

A VISION A TEAM



ACHIEVEMENTS

MHI Accès-cibles program • 40th anniversary of the first heart transplant in Canada • Minimally invasive surgery performed for the 100th time • Creation of the Yves Des Groseillers and André Bérard Chair in Interventional Cardiology • Technological improvements in radiology • Constant concern with infection prevention • Inauguration of the Beaulieu-Saucier Pharmacogenomics Centre at UdeM • Major discovery in the treatment of aortic valve stenosis • Contribution to an international study on coronary artery diseases • Conclusive results achieved in a clinical trial to reduce heart rates in patients with stable angina • Positive results of a clinical trial involving a medication • Hospital genetic cohort project • Scientific leadership and coordination of an important study in Asia • Training activities • Start of online training programs • Creation of a French-language website dedicated to professional development in cardiovascular health • Healthy lifestyle programs a success • The MHI sponsors the Grand défi Pierre Lavoie • Nursing Career Day a resounding success • Construction of a new operating area • Expansion of the Research Centre

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OUR MISSION

Founded in 1954 by Dr. Paul David, the Montreal Heart Institute is an ultra-specialized cardiology hospital centre dedicated to care, research, teaching, prevention, rehabilitation and the assessment of new technologies in cardiology; it is affiliated with the Université de Montréal.

Its values are founded on the respect for patients, families and their quality of life, the recognition of human resources, the continuous search for excellence and innovation, the protection of public health, involvement in the community and the health network, as well as sound management and ethics based on transparency and the informed consent of patients.

THE MHI AT A GLANCE

The Montreal Heart Institute is ...

- over **1,800** employees, including **500** nurses and **82** researchers
- **211** physicians, including **44** cardiologists, **10** cardiovascular surgeons and **12** anesthesiologists
- close to **600** students, trainees, residents and fellows in fields related to cardiology
- **153** beds, including **21** in coronary care, **21** in medical intensive care, and **24** in surgical intensive care
- an institution that delivers highly specialized care
- the largest preventive medicine centre in Quebec
- the leading teaching centre for cardiovascular diseases in Quebec
- a research centre with an international reputation

Annually, it is also ...

- **1,800** surgical procedures (coronary bypasses, valve surgeries and cardiac transplants)
- **6,100** hemodynamic procedures
- **1,900** electrophysiology procedures
- **8,300** hospitalizations
- **16,700** visits to the emergency
- **42,000** visits to outpatient and specialized clinics

MESSAGE FROM THE CHAIR OF THE BOARD OF DIRECTORS AND THE EXECUTIVE DIRECTOR



A VISION. A TEAM. ACHIEVEMENTS.

The year 2008-2009 was an outstanding one in many respects. Indeed, in its continued efforts to fully accomplish its specific mission in a rapidly evolving context, sustain its growth and remain at the forefront as a centre of excellence in cardiology at the local, national and international level, the MHI established a comprehensive process in strategic planning to confirm future directions for the years 2010-2015.

This process, with over 150 individuals from the MHI and several outside partners directly taking part, proved to be extremely enriching and inspiring. In particular, it demonstrated the extent to which the road already travelled was significant. It also underlined the numerous achievements in many areas over the last decade. Above all, the process elicited feelings of great pride and gave some measure of the scope of future challenges, which will require considerable effort and great determination for many years to come.

Aside from the many projects realized or confirmed over the last year in the areas of prevention, care, teaching and research, the Phase I blueprints for the *Investir dans l'excellence* development plan have all been translated into action or brought to near completion. In fact, the construction of the new operating area will soon be finished. As well, the Beaulieu-Saucier Pharmacogenomics Centre at Université de Montréal was inaugurated in April 2009 by Dr. Yves Bolduc, Minister of Health and Social Services, Mr. Raymond Bachand, Minister of Economic Development, Innovation and Export Trade, and Minister responsible for the Montreal region, and our generous donors, Mr. Michel Saucier and his spouse Ms. Gisèle Beaulieu. The creation of this Centre makes Montreal the hub of excellence in pharmacogenomic research on the Canadian and international scene. Finally, the Government of Quebec has given its authorization to proceed with the expansion of the Research Centre, another major mobilizing project.

The coming year will be crucial to realizing Phase II of the *Investir dans l'excellence* plan, which includes, among other things, the construction of the training centre for excellence in cardiovascular health, the consolidation of outpatient services, as well as the expansion and reorganization of the emergency unit, intensive care unit and ÉPIC Centre, the MHI's centre for preventive medicine and physical activity.

Once completed, this ambitious plan representing investments of over \$409 million, more than half of which has already been authorized and financed, will enable the Montreal Heart Institute to modernize its infrastructures, thereby maintaining its level of excellence, ensuring its ability to recruit and retain the best experts in cardiovascular health and to provide the Quebec population with the best care available in cardiovascular health, all under optimal conditions. With Phase II of the *Investir dans l'excellence* plan, the MHI will also be able to strengthen its teaching mission as it applies to its responsibility to appropriately prepare the next generation of professionals, effectively disseminate knowledge and innovation, and extend its influence and leadership in prevention and research.

The years 2010-2015 will therefore be marked by the quest for innovation in the cardiovascular field, with the Montreal Heart Institute certainly at the forefront in this process.

A very warm thank you

The Institute needs the extraordinary support it receives from its Foundation and the community at large to bring its major projects to fruition, to pursue its vital undertakings and to continually reach new heights. Those who support us reveal their commitment, generosity and faithfulness, all of which serve as the greatest possible stimulus and incitement to constantly surpass ourselves. We extend to them our deepest gratitude. We also wish to thank the ÉPIC Foundation for its greatly appreciated contribution to the development of the MHI's centre for preventive medicine.

While the Montreal Heart Institute can be rightly proud of its position as a leader in cardiology, it also owes this position to its many partners in the Université de Montréal's Réseau universitaire intégré de santé, who actively contribute to it. We offer them our sincere thanks.

But the MHI's greatest strength lies in the competence and dedication of its personnel in each of the various spheres of activity. We therefore wish to thank all the men and women who give of themselves on a daily basis and who form the large family that is the MHI. They are the ones who keep alive the values of excellence and uphold the legacy inherited from the Institute's founder, Dr. Paul David. We are also indebted to the volunteers who offer the gift of their time. And finally, we offer our thanks to the board of directors for its outstanding commitment and invaluable support.

As another eventful year comes to a close, we invite you to consult the following pages, which present a summarized portrait of the MHI's recent accomplishments.



Jean Royer
Chair, Board of Directors



Robert Busilacchi
Executive Director

HIGHLIGHTS OF THE YEAR

MHI *Accès-cibles* program achieves impressive results

The MHI set up its *Accès-cibles* program aimed at giving patients improved access to care and services. This program made important strides this year, helping to significantly reduce the length of stays and admission delays at the MHI and to plan discharges on care units more effectively.

40th anniversary of the first heart transplant in Canada

On May 28, 2008, the MHI marked the 40th anniversary of the first heart transplant in Canada at a press conference attended by physicians, health professionals and heart transplant recipients. The historic transplant was performed at the Institute on May 30, 1968 by Dr. Pierre Grondin.



Minimally invasive surgery performed for the 100th time

A multidisciplinary team at the MHI recently performed the 100th endoscopic surgical procedure. This innovative technique was first used at the MHI in May 2006. The MHI performs more valve surgeries in a year than any other centre in Quebec.



Creation of the Yves Des Groseillers and André Bérard Chair in Interventional Cardiology

On February 20, 2009, the MHI and the Université de Montréal created the Yves Des Groseillers and André Bérard Chair in Interventional Cardiology. This Chair, the first in its field in Canada, will help to advance various research themes and thus ensure that the MHI stays at the leading edge of developments in interventional cardiology.

Technological improvements in radiology

The MHI's multislice cardiovascular CT-scanner received a technological upgrade making it possible to reduce exposure to radiation by 70% for patients taking this scan. This ultra-sophisticated scanner achieves unparalleled anatomical coverage of the heart and offers undeniable advantages to patients.



Constant concern with infection prevention

The MHI took part in STOP! Clean your hands, the Canadian campaign highlighting the importance of practicing proper hand hygiene to reduce nosocomial infections. Again this year, the Institute was very proactive and vigilant in this area on a daily basis.



HIGHLIGHTS OF THE YEAR



Inauguration of the Beaulieu-Saucier Pharmacogenomics Centre at UdeM

On April 6, 2009, the Montreal Heart Institute and the Université de Montréal inaugurated the Beaulieu-Saucier Pharmacogenomics Centre. Attending the opening ceremony were ministers Yves Bolduc and Raymond Bachand, generous donors Michel Saucier and Gisèle Beaulieu, as well as several guests and media representatives.

The MHI contributes to an international study on coronary artery diseases

For the first time, a major international study (BEAUTifUL) has demonstrated that using a medication to lower high heart rate in patients with coronary artery disease and a heart rate above 70 beats per minute can significantly lessen—by 30% or more—the risk of those patients suffering major cardiovascular problems such as heart attacks, a finding which could change the medical management of the disease. The Montreal Heart Institute led the Canadian portion of the study, which involved almost 11,000 patients in 33 countries on four continents.

