



Hôpitaux Shriners
pour enfants®
Shriners Hospitals
for Children®

Canada
Pediatric Specialty Care

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THE ORTOPEDIK

Exceptional Care for Exceptional Kids

Countdown Towards 2015

[Jerry Gantt, Imperial Liason Officer, Shriners International] Just like our future neighbor, the McGill University Health Centre, one of our concerns in planning this new building is that it be as green as possible for the health, comfort and safety of our patients, to conserve energy and protect the environment we live in all the while being conscious of operating costs.

There are various areas where we were able to add green initiatives thanks to new technologies. Here are a few, simple yet effective examples:

- High efficiency lighting fixtures.
- Detectors turn-off the lights in closed offices, conference rooms, bathrooms, etc.
- Dark-sky exterior lighting fixtures (reducing light pollution).

For the mechanical installations, here are some of the energy efficiency measures/initiatives that are planned:

- Ventilation systems designed to allow for free-cooling (100% fresh air) operation during spring and fall (when outside conditions are favorable).
- Heat recovery to be done by the installation of cooling coils in the different exhaust systems that allow reclaiming the heat rejected to the outside. This heat will then be injected into the hot water heating loop. This will help reduce energy consumption thus lowering operating costs.
- Low flow plumbing fixtures reducing water consumption and energy costs (pumping and heating of domestic hot water).

The building's interior design is bright and airy, with many very large windows and several skylights inviting natural light deep into the heart of the structure. |



■ Patient Ambassador Jérémy, 15 years old [page 3]

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Gary D.D. Morrison named to the Superior Court of Quebec

[Emmanuelle Rondeau]

It is with great pride that we announce that on April 5th, 2012, Gary D.D. Morrison was appointed as a Judge of the Superior Court of Quebec, District of Montreal. Named Chairman Emeritus of the Board of Governors of Shriners Hospitals for Children® – Canada in 2009, Mr. Morrison served as a member of the Board for ten years and



led the Board with fervour and conviction from 2004-2009. Subsequently, he continued to work on strategic planning and fundraising committees. However,

his new responsibilities require him to cease certain public activities and so, Mr. Morrison has had to withdraw from most of his hospital volunteer duties.

During the swearing-in ceremony at the Court, his colleagues praised his successful journey as a lawyer and noted his presence within the Shriners fraternity, his passion for

and key role Mr. Morrison played to secure the mission of Shriners Hospitals for Children-Canada, as well as his dedication to patients and staff.

A partner at Heenan Blaikie for many years, Mr. Morrison strongly contributed to the growth and reputation of the firm's Litigation group. He successfully represented several clients in complex and high-profile litigation cases, including market fraud cases, product liability, construction-related claims and professional liability. Class action defense mandates represented a large percentage of his practice.

Such an honour deserves to be recognized. With one voice, we can only say, one thousand times thank you and congratulations!

Administrator's Message

For many of us, each autumn means returning to school, the changing colours of the leaves, the harvests, and a traditional holiday that we celebrate each in our own time and manner: Thanksgiving. At Shriners Hospitals for Children – Canada we have a lot of reasons to be thankful, and in this issue, you will see that this gratitude extends well beyond our staff and walls to our current and past patients and to our very generous community of donors.

No matter how much time has passed since I have joined the Shriners Hospitals for Children network, I am always

amazed to see to which heights our patients can soar. I do realize that they can only do so because there was a team of health care professionals working with their families to give them the ability and the confidence to reach for the stars. This level of care requires funding and at Shriners Hospitals for Children – Canada, we are very grateful for support of our founding members, the Shriners, now combined with an extraordinary force of community and business leaders.

And in this time of thanks, we wish to share our very deep appreciation for Mr. Gary G.G. Morrison, Chairman Emeritus

of the Board of Governors, for his astute leadership and unbelievable dedication to the hospital and its patients over the years. We understand that his new functions impose limits on his involvement, and it is with great sadness and pride that we bid him a fond farewell and our best wishes in his new functions as a judge in the Superior Court of Quebec.

