

CHU Sainte-Justine

Annual report for 2009-2010



Mission, and Vision Values

Sainte-Justine



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Ourmission

Our mission is to improve the health –considered as the state of physical, mental and social balance - of children, teenagers and mothers of Quebec in association with our health care, university and research partners. The CHU Sainte-Justine is committed to fulfilling the six mandates that fall under its university mission:

- To provide specialized and ultraspecialized care
- To conduct basic and clinical research in pediatric and maternal health
- To provide clinical and continuing education to current and future health care professionals
- To promote health
- To assess new technologies and treatment methods
- To provide rehabilitation, adaptation and social integration services to children and teenagers with motor and language disorders

Ourvision

To be a university hospital centre that integrates the best possible care, services, teaching, and research for mothers and children of Ouebec.

To achieve our vision, we must:

- Offer the most scientifically and technologically advanced care, prevention and rehabilitation services.
- Keep generating new knowledge, ensure its prompt transfer to clinical teams and evaluate its impact
- Establish national and international partnerships to remain on the cutting edge of pediatric and maternal health and to ensure best practices.
- Multiply our research and teaching efforts in pediatric medicine, perinatal care, rehabilitation, and health promotion in collaboration with the Université de Montréal and major research centres.
- Provide children, families, and staff with a hospital environment that promotes healing and well-being.

Ourvalues

To fulfill its mission, the CHU Sainte-Justine counts on a large number of people who work in many different fields and who come from diverse disciplines, schools and social backgrounds. This diverse group of people conducts their work by adhering to a set of values that expresses the institution's ideals and that forms the basis of its foundation.

• Our commitment to mothers and children

Everyone at the CHU Sainte-Justine actively contributes toward fulfilling the establishment's mission and goals by enhancing their skills and putting their talent to work for the benefit of the organization. The establishment acknowledges initiative, encourages professional growth and celebrates the achievements of its members in their respective field of expertise.

• The pursuit of excellence

Excellence translates as the individual and organizational will to pursue one's work in an outstanding and consistent manner in all areas, notably through innovative and creative teamwork.

• Respect for the individual

The CHU Sainte – Justine's respect for children, teenagers, mothers, families and people in general is a reflection of the actions, attitudes, words, and behaviours of all of its members, whether they be hospital workers, physicians, managers and directors, suppliers, volunteers and partners. It is demonstrated not only to patients, but also to each other.

• The spirit of collaborative efforts

Internal and external collaborations are vital to fulfilling the CHU Sainte-Justine's mission and must be carried out in a diligent and effective manner. They are dependent on mutual effort directed toward a common goal. Each member contributes to the team and is fully recognized as a participating member.

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Our patients say thank you!



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Combining innovation and humanization of care

Interview with Dr. Fabrice Brunet, Chief Executive Officer of the CHU Sainte-Justine

AO Aside from the type of patients we serve, what specifically makes the CHU Sainte-Justine different from other health care establishments?

The CHU Sainte-Justine is a university hospital centre. This means that patient care, research, teaching, technological assessment, rehabilitation and health promotion are all found in one same location. As a result, we are continuously generating and assessing new knowledge, transferring it to our clinical facilities, integrating it into practice and transmitting it to others. We are, therefore, more than just a health care establishment; we are a knowledge management centre; a model in which we are able to effectively and continually enhance the care we provide to patients. This trend does exist in other countries, but there are very few establishments that are true knowledge management centres. Furthermore, we are one of the few establishments where the "networking" dimension can also be found. All these elements have positioned us as one of the world leaders in pediatric and maternal health.

As an ultraspecialized establishment where innovation is part of our daily operations, do we not run the risk of distancing ourselves from patients and of "dehumanizing" the establishment on the whole?

It is true that we are developing increa singly specialized medicine that is focused on resolving health problems, and we are constantly striving to improve our performance in each of our six mandates; however, our ultimate goal is to enhance the quality of the care and services we provide to patients. This is why we have adopted a patient-centric approach

based on a personalized medical care model that takes into account the patient's physical, mental and social conditions, and provides them with an environment conducive to healing. For example, we have designated a special area for interpersonal relationships; we have acknowledged the role of the family as a vital element toward healing; we are adapting the architectural environment and our technology, and we have developed alternative therapeutic approaches, such as pet and music therapy. We see the person as a whole and not as a medical case or disease. Very few establishments in the world have integrated this dual vision of innovation and humanized care. This vision is important not only for our patients and their families, but also for our

How will the practices and environments be improved?

For every renovation project, we first conduct a needs assessment with staff. patients, and families. This way, we are able to design more functional spaces, redefine our work methods and simplify repetitive administrative tasks through the use of technology, such as the automated drug management system that we are currently developing, for example. We also want to improve work-life balance for employees; therefore, we are currently in negotiations with different partners to develop residential assistance, improve the transportation system, etc. Promoting health is an integral part of this process, and we know that no system can be financially supported if it continues to develop ultraspecialized medical care without making each person accountable for their own health. We are in a particularly favorable posi-



tion because we are able to help improve the health of our future adults at every stage. This approach is both innovative and completely centered on the person.

AO How would you characterize 2009-2010?

This was a challenging year as we had to postpone the completion of the Grandir en santé project. After a careful thought process around our teams and our clinical, academic and research initiatives, this project was developed in 2005-2007 based on the assumption that we would likely face a significant increase in demand in the coming years, and that we would likely have to increase our capacity and reinforce our tertiary and quaternary activities. We were correct in our predictions. The demand for neonatal care is rising. The number of pregnancies high risk in particular -is constantly increasing. The need for pediatric surgery has exceeded capacity, even though we have just increased capacity this year. We receive about 4 000 students every year, and the number of researchers has risen from 20 to 30% as a result of the *Grandir en santé* project that, instead of 2014, will be completed by 2016-2018. We are now facing a lack of physical space for which we must find interim solutions: renovate, rent or other. Thankfully, we are lucky to be able to count on the exceptional support from our teams across the organization. In spite of these challenging conditions, our teams continue to work together toward achieving excellence on every level. The many accomplishments achieved this year prove that, and I can't thank them enough for their unwavering commitment to mothers and children.



Our staff is our strength

Interview with Ghislaine Larocque, President of the Board of Directors

AO This past year, the organization saw many projects and celebrated many achievements on all levels. What would you like to say to the employees?

I would like to thank everyone throughout the organization: the entire staff, the doctors, the researchers, and the volunteers. Their commitment and dedication to meeting the needs of our patients and their families is extraordinary. Their loyalty and exceptional skills are most valuable to the Sainte-Justine. I would also like to thank our foundation and partners for all their support. They helped us gather the business community around our projects and raise the needed funds to carry them forward. The CHU Sainte-Justine is more than just a health care establishment: it is an important place of knowledge, research, innovation, teaching and sharing, and a provincial referral centre for maternal and pediatric health. This status we have achieved is thanks to everyone who works here everyday.

AO
About 70-80% of the goals of the 2007-2010 strategic plan were met. What challenges does the CHU Sainte-Justine expect to face in the coming years?

Our most significant challenge is bringing the *Grandir en santé* project to fruition. We want to build a hospital of the third millennium! Of course, our 2011-2014 strategic plan will have to be developed in harmony with this very important project, and

we will have to prepare for this transition by reviewing our processes, adjusting our work methods and helping all of our stakeholders adjust to the change, while continuing to meet the needs of our patients, share our knowledge and maintain our position as leader in the health care network. This will require our staff to be involved at all levels, but I know that we can count on them.

AO The *Grandir en santé* project is a challenge, but it is also an opportunity for the CHU Sainte-Justine...

Of course! It is an opportunity for $\operatorname{\mathsf{GL}}$ us to think about the way we would like to serve mothers and children in the coming years. It is very exciting because we are gaining recognition and credibility on all levels among business leaders, governments and partners. The prospect of the Grandir en santé project is extremely positive. Of course, it is a great deal of work on top of the daily demand of meeting patient needs, but our staff knows that, in the coming years, our facilities and equipment will enable us to move ahead even further in the areas of patient care, research, teaching and health promotion. They also know that the new work environment will better meet their needs. We will be able to continue to innovate at all levels of the organization while developing an environment that is conducive to healing and a workplace that the teams can feel good about. For a certain period of time, we will have to manage to live with certain constraints and discomfort. Fortunately, we are able to rely on the commitment and support of all our teams.



Medical advancements

Every year, the CHU Sainte-Justine is distinguished for the advanced medical care it provides to patients. This past year was no exception as the establishment celebrated many firsts in medical science. Such scientific breakthroughs are possible because of the team spirit that our establishment embodies. At every level of the organization, all of our efforts are directed to improving the medical care we provide to our patients.

The first pediatric tuberous sclerosis clinic in Canada

Dr. Philippe Major, a neurologist at the CHU Sainte-Justine, recently opened the first pediatric tuberous sclerosis clinic in Canada. Bourneville's tuberous sclerosis (BTS) is a genetic disease that affects one in every 6 000 people. It is characterized by an onset of benign tumors that affect organs, such as the brain, skin, kidneys, eyes, heart or lungs. The clinical symptoms and progression of BTS manifest differently in each person. Epilepsy is the most common symptom of BTS, affecting 90% of patients. The main objective of this new clinic is to provide patients with a comprehensive and concerted care plan, to raise public awareness about this rare disease, to conduct research to better understand it and. ultimately, to treat its many symptoms.

