150th Anniversary Medal, Faculty of Medicine, Université de Montréal**
- 1997: **Paul David Award, Research Fund, Montreal Heart Institute**
- 1999: **Knight of the National Order of Quebec**
- 2000: **Professor Emeritus, Department of Medicine, Faculty of Medicine, Université de Montréal**
- 2000: **Prix Michel-Sarrazin, Club de Recherches Cliniques du Québec**
- 2001: **Medal of Merit, International Society for Heart Research**
- 2002: **Queen’s Golden Jubilee Medal, Governor General of Canada**
- 2004: **Cardiologue Émérite 2004, Association des cardiologues du Québec**
- 2005: **Career Medal, Faculty of Medicine, Université de Montréal**



The Montreal Heart Institute Foundation's community is made up of tender hearts who all have a special connection with the Institute.

Some walk its halls every day, determined to eradicate the world's leading cause of death. Others have had transformative experiences that prompted them to give back so that they could protect tender hearts, too. They are patients, healthcare workers, doctors, Foundation employees, volunteers, partners, and donors. They believe in our mission and stand with us to move things forward for the better.

One trait characterizes all members of this extended family: their commitment.

A commitment to courage and to continuing the fight against this formidable enemy at all costs. A commitment to be part of a community that wears its heart on its sleeve. A commitment to work tirelessly to advance cardiovascular medicine and to save lives. A strong, shared commitment that's been more than put to the test this past year.

In difficult times, when it's always easier to look away than to lend a hand, our community has rallied around the cause. It supports, contributes and puts in a superhuman effort to help the most vulnerable and offer hopeful solutions. Our gratitude knows no bounds. Our awareness of our community's priceless dedication is greater than ever.

That's why in 2021, we're celebrating our people's unflagging commitment. And we encourage new generous hearts to proudly join our movement.

04 ——— Committed

Committed to the cause

A woman of heart and conviction

—— Portrait of Sophie Desmarais, philanthropist.

Of her own accord, the philanthropist found herself at the epicentre of international initiatives to advance the COLCORONA clinical trial, along with Dr. Jean-Claude Tardif. Passionate and driven by a genuine desire to save lives, she joined the battle just like she has for countless other causes.

Health in all its forms

Every commitment Ms. Desmarais makes or project she gets involved in—when she's not busy leading the charge—is related to health and wellness.

First, there's physical health. Ms. Desmarais and her family are longtime partners of the Montreal Heart Institute.

She's also deeply committed to issues related to mental health, physical integrity and access to culture. Whether it's through the Jasmin Roy Sophie Desmarais Foundation, La rue des Femmes, or the Sophie Desmarais Fund for the Université de Montréal Big Band, her involvement is always focused on fulfilment for all.

"To build a solid community, every aspect that impacts the well-being of citizens has to be considered," she said.

The essence of philanthropy

For Ms. Desmarais, being a philanthropist is a matter of generosity and sacrifice rather than money.

She feels that certain misconceptions about philanthropy stop many people from giving, because they don't think they have much to offer. "But giving can mean different things. Money? Great. But we can also donate our time, do someone a favour, prepare a meal or just lend moral support. Making a difference is what counts."

Supporting innovation

Ms. Desmarais leads by example. She has been an incredibly generous financial partner from the early days of the COLCORONA study.

In addition to her monetary support, she graciously offered her assistance, her resources and many hours of her time to Dr. Jean-Claude Tardif. She spent the last few months doing everything in her power to help the operational side of the clinical trial he's leading.

Having spent so much time with prominent figures in the COLCORONA trial, Ms. Desmarais was able to witness the superhuman efforts made by healthcare workers this past year, whom she speaks of with tremendous admiration: "I'd like to hug everyone who's been working on the front lines and thank them personally. But thank you just wouldn't be enough. They've shown tremendous courage. All of the people working hard to save lives are truly inspiring."

The battle that healthcare professionals continue to wage is unprecedented. They give body and soul to both care and research. Ms. Desmarais is proud to support their efforts by contributing any way she can. When the time comes to declare victory, she'll be there.

Many thanks to the generous supporters of Sophie Desmarais's fundraising challenge:

Pierre Anctil, Claude Lesage, the Fondation Bergeron-Jetté, Chloé Le Moyne de Sérigny, Louise Desmarais, and Sébastien Kaine.



Ms. Sophie Desmarais

"All of the people working hard to save lives are truly inspiring."

When reality exceeds your wildest dreams

—— A heart-to-heart with Caroline Dupré, a nurse at the Institute's transplant clinic.

Even as a child, Caroline Dupré knew she wanted to be a nurse. “Taking care of people is what’s most important to me. When I was small, I carried around a little doctor’s bag and put bandages on my dolls. You could say I figured out pretty early on that I wanted to work in a hospital.”

Growing up, she set her sights on working at the Montreal Heart Institute, a dream that quickly came true.

Passion and support that get stronger every day

Ms. Dupré describes her 33 years at the Montreal Heart Institute as a story of dedication that grows stronger every day. Slowly but surely, she built her career: the orderly became a nurse, first in the emergency room, then in surgical intensive care. She’s now in her 21st year as a nurse at the Institute’s transplant clinic.