Major discovery in the treatment of aortic valve stenosis

A team of scientists from the Montreal Heart Institute Research Centre, led by Dr. Jean-Claude Tardif, has completed an important study on animals suffering from aortic valve stenosis that showed that the administration of a new type of medication leads to an improvement in the aortic valve narrowing of sick rabbits. This experimental study opens the way to a new type of treatment that could possibly lead to regression of this disease in patients.

Conclusive results achieved in a clinical trial involving a medication intended to reduce heart rates in patients with stable angina

Results from a late-breaking clinical trial presented at the 2008 Canadian Cardiology Congress in Toronto show for the first time that adding the pure heart rate reduction medication ivabradine on top of current standard treatment for patients with stable angina improves exercise capacity over and above the current standard of care.

Scientific leadership and coordination of an important study in Asia

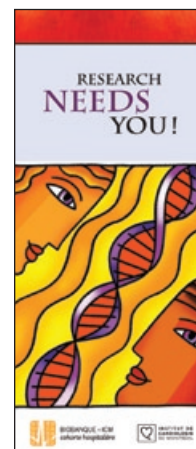
The Montreal Heart Institute Coordinating Centre (also known as MHICC) is responsible for managing an international clinical study intended to determine the effectiveness of ivabradine on cardiovascular mortality and morbidity. This project will involve 12,000 patients in numerous countries, including Canada and ten Asian countries.

Positive results of a clinical trial involving a medication intended for patients with serious cardiovascular disease

In November 2008, the results of a clinical trial led by the MHI Research Centre demonstrated that VIA-2291, an investigational drug, significantly reduces inflammation in patients with serious cardiovascular disease. VIA-2291 has the potential to be the first drug to specifically target one cardiovascular inflammatory pathway.

New communication tools used to promote the hospital genetic cohort project

To support efforts to recruit cohort participants, a promotional video starring charismatic actor Denis Bouchard was created, as was a new brand image for the project. The video may be viewed from the home page on the MHI website at www.icm-mhi.org. When completed, the biobank will form one of the largest hospital cohorts in the world.



HIGHLIGHTS OF THE YEAR



More training activities than ever at the MHI

Again this year, the MHI organized a number of professional development activities, including weekly scientific meetings, a research day, as well as local, provincial, national and international symposiums. The Interventional Cardiology Symposium, an event organized by MHI hemodynamics services, again drew participants from all over the world and was deemed a great success.

Start of online training programs

The MHI is increasingly active in the area of online training. This new means of offering training to MHI physicians and health professionals makes it possible to save considerable time. In the last year, the MHI reached an agreement with the American College of Cardiology intended to make the online training website, *Cardiosource Plus*, available.

Creation of a French-language website dedicated to professional development in cardiovascular health

The teaching division launched a website (www.dpc.icm-mhi.org) meant to support professional development. As well as let professionals view scientific conferences and interact with other professionals, it is among the first French-language websites to give professionals in cardiology such a flexible context in which to develop their knowledge.

The MHI sponsors the Grand défi Pierre Lavoie

A pioneer in preventive medicine in Canada, the Institute is proud to sponsor the Grand défi Pierre Lavoie because promoting healthy lifestyle habits through this province-wide mobilizing project is also at the heart of the MHI's preventive mission. Teams from the MHI and the ÉPIC Centre, the MHI's centre for preventive medicine and physical activity, will take part in the 2009 Grand défi Pierre Lavoie by cycling 1,000 km in 40 hours.



Healthy lifestyle programs a success

Co-promoter of the *5/30 Health Challenge*, the *Quit to Win! Challenge* and the *Smoke-Free Family* program, the MHI once again encouraged Quebecers to adopt this winning recipe for a healthy lifestyle. Thousands turned out to register for these programs.

"Nursing Career Day" a resounding success

As part of numerous efforts to recruit new nurses, the nursing care division held a "Nursing Career Day" on two separate occasions. These activities allowed new nurses, nurse-clinicians, candidates to the profession of nursing and nursing students to meet several MHI physicians and professionals and discover a friendly, rewarding and dynamic work environment that offers leading-edge technology.

HIGHLIGHTS OF THE YEAR

MAJOR DEVELOPMENT PROJECTS

Construction of a new operating area

The project to expand the operating area and its new infrastructures is in the final stages and should be completed by the end of 2009. The three major stages in this mega-project have already been carried out:

- the outfitting of seven new operating rooms; five will be used for everyday activities, one for emergency cases, and one for research purposes and the assessment of new technologies;
- the construction of a new central sterilization room with the latest technology;
- the reorganization of the surgical care unit, with the addition of eight new beds.

Between now and the end of 2009, the MHI will begin dismantling the former operating area, and the space will be redeveloped into support rooms for activities in the new operating area.



Green light given to the expansion of the Research Centre

The MHI received authorization from the Government of Quebec to expand its Research Centre at a cost of \$33,915,000. In addition to \$21,828,200 from the Government of Quebec, this project is financed by the MHI Foundation (\$10,021,900) and the Agence de la santé et des services sociaux de Montréal (\$1,833,300). The MHI is contributing the sum of \$231,600.

The planning phase for the expansion project has been completed, and the construction plans and specifications are now ready. The tendering process to award a construction contract is underway, and the project execution phase will be starting shortly.

This project involves the expansion of the South block (Pavillon J.-Louis Lévesque) by 6,599 square metres (distributed over three floors), the addition of three new fundamental research laboratories, the partial reorganization of the existing first three floors of the Research Centre's South block, and the construction of a space for catheterization activities, in part for research purposes.

Slated for completion in the fall of 2011, the Research Centre expansion project is the centrepiece in the development of leading-edge research activities at the MHI and the key to consolidating the Institute's international influence and stature.



CARE

The Montreal Heart Institute is an ultra-specialized cardiology hospital centre dedicated to **care**, research, teaching, prevention, rehabilitation and the assessment of new technologies in cardiology.

THE MHI CELEBRATES THE 40TH ANNIVERSARY OF THE FIRST CARDIAC TRANSPLANT IN CANADA

On May 28, 2008, the MHI marked the 40th anniversary of the first heart transplant in Canada at a press conference attended by physicians, health professionals and heart transplant recipients. The historic transplant was performed at the Institute on May 30, 1968, by Dr. Pierre Grondin. It should be noted that the first transplant recipients, with few exceptions, did not survive more than a few weeks following the procedure, essentially because of rejection problems. This is why cardiac transplant programs were suspended everywhere in the world in early 1969.

The discovery in the early 1980s of cyclosporin, a potent immunosuppressant, made it possible to significantly improve the lifespan of transplant recipients and cardiac transplant programs around the world were relaunched. Thus on April 24, 1983, the MHI successfully began the second phase of its cardiac transplant program, and Ms. Diane Larose was the first patient to benefit from it.

Over the last 25 years, 336 cardiac transplants have been performed at the MHI. The likelihood of survival has now reached almost 90% in the first year, with life expectancy frequently extending beyond 10 years. However, cardiac transplantation remains limited due to the limited number of available organs.

MINIMALLY INVASIVE SURGERY PERFORMED FOR THE 100TH TIME

A multidisciplinary team at the MHI recently performed the 100th endoscopic surgical procedure. This innovative technique was first used at the MHI in May 2006. It requires only 5-cm mini-incisions in the right chest wall through which an endoscopic camera and surgical instruments used by the cardiac surgeon are inserted. The MHI performs more valve surgeries in a year than any other centre in Quebec. Its mitral surgery program is one of the most impressive in the country, and its excellent clinical outcomes are recognized by the medical community nation-wide.

This procedure offers many advantages for the patient: less pain, as the ribcage remains intact, unlike in cases of open-heart surgery; quicker recovery, that is, a one-month convalescence as opposed to a three-month period for the traditional surgery; and a remarkable outcome in esthetic terms because of the smaller incisions required for endoscopic surgery.



Dr. Pierre Grondin, on the left, and his team at the first cardiac transplant, on May 30, 1968



Back row, left to right: Dr. Guy B. Pelletier, Dr. Yves Castonguay, Ms. Diane Larose, transplant recipient, Mr. François Nadeau, transplant recipient, Mr. Sylvain Desnoyers, transplant recipient, Ms. Mélanie Cloutier, nurse, transplant clinic, Dr. Normand Racine and Dr. Alain Deschamps. Front row, left to right: Mr. Hugues Giroux, transplant recipient, Mr. Sylvain Bédard, transplant recipient, Mr. Angelo Caluori, transplant recipient, Ms. Manon Larose, transplant recipient, Ms. Martine Gagné, nurse, transplant clinic, and Dr. Michel Carrier.

TWO CARDIAC SURGEONS FROM THE MHI SUCCESSFULLY PERFORM ROBOTIC-ASSISTED CARDIAC SURGERY AT THE HÔPITAL DU SACRÉ-CŒUR DE MONTRÉAL: A FIRST IN QUEBEC

On October 29, 2008, at the Hôpital du Sacré-Cœur de Montréal (HSCM), Dr. Hugues Jeanmart, a cardiac surgeon at the MHI and HSCM, performed robotic-assisted cardiac surgery to repair a mitral valve. This was a first in Quebec. He was assisted notably by Dr. Michel Pellerin, also a cardiac surgeon at the MHI and HSCM and head of the surgical department at the MHI. The first patient to benefit from this procedure is doing very well. The surgeons from these two institutions have been working together for 10 years and have developed a great expertise in valve surgery. Indeed, an exponential increase in reconstructive valve surgery has been noted in these two university hospitals, part of the Université de Montréal's Réseau universitaire intégré de santé (RUIS). The clinical outcomes are excellent, and the complications associated with prosthetic heart valves are avoided.