Epilepsy surgery, a first in Canada

A two-year-old patient of the Tuberous Sclerosis Clinic successfully underwent epilepsy surgery performed by Dr. Major and his team. Before the surgery, the child had been experiencing daily multiple seizures that had become refractory to drugs. The precise area of the brain that was causing the seizures was determined by inserting electrodes on the brain's surface and deep inside. The surgery consisted in removing a portion of the insula and right frontal lobe. After the surgery, the frequency of the seizures reduced substantially, and the patient showed no side effects

The 500th hematopoietic stem cell transplant

The medical team of the Hematopoietic Stem Cell Transplant Program performed its five-hundredth transplant in December, 2009. Hematopoietic stem cells are produced by bone marrow and have the ability to transform into any type of blood cell (red blood cells, white blood cells, or platelets). The objective of a HSC transplant is to replace bone marrow that functions abnormally. It is generally used to treat many different cancers (namely leukemia), immune deficit disorders, and certain hematologic conditions.

Liver replacement therapy

The Intensive Care Unit of the CHU Sainte-Justine conducted the very first liver replacement therapy by albuminfacilitated dialysis in a pediatric hospital in North America. This treatment, which aims to protect the brain and improve blood circulation, was conducted on a teen-aged patient suffering from acute liver failure and awaiting liver transplant. Intensivists conducted the procedure, using MARS® (Molecular Adsorbents Recirculating System), in collaboration with the dialysis team, the Gambro company, and the entire intensive care, nephrology, hepatology, surgery and anesthesiology teams.

Epidermolysis bullosa, the first Francophone multidisciplinary clinic

The first epidermolysis bullosa multidisciplinary clinic took place at the CHU Sainte-Justine Dermatology Clinic on October 22, 2009. It was the very first Francophone clinic and the second epidermolysis bullosa clinic to take place in Canada following Toronto's Sick Children's Hospital. Epidermolysis bullosa is a genetic disorder that causes the skin to be fragile and sometimes causes blisters and soars to form on the skin. The more severe form of this disorder can lead to gastrointestinal complications, such as malnutrition, growth delay, oral problems, dental problems, sight disorders, hearing disorders, and gait problems. Thanks to this clinic, patients can benefit from the therapeutic opinions of many different therapists.

Coming together to place two newborns on ECMO

Several medical care teams gathered together to give the Pediatric Intensive Care Unit a hand following the admission of two newborns who had to simultaneously receive extracorporeal membrane oxygenation (ECMO). It is extremely rare to have two patients needing this type of treatment at the same time. This coming together is an excellent example of the solidarity that is demonstrated on a daily basis throughout our establishment.

Creation of the Clinical Pharmacology Unit

Created in April, 2009, The Clinical Pharmacology Unit is responsible for overseeing all of the current clinical pharmacological activities and for ensuring the development of this cross-disciplinary and transdisciplinary field. With its clinical, R&D, assessment and teaching missions, this unit will ensure that drug treatments administered to the pediatric and adult populations are the safest and most effective possible with the best cost/benefit ratio. The unit will apply the most advanced knowledge and technology to respond to the challenges of dosage individualization, a major advancement for quality patient care and safety.

Working together

The Eating Disorders Program of Adolescent Medicine is a wonderful example of crossdisciplinarity. It provides quality care to patients; rigorous training to students, residents and health care professionals; continuing education to health care professionals across Quebec by delivering seminars at conferences and workshops; and also conducts interdisciplinary and interuniversity research projects.

The Hemostasis Centre's 30th anniversary

Designated by the Minister of Health and Social Services, the Hemostasis Centre of the CHU Sainte-Justine has been treating patients with hemophilia since 1979. Over the years, the Hemostasis Centre, formerly known as the Hemophilia Treatment Centre, has developed an expertise in this field that is now world renown. It is Ouebec's referral centre for the treatment of blood coagulation factor inhibitors, a serious complication of hemophilia. In addition to this, a hemostasis program was created in collaboration with the Gyneco-obstetrics Clinic, for women with blood coagulation disorders.

Launching of the Éclipse project

The Éclipse project aims to provide perinatal grief support to families by:

- Reviewing the practices around the provision of support to patients and their families dealing with the termination of a pregnancy in the second or third trimester;
- Developing supports for consolidation and improvement.



Perinatal grief support for families

Therapeutic hypothermia

Thanks to two new state-of-the-art beds available since the fall of 2009, the neonatal intensive care team is now able to provide therapeutic hypothermia treatments to newborns who suffered a shortage of oxygen during birth. The treatment, which reduces the risk of death or brain damage, consists in placing the newborn on a special mattress that serves to lower their body temperature from 37 °C to 33.5 °C for three consecutive days. This treatment can be administered only on newborns brought to full term, within six hours following birth.



New approach for treating goiter in the fetus

A multidisciplinary team from the CHU Sainte-Justine has treated a fetal hypothyroid goiter before birth. Considering the rarity of this condition, the few published studies suggested very aggressive therapeutic approaches; however, specialists at the CHU Sainte-Justine opted for a less invasive approach by administering three amniotic injections of thyroid hormones while closely monitoring the condition throughout pregnancy. An ultrasound gave clinicians an accurate definition of the fetus' condition, which enabled early intervention and easy assessment of the effects of the treatment. The newborn was treated with thyroid hormones upon birth and its neurological development has been normal. This is the first case to be treated by this method in Canada.

Universal hearing screening program for newborns

On July 16, 2009, the Minister of Health and Social Services announced that it will launch a universal newborn hearing screening program to be implemented in all delivery centres across Quebec. The CHU Sainte-Justine was mandated by the Minister of Health to test the program; validate the screening tools recommended by the expert advisory committee; to identify the technological issues or challenges created by its implementation; and to develop and roll out training programs for health care professionals. Choosing our establishment was based on our long-time experience with newborn hearing screening tests and enables us to continue our tradition of collaborating with other members of the health care network.

In spring and fall of 2009, everyone at the CHU Sainte-Justine rallied together to fight against both waves of the A (H1N1) flu pandemic.

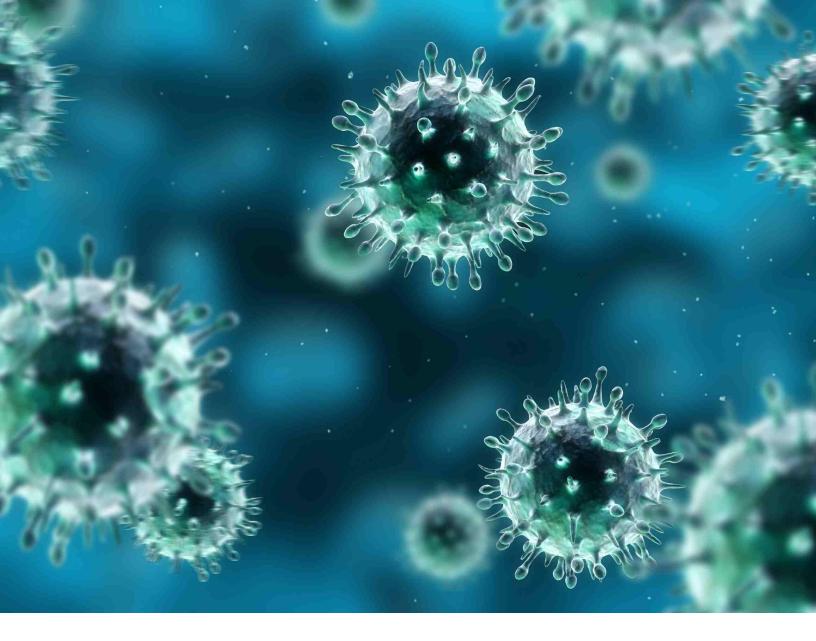
Collective fight against the A (H1N1) flu virus

Actions on all fronts

No effort was spared to inform staff and patients and to prepare everyone in case of a major pandemic:

- Daily surveillance of flu-like syndromes (FLS) by the infection prevention team
- Opening of a FLS emergency room
- Establishment of safety measures for the transportation of FLS-infected patients
- Designation of a special unit to gather FLS-infected patients
- Reorganization of activities in various sectors
- Tightened access to the emergency and hospital entrances
- Placement of control attendants at all main entrances to ensure that visitors and workers respect respiratory etiquettes and hand-disinfecting procedures upon entering and leaving the building.

- Organization of a mass vaccination campaign and centre for CHU Sainte-Justine workers.
- Vaccination of pediatric patients
- Implementation of an A (H1N1) medical consultation service by our doctors for staff
- Creation of a central support hotline to address questions from our staff and patients
- Training of about fifty nurses in case of a care-unit reassignment during the pandemic
- Use of all available means of communication to inform and educate staff (information sessions, A (H1N1) virus bulletin, intranet, extranet, display monitors, large overhead banners, posters), and visitors (large overhead banners, posters, website, display monitors, telephone greeting messages, etc.)



Some Statistics

- A total of 240 A (H1N1)-infected patients were hospitalized at the CHU Sainte-Justine, 145 of whom were hospitalized between October 19 and December 8, 2009.
- Between October 29 and December 8, the team directed by Health Services vaccinated 5 467 employees, doctors, and volunteers on the main site of the CHU Sainte-Justine, the CRME and its schools.
- Between November 2 and December 8, more than 2 000 vaccine doses were administered to vulnerable patients and members of their family.
- About 74.1% of our personnel participated in the pandemic training program offered by the Minister of Health and Social Services.

Exceptional teamwork!

Such joint efforts could not be possible without the enduring collaboration of all the departments of our establishment. Our staff, doctors, interns, and volunteers all had one goal in mind: the health of our patients. Their constant concern is our pride!



My work has meaning!