“The Institute supports and fully recognizes the professional development of its employees,” Ms. Dupré said. She gives the example of when she had, on her own initiative, trained in ventricular assistance at the prestigious Cleveland Clinic in the U.S. Her employers

immediately seized the opportunity to further her interest and invited her to help establish a new specialized clinical program at the Institute. She then trained several intensive care nurses and gave presentations on the subject at provincial and international conferences, with the Institute’s support. “We feel a sense of duty and pride in raising the Institute’s profile and highlighting its important work.”

In her opinion, one of the Institute’s strengths is that it listens to its staff’s aspirations and encourages them to pursue their ambitions. “In my 33-year career, I’ve never once been refused. It’s incredible to receive that kind of support,” noted Ms. Dupré.

The Foundation’s role

A highly qualified team requires resources and equipment at the forefront of innovation. Ms. Dupré’s profession is constantly changing—there are always new medications, technology, scientific discoveries and research projects, and it’s essential for the Institute to keep up.

None of this would be possible without the Foundation. “Whether we’re talking about new technology or facilities, the Foundation and its donors invest significant amounts of money so we can benefit from the best context for our skill set,” she added. “I speak for all my colleagues when I say this: We’re immensely grateful for these people who not only allow us to better pursue our profession, but also—let’s be frank—help us save lives.”

Ms. Dupré believes the Institute fosters collaboration and brings together professionals whose mission revolves around the patient’s well-being. This mission has been close to her heart since childhood. The dolls from her childhood have given way to real patients. And her medical kit has become more complex than she could ever have imagined.



Ms. Caroline Dupré

“We feel a sense of duty and pride in raising the Institute’s profile and highlighting its important work.”

Acknowledgments

Each year, all of us here at the Montreal Heart Institute Foundation do everything we can to support the Institute's key pillars: honouring its legacy, bringing its vision to life, clearing the path to innovation, and recognizing community engagement.

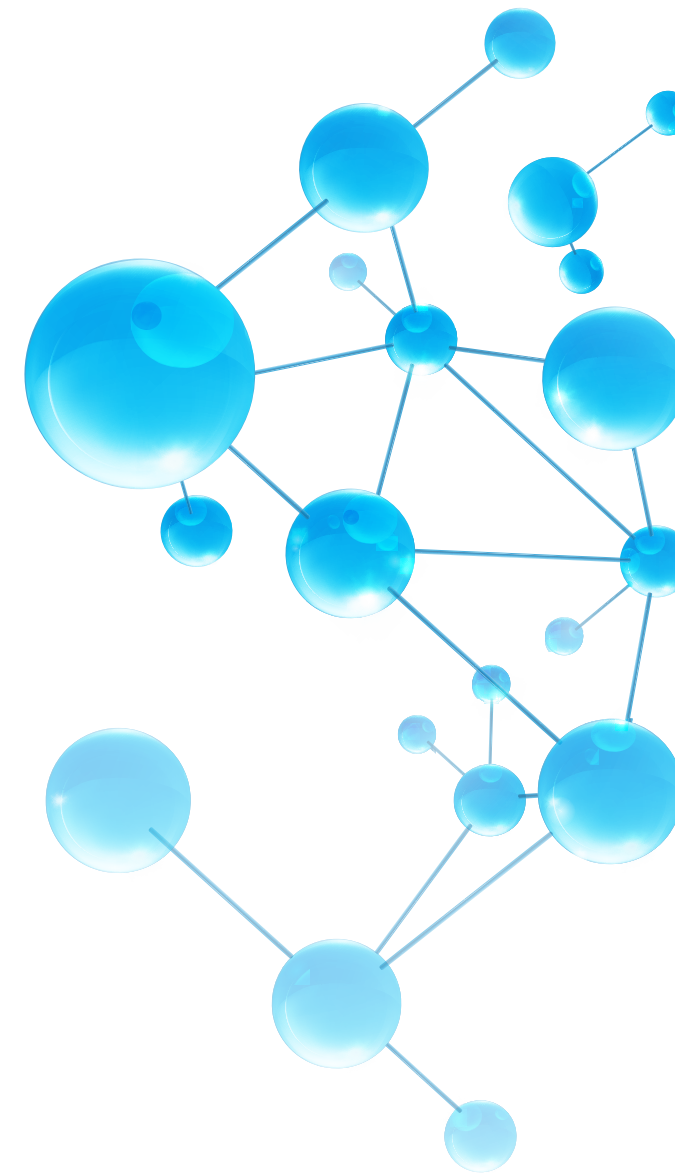
It's a considerable challenge but one that, as you know, inspires us and that we're happy to take up again—with renewed energy—in 2021. The projects, studies, achievements, and people you've learned about in our magazine reflect the excellence and incredible potential of the Montreal Heart Institute.

It was a pleasure to share our stories with you, and we look forward to continuing our efforts to eradicate the world's leading cause of death.

Thanks for reading. I'd also like to say a special thank you to my colleagues at the Montreal Heart Institute Foundation and to our donors, who make it possible for us to pursue our mission.

Alain Gignac

**From all of us at
the Foundation,**
thank you.



United to save thousands of lives.

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



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**The doctors
and patients**
of the Montreal
Heart Institute
thank you from
the bottom of
their hearts.