While the robot does not replace the surgeon in decision-making, it is a sensitive tool whose precision provides greater technical flexibility and better visualization of the cardiac structures in the limited, non-extensible space within the ribcage. Above all, this new technique diminishes the trauma associated with conventional surgery by dispensing with incision in the sternum, promoting an easier and more rapid return to normal.

CREATION OF THE YVES DES GROSEILLERS AND ANDRÉ BÉRARD CHAIR IN INTERVENTIONAL CARDIOLOGY

On February 20, 2009, the Université de Montréal (UdeM) and the MHI inaugurated the Yves Des Groseillers and André Bérard Chair in Interventional Cardiology. The creation of this Chair, the first in its field in Canada, was made possible by a donation of \$1.5 million given in equal shares by these two businessmen and friends.

This research Chair granted to Dr. Serge Doucet, chief of the interventional cardiology service at the MHI and professor of medicine at the UdeM, will help to advance different areas of research, thus keeping the MHI in the very forefront of recent advances in interventional cardiology. It will also make it possible to attract the best physicians and researchers in the field and to offer them competitive conditions. The first topic of research will be stem cells and regenerative therapy. Dr. Hung Ly will focus his efforts on the development of this first topic.



Photo: Université de Montréal

From left to right: Dr. Denis Roy, executive assistant dean of the faculty of medicine of the UdeM, Dr. Hung Ly, interventional cardiologist and associate professor in the faculty of medicine of the UdeM, Dr. Serge Doucet, holder of the Chair, chief of the interventional cardiology service and director of the interventional cardiology program at the MHI, Mr. Yves Des Groseillers, donor, Mr. André Bérard, donor, Mr. Luc Vinet, rector of the UdeM, Mr. Jean Royer, chair of the board of directors of the MHI



TECHNOLOGICAL IMPROVEMENTS IN RADIOLOGY

The MHI's multislice cardiovascular CT-scanner received a technological upgrade making it possible to reduce exposure to radiation by 70% for patients taking this scan. This ultrasophisticated scanner achieves unparalleled anatomical coverage of the heart and offers undeniable advantages to patients.

With a simple intravenous contrast injection, the machine captures high-definition images of the heart in a static state between regular heart-beats, thereby enabling a more accurate diagnosis—all in the space of barely five minutes. In addition to the speed it lends to the procedure, which does not require hospitalization, this multislice cardiovascular CT-scanner is also distinguished by its non-invasive application, which minimizes the risk of complications.

CONSTANT CONCERN WITH INFECTION PREVENTION

The MHI took part in STOP! Clean your hands, the Canadian campaign highlighting the importance of practicing proper hand hygiene to reduce nosocomial infections.

Again this year, the Institute was very proactive and vigilant in this area on a daily basis. Annual statistics revealed that the infection rate remained essentially the same as last year with respect to *Clostridium difficile* and SARS. The infection rate in the operating area, however, decreased significantly compared to last year. The positive outcomes attest to the sustained efforts made by members of the electrophysiology service team and infection prevention team, who implemented an action plan to prevent and control the rate of infection of stimulators and defibrillators, which had shown an increase early in the year.





RESEARCH

The Montreal Heart Institute is an ultra-specialized cardiology hospital centre dedicated to care, **research**, teaching, prevention, rehabilitation and the assessment of new technologies in cardiology.

GREEN LIGHT GIVEN TO THE EXPANSION OF THE MHI RESEARCH CENTRE

In June 2008, the MHI received authorization from the Government of Quebec to expand the MHI Research Centre at the cost of \$33,915,000. The highlights of the project are presented on page 7.

In addition to the \$21,828,200 from the Government of Quebec, this project is financed by the MHI Foundation (\$10,021,900) and the Agence de la santé et des services sociaux de Montréal (\$1,833,300). The MHI is contributing the sum of \$231,600. This announcement shows that the Government of Quebec is confident in the Montreal Heart Institute's ability to play a leadership role in cardiovascular research. And this tangible form of support from the Government of Quebec and the MHI Foundation will help create optimal conditions for developing new knowledge and achieving important breakthroughs.

The MHI Research Centre expansion project stands as a cornerstone in the development of leading-edge research activities at the MHI and the key to consolidating the Institute's international influence and stature. This expansion will have many significant effects on the MHI, and these will translate into important benefits for patients at the MHI, as well as patients in Quebec and in Canada. In particular, it will make for the recruiting of many researchers of international stature, continued progress for the excellent researchers already at the MHI, the addition of new research laboratories in a vast range of fields—genetics, vascular electrophysiology, regenerative medicine, mathematical modeling and metabolomics; it will also make for the expansion of many fundamental research laboratories in vascular pharmacology, endothelial functions, proteomics, cardiac biochemistry, cardiovascular imaging, atherosclerosis, coronary procedures, molecular electrophysiology, and cardiovascular rheology.

The expansion of the Research Centre will also have an important impact on the MHI's ability to make major breakthroughs in the prevention and treatment of cardiovascular diseases, while generating intellectual property as well as profitable economic spin-offs for Quebec.



From left to right: Dr. Michael Phillips, Dr. Jean-Claude Tardif, Mr. Raymond Bachand, Ms. Gisèle Beaulieu, Mr. Michel Saucier, Dr. Yves Bolduc, Mr. Luc Vinet, Mr. Robert Busilacchi and Mr. Jean Royer

INAUGURATION OF THE BEAULIEU-SAUCIER PHARMACOGENOMICS CENTRE AT UNIVERSITÉ DE MONTRÉAL

The ceremony inaugurating the Beaulieu-Saucier Pharmacogenomics Centre at Université de Montréal took place on April 6, 2009. In attendance were Dr. Yves Bolduc, Minister of Health and Social Services, Mr. Raymond Bachand, Minister of Economic Development, Innovation and Export Trade and Minister responsible for the Montreal region, and generous donors Mr. Michel Saucier and his wife Ms. Gisèle Beaulieu, both graduates of the UdeM. Their personal donation of \$5 million made possible the creation of the Pharmacogenomics Centre on the premises of the Montreal Heart Institute (MHI).

The MHI Foundation also contributed to the funding of the Centre's construction project, of which the total cost is \$6.6 million. To date, this initial investment, coupled with the worldwide renown of the recruited researchers, provided the leverage the Montreal Heart Institute needed to obtain an additional \$8 million from various sources, notably scientific support, for scientific advancement in the field of pharmacogenomics and personalized medicine.

The Centre brings together a multidisciplinary team of researchers specialized in genomics, bioinformatics and clinical research studies. Pharmacogenomics is a branch in the vanguard of scientific research on medications, which could make it possible to determine the appropriate medication based on the individual's genetic profile, thus better targeting the medicinal therapy.

THE MHI CONTRIBUTES TO BEAUTIFUL, AN INTERNATIONAL STUDY ON CORONARY DISEASE

For the first time, a major international study (BEAUTifUL) has demonstrated that using a medication to lower the heart rate in patients with coronary artery disease and a heart rate above 70 beats per minute can significantly lessen—by 30% or more—the risk of major cardiovascular problems such as heart attacks, a finding that could change the medical management of the disease.

The Montreal Heart Institute led the Canadian portion of the study, which involved almost 11,000 patients in 33 countries on four continents. The long-awaited results of the study were presented at the 2008 Congress of the European Cardiological Society which took place in Munich, Germany; they were also published simultaneously in *The Lancet*.

MAJOR DISCOVERY IN THE TREATMENT OF AORTIC VALVE STENOSIS

A team from the MHI Research Centre, led by Dr. Jean-Claude Tardif, has completed an important study on animals suffering from aortic valve stenosis; it showed that the administration of a new type of medication leads to an improvement in aortic valve narrowing in sick rabbits. This same type of treatment based on raising HDL, the so-called “good cholesterol,” in patients suffering from aortic valve stenosis, could potentially transform the treatment approach to this disease, notably by avoiding open heart surgery. The study results were published in the *British Journal of Pharmacology*. This investigational study opens the door to a new type of treatment possibly leading to regression of this disease in humans.



CONCLUSIVE FINDINGS IN A CLINICAL TRIAL INVOLVING HEART RATE REDUCTION IN PATIENTS WITH STABLE ANGINA

The results of a recent clinical trial, presented at the Canadian Cardiology Congress in Toronto, showed for the first time that selectively adding the heart rate reduction medication ivabradine to the current standard treatment for patients with stable angina improves exercise capacity more than do current standards of care. These results are very encouraging for these patients, particularly given the tolerance problems associated with high doses of betablockers.

This randomized double-blind study lasting four months involved some 900 patients from Canada and elsewhere in the world who were suffering from coronary artery disease and had a history of stable angina. The purpose of the study was to determine whether treatment with ivabradine could improve the exercise capacity of these patients beyond that obtained through standard treatment. Ivabradine is not yet available in Canada.

Dr. Jean-Claude Tardif, director of the MHI Research Centre, was the principal investigator in this study.