"Working at the Sainte-Justine is an extremely enriching experience because we treat a wide range of issues from normal to complicated pregnancies. Of course, you've got to love adrenalin because emergencies can pop up at any time, and this is the case for me! It is a satisfying feeling to be able to assist, support and build a relationship of trust with a patient and her partner. A birth is a very special and extraordinary time, and we are very privileged to be a part of it. I also find it very stimulating to work as a part of a multidisciplinary team. My team is wonderful. They support me; answer all my questions; and assist me in my new position as assistant chief nurse. I couldn't be more pleased!"

Geneviève Lane, Assistant Chief Nurse, Delivery Room

"My love for children is what brought me to the Rehabilitation Centre Marie Enfant after having my own daycare centre for ten years. What I enjoy most here is the environment and the people. Marie Enfant is like a small family! Working with the young people we serve requires teamwork, and I'm always amazed at the selflessness of the rehabilitation workers who do everything possible to improve the lives of the children they serve. When I arrived here eight years ago, I had the opportunity to work in many different programs. This allowed me to learn about the many different aspects of rehabilitation. My responsibilities are very motivating, and my work is valued. I always receive thanks, and I am always heard. I feel very useful and dedicated."

Guylaine Prévost, Administrative Assistant, Rehabilitation Centre Marie Enfant





"It takes me about 1.5 hours to get to work by train every morning, but it is so worth the commute! It is challenging to work on a daily basis in an establishment where there is such a diversity of patients. Despite financial constraints, we must continue to manage 51 different diet therapy programs, divided according to age group, medical requirement, allergy, etc. One must use imagination to prepare meals! I find it very stimulating to be a part of a team where the atmosphere is pleasant and where everyone goes the extra mile to get things done. I am also happy to be able to do my work with autonomy. The Sainte-Justine offered me an administrative position as soon as I graduated from university, and I have gained a great deal from my manager's knowledge and experience. All this has contributed to my growth. I am truly grateful."

Annie Dodier Desroches, Business Process Specialist, Nutrition Section

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Discoveries that give hope

As every year, researchers at the CHU Sainte-Justine contribute to advancing medicine by conducting ground-breaking research that leads to discoveries of great interest.

Birth weight difference between girls and boys

It is a known fact that boys weigh more than girls at birth because of the effect of male hormones on the male fetus. However, the growing presence of contaminants in our environment reduces the action of these male hormones. It is, therefore, assumed that the birth weight difference between boys and girls will decrease. This is exactly what was revealed in a study conducted by Dr. Guy Van Vliet, Endocrinologist and Researcher (Fetomaternal and Neonatal Pathologies Research Axis) with the collaboration of Dr. Shiliang Liu, Perinatal Epidemiologist with the Canada Public Health Agency, and Dr. Michael S. Kramer, Scientific Director of the Institute of Development and Health of Children and Teenagers and of the Health Research Institutes of Canada. The study's findings were published in the July 2009 issue of Epidemiology. The scientific team was able to analyze data collected by the Public Health Agency of Canada, containing information about the birth weight of more than 5 million children born in Canada between 1981 and 2003.

Hyperactivity and gambling

A research study conducted by Dr. Linda Pagani, whose findings were made public in March, 2009, appeared in a special end-of-year health report in *Time Magazine* on December 7, 2009. Her study established a link between hyperactivity and inattentiveness observed in kindergarteners and a higher likelihood of playing games for money by the sixth grade around the age of 11. This prospective and longitudinal study, which began in 1999, tested 163 Montreal kindergarten children of an average age of 5.5 years.



Combating drug-resistant malaria

In a study published in *Nature Genetics*, an international research team has decoded the genome of plasmodium falciparum the most drug-resistant strain of malaria that accounts for most of the deaths caused by this disease around the world. According to the study's lead author, Dr. Philip Awadalla (Viral and Immune Disorders and Cancer Research Axis), combating malaria resistance is nothing short of an arms race. As a malaria pathogen evolves, researchers must also evolve with it to find ways to counter the disease. This discovery could lead to the development of advanced pharmaceuticals to fight the disease and to prevent drug resistance among the 250 million people infected by malaria every year.

Homo sapiens: moderately polygamous

Have women and men contributed equally to the hominid lineage of contemporary populations? Did the ancestors of modern man (Homo sapiens) lean more toward monogamy or polygamy? To answer these questions, Dr. Damian Labuda (Viral and Immune Disorders and Cancer Research Axis) and his colleagues used an innovative method to analyze genomic data from three population samples of African, Asian and European origin. They were able to demonstrate that modern man (Homo sapiens) had generally been monogamous while exhibiting tendencies toward polygamy over the course of evolutionary history. The study's findings, published in The American Journal of Human Genetics, enable a heightened understanding of the genetic population structure, demonstrating once more the importance of population genomics in geneticepidemiology.

Long-term outcomes in adult pediatric cancer survivors

Researcher and hemato-oncologist Dr. Caroline Laverdière conducted a study on the long-term social outcomes of adults who survived neuroblastoma, a childhood cancer characterized by tumors in the neck, chest, hips, abdomen, and spine that require aggressive treatment, such as surgery, radiation therapy, and chemotherapy. Survivors of neuroblastoma are eight times more likely to develop chronic clinical health conditions in adulthood, and they are less likely to get married and more likely to earn a lower personal income than their siblings. The study's results, published in the Journal of The National Cancer Institute, demonstrate the need for long-term medical surveillance and followups to mitigate the medical and psychosocial repercussions of neuroblastoma.

Sanfilippo syndrome type C

A team led by Dr. Alexey Pshezhetsky (Metabolic Health Research Axis) has observed that a defective protein is one of the causes of Sanfilippo syndrome type C, a genetic disorder that leads to progressive central nervous system degeneration in babies and children, causing developmental delays and often death before adulthood. Experiments using cultured cells helped determine that glucosamine could partially correct the defective protein and improve functioning that could, over time, reduce the symptoms and control the progression of this disorder.

Working together

The basic and clinical investigators who contribute to the excellence of hematology, immunology, and oncology research were relocated to the Charles-Bruneau Pavilion. Having the clinicians' offices, research laboratories and care units in close proximity to one another contributes to increasing the synergy between the teams and further directs research toward patients.

National and international exposure

Among the top ten research studies that made the headlines last year, five of them were conducted by investigators at the CHU Sainte-Justine:

 Dr. Francine Ducharme, whose study showed that inhaled corticoids could reduce the severity and duration of asthma attacks in toddlers;



 Dr. Sylvana Côté, whose study revealed that about 15% of preschool-aged children suffer from depression and anxiety;



 Dr. Richard Tremblay, whose study revealed that young boys placed in juvenile detention centres are more likely to commit crimes as adults;



 Dr. Maryse Lassonde and Dr. Louis de Beaumont, PhD student, whose study discovered that athletes who suffered concussions during their sports careers still experience physical and mental after-effects more than 30 years later;



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- Dr. Linda Pagani, whose study revealed that preschoolers with impulsive behaviours run a higher risk of playing games for money by the end of the sixth grade.



Chair in nutrition and nutrigenomic platform

The public announcement of the J.A. DeSève Research Chair in Nutrition, which was established a few years ago, took place in April, 2009. In the same month, the Canada Foundation for Innovation (CFI) announced the awarding of a large grant to support Dr. Émile Levy's work in nutrigenomics, a research area that aims to reduce the vulnerability of people who are genetically predis-posed to diseases or disorders by choosing healthier eating habits. Nutrigenomics will combine prevention and nutrition to decrease medical interventions.

Pediatric Leukemia Cell Bank

The Cole Foundation has awarded a grant of nearly \$600 000 to the CHU Sainte-Justine to consolidate its pediatricleukemia cell bank and support its most promising research work in pediatric leukemia. This grant will ensure the continued operation of the cell bank, one of the most important banks in Canada, and to make it more widely available to Montreal-based researchers.

Valorization and entrepreneurship

On July 7, 2009, the biotechnology industry secured the largest investment that Canada has seen in two years and Quebec in five years. An investment of \$17 million was made by four venture funds (iNovia Capital, Genesys Capital, BDC Capital with GO Capital) and Fonds Bio-Innovation at Allostera Pharma, a spin-off company that was founded based on the research findings of Dr. Sylvain Chemtob's (Neonatologist and Researcher (Fetomaternal and Neonatal Pathologies Research Axis). The proceeds of the financing will be used to support the development of a new class of drugs that are highly specific for their targets, and that provide enhanced effectiveness and safety for treating autoimmune diseases, such as Crohn's disease, rheumatoid arthritis, psoriatic polyarthritis, and 60 other diseases.



Training future health care professionals

- In June, 2009, following the international competition of postdoctoral fellowship for excellence, the CHU Sainte-Justine Foundation awarded a total of half a million dollars in grants to three young researchers Dr. Olivier Collignon (Belgium), Dr. Bidisha Chattopadhyaya (India), and Dr. Silvia Selleri (Italy). The Foundation created this competition to support the Research Centre's recruitment of exceptional candidates who will ensure a succession of leading scientists.
- In January of 2010, the postdoctoral scholarship for excellence competition in the field of children's musculoskeletal diseases was launched in partnership with the Canadian Institutes of Health Research. The recipient, announced in June of 2010, was awarded an annual scholarship of \$50 000 for a period of three years along with an operating grant of \$15000 available as of the first year.
- In February, 2010, the Foundation of Stars and the CHU Sainte-Justine Foundation awarded bursaries to 22 Master's and PhD students and postdoctorate interns for a near total of \$400,000.