POSITIVE RESULTS OF A CLINICAL TRIAL INVOLVING A MEDICATION INTENDED FOR PATIENTS WITH SERIOUS CARDIOVASCULAR DISEASE

In November 2008, the results of a clinical trial led by the MHI Research Centre demonstrated that VIA-2291, an investigational drug developed by VIA Pharmaceuticals Inc., significantly reduces inflammation in patients with serious cardiovascular disease. VIA-2291 therefore has the potential to be the first drug to specifically target one cardiovascular inflammatory pathway. These data support further clinical development of this drug, notably through larger outcome trials. The results of this clinical trial were presented at the 2008 Scientific Sessions of the American Heart Association, which were held in New Orleans, Louisiana.

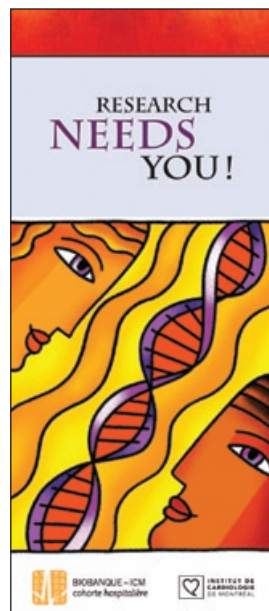
The VIA-2291 study was designed to establish optimal dosing and safety data in patients with acute coronary syndromes (ACS) and who recently had a heart attack or an episode of unstable angina. In total, 191 patients were treated once daily for 12 weeks with one of three dose levels of VIA-2291 or a placebo. A sub-study of patients continued for an additional 12 weeks of treatment.

THE HOSPITAL GENETIC COHORT PROJECT IS MAKING GOOD PROGRESS

The charismatic comedian Denis Bouchard generously accepted to be spokesperson for the MHI biobank project—a hospital cohort that aims to recruit 30,000 participants between now and 2012. A promotional video featuring Denis Bouchard and a new brand image for the project was created to support efforts to recruit participants. This video may be viewed on the MHI website. When completed, the biobank will form one of the largest hospital cohorts in the world.

The many resources invested in the last year have produced good results. Four research projects will be completed shortly with the data and biobank samples accumulated thus far, and other projects are being prepared. The recruitment process continues even more intensively, thanks to an expanded team of new collaborators formed over the course of last year.

Remember that anyone who has used the MHI services may take part in this project, whether he or she has a cardiovascular disease or not. It involves a meeting of about an hour and a half with a research nurse to complete the questionnaires on the medical and family history and give a blood sample. All of the data and samples in this project will be used by MHI researchers and their collaborators to achieve, among other things, a better understanding of the genetic bases for cardiovascular disease. Thus, the MHI wishes to contribute to the advancement of knowledge in this field and to help in the development of personalized medicine.



Statistical data: Research Centre



*Since 2006-2007, undergraduate students only

THE CENTRE OF EXCELLENCE IN PERSONALIZED MEDICINE CELEBRATES ITS FIRST ANNIVERSARY

The Centre of Excellence in Personalized Medicine (CEPMed) was created in February 2008 by the MHI and Génome Québec with a view to developing approaches and methods to optimize treatments and to ensure their rapid and productive transition from the research stage to use in clinical practice.

In its first year of existence, CEPMed laid the groundwork for realizing its ambitious vision—to become a world leader in the field of personalized medicine. Among its accomplishments we should mention the development and launching of two major projects with two pharmaceutical partners, participation in the development of a hospital cohort of prime importance, the establishment of partnerships with key players in the Quebec life sciences sector, and participation in knowledge transfer with an international agency dedicated to promoting biomarkers in personalized medicine. Add to these the creation of a portfolio of some ten projects that should generate socioeconomic spin-offs in the medium and long term.

At the end of this first year, a total of close to \$3 million was invested in strategic clinical projects aimed at optimizing the therapeutic approach to two major pathologies in the cardiovascular field: coronary atherosclerosis (in parallel to the Dal-Outcomes study) and thromboembolism (optimization of anti-coagulation required).

Through its investments, CEPMed plays a major role in the development of personalized medicine and is positioning itself to collaborate with new partners, an influential factor in establishing its continuity.

SCIENTIFIC LEADERSHIP AND COORDINATION OF AN IMPORTANT STUDY IN ASIA

The Montreal Heart Institute Coordinating Centre (also known as MHICC) is responsible for managing an international clinical study to determine the effectiveness of ivabradine on cardiovascular mortality and morbidity. This project will involve some 12,000 patients in many countries, including Canada and ten Asian countries. Dr. Jean-Claude Tardif is also a member of the executive steering committee for this important study.

The MHICC has also purchased a new state-of-the-art management system which will enable it to manage data on line as well as increase its speed and effectiveness. Finally, it is hard at work on the most recent research projects for which the MHI has received substantial subsidies.

We should mention that the MHI Coordinating Centre for clinical trials was created in 2000 and offers services to MHI and Université de Montréal researchers, as well as to pharmaceutical and biotechnology firms. Its expertise includes development plan design, research protocol development, project management, research site management and clinical monitoring, biostatistics analyses, data management, medical review, quality management and the study of biomarkers; it also provides CORE laboratory services.

COMMERCIALIZATION OF RESEARCH FINDINGS AND TECHNOLOGY TRANSFER

Important first at the MHI: first licensing agreement granted

For the first time in its history, Innovacor, the MHI's research commercialization firm, granted a licensing agreement to a private pharmaceutical firm, giving it the right to use a patent submitted by the MHI. The patent involved consists of a technology developed by Dr. Jean-Claude Tardif, cardiologist, researcher, and director of the MHI Research Centre, and which acts on the regression of aortic valve calcification. This technology, which to date has been tested using animals, presents great commercial potential given that it would allow patients to avoid so-called invasive surgeries. This license authorizes the pharmaceutical firm to pursue the various research stages necessary to meet regulatory requirements, stages that are mandatory prior to commercialization.

In the last financial year, Innovacor also agreed with a third party on generous terms for the granting of a second licensing agreement, this time, on a diagnostic test for assessing the cardiovascular health of patients. This increase in activity aptly illustrates the MHI's maturity when it comes to commercialization of research.

A strong intellectual property portfolio

In its ten years of existence, Innovacor will have submitted a record of 125 patent applications based on findings by MHI researchers. Given the sustained productivity of MHI researchers and the applications thus generated, its patent portfolio has shown steady growth year after year.

Establishing contacts and communications with venture capital companies

The present economic climate has had an obvious impact on venture capital companies, which are the prime and most important source of funding for spin-off company start-ups. Projects that have a sound scientific basis and good commercial potential are having difficulty finding takers. While this activity sector is experiencing a slowdown, the MHI has still managed to spark interest among different groups of investors and is very actively promoting its presence by developing contacts and strengthening its ties through discussions with a good many partners. Thus, the MHI will be well positioned when economic conditions become more favourable.



TEACHING

The Montreal Heart Institute is an ultra-specialized cardiology hospital centre dedicated to care, research, **teaching**, prevention, rehabilitation and the assessment of new technologies in cardiology.

TEACHING

TEACHING ACTIVITIES MORE NUMEROUS THAN EVER

Again this year, the MHI organized a number of professional development activities such as weekly scientific meetings, a research day, as well as local, provincial, national and international symposiums.

One of these was the 17th *Interventional Cardiology Symposium*, an event organized by the interventional cardiology service at the MHI. Again, it was deemed a great success in June 2008. The event was a joint collaboration with the Institut universitaire de cardiologie et de pneumologie de Québec and the Duke University Medical Centre of Toronto. It drew over 450 participants from all corners of the globe, who came to assist at live transmissions of procedures and to listen to leading Canadian and international experts in interventional cardiology, general cardiology, cardiac surgery and interventional radiology.

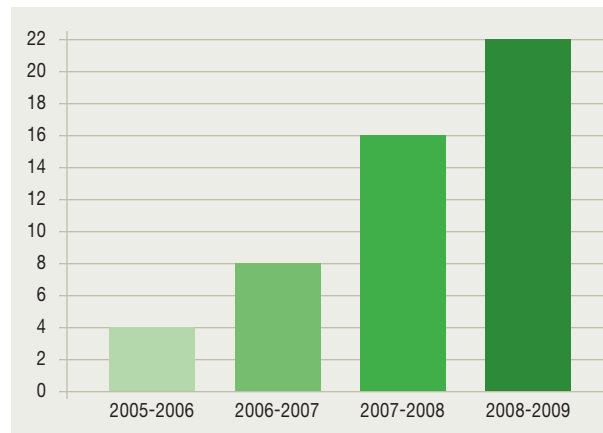
Also noteworthy was the *Cardiovascular Biomarkers and Surrogate Endpoints Symposium* held in September 2008 in Bethesda, Maryland. This symposium, under the direction of the MHI Research Centre and the Brigham and Women's Hospital of Harvard University, provided an opportunity for discussion of the evidence on the use of biological biomarkers in the development and licensing of drugs used in the treatment of cardiovascular diseases.



MARKED INCREASE IN VIDEOCONFERENCES

The MHI increased the number of scientific meetings broadcast by videoconference throughout the year 2008-2009. Presented in partnership with Pfizer, 22 videoconferences were broadcast this year, compared to 16 last year. Another sign of innovation, each videoconference will now be available on line for a two-week period, making the information even more accessible to the many institutions in the regions of Quebec as well as in Ontario and New Brunswick. Another innovative feature in 2008-2009—two conferences presented specifically for nurses.