Working together

Thanks to support from the Charles-Bruneau Cancer Centre Foundation and the Health Research Fund of Quebec, about ten researchers are currently working on different ways to improve the outcome of fetal cord blood transplants. A close collaboration with Héma-Québec has enabled the supply of fetal cord blood. The studies have led to clinical trials that demonstrate the action of certain molecules that increase the antileukemic effects of fetal cord blood; the implementation of a work plan that aims to prevent the onset of zona, a common phenomenon following transplantation; other studies on how to improve fetal cord blood transplantations; and the development of tests that enable the precise identification of high-risk patients most likely to benefit from fetal cord blood transplants.

Did you say "Synergy"?

We asked Dr. Daniel Sinnett, the associate director of basic research at the CHU Sainte-Justine Research Centre, who also heads the Viral and Immune Disorders and Cancer Research Axis, to explain what does "synergy of missions" mean for him.







Condition for research success

"I will focus on our research mission because this is the one I know best. Research enables the CHU Sainte-Justine to gain more exposure both in Canada and abroad, but this cannot be accomplished by working in silos, disconnected from our clinical mission. It must be in line with our main care priorities: our patients and their families. Research projects are chosen based on three elements: critical mass, clinical interest, and research interest. If we don't have "properly" diagnosed patients, quality clinical data, doctors who ask the right questions, and interested investigators, research projects are destined to fail."

One goal: the patient

"The ultimate goal for conducting research in a university hospital centre is to be able to transfer new knowledge, new technology, or new diagnostic devices to patients as promptly as possible.

The synergy of our missions enables us to conduct translational research. In other words, it enables us to conduct patientfocused research - from and back to their bedside. This is only possible in a UHC. With regard to teaching, synergy comes about naturally: students bring their questions and their interests, creating a dynamicteam. Health promotion also is a part of this dynamic team because of its crossdisciplinary mission. For example, it works together with the Research Centre on matters regarding prevention. We understand that we have to work together to win battles as with Grandir en santé, which received approval because all of the establishment's missions were well-represented and integrated in the project."

Success factors for the future

"In the next few years, our research axes of excellence will put us on the world map. Their development will rely on synergy, and each axis has a business plan in which all of the missions are imbedded. In oncology, for example, we have noticed that

children who survive cancer may suffer some after-effects from cancer therapy 20 years following treatment. One of our objectives is to develop a research program to monitor these children on a long-term basis and to identify those who are likely to develop after-effects. This implies opening a clinic for the long-term monitoring of these patients that will work in collaboration with researchers. Accomplishing such an initiative will also require the involvement of students and clinical fellows, so we must foresee having the capacity to receive additional students through the teaching program. This is one example that shows how the strategic development objectives of one mission can have an effect on other missions, and these must be anticipated."

Transmitting our knowledge

Because it participates in all areas of activity regarding the health of mothers and children, the CHU Sainte-Justine's teaching mission is, in itself, an aspect of synergy. Every year, our establishment welcomes hundreds of future doctors and health care workers who can count on our professional coaching and recognized expertise.

Hosting residents and interns

In 2009-2010, the total number of interns in medicine (residents, clinical monitors, fellows, postdoctorands, and foreign students) hosted in our establishment was 1 135. This number does not include the 84 free internships in medicine and the 386 students divided among the different research programs. In nursing and other professional health disciplines, we also hosted about 2 000 university and college interns, 1 246 of whom were nursing students.

Improving information services for patients and health care professionals

An informational audit regarding the CHU Sainte-Justine and Rehabilitation Centre Marie Enfant's library services helped determine the following needs:

- To increase the number of public user stations:
- To increase the digital resources available to users (journals and manuals with full metadata, factual databases, etc.);
- To improve access to the Université de Montréal library's digital collections through the proxy server;
- To develop informational services for doctors and health care professionals by hiring librarians;
- To set up and equip an area dedicated to providing information to families;
- To set up a quiet place for personal studytime;
- To set up a training room outfitted with the latest computer technology;
- To enable access to the CHU Sainte-Justine's resources at distance (from outside of the hospital);
- To provide Wi-Fi access in the libraries.

Mistreatment of children and teenagers in Quebec

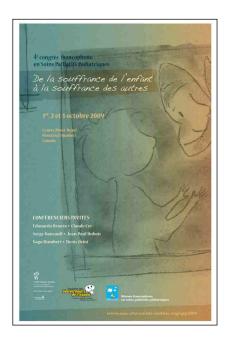
Organized by the CHU Sainte-Justine, in association with the Minister of Health and Social Services, the Youth Centre of Montreal and the Regional Health and Social Services Agency, the fourth edition of the Conference on the Mistreatment of Children and Teenagers of Quebec took place in Montreal on October 26 and 27, 2009, under the theme: Challenges regarding mistreatment, commitment and knowledge

Francophone Conference on Pediatric Palliative Care

Organized by the CHU Sainte-Justine, the fourth edition of the Francophone Conference on Pediatric Palliative Care took place in Montreal from October 1-3, 2009, under the theme: From the child's pain to the family's pain. Participants were interested in the consequences of a potentially death-causing disease on the affected person's lovedones (family, friends, caregivers). Other topics related to treating pain and symptoms were also covered. Participants had the opportunity to discuss their successes and failures in order to enhance their expertise in pediatric palliative care.

Telehealth and teletraining

The CHU Sainte-Justine is increasingly being considered as the referral centre in telehealth and teletraining because of its expertise in videoconferencing technology, a service that is expanding with every passing year. In 2009-2010, the number of broadcasted hours in videoconferencing reached 2 000, the majority of which were dedicated to training (mostly weekly conferences delivered by the Mother-child Network). We are currently exploring new broadcasting modes, such as the internet, for example, that will enable us to reach a



wider audience and improve the access and quality of our service.

Colloquium of the Université de Montréal Bioethics Program

This annual colloquium took place at the CHU Sainte-Justine on May 7, 2009, under the theme: Continuity, the ethical issues in health care services. The objective of this prestigious event is to examine current ethical issues and to communicate research findings in bioethics. Its goal is to also invite members to reflect on the many aspects concerning clinical, research and health policy ethics as well as the teaching of bioethics.

Master's in Clinical Ethics

A Master's in clinical ethics was also created by professors at the CHU Sainte-Justine.



Our patients say thank you!

Day after day, our teams go out of their way not only to provide patient care of the highest quality, but also to give comfort, compassion, and joy to patients and their families. Many patients have written touching letters to us to express their heartfelt gratitude.

Although it is not possible to reproduce all of the letters in their entirety, we are happy to share with you some of their words because they are the reason we are what we do. To all our teams, these words are for you!

To the entire Neonatal Intensive Care Unit

As it is Nurses Appreciation Week, I wanted to take this moment to thank this unique department where we can find the most wonderful nurses. I went back home, thinking about how super all you nurses are!!! You helped us through some of our darkest days. To see things from a different perspective, but to believe in life above all and to never give up!! To all those who love their work, please know that your wonderful smiles and encouraging words brightened our days. I commend you all for being the professionals that you are and for making our stay a most human and memorable experience. You made all the DIFFERENCE! Thank you from the bottom of my heart!

Natacha Fugère, mother of baby Fugère

To the cardiology preop team

Thanks to all the nurses who, during our son's short stay at the Sainte-Justine Hospital, comforted us, answered all our questions, and all this with a caring and compassionate smile. There was the nurse who chatted with him about football, and the other nurse who told jokes and who said a few reassuring words while wheeling him down the elevator, "Don't worry, this is a routine operation for them. Everything will go well." They made us all feel better.

Ghislaine Dalcourt, Lanoraie

Providing grief support

Hello to you all. On May 7, 2009, my little Lindy was admitted to the Intensive Care Unit at the CHU Sainte-Justine. This was when I met all of you wonderful people. At the time, I thought I would be returning home with my little Lindy, but she passed away on June 9. The support that they gave us and the sadness I saw in their eyes ... I understood that these people are doing extraordinary work for children and parents. I can't tell you how much I appreciate you and how fond we are of you. You are in our hearts. You are our friends for life.

Roger, Francine and Stéphanie Roy, Verchères

To all the intensive care nurses in the Neonatal Intensive Care Unit

A great big thank you to all the nurses who took care of me (...) and to all those who took care of my baby, Noah Carignan-Laing, who was born at 28 weeks on 06/06/28. He spent six weeks in intensive care and six more in neonatal intensive care. Day and night, there were so many nurses taking turns to look after my little bundle of joy. You were our main source of information, comfort, a family away from our family. Thanks to each and every one of you. To all of you who provided care that I wasn't able to provide and who stayed close to him while I had to take care of his sister, a million thanks!

Marie-Josée Laing, Pierrefonds

To all the nurses

Many thanks to the nurses who came around to spend a little time to hold my hand when I was all out of courage. Your human compassion in my trembling hand I will never forget, never.

Marie-Noëlle Cyr

Inspiring career choices

I want to say thanks to the nurses of the Sainte-Justine Hospital because the great care they provided me, after I had surgery there, inspired me to become a nurse myself. I am now an auxiliary nurse at the CSSS in Gatineau and I just love my job!

Isabelle Delorme, Gatineau

To the Delivery Unit

I can't find the right words to thank the staff of the Sainte-Justine Hospital, who brought my son, Rafael, into this world on May 1, 2010. I had a very difficult delivery, and I believe that, if it weren't for them, neither I nor my son would be alive today. Everyone was so compassionate, comforting, human, kind, friendly and cheerful... Thank you, thanks to each and every one of you! I'm eternally grateful to you all. Be proud because what you do is honourable. It is worth all the gold in the world.