Number of medical videoconferences since 2005



TEACHING DIVISION SERVICE OFFER

As a hospital centre affiliated with the Université de Montréal, the Montreal Heart Institute is a recognized leader in the training of physicians and other health professionals in the cardiovascular field. Preparing the new generation of physicians for practice in cardiovascular care and disseminating knowledge are important components of the MHI's teaching mission.

At the request of the university coordinating committee on teaching at the Université de Montréal, the teaching division prepared a service offer that would define the training programs offered at the MHI, demonstrate its training expertise in cardiovascular diseases as well as the relevance of its future development projects, all with a view to better playing the larger role it intends to play, as a Université de Montréal RUIS partner, in cardiovascular health education at the local, regional and supra-regional level.

THE MHI COLLABORATES WITH THE INSTITUT UNIVERSITAIRE DE GÉRIATRIE DE MONTRÉAL ON THE CREATION OF LEARNING MATERIALS

Following a collaborative agreement reached in 2006 between the MHI and the Institut universitaire de gériatrie de Montréal (IUGM) on developing clinical approaches of common interest to the clients they serve, a team of physicians and nurses from the MHI, working with a team from the IUGM, undertook a project to create learning materials for health professionals providing end-of-life care to patients. The materials will be designed to help professionals deal with this new reality and will be made available throughout Quebec.

IN 2008-2009, THE MHI WELCOMED

- 180 students, residents and fellows
- 181 students to the Research Centre
- 212 students to other disciplines related to cardiology
- Since 2003-2004, the total number of students has gone from 400 to 600. The increased activity in the Research Centre further increases the number of students in this sector.

GROWING NUMBER OF ONLINE TRAINING PROGRAMS

The MHI is increasingly active in the area of online training. This new means of offering training to its personnel makes it possible to save considerable time, as one can receive the training without going from one place to another.

In the last year, the MHI reached an agreement with the American College of Cardiology to make the online training site *Cardio-source Plus* available to MHI health professionals. This site offers training programs for professionals in cardiology (ECG, echocardiography, hemodynamics, electrophysiology, auscultation) and a host of reference tools. More than 1,000 visits to the site were registered in the last year.

MHI personnel, fellows and residents were also invited to take online training on the safety of information assets. This training is aimed at making all of the personnel aware of the risks and issues surrounding access to personal information and the safe use of that information. Finally, an online training program on radiation safety was set up for the personnel working in the radiology department and in the interventional cardiology and electrophysiology services. Radiation protection refers to all measures taken to protect against the harmful effects of ionizing radiation.

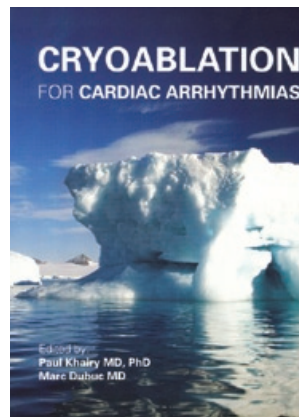
ACCREDITATION OF UNIVERSITÉ DE MONTRÉAL TRAINING PROGRAMS

The MHI took part in the Université de Montréal residency programs accreditation visit from the Royal College of Physicians and Surgeons of Canada. The MHI was visited and the teachers were met with, particularly those in the cardiology and cardiac surgery programs.

The MHI also received a visit from the first Accreditation Committee, formed of representatives of the Collège des médecins du Québec and the Ordre des infirmières et infirmiers du Québec, pertaining to the Université de Montréal's training program for nurse practitioners specialized in cardiology. The program obtained its accreditation.

CREATION OF A FRENCH-LANGUAGE WEBSITE DEDICATED TO PROFESSIONAL DEVELOPMENT IN CARDIOVASCULAR HEALTH

The teaching division launched a website (www.dpc.icm-mhi.org) meant to support continuing professional development for health professionals. The new site, realized with financial assistance from the MHI Foundation, Pfizer and Sanofi-aventis, allows professionals to view scientific conferences, obtain credits in continuing professional development, test their knowledge, consult various specialized documents and interact with other professionals. It is among the first French-language websites in the world to give professionals in cardiology such a flexible context in which to broaden their knowledge.



DRS. PAUL KHAIRY AND MARC DUBUC AUTHOR A REFERENCE BOOK ON CRYOABLATION

Drs. Paul Khairy and Marc Dubuc have written a book entitled *Cryoablation of Cardiac Arrhythmias*. This work, with contributions from a team of some 30 authors prominent in cardiac electrophysiology, is meant to be a reference book and source of knowledge on the treatment of cardiac arrhythmias. The book first gives an account of the progressive use of cold in medicine since its modest beginnings in 2,600 B.C. to the present day. It then offers a brief survey of its future potential in cardiology. An entire section of the book is dedicated to practical cases presented in detail by each of the authors, who share their knowledge and practical ways of doing things with the reader.

THE MHI IS A PARTNER IN THE SERIES OF TALKS "MÉDECINE POUR TOUS" AT THE UNIVERSITÉ DE MONTRÉAL

In the spring of 2009, the Université de Montréal faculty of medicine and Les Belles Soirées organized six talks on cardiology for the public at large, as a feature of their medical mini-school called "Médecine pour tous." At these talks, MHI specialists updated the public on prevention, treatments, and the latest innovations making for the optimal treatment of atherosclerosis, atrial fibrillation and other heart rhythm problems. Three of these talks were given by MHI physicians.



PREVENTION

The Montreal Heart Institute is an ultra-specialized cardiology hospital centre dedicated to care, research, teaching, **prevention**, rehabilitation and the assessment of new technologies in cardiology.

PREVENTION

THE MHI SPONSORS THE GRAND DÉFI PIERRE LAVOIE

The MHI, being a pioneer in preventive medicine in Canada, deemed it completely natural to sponsor the Grand défi Pierre Lavoie aimed at motivating elementary school children to take action through simple and concrete gestures to help them enjoy and maintain better and more lasting health.

On March 9 and 10, 2009, the ÉPIC Centre echoed with the applause of children and adults alike, as some 445 elementary school children pedaled on stationary bicycles as part of the Grand défi Pierre Lavoie. Members of the ÉPIC Centre were on site to encourage them and help them realize the many benefits of putting words into action. A number of media were also present.

The MHI and Pierre Lavoie have had special ties for many years. In addition to their common concern for promoting healthy lifestyle habits, they are united in the cause of orphan genetic diseases and their treatment. Indeed, it was the funds raised during the first years of the Grand défi Pierre Lavoie that enabled a research group at the MHI to locate, in 2003, the gene in lactic acidosis, a genetic disease that kills a large number of children with it before the age of five. This first giant step led to the creation of a genetic screening test for this disease, which is now offered to the entire Saguenay-Lac-Saint-Jean population.



Photo: Grand défi Pierre Lavoie



HEALTHY LIFESTYLE PROGRAMS A SUCCESS

Co-promoter of the *5/30 Health Challenge*, the *Quit to Win! Challenge* and the *Smoke-Free Family* program, the MHI once again encouraged thousands of Quebecers to adopt this winning recipe for a healthy lifestyle. Between March 1 and April 11, 2009, 120,176 persons registered for the *5/30 Health Challenge* with a view to adopting healthy lifestyle habits, 16,277 participants agreed to stop smoking as part of the *Quit to Win! Challenge* program, and 5,789 families registered for the *Smoke-free Family* program.

The year 2009 was also an occasion to celebrate the 10th anniversary of the *Quit to Win! Challenge* and the 5th anniversary of the *5/30 Health Challenge*. Over the last ten and five years, some 276,000 and 300,000 individuals respectively registered for these programs and put them into action.

A GENEROUS DONATION FOR THE PREVENTION OF CARDIOVASCULAR DISEASES

The prevention division of the MHI received a donation of \$2 million from the BMO Financial Group, collected as part of the MHI Foundation's major fund-raising campaign *Heart Beat for the Future*. This generous donation will be used to fund the overall cardiovascular program in prevention.

More specifically, the BMO Financial Group donation will serve to augment and improve activities in the various clinics and primary prevention activities targeting the community; it will also serve to ensure maintenance of the pluridisciplinary team (nurses in the prevention clinic and metabolic clinic, research nurses, researchers), and certain non-subsidized research activities.

QUALITY OF CARE AND SERVICES

THE MHI COMMITS ITSELF TO A PROGRAM FOR IMPROVING THE PROCESSES INVOLVED IN GIVING PATIENTS BETTER ACCESS TO SERVICES

The MHI, like other hospital centres in Montreal, has committed itself to a regional program set up by the Agence de la santé et des services sociaux de Montréal and whose main objective is to simultaneously improve clinical outcomes, processes, and services to patients.

The MHI program entitled *Accès-cibles*, in reference to performance targets the MHI has set to improve client access to care and services, consists of developing and putting in place in the hospital continuous improvement tools to better support skills, systems and processes that promote continued and noteworthy progress in the medium and long term.

The program at the MHI has evolved in remarkable fashion, and all those who are involved in this project have done extraordinary work. At the end of the first year, the results of the program were very positive and encouraging for the future, as a significant improvement in waiting times was noted in comparison to the previous year.