Jacinthe Pilote, Montreal

The importance of environment

We are the parents of a little girl with cerebral palsy. Her condition has us spending a lot of time at the Sainte-Justine. During her last stay in the hospital, we were able to enjoy a room that was truly wonderful (#6516). We wanted to thank you for having set up such a cozy and intimate environment. The presence of wood, furniture (rocking chair), very comfortable ottomans, hide-away bed too..., original and zen decor helped us and our daughter to have a comfortable hospital stay. And it truly lifted our spirits! This room was truly peaceful and heavenly. Thank you once again!

Stéphanie Lessard and Alexandre Sylvestre

To all of the nurses of the Sainte-Justine Hospital (emergency, medicine, surgery, intensive care, gastroenterology clinic, and hematology clinic)

Thank you so much to each of you who looked after my 17-year-old son, Yanick Ricard, who was hospitalized in March and April, 2009. (...) Without your compassionate ears, support, permission for staying close to him at all time, prompt interventions, clinical judgement, respect, encouraging words, this misfortunate situation would have been so different. Yanick is doing well today and everyone, who cared for him, contributed to his recovery. My most sincere thanks to everyone. What would we, patients and families, do without you nurses?

Martine Clouette, LeGardeur

Health, it begins before health care!

The CHU Sainte-Justine's approach to health promotion is supported by individual and collective initiatives and by research that foster healthy lifestyle habits and the development of a favorable environment for healthy living. In addition to the members of the health promotion managing team, every member of the establishment supports and contributes to this approach.

Inauguration of the Health Promotion Centre

Located in the Decelles Pavilion, the Health Promotion Centre was inaugurated on March 22, 2010. The only one of its kind in Canada, it will offer prevention and health awareness programs and services to expecting mothers, children, teenagers, families, and staff members. "At the CHU Sainte-Justine, we believe that it is no longer enough just to aim for excellence in providing care to sick children - which, of course, remains a vital part of what we do -but we must also work to prevent the onset of health problems, "said Dr. Christine Colin, Director of the Health Promotion Centre, during her inauguration presentation. "The Centre is the result of a vision -to take action before illness strikes an individual, a vulnerable population group or even the community; of our commitment to the health of children and families; and of the conviction that we can contribute to improving the health of Quebec youth and their families."

The centre will host a number of programs that are being developed in partnership with the Fondation Lucie et André Chagnon, such as the Centre of Excellence for the Health Promotion of Toddlers, the Baby-friendly Hospital initiative, and awareness programs regarding healthy food habits. Other programs hosted by the Centre will include the Health-promoting Hospital initiative and the universal hearing screening program for newborns. It will also continue to generate and transmit its knowledge through telehealth and international associations.



Launching of the CIRCUIT Program

Under the leadership of Dr. Marie Lambert, Geneticist, and Dr. Jean-Luc Bigras, Cardiologist, the Health Promotion Centre launched the CIRCUIT Program (Centre d'intervention en prévention et en réadaptation cardiovasculaires pour toute la famille). This program has been developed for children and teenagers who are likely to develop heart disease as adults, namely those with dyslipidemia, excess weight, metabolic syndromes, diabetes, congenital cardiopathies, heart transplants; and those with overweight parents. This vulnerable population group – the first generation to have a shorter lifespan than their parents – represent more than a third of Quebec children and teenagers.

Launching the Health Promotion Centre and the CIRCUIT program was made possible thanks to donor contributions from the CHU Sainte-Justine Foundation. "The importance of these two initiatives for our community is to promote children's health at the earliest age possible," said Pierre Boivin, President of the Board of Directors of the CHU Sainte-Justine Foundation.





Parents Night on tour

Based on topics covered in its books and its desire to outreach to parents outside of the CHU Sainte-Justine, the Parents Night program took its lectures out on the road for a second year in a row. Thanks to support from the CHU Sainte-Justine Foundation, about twenty conferences were held across Quebec. The most requested topics were as follows: Motivating my child for school; Building my child's self-esteem; Homework and class lessons: The parent's place; Hyperactivity and attention deficit disorders; Parenting without parenting methods; and Discipline, it's child's play. Organized by the Department of Education, these conferences contribute to fulfilling the establishment's health promotion mission.



Inauguration of the Health Promotion Centre and launching of the CIRCUIT Program



From left to right: Dr. Jean-Luc Bigras, Cardiologist and Co-director of the CIRCUIT program; Dr. Fabrice Brunet, Chief Executive Officer of the CHUSJ; Dr. Marie Lambert, Geneticist and Co-director of the CIRCUIT program; Dr. Christine Colin, Director of Health Promotion of the CHUSJ; Dr. Yves Bolduc, Minister of Health and Social Services of Quebec; Pierre Boivin, President of the CHU Sainte-Justine Foundation Board of Directors; Pierre Arcand, Minister of International Relations, Minister responsible for la Francophonie and Member for Mont-Royal.



Educating through reading

Placed under the responsibility of the Teaching Management Team, Éditions du CHU Sainte-Justine is a unique and valuable asset within the hospital community and contributes to fulfilling the establishment's health promotion mission. During the last year, Éditions du CHU Sainte-Justine published about twenty works, ten of which form part of the new collection, Q&A for Parents.

The Éditions du CHU Sainte-Justine catalog contains about 150 titles, 103 000 copies of which were sold in 2009-2010. Many of its published works are translated into foreign languages and 25% of sales are made in Europe, allowing the CHU Sainte-Justine to further increase its exposure at the international level!

The CRME website, specially designed for families!

On October 29, 2009, The Association des établissements de réadaptation en déficience physique du Québec awarded the Rehabilitation Centre Marie Enfant (CRME) the Grand prix d'excellence in the communication category for its website, Together with children and their families. Specially designed for families with children receiving rehabilitation services, this new website is an information tool for parents, children, health care and rehabilitation professionals alike. It is a reference tool that is truly unique in its form and content.



Choosing new technologies and treatment methods

This past year, the Technology and Treatment Methods Assessment Unit focused its efforts on two main assessment projects based on a revue of scientific evidence and factual data generated from on-site evaluations. These assessments form part of our on-going commitment to improve the quality of patient care and safety.

Perfusion devices

The management of perfusion devices at the CHU Sainte-Justine is a complex process. This is due to the large number of devices on-site (over 500); the wide variety of devices (volumetric pumps, syringe pumps, miniperfusors, booster pumps); the many different clinical needs; and patient mobility within the hospital.

Since 2008, order requests for volumetric pumps and syringe pumps have been numerous and, parallel to this, biomedical technicians have been experiencing increasing requests for repairs and maintenance.

In light of these facts, the Medical Supply and Small Devices Evaluation Committee decided to gather the Nursing Management Team, the Technology Coordination, Information and Biomedical Engineering Unit, and the

Technology and Treatment Method Assessment Unit to assess the current inventory of volumetric pumps and syringe pumps, to map out current and future clinical needs, and to evaluate the issues regarding the purchase of these devices.

The objective was to establish a rigorous plan regarding perfusion device purchases so that current and future needs (linked to *Grandir en santé*) are met; and to implement procedures for improved inventory management.

Automated tissue processing

Histopathology is the medical discipline dedicated to the macroscopic and microscopic study of living or dead tissues. The pathologist's diagnosis is critical because clinicians rely on them to decide on a treatment plan for the patient, which could sometimes mean significant consequences for them,

their family and their loved-ones. Thanks to the introduction of a rapid automated tissue processor, a major technological innovation, we were able to greatly enhance our histopathologic procedures by considerably reducing the waiting time for obtaining results and by implementing more efficient work methods.

The Technology and Treatment Methods Assessment Unit helped the pathology team conduct an assessment of the different automated tissue processors available on the market by developing tools for evaluating their many features and for identifying issues to consider. The report containing the assessment results will serve as a model for any future automated tissue processor evaluations.

Improving business processes

At the CHU Sainte-Justine, improving performance is carried out at every level of the organization. Due to increasing demand and tight budgets, we must review our business processes from a critical standpoint and develop ways to make them more efficient.

Transition Management Team

As part of the *Grandiren santé* project, a transition management team was established to oversee the optimal implementation of new methods of operation, technology, information systems, etc. The new director, Claude Fortin, was hired on November 2, 2009. The Transition Management Team is a governance structure for change management whose primary mandate is to ensure that the operations of the CHU Sainte-Justine's transition plan is achieved.

School of Context-based Health Management

At a ceremony attended by many invited guests from the health care community, the CHU Sainte-Justine and HEC Montréal signed a memorandum of understanding to create the Sainte-Justine School of Context-based Health Management on October 4, 2009. Its mission is to hone participants' skills and develop training and coaching content that will be both on the cutting edge of management research and highly applicable within the healthcare system. Its value added lies in the manner it will assist multidisciplinary teams of doctors, professionals, and managers in the field. In its first year, the School launched three major projects:

- Performance management: to assist the establishment in the implementation of a balanced scorecard.
- People management, proactive and integral to organizational change projects: to develop a methodology for change management and to enhance management skills in this field.
- Implementation of a management network at the CHU Sainte-Justine: to develop a strategic networking vision for all of the establishment's laboratories.



Looking to the future, the major modernization projects

The CHU Sainte-Justine's major modernization projects respond to our concern for continued improvement of our processes, delivery of quality patient care and services, workplace and hospital environments.

Moving forward with the Grandir en santé project

The guiding principles of the *Grandir en santé* project were dictated by our desire to humanize the care we provide in our establishment, to increase care accessibility in both a quantitative and qualitative manner, and to provide our staff with a quality workplace environment. The *Grandir en santé* project went ahead with three major projects this past year:

Redevelopment of the Neonatal Intensive Care Unit

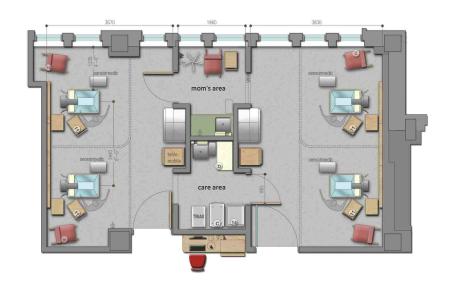
Thanks to the collaborative work of master builders, architects, engineers, technicians, and users, the redevelopment project of the Neonatal Intensive Care Unit was completed and officially inaugurated on September 21, 2009, in the presence of Quebec Health Minister Yves Bolduc.