CONTINUOUS QUALITY IMPROVEMENT: A DAILY CONCERN AND COMMITMENT

The accreditation process is one among many activities important to sustaining excellence at the MHI. The commitment to continuous quality improvement goes far beyond the obligation to conform to Accreditation Canada standards, attesting to the MHI's constant concern for providing quality care to its patients.

This concern was also demonstrated in the MHI's preparation for the Accreditation Canada visit in February 2009. The accreditation process is one of the means through which the Institute can constantly improve its way of doing things and help secure its position as leader in its field. Following the visit from Accreditation Canada, the MHI was proud of the outstanding work it accomplishes on a daily basis and which makes its reputation as a centre of excellence.

CLIENT SATISFACTION: A SOURCE OF PRIDE AT THE MHI

Client satisfaction is a daily concern at the MHI. To find out how its clients feel about the MHI care and services they receive and to work toward continuous quality improvement, the MHI again conducted client satisfaction surveys on several care units. The overall client satisfaction rate was 93%. The MHI has been conducting these surveys for several years now, with results ranging from 90% to 94%. These surveys allow the MHI to review and continuously improve the way it does things.

In addition to the comments indicated in the surveys, the MHI frequently receives cards and letters from patients or family representatives expressing their thanks. All these words of appreciation are heart-warming and a source of pride for personnel members.

Words of appreciation for the MHI*

"The team spirit I saw was fantastic. Congratulations on the quality of care and services from each of you. Thanks for everything."

"When I left, I even thanked the personnel for their professionalism, their receptiveness, their kindness and their big smiles. If I ever have another heart problem, I will certainly go back to the MHI. You are the best."

"The personnel were remarkably kind to me. Thanks a million. I have nothing but good things to say about your establishment."

"Thank you, thank you to the Institute and all its personnel for making me feel so welcome and for the excellent care. I will always have excellent memories of my stay with you."

"I want to thank all the personnel and the good doctors for the care I received. They were warm and very patient with me. They are special. A huge thank you to everyone."

*Free translation

QUALITY OF CARE AND SERVICES

INTERVENTIONS OF THE LOCAL SERVICE AND QUALITY COMPLAINTS COMMISSIONER

The local service and quality complaints commissioner reports to the MHI board of directors concerning respect for user rights and the diligent processing of complaints. The commissioner's role is to receive requests from patients or their representatives, ensure proper follow-up, investigate when deemed necessary and, if applicable, put forward recommendations aimed at improving the quality of services at the MHI.

The commissioner processed 218 files during the period extending from April 1, 2008, to March 31, 2009. No complaint was brought before the Quebec Ombudsman.

Files processed

Complaints	77
Requests for assistance	76
Consultations	45
Medical complaints	17
Interventions	3

Principal reasons for complaints

Care and services dispensed	58
Interpersonal relations	30
Organization of the premises	26
Specific rights	19
Accessibility	18
Financial aspect	15
Other reasons	15

Processing time

1 day	117
2 to 7 days	47
8 to 30 days	33
31 to 45 days	12
More than 40 days*	9

*Complaint processing times that exceed 45 days are due to the complexity of the circumstances under review or to the implementation of appropriate solutions requiring the collaboration of several stakeholders or establishments.

Follow-up

Various actions were initiated following the review of files. In several cases, intervention by the commissioner was limited to one of the following actions:

- General information
- Clarification
- Intercession, liaison
- Conciliation
- Obtaining care or services
- Advice or referral

HUMAN RESOURCES

A STIMULATING AND DYNAMIC WORKPLACE

All year long the MHI organized several activities with a view to offering its personnel members a living environment where they can develop their professional skills and create new collaborative relationships. We should mention the activity "La rentrée," a very special day when personnel members and MHI physicians gave artistic performances. Some employees used this autumn activity to highlight other artistic talents. As always, the employees' Christmas party brought the year to a beautiful close. And finally, there were the information booths, organized over the months on various themes such as *Défi 6 semaines sans tabac*, nutrition month, and organ donation month.



THE MHI OFFERS ITS PERSONNEL THE GIFT OF HEALTH

Because the health and well-being of its personnel are at the heart of its priorities, the MHI has given its employees an opportunity to take part in the *Take care of your health!* program. Developed by ACTI-MENU, a company associated with the management of the MHI, this program, spread over a period of 36 months, offers its participants time to take care of their physical and psychological health and to examine the pace at which they live. In concrete terms, it involves a series of steps based on a theme designed to encourage them to take action. Each step is structured around a talk and a personalized check-up. The themes on the menu include notably stress management, heart health, diet and physical activity.

The personnel members who took part in the first step said they were very happy with this enriching experience.



RECOGNITION: HIGHLY VALUED AT THE MHI

A variety of activities were conducted during the year, particularly under the aegis of the recognition committee, to help in the development of a culture of recognition within the organization.

Among these initiatives, we should mention the annual recognition activity, a large outdoor celebration to honour personnel members; it took place in June 2008 under a shining sun and drew some 1,000 people from the day and evening shifts. As for the night employees, they were treated to a visit from the executive director, the human resources director and several members of the recognition committee. Everything conspired to make this day a resounding success!

After one year of existence, the MHI chain of recognition continued to add new links. One of these is a short note written to a person of one's choice in a book intended for this purpose, telling the person how much his or her work is appreciated, however great or small the tasks. Lastly, St. Valentine's Day provided the perfect excuse to organize a recognition activity on the theme of "Une chance qu'on s'a."

SUSTAINED EFFORTS TO STEM THE NURSING SHORTAGE PRODUCE RESULTS

As part of numerous efforts to recruit new nurses, the nursing care division held a “Nursing Career Day” on two separate occasions. These activities allowed new nurses, nurse-clinicians, candidates to the profession of nursing and nursing students to meet several MHI physicians and professionals and discover a friendly, rewarding and dynamic work environment that offers leading-edge technology.

All of the energy expended in recruiting, together with the measures implemented to integrate and retain the nursing personnel recruited, produced positive and very encouraging results.



THE MHI: A FAMILY CENTRAIDE CAN COUNT ON

The 2008 MHI Centraide campaign was a shining example of the vitality and solidarity within the MHI family. On this occasion, a series of original and often amusing activities took place to rally the personnel around this noble humanitarian cause and encourage them to give generously. The cuddly kiosk, the stationary bicycle challenge, the sale of used books and CDs, were just some of the activities that pushed the fund-raising beyond its targeted objective. Mission accomplished on all fronts thanks to extraordinary people!



Dr. Michel White



Dr. Michel Pellerin

DR. MICHEL WHITE AND OTHER BABY-BOOMERS STORM MOUNT MERA

On May 10, 2008, Dr. Michel White, cardiologist and researcher at the MHI, and his teammates began the climb to the summit of Mont Mera in Nepal, at an altitude of more than 6,476 metres. The team, which included a kidney transplant recipient, a heart transplant recipient, as well as Charles Tisseyre and H el ene Leroux, respectively host and producer of the TV program *D ecouverte*, had prepared hard and long for this daunting challenge. The experience, instigated and supervised by Dr. Michel White, had as its purpose to study climbers of different ages and with various medical and physical conditions, in a situation where the quantity of available oxygen is limited, in order to prove that baby-boomers can reverse their risk factors for cardiovascular disease. The expedition was the subject of a superb documentary film broadcast on *D ecouverte*, a program on the Radio-Canada television network.

DR. MICHEL PELLERIN AT THE SUMMIT OF KILIMANDJARO

On August 1, 2008, Dr. Michel Pellerin, head of the department of surgery at the MHI, reached Mount Kilimandjaro, the roof of Africa, at an altitude of 5,895 metres. Accompanied by 20 men and women, he took part in this expedition spearheaded by the Heart and Stroke Foundation of Qu ebec to support a cause dear to him and to make the public aware of the benefits of daily walking. The money collected will be used to support the Foundation’s research funding activities and its development of programs to prevent disease and promote heart health.

HONOUR ROLL

2008 MHI RECOGNITION AWARDS



Dr. Marc Bois



Ms. Suzie Bouchard



Ms. Marie-Claude Lessard



Ms. Kathy Louro



Mr. Carl Morel

Presented annually to persons designated by consulting bodies acting on behalf of the Montreal Heart Institute's board of directors, these awards recognize the exceptional contributions of staff and physicians to the establishment's development.

Dr. Marc Bois

Cardiologist

PRIX DU CONSEIL DES MÉDECINS, DENTISTES ET PHARMACIENS

Ms. Suzie Bouchard

Coordinator – Operating and Sterilization Area

PRIX DE L'ASSOCIATION DES GESTIONNAIRES DE L'INSTITUT DE CARDIOLOGIE DE MONTRÉAL

Ms. Marie-Claude Lessard

Assistant-Clinical Head of Digital Systems

PRIX DU CONSEIL MULTIDISCIPLINAIRE

Ms. Kathy Louro

Nurse Clinician – Floating Team

PRIX DU CONSEIL DES INFIRMIÈRES ET INFIRMIERS

Mr. Carl Morel

Human Resources Management Officer – Surgical Care Unit

PRIX DU PERSONNEL NON CLINIQUE

HONOUR ROLL

OTHER DISTINCTIONS AWARDED



Dr. André Denault



Dr. Paul Khairy



Dr. Jean-Claude Tardif



Dr. Pierre Théroux



Dr. Michel White

Dr. André Denault

Anesthesiologist-researcher

2008 DR. EARL WYNANDS RESEARCH AWARD

Awarded by the Canadian Anesthesiologists' Society, this prize includes a \$30,000 bursary intended to support research in cardiovascular anesthesia or blood conservation.