From the rooms' design and technology to equipment quality and choice of materials, every aspect of the redevelopment project was based on the needs of the neonatal care team, patients and families. The newly designed facility offers a number of benefits:

- It features improved noise and light control;
- It enables families to be more involved in the provision of care to their newborn;
- It responds better to the fragile immune systems of newborns (infection prevention);
- It enabled us to increase patient capacity (65 beds), a per-capita improvement considering the rising demand for neonatal care.

• Connecting double rooms

Within the scope of the Neonatal Intensive Care Unit redevelopment project, the new rooms were designed to optimize equipment and furniture placement and to accommodate the needs of the neonatal care team (care area)»), mothers (mom's area), and newborns. Work stations were also placed in the hallways between the connecting rooms. A few private rooms have also been set up.



Seismic adaptations: safety comes first

To meet new building codes and to ensure the safety of patients and staff, construction work regarding seismic adaptation to units 2, 4, 6, 7, and 9 were completed during the summer of 2009. The objective was to fortify the existing buildings of the CHU Sainte-Justine.

New palliative care rooms

On April 26, 2010, the CHU Sainte-Justine and its foundation inaugurated three new palliative care rooms. The event took place in the presence of the Fondation des Gouverneurs de l'Espoir, who was very involved in this project. Based on a unique approach recognized throughout the world, these three new rooms offer families a more private, peaceful and serene option for accompanying their child to end of life. Our establishment is the first mother-child hospital centre in Canada to offer this service to its patients.



New neonatal intensive care room

• Relocation of the Manoir Ronald McDonald

The relocation project of the Manoir Ronald McDonald on Hudson Street began on August 19, 2009. It is expected to end in the fall of 2010. The surface area of the new building is 44 000 square feet, which will enable the Manoir Ronald McDonald to increase its accommodation capacity from 35 to 50 single rooms. Environmentally friendly and energy efficient, the Manoir will offer bright common spaces to create a pleasant atmosphere, an elevator, a terrace, a landscape, game rooms, teen rooms, a computer room, and a lounge. All these features will enable parents to enjoy a more relaxed and comfortable living space where they will be able to sleep, cook meals and visit their child when it is convenient for them. A reminder that the Manoir is being relocated so that its current location can be used for the construction of the new Specialized Units Building (SUB) and the underground parking facility.





Manoir Ronald McDonald

David Levine, CEO of the Health and Social Services Agency of Montreal, Dr. Fabrice Brunet, CEO of the CHUSJ, Michel Lapointe, CEO of the Rivière-des-Prairies Hospital, and Dr. Jean-Lucien Rouleau, Dean of the Faculty of Medicine of the Université de Montréal at the signing of the memorandum of understanding.

Working in partnership

Networking is a very important aspect of the CHU Sainte-Justine's work. Every year, we transmit the knowledge we generate and assess to the health care network, and we establish partnerships that serve to enhance patient care and services.



Dr. Brunet's presentation at the Montreal Roard of Trade

Dr. Brunet's presentation at the Board of Trade

On November 5, 2009, Dr. Fabrice Brunet, Chief Executive Officer of the CHU Sainte-Justine, delivered a presentation at the internationally recognized Montreal Board of Trade titled, the Sainte-Justine University Hospital Centre: An innovative Quebec enterprise. He demonstrated to the business community that the CHU Sainte-Justine:

- possesses the vision of an innovative business organization in management, knowledge transfer, use of technology, and research;
- constitutes a partner of choice for many different businesses to whom it offers a platform for development and worldwide exposure;
- is a knowledge centre that creates intellectual resources and trains health care professionals for the entire Quebec network;
- produces exportable solutions and promotes Quebec's medical expertise abroad

The Main dans la main project

The CHU Sainte-Justine's Department of Social Services is taking part in the *Main dans la main* research project in collaboration with the Université de Montréal's School of Social Services, the Montreal Youth Centre, the Maisonneuve-Rose-

mont Hospital and the Université de Montréal Hospital Centre (Saint-Luc Hospital). This project consists in evaluating early intervention treatments regarding drug addiction during pregnancy.

Teen drug addiction

The CHU Sainte-Justine has established a partnership with the Dollard-Cormier Centre (the only Montreal drug addiction treatment centre) to provide comprehensive services to teenagers with drug addiction problems and to better streamline interventions involving the different experts.

Partnership with the Montreal Youth Centre

The CHU Sainte-Justine has renewed its service agreement with the Montreal Youth Centre that they have had and expanded together for more than twenty years. The objective of this agreement is to better provide services to very vulnerable and homeless children and teenagers.

Pervasive developmental disorders

The Centre for Pervasive Developmental Disorders of the Université de Montréal was created in July, 2009, thanks to a partnership between the CHU Sainte-Justine and the Rivière-des-Prairies Hospital. This tertiary centre of expertise is the heart of a collaborative network focused on improving clinical services, teaching and research on pervasive developmental disorders (PDD).

Basic and applied research chair in cognitive neuroscience of autism spectrum disorders

Dr. Laurent Mottron, an international expert on autism, obtained significant funding to advance research and promote knowledge concerning this pervasive developmental disorder. Created in May, 2009, thanks to a donation of \$3 million from the Fondation Marcel et Rolande Gosselin, the chair will contribute to furthering CETEDUM's work and will serve not only to advance knowledge in the field of autism, but also to create a close link between basic and clinical research.

Sainte-Justine abroad



Humanitarian missions

Every year, many teams from the CHU Sainte-Justine travel abroad to transmit their expertise to medical teams of other countries.

Morocco

The last mission of a series of four missions to Morocco that began in 2006 took place this past year. A total of 110 volunteers (about 30 of whom were members of other centres in Canada, France, and Spain) treated 185 children and transmitted their expertise to the local medical teams. Funding for the four missions (\$250 000) was made possible thanks to donations from members of the Montreal Moroccan community and physicians from the CHU Sainte-Justine. Several Moroccan health care professionals were also hosted as interns in our establishment.

Egypt

An exploratory mission took place in Aswan (Egypt) in November, 2009. A collaborative agreement regarding cardiac catheterization was signed in March, 2010.

Welcoming adopted Haitian children

At the request of the provincial and federal governments following the earthquake that hit Haiti on January 12, 2010, many Haitian children whose Quebec parents had already begun adoption procedures were examined and taken in at the CHU Sainte-Justine International Health and Adoption Clinic, a world-renowned clinic for its expertise. It received more than 120 children in a single month. The team of physicians and nurses had even travelled round-trip to Port-au-Prince to treat and accompany twenty orphans back to the Pierre Elliot Trudeau Airport to be united with their adoptive parents.

The sourires d'Afrique mission

The sourires d'Afrique mission took place in February, 2010, in Bamako (Mali). The mission had the double objective of treating children with labio-palatal clefts and transmitting expertise to our local partners and nursing staff. A total of 68 children benefited from surgery, during which practical and theoretical training was provided to local medical teams.

The Francophone mother-child network



The mission of the Francophone Mother-Child Network is to support the development of best practices in administration, research, teaching and patient care. It is comprised of twenty major university hospital centres located in ten countries. The CHU Sainte-Justine has been the president and permanent secretariat of the Network since it was created in 2002. This past year, the Network celebrated three significant and enriching moments of exchange:

Professional internships from May 24 to 27, 2009

Hosted at the Laval University Hospital Centre, the Québec University Hospital Centre and the Sherbrooke University Hospital Centre, these internships gave 53 people the opportunity to visit and exchange with clinical teams in their work environment. The internships covered a variety of topics: technological and intervention method assessments, knowledge transfer and telehealth, clinical leaders in nursing care, the nurse's role in clinical genetics, natural birth after caesarean section, clinical research in obstetrics and pediatrics, the nursing advisor's role, change management and user satisfaction.

Management workshop on May 25 and 26, 2009

Intended for members of the board of directors and the scientific committee of the Francophone Mother-Child Network, this workshop provided participants with the opportunity to discuss human resource management.

The Network's seventh conference on May 28 and 29, 2009

Close to 200 people actively participated in this event, which took place for the first time in Quebec City under the theme: Teaching and quality, a world of prospects. The event offered numerous workshops that covered a wide range of topics: educating patients in specialized clinics; integrating research findings in clinical, obstetric and pediatric practices; evidence-based best practices, their progression and development; women's health and breastfeeding; impact of studies on changing pediatric practices; and use of performance indicators in administration, care management and service feedback. Scientific poster presentations were also organized as part of this event.



Donations that make a difference

Thanks to the unwavering commitment of its generous donors, the CHU Sainte-Justine Foundation was able to meet, once again, the needs and priorities of the CHU Sainte-Justine in the areas where it enjoys renown, such as humanization of care, health promotion, teaching, technological innovation, knowledge-sharing and best practices.

Humanization of care

Many donors of the Foundation contributed to initiatives that incorporate the CHU Sainte-Justine's humanization of care philosophy. A contribution of \$300 000 from the Fondation des Gouverneurs de l'Espoir enable the CHU Sainte-Justine to open three new palliative care rooms, offering children and their families a more comfortable and discrete option for treatment (see page 24). Some of the donations were dedicated elsewhere, such as alternative therapy programs that foster healing through laughter, art, and music. Such programs include Dr. Clown, whose visits always manage to brighten our little patients' days.