Dr. Paul Khairy

Cardiologist-researcher

PROFESSEUR ENSEIGNANT MÉRITOIRE
DÉPARTEMENT DE MÉDECINE DE L'UNIVERSITÉ DE MONTRÉAL

This prize was awarded to him in appreciation of the quality of his participation in the training of residents in cardiology.

Dr. Jean-Claude Tardif

Cardiologist-researcher

RESEARCH ACHIEVEMENT AWARD
CANADIAN CARDIOVASCULAR SOCIETY

This prestigious distinction from the Canadian Cardiovascular Society (CCS) is awarded to an established researcher who devotes his efforts to a particular aspect of research in the cardiovascular field in Canada.

LA PRESSE/RADIO-CANADA PERSONALITY OF THE WEEK

LA PRESSE/RADIO-CANADA PERSONALITY OF THE YEAR FOR 2008
SOCIAL SCIENCE, PURE SCIENCE AND TECHNOLOGY

Dr. Jean-Claude Tardif's nomination as Personality of the Week points to his determination and dedication to science, qualities for which he was awarded the Research Achievement Award from the CCS. His distinctions also warranted his being chosen Personality of the Year for 2008 in the social science, pure science and technology category.

Dr. Pierre Théroux

Cardiologist-researcher

MEMBER OF THE ORDER OF CANADA

This high honour crowns the work of a lifetime, a person's exceptional dedication to the community or extraordinary contribution to the nation. Dr. Théroux is an expert of international stature in the field of cardiovascular health and is renowned for his innovations related to the diagnosis and treatment of acute coronary syndromes.

Dr. Annie Tremblay

Resident in Cardiology

MERCK FROSST SCHERING-PLOUGH AWARD

Created to encourage the work of residents who serve a training period in the department of medicine of the MHI, this bursary presented by Merck Frosst Schering-Plough rewards the best presentation of a clinical case study of potential scientific interest.

Dr. Michel White

Cardiologist-researcher

LA PRESSE/RADIO-CANADA PERSONALITY OF THE WEEK

This distinction underlines the determination and dedication to science shown by Dr. White in conducting the expedition "Baby-boomers à l'assaut du Mont Mera," a one-of-a-kind feat that achieved its purpose.

Note: These distinctions were presented between April 1, 2008, and March 31, 2009.

FINANCIAL STATEMENTS

OPERATING STATEMENT

PRINCIPAL AND SUPPLEMENTARY ACTIVITIES (OPERATING FUND)

	2008-2009		2007-2008	
Revenues				
Grant from the Agence de la santé et des services sociaux de Montréal (ASSSM)	\$ 111,253,149	66.5 %	\$ 105,054,690	68.0 %
Blood products	4,266,354	2.5	3,484,068	2.3
Room surcharges	568,269	0.3	573,109	0.4
Other contributions from users	2,151,097	1.3	1,805,833	1.2
Services	1,425,752	0.9	1,172,805	0.8
Research grant - FRSQ	9,733,746	5.8	2,547,365	1.7
Research grant - FICM and OSBL	3,192,407	1.9	3,123,905	2.0
Other - Research	26,417,365	15.8	27,847,988	18.0
Other - ÉPIC Centre	2,333,197	1.4	2,255,185	1.5
Medical teaching and teaching support	1,777,147	1.1	1,539,622	1.0
Commercial activities and other revenues	4,099,811	2.5	4,918,409	3.1
Total revenues	\$ 167,218,294	100.0 %	\$ 154,322,979	100.0 %
Expenses				
Salaries	\$ 61,398,587	36.3 %	55,335,053	35.4 %
Social benefits	22,952,746	13.6	21,789,397	14.0
Medical and surgical supplies	34,575,372	20.4	33,454,178	21.4
Medication	3,128,375	1.8	3,849,835	2.5
Blood products	4,266,354	2.5	3,484,068	2.2
Other expenses	42,977,756	25.4	38,172,717	24.5
Total expenses	\$ 169,299,190	100.0 %	\$ 156,085,248	100.0 %
Excess (deficit) for the financial year after the accounting reform	\$ (2,080,896)*		\$ (1,762,269)**	
Effects of the accounting reform on the operating statement	293,131			
Excess (deficit) for the financial year before the accounting reform	\$ (1,787,765)**		\$ (1,762,269)**	

* Harmonization of accounting policies is the result of the accounting reform implemented in December 2007 by the government. Its goal is to apply generally recognized accounting principles to which governments must conform, one of which is to integrate financial statements of public institutions into government financial statements.

** The deficit for the financial year before the reform matches the budget target authorized by the ASSSM.

PLANT FUND

REVENUES BY SOURCE OF FINANCING

Agence de la santé et des services sociaux de Montréal	\$ 8,045,944
Montreal Heart Institute Foundation and research	\$ 3,403,916
Other sources	\$ 369,923

FINANCIAL STATEMENTS

BALANCE SHEET FINANCIAL YEAR ENDING ON MARCH 31, 2009

OPERATING FUND

Assets		Liabilities	
Cash	\$ 9,046,442	Loans	\$ 8,000,000
Accounts receivable - ASSSM	1,235,844	Accounts payable and accrued liabilities	29,333,117
Accounts receivable - Other	7,714,348	Net salaries and deductions	0
Inventory of supplies - At cost	1,460,652	Revenues collected in advance	13,472,689
Prepaid expenses	763,102	Interfund debt payable	1,710,011
Subsidy to be received (accounting reform)	8,241,762		
			\$ 52,515,817
		Fund balance	(24,053,667)
Total assets	\$ 28,462,150	Total liabilities and fund balance	\$ 28,462,150

PLANT FUND

Assets		Liabilities	
Accounts receivable - ASSSM	\$ 759,647	Bank overdraft	\$ 4,396,712
Accounts receivable - Other	2,483,721	Accounts payable - Various	1,519,321
Interfund receivables	1,848,842	Accrued interest to be paid	774,717
Land, building and equipment	104,191,647	Long-term debt	63,273,607
Deferred bond issue and discount expenses	85,562	Deferred revenues	27,477,456
		Subsidy collected in advance (accounting reform)	11,554,677
			\$ 108,996,490
		Fund balance	372,929
Total assets	\$ 109,369,419	Total liabilities and fund balance	\$ 109,369,419

VOLUME OF ACTIVITIES

		2008-2009	2007-2008
Hospitalizations	Admissions	8,362	8,570
	Number of hospitalization days	40,571	40,764
	Day care	1,646	5,471
	Average length of hospitalization in days	4.85	4.75
Outpatient services	Emergency room cases	16,717	16,774
	Outpatient visits	42,457	42,696
Operating area	Procedures	1,784	1,813
	Cardiac surgeries	1,549	1,574
	Other surgeries	235	239
	Total number of hours under anesthesia	7,475	7,618
	Minimally invasive surgeries	63	33
	Transplantations	16	9
Hemodynamics	Total number of procedures	6,103	6,329
	Treatment procedures	2,638	2,843
	Diagnostic procedures	3,465	3,486
	Technical units	636,044	666,067
Electrophysiology	Total number of procedures	1,928	1,775
	Pacemakers	536	491
	Defibrillators	420	378
	Other examinations	972	906

BOARD OF DIRECTORS

AT MARCH 31, 2009

Administrative Committee

Mr. Jean Royer

President
Cooptation

Mr. Jean-Yves Leblanc

Vice-President
Agence de la santé et des services
sociaux de Montréal

Mr. Pierre Anctil

Ministère de la Santé et des Services sociaux

Mr. Robert Busilacchi

Executive Director
Secretary

Mr. Robert Courteau

Cooptation

Mr. Marc de Bellefeuille

Agence de la santé et des services
sociaux de Montréal

Vacant position

Université de Montréal
University Affiliation

Members

Mr. Éric Bédard

User Committee

Ms. Louise Béliveau

Université de Montréal
University Affiliation

Mr. Michel Bernier

Cooptation

Mr. André P. Busque

User Committee

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Université de Montréal
University Affiliation

Ms. France Charlebois

ÉPIC Foundation

Mr. François Côté

Member of the public

Ms. Amélie Doherty

Council of Nurses

Mr. Pierre Dumont

MHI Foundation

Dr. Katia Marjolaine Dyrda

Residents

Ms. Francine Girard

Université de Montréal
University Affiliation

Dr. Jean Grégoire

Council of Physicians, Dentists
and Pharmacists

Mr. Joël Lavoie

Multidisciplinary Council

Mr. Joseph Mormina

Member of the public

Mr. Éric Thorin

Non-clinical staff

Guest

Dr. Léon Dontigny

Director, Professional Services

COMMITTEES AND CONSULTING BODIES

AT MARCH 31, 2009

Clinical Ethics Committee

Dr. Léon Dontigny
Chair

Committee on Research Ethics and the Development of New Technologies

Dr. Michel Carrier
Chair

Evaluation Committee of Executive Director

Mr. Jean Royer
Chair

Risk Management Committee

Mr. Pierre Anctil
Chair

Prevention Committee

Vacant position

Research Committee

Mr. Jean-Yves Leblanc
Chair

Complaints Review Committee

Ms. France Charlebois
Chair

Watchdog Committee

Mr. Pierre Anctil
Chair

Communications Committee

Mr. Michel Bernier
Chair

Financial, Material and IT Resources Committee

Mr. Robert Courteau
Chair

Human Resources Committee

Mr. Marc de Bellefeuille
Chair

Mixed ÉPIC-MHI Committee

Mr. Jean Royer
Co-Chair
Ms. Danielle Lajeunesse
Co-Chair

Mixed MHIF-MHI Committee

Mr. Louis Tanguay
Chair

Council of Nurses

Ms. Amélie Doherty
Chair

Council of Physicians, Dentists and Pharmacists

Dr. Jean Grégoire
Chair

Multidisciplinary Council

Ms. Sophie Le Bail
Chair

MANAGEMENT TEAM

AT MARCH 31, 2009

Mr. Robert Busilacchi
Executive Director

Mr. Yves Amyot
Director, Technological and Informational
Resources and Interim Director of
Client Services

Ms. Lyne Boudreau
Director, Finances

Ms. Marie-Hélène Carbonneau
Director, Nursing

Dr. Raymond Cartier
President, Council of Physicians,
Dentists and Pharmacists

Dr. Léon Dontigny
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Dr. Annie Dore
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Ms. Marie-Claude Grondin
Director, Technical Services

Dr. Martin Juneau
Director, Prevention

Mr. Richard Maheu
Assistant Director,
Research Centre

Mr. Yves Proulx
Director, Human Resources

Dr. Jean-Claude Tardif
Director, Research Centre

Ms. Sylvie Théoret
Assistant Director, Nursing

MEDICAL DEPARTMENTS AND SERVICES

AT MARCH 31, 2009

Dr. Arsène Basmadjian
Chief, Echocardiography
and Non-Invasive Techniques

Dr. Pierre Bourgouin
Interim Head, Department of Radiology

Dr. Serge Doucet
Chief, Interventional Cardiology Service

Dr. Anique Ducharme
Coordinator, Heart Failure Clinic

Dr. Jean Grégoire
Head, Department of Nuclear Medicine

Dr. Jean C. Grégoire
Coordinator, Outpatient Clinic

Dr. Peter Guerra
Chief, Electrophysiology Service

Dr. Roger Huot
Coordinator, Anticoagulant Clinic

Dr. Réda Ibrahim
Coordinator, Cardiac Intensive Care
and General Cardiology

Dr. Martin Juneau
Chief, Prevention

Dr. Paul Khairy
Coordinator, Adult Congenital Heart Centre

Dr. Philippe L. L'Allier
Coordinator, Coronary Unit

Dr. Marc-André Lavoie
Chief, Internal Medicine Service

Dr. J. Robert Leroux
Head, Department of Psychosomatic Medicine

Dr. Anil Nigam
Chief, Clinical Care Service

Dr. Michel Pellerin
Head, Department of Surgery

Dr. Baqir Qizilbash
Head, Department of Anesthesiology

Dr. Normand Racine
Head, Department of Medicine

Dr. Danielle Robitaille
Head, Department of Medical Biology

Dr. Alain Vadeboncœur
Chief, Emergency Care Service

Ms. Lucie Verret
Head, Pharmacy Department

General provisions

This Code of Ethics determines the duties and obligations to be discharged by the members of the board of directors in their various relations associated with the performance of their functions.

Duties and obligations

In the performance of their duties, members of the board of directors must:

- A) show a constant concern for the respect of human life and the right to health services and social services;
- B) actively contribute to a spirit of collaboration in the development and implementation of the establishment's general orientations;
- C) attend board meetings and, when required, vote on resolutions submitted to the board;
- D) act with courtesy, integrity, probity and impartiality, and maintain relations based on good faith, in a manner that maintains the trust and consideration required by their duties;
- E) conduct themselves with objectivity, moderation, rigour and independence;
- F) preserve the confidentiality of debates, exchanges and discussions held in private.

Specific duties

At all times, members of the board of directors must:

- A) act within the limits of the powers conferred on them;
- B) in the performance of their duties on the board of directors, refrain from promoting and performing their own professional activities or business;
- C) safeguard their independence and avoid any situation where they can derive a personal gain, direct or indirect, actual or eventual;

- D) where a direct or indirect interest in a company entails a conflict between their personal interest and that of the board of directors or of the Institute, give written notice of this interest to the chair of the board of directors and abstain from sitting on the board or participating in any deliberations or decisions when an issue related to this interest is discussed;
- E) table before the board a written declaration citing the existence of a pecuniary interest they hold in corporate entities, companies or enterprises likely to conclude contracts with the Institute or which already have dealings with the Institute;
- F) avoid all situations that may compromise their ability to perform their specific functions in an objective, rigorous and independent manner;
- G) where their objectivity, sound judgment or independence is compromised, due to personal, family, social, professional or business relations, or to any public communication of an idea or opinion or any manifestation of hostility or favouritism, declare this situation and abstain from participating in deliberations and decisions related to the matter at issue;
- H) abstain from any activity incompatible with the performance of their duties on the board of directors;
- I) refrain from profiting from their duties to obtain an advantage for themselves or others when they know or when it is obvious that such an advantage goes against the public interest;
- J) refrain from accepting an advantage from anyone when they know or when it is obvious that this advantage is conferred with the aim of influencing their decision;
- K) refrain from using confidential information or documents with a view to directly or indirectly obtaining an advantage for themselves or for others;
- L) abstain from directly or indirectly soliciting a person or accepting or requiring from a person, for their interest, a donation, bequest, award, commission, discount, rebate, loan, debt remission, favour or any other advantage or consideration that compromises their impartiality, judgement or loyalty.

When their mandate expires, members of the board of directors must:

- A) respect the confidentiality of any information, debates, exchanges and discussions that they become aware of in the performance of their duties on the board;
- B) show respect and act with courtesy toward the Institute and its board of directors.

Implementation measures

- A) At the beginning of their mandate, all members of the board of directors must provide a written declaration stating that they have read this Code of Ethics and are committed to respecting it and promoting full compliance with it;
- B) The chair of the board shall ensure that members comply with the ethical principles and rules of professional conduct set out in the Code of Ethics.

Penalties

- A) Any breach or omission concerning a duty or standard set out in the Code of Ethics shall constitute a corrupt practice and may entail a sanction;
- B) The chair, on receiving information or a complaint to the effect that a member of the board of directors may have contravened this Code of Ethics, may appoint other members of the board of directors to inquire into the information or complaint;
- C) Persons thereby appointed must report to the executive committee within the prescribed time period;
- D) The chair, taking into account the information contained in the inquiry report, shall notify the member of the board of directors of the breach brought forward and give him/her the opportunity to provide his/her written observations and/or to be heard by the executive committee;
- E) If it is concluded that the member of the board of directors contravened this Code of Ethics, the executive committee shall recommend that the board of directors impose a sanction on the member concerned;
- F) The sanction may consist of a reprimand, a suspension, a revocation, a forfeiture of office or any other penalty deemed appropriate, depending on the seriousness and nature of the breach, and written notice of the sanction shall be forwarded to the member concerned.

Inquiry and immunity

Persons conducting an inquiry and persons tasked with determining and imposing penalties may not be subject to legal action stemming from acts carried out in good faith in the performance of their duties.

Distribution of the Code of Ethics

- A) The Institute must give a copy of the Code of Ethics for members of the board of directors to each member of the board when he/she is elected; the Institute must also provide a copy of such to any person who requests one;
- B) The Institute must publish the Code of Ethics for members of the board of directors in its annual report;
- C) The Institute's annual report must include:
 - the number and nature of the reports received;
 - the number of cases handled and their follow-up;
 - their decision as well as the number and nature of the sanctions imposed;
 - the names of the persons who have been suspended, removed from office or stripped of their responsibilities.

Adoption

This bylaw was adopted by the board of directors of the Montreal Heart Institute at its meeting on October 23, 2000, (Resolution CA-2000-80) and came into force on October 24, 2000.

No breaches of the Code of Ethics for members of the board of directors were reported by the Montreal Heart Institute's board of directors in 2008-2009.

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From left to right: Dr. Michel Pellerin, cardiac surgeon and head of the department of surgery, Dr. Alain Deschamps, anesthesiologist, Dr. Jean Taillefer, anesthesiologist, Dr. Daniel Tanguay, surgeon, and Ms. Johanne Lafontaine, operating room nurse

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From left to right: Dr. Jean-Claude Tardif, cardiologist-researcher and director of the MHI Research Centre, Dr. Michael Phillips, scientific director of the Beaulieu-Saucier Pharmacogenomics Centre at Université de Montréal, and Ms. Isabelle Filion, technician in the Pharmacogenomics Centre laboratory

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From left to right: Dr. Adriana Moraes, resident in echocardiography, Dr. Guy B. Pelletier, cardiologist, and Ms. Rita Corbeil, patient and volunteer at the MHI

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Members of the ÉPIC Centre, the centre for preventive medicine and physical activity at the MHI

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