Service enhancements

Our donors were instrumental in helping the Health Promotion Centre roll out a number of initiatives. Thanks to the financial support of the Fondation

Lucie et André Chagnon, the CHU Sainte-Justine is waiting to receive the accreditation of "Baby-friendly Hospital," an initiative that began in 2009, which involved implementing hospital practices that respect the specific breastfeeding needs and frequency of newborns.

The CIRCUIT program, which aims to encourage young people at risk of a heart attack to develop a healthier lifestyle (see page 20), received two thirds of its required funding from partners of the Foundation. Finally, the Clinical Attitudes and Skills Learning Centre will open in 2011 thanks to donor contributions from the Foundation. One of its kind in Quebec, this centre will be dedicated exclusively to pediatric medicine and will provide multidisciplinary teams with skill enhancement programs that use simulations, virtual reality techniques, and computerized mannequins.

Cutting-edge technology

Many of the cutting-edge technology that makes the CHU Sainte-Justine a leading establishment is funded thanks to donations from the Foundation. In addition to this, the CHU Sainte-Justine was able to outfit its facilities with a new hybrid cardiac sciences suite and a magnetic resonance imaging system of exceptionally high resolution known as 3 Tesla thanks to Opération Enfant Soleil (see paragraph, A special thanks to Opération Enfant Soleil).

Gaining exposure, here and abroad

Supported by donations from the Foundation, the CHU Sainte-Justine continues to develop initiatives that foster the sharing of knowledge and implementation of best practices both here and abroad. These include the Parents Night program (see page 21) and a number of humanitarian missions to Morocco, Egypt and Mali (see page 27).

Our teaching efforts also benefited from generous donor contributions. Once again this year, the Gustav Levinschi Foundation renewed its contribution by awarding bursaries to second- and third-year nursing students to pursue graduate studies. About twenty clinical monitors will also benefit from a matching bursary fund program, financed in part by our donors, to advance and share their knowledge both here and abroad.

The Research Centre, the second largest of its kind in Canada, was able to count on the

support of generous donors. Close to 50% of the Foundation's revenues served to support the development of the Centre's excellence in research by recruiting top investigators, funding state-of-the-art facilities and awarding start-up grants and bursaries for talented young investigators. All of these initiatives, not including renowned university chairs, such as Depuy Spin and J.A. De Sève, have contributed to advancing research and making the CHU Sainte-Justine a university hospital centre of international renown.



Staff rally for Haiti

After the announcement of the earthquake in Haiti, everyone at the CHU Sainte-Justine came together in support of Haiti by holding a staff fundraiser. This collective act of generosity yielded \$18 002.96.



The Marie Enfant Foundation became Fondation Mélio

The Rehabilitation Centre Marie Enfant Foundation was renamed Fondation Mélio in June, 2010. This name change prompted a change of direction regarding the Foundation's activities that aim to increase the independence of children with motor or language disorders.

The Fondation Mélio strives to actively change the lives of children treated at the CRME by advancing scientific research that fosters independence, adjusting and adapting unique tools and funding aids that help improve the lives of the children.

Independence is a daily learning process and socially integrating the children is most definitely a part of this process. The Foundation, therefore, supports the children's participation in their different environments through concrete actions.



A special thanks to Opération Enfant Soleil!

Since its founding in 1988, Opération Enfant Soleil has given more than \$37 million to the CHU Sainte-Justine in Montreal to support the advancement of high-quality pediatric care. Over the years, its annual telethon has raised about \$33 million, some of which has been contributed to the redevelopment of the CHU Sainte-Justine's emergency room and the Centre de cancérologie Charles-Bruneau.

This year, a donation of \$3.5 million served to equip the Department of Cardiology with a hybrid cardiac operating suite so that specialists are able to perform simultaneous catheterization and cardiac surgical procedures on a child or fetus. We are now able to treat patients with extremely severe heart defects and to reduce the risk of death and patient morbidity. This suite will soon feature a videoconferencing system that will enable the surgical team to transmit captured images to anywhere in the hospital or to other establishments in Quebec, Canada and abroad.

This year, Opération Enfant Soleil also funded the purchase of a magnetic resonance imaging system of exceptionally high resolution known as 3 Tesla. Researchers and specialists alike will now be able to observe brain function in real time and to operate on patients with greater precision.

In addition to its financial support, Opération Enfant Soleil broadcasts an annual telethon that gives lots of wonderful exposure to children's causes. This moving and fascinating television event raises money thanks to thousands of generous viewers from across Quebec and gives sick children and their families hope for a cure. For the CHU Sainte-Justine, this event could not be more relevant as almost 55% of the patients treated are from outside the greater Montreal area.

A loyal partner in the search for cures to children's diseases and a key contributor to building a healthier and vibrant Quebec, Opération Enfant Soleil is, without a doubt, a major partner of the CHU Sainte-Justine and its many important projects.

Awards and Distinctions



Nominations and distinctions

Dr. Jean-Yves Frappier

Elected vice president of the Canadian Pediatric Society Awarded the 2009 Mentor of the Year Award (Quebec region) by the Royal College of Physicians and Surgeons of Canada

Dr. Morris Duhaime, Orthopedist Awarded the John Kostuik Prize by the Québec Scoliosis Society

Dr. Jean-Claude Fouron, Pediatric Cardiologist Awarded the 2009 Grand Prix by the Collège des médecins du Québec

Appointed Officier de l'Ordre National du Québec Named as person of the week, La Presse, October 13, 2009 Awarded the Quebec Award of Citizenship - Charles Biddle Prize

Camille Sasseville, Chantal Lemieux and **Stéphanie Duval**, Nurses

Awarded bursaries from the Gustav Levinschi Foundation

Gilles Bibeau, Anthropologist and Research Investigator Awarded the 2009 Léon-Gérin Prize by the Government of Quebec

Dr. Richard Tremblay, Psychologist and Professor of Pediatric Medicine, Psychology and Psychiatry Appointed Officier de l'Ordre National du Québec

Dr. Christine Colin, Director of Health Promotion Appointed Chevalière de l'Ordre national du Québec

Dr. Jocelyn Demers

Founder of the Charles-Bruneau Cancer Centre Awarded the 2009 Prix Sainte-Justine

Foundation of Stars Awards

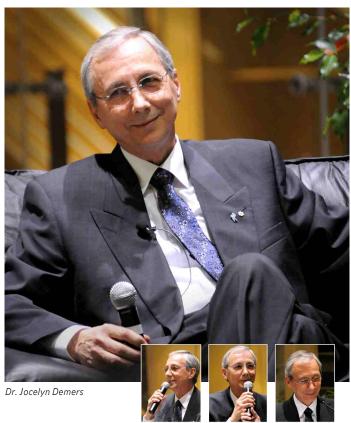
Career Scientist of Excellence Award **Dr. Jacques Lacroix**Awarded the Prix Letondal from the Quebec Association of Pediatricians

Investigator Award for Postdoctoral Research **Dr. Chun Yang**

Student Award

Jasmine Healy

Yamina Agnès Berchiche



Champion of humanized medical care!

It is not possible to look back on Quebec's recent history in pediatric oncology without recognizing Dr. Jocelyn Demers' outstanding contribution to the field for which he was awarded the 2009 Prix Sainte-Justine. He has dedicated his life's work to gathering the needed resources in the fight against children's cancers, notably the founding of the Centre de cancérologie Charles-Bruneau. More than just a world-renown centre in cancer treatment and research, it is an example of humanized medical care that Dr. Demers has ardently supported since his early career. In the 1980s, his completely rethinking of existing approaches to medical care led to the establishment of multidisciplinary care teams. At a time when certain ideas were still considered taboo, he sought to challenge the way pain management and child death is approached and to change our way of thinking. Thanks to his work titled, Victimes du cancer...des enfants comme les autres, he quickly became a household name in the fight against children's cancers in Quebec throughout the 1980s and 1990s. He also contributed to the founding of the Manoir Ronald McDonald and Leucan, an association for children affected by cancer.

Winners of the 2009 Recognition Awards Program



Council of Physicians, Dentists and Pharmacists Career nomination Dr. Robert J. Gauthier



Council of Physicians, Dentists and Pharmacists Succession nomination Dr. Antoine Payot



Council of Nurses
Nomination pour la carrière
Ginette Quesnel



Council of Nurses
Succession nomination
Catherine Hogue



Multidisciplinary Council
Career nomination
Suzanne Douesnard



Multidisciplinary Council Succession nomination Isabelle Jamison



Multitechnical Council
Career nomination
Micheline Cyr



Multitechnical Council Succession nomination Josée Lina Alepin



Excellence, Administration and support category Modernization of the Neonatal Intensive Care Unit -Reorganization of the central reserve Francisco Javier-Manrique



Hospital environment quality and safety Patient monitoring measures Stéphanie Duval



Teaching Award Christianne Grondin



Research Award
Dr. Daniel Sinnett



Management Award Martine Legault



Excellence, Clinical category
Auditory Screening program
Line Pelletier et Chantale Tremblay



Work organization and change management Infrastructure and telecommunication enhancements Hugues Primeau, Michel Fréchette and collaborators



President's Award
2008 Certification Process at the CHU Sainte-Justine
Sylvie Fortin and collaborators



Organizational community involvement 2008 Privacy Awareness Week, Respecting Privacy Nathalie Demers, Anick Couture and collaborators

Statistics for 2009-2010

The CHU Sainte-Justine is composed of:

5 153 employees1

510 physicians, dentists, and pharmacists²

1392 nurses and auxiliary nurses³

1036 health care professionals⁴

196+ research investigators

300 volunteers

4000 interns and students of all disciplines

And also includes:

118 557 hospitalized patients

3429 births

10022 operated patients

193087 visits in outpatient clinics

61721 consultations in pediatric emergency⁵

The CHU Sainte-Justine has 489 beds, 40 of which are at the Rehabilitation Centre Marie Enfant

Administrative Dat	a	2009-2010	2008-2009
Total number of allow	ved beds	489	-
Hospitalizations	Number of admissions at the CHUSJ (short- and long-term)	18 557	19 018
	Number of short-term admissions at the CHUSJ	18 209	18 615
	Number of long-term admissions at the CHUSJ	348	403
	Number of admissions in neonatal intensive care	1 056	980
	Number of admissions in hematology/oncology	1 105	1 025
	Number of admissions in multispecialized care	1 254	1 271
	Number of admissions in infectious diseases	721	595
	Number of admissions in pediatric intensive care	465	497
	Number of admissions in adolescent medicine	729	694
	Number of admissions in surgery/ trauma care	1 855	1 855
	Number of admissions to URFI	144	121
Day-patient care	Number of days-treatment	28878	-
Ambulatory care		_	
Outpatient clinics	Number of visits in ambulatory care	193 087	185 949
Pediatric emergency	Number of visits to the emergency	61 721	60 509
CRME	Physical disabilities - Number of users	3632	-
	Language disorders – Number of users	816	-
Births	Number of births	3 429	3 581
Surgery	Number of operated patients: mother-child patients (including 51 cataracts in DS and hospitalizations)	10 022	10 366
Transplants	Number of organ transplants	18	17
	Heart transplants	3	5
	Liver transplants	11	8
	Kidney transplants	4	4
Number of bone marro	ow transplants	40	29
	Autologous bone marrow transplants	13	6
	Allogeneic bone marrow transplants	27	23
Total number of transp	plants (organs and bone marrow)	58	46

¹ Include the employees of the Research Centre, ² CPDP Stats – Include physicians (445), dentists (29), and pharmacists (36), ³ Include the nurses at the Research Centre, ⁴ Include the health care professionals at the Research Centre, ⁵ The total visits to outpatient clinics and pediatric emergency represents 254 808 visits in ambulatory care.

Administrative	Data		2009-2010
Teaching			
Number of stude	nts/college, university, profession	nal interns	+ 4000
Research	Number of research inves	tigators (preliminary data)	196
Human resource)S		
	Number of employees at t	the CHUSJ including the Research Centre	5 153
	Number of employees at t	the CHUSJ excluding the Research Centre	4 594
	Number of nurses at the CHU	SJ including the Research Centre	1 392
	Number of nurses at the CHU	SJ excluding the Research Centre	1 347
	Number of professionals at th	ne CHUSJ including the Research Centre (approximate data)	1 036
	Number of professionals at th	ne CHUSJ excluding the Research Centre (approximate data)	1 029
Volunteers	Number of volunteers		± 300
Physicians, dent	tists, and pharmacists		510
	Number of physicians		445
	Number of dentists		29
	Number of pharmacists		36
Transfers			
	Neonatal intensive care	Number of transfers	235
	Obstetrics	Number of transfers	445
	Trauma care	Number of transfers	712

Summary of admissions by region of residency

Region of residency	%
Montreal	48.16 %
Montérégie	18.70 %
Laurentians	10.14 %
Lanaudière	8.29 %
Laval	7.74 %
Mauricie and Central Quebec	2.66 %
Abitibi - Témiscamingue	1.20 %
Estrie	0.60 %
Outaouais	0.54 %
Outside of Quebec or not identified	0.54 %
National Capital	0.33 %
Chaudière - Appalaches	0.31 %
Saguenay - Lac-St-Jean	0.20 %
Terres-cries-de-la-Baie-James	0.19 %
Bas-Saint-Laurent	0.14 %
Gaspésie - Îles-de-la-Madeleine	0.10 %
Côte-Nord	0.08 %
Northern Quebec	0.04 %
Nunavik	0.04 %
Total	100.00 %

Region of residency	Number of cases	
Montreal	48.16 %	
Other regions	51.84 %	
Marginal regions included	44.87 %	
Other regions	6.97 %	

Financial Report*

Capital Fund 2009-2010 Revenues by funding source

A.S.S.S.M	\$15 344 449	35.80 %
MSSS-Modernization of the CHU	15 110 981	35.26 %
Foundations and third parties	11 026 984	25.73 %
Self-financed projects	1 379 313	3.22 %
Total	\$42 861 727	100 %

Operating Fund 2009-2010 / Expenses by sector of activity

Ocator	2009-2010		2008-2009	
Sector	Expenses	%	Expenses	%
Diagnostic and therapeutic services	\$116 297 117	38.5 %	\$110 109 057	37.9 %
Nursing care	66 798 989	22.1 %	65 005 476	22.4 %
Rehabilitation	19 374 374	6.4 %	18 654 343	6.4 %
Ambulatory care	19 179 826	6.3 %	17 645 482	6.1 %
Specialized home care	1 118 997	0.4 %	1 055 732	0.4 %
Teaching (support)	3 214 364	1.1 %	2 814 720	1.0 %
Support services	15 144 376	5.0 %	14 376 985	5.0 %
Administration	21 790 492	7.2 %	21 039 901	7.2 %
Technical services	35 380 154	11.7 %	35 232 311	12.1 %
Public health	576 392	0.2 %	563 585	0.2 %
Expenses not allocated	3 360 348	1.1 %	3 765 448	1.3 %
TOTAL	\$302 235 429	100 %	\$290 263 040	100 %

Comparative Financial Results 2009-2010 and 2008-2009

Out of the	2009-2010		2008-2009	
Operating fund	Principal activities	Ancillary activities	Principal activities	Ancillary activities
Revenues				
Funding from ASSSM	\$275 717 596		\$264 378 636	
Contributions from users	5 689 538		4 738 027	
Sales of services	4 508 852		3 704 023	
Grants, federal and other research organizations		34 976 501		34 711 787
Funding from RAMQ (Residential and internal)		6 320 416		5 462 570
Teaching (U. de Montréal)		1 620 843		1 658 308
Technical aids services		3 533 778		3 455 209
Communication aids		614 442		630 355
Other revenues	13 501 877	477 636	14 234 640	696 171
Total revenues	\$299 417 863	\$47 543 616	\$287 055 326	\$46 614 400
Expenses	_			
Salaries	\$143 531 691	\$22 830 561	\$138 548 575	\$21 091 577
Benefits	40 108 912	3 801 516	57 269 792	5 538 711
Other expenses	118 594 826	21 814 162	94 444 673	20 540 520
Total expenses	\$302 235 429	\$48 446 239	\$290 263 040	\$47 170 808
Surplus (deficit) for the year **) (Before harmonization of accounting policies for 2008-2009)	\$(2 817 566)	\$(902 623)	\$(3 207 714)	\$(556 408)

^{*} The CHU Sainte-Justine includes the Rehabilitation Centre Marie enfant.

^{**} The deficit for the year is within the deficit target approved by the ASSSM.

Members of the Board of Directors

Ghislaine Larocque, President

Elected by the population

Lucie Bertrand, Vice President

Designated by the Agence de la santé et des services sociaux

de Montréal

André BouchardDesignated by the Université de Montréal

Raymond Boucher

Designated by the foundations

Dr Fabrice Brunet, Secretary

Chief Executive Officer of the CHU Sainte-Justine

Julie Carpentier

Designated by the Council of Non-clinical Personnel

Jean-Claude Champagne

Designated by the Minister of Health and Social Services of Quebec

Louise Champoux-Paillé

Coopted member

Nadia Desmarais

Designated by the Council of Nurses

Geneviève Fortier

Coopted member

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Dentists and Pharmacists

Francine Girard

Designated by the Université de Montréal

Dr. Assia Hassaine

Elected by the Université de Montréal, residents

Monic Houde

Legal entity

Louise Lalonde

Designated by the Users Committee

Frédérick Perrault

Designated by the Agence de la santé et des services sociaux

de Montréal

France Prescott

Designated by the Users Committee

Jean-Guy René

Designated by the corporations

Dr. Jean-L. Rouleau

Designated by the Université de Montréal

Hélène Simard

Coopted member

Michel Simard

Elected by the population

Yves Théoret

Designated by the Multidisciplinary Council

Barbara Ann Thompson

Designated by the foundations

Executive Management Team

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Louise Boisvert

Associate Director, Communications and Public Affairs

Dr. Fabrice Brunet

Chief Executive Officer

Antonio Bucci

Director of Finance and Corporate Partnerships

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Director of Health Promotion

Isabelle Demers

Associate Director, Planning and Development

Renée Descôteaux

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Dr. Josée Dubois

Director of Education

Claude Fortin

Director of Transition Management

Roger Jacob

Director of Grandir en santé

André Lanciault

Local Complaints and Service Quality Commissioner

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Ginette Leduc

Director of Human Resources

Marie-Claude Lefebvre

Director of Technical and Residential Services

Dr. Guy A. Rouleau

Director of Research

Pauline Turpin

Vice Executive Director and Director of Clinical Services

Major Partners

Fondation CHU Sainte-Justine

Fondation Centre de cancérologie Charles-Bruneau

Fondation des Amis de l'Enfance

Fondation des étoiles

Fondation des Gouverneurs de l'Espoir

Fondation en Cœur

Fondation Lucie et André Chagnon

Fondation Mélio (CRME)

Leucan

Opération Enfant Soleil