Sincerely,

Céline Doray

The Orthopedik is a quarterly publication of **Shriners Hospitals for Children® – Canada**

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We want to hear from you! If you would like to ask us a question or suggest a topic for an article in an upcoming edition of the Orthopedik, please contact us at arondeau@shrinenet.org or 514-282-6990.

The Orthopedik can also be downloaded from www.shrinershospitalsforchildren.org

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Jérémy Exudes Passion and a Positive Attitude

[Maurice Crossfield] He's sung for Pope Benedict XVI and Céline Dion, and now Jérémy Gabriel is one of two patient ambassadors for the Shriners Hospitals for Children® network.

Jérémy was born with Treacher Collins Syndrome, a genetic disorder that affects one out of every 10,000 babies. It is characterized by head, skull and facial deformities. Babies often have small ears or no ears at all. Paradoxically, they are often highly intelligent. In Jérémy's case, the disorder rendered him completely deaf.

At the age of five, Jérémy and his parents travelled from Quebec City to Shriners Hospitals for Children® – Canada, where Lucie Lessard, M.D., implanted a BAHA (Bone Anchored Hearing Aid), thanks to funding from the Daughters of the Nile. The device conducts sound through the bones in the skull.

"Singing is the best thing I do, it's my way of showing appreciation," Jérémy says. And he wasn't going to let anything stop him.

Shortly after his surgery, Jérémy started listening to music, and it wasn't long before he discovered his life's passion: Singing! Once his BAHA implant allowed him to hear, his voice coach discovered that he had perfect pitch.

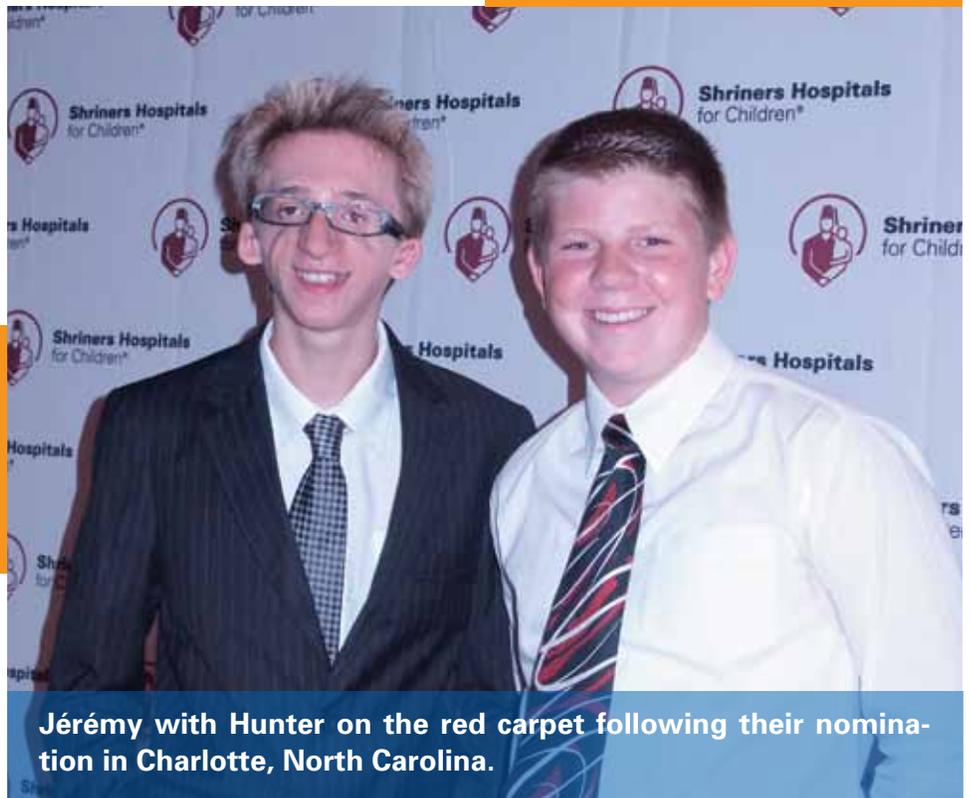
By the age of eight Jérémy sang the national anthem at a Montreal Canadiens hockey game in front of 22,000 fans. Now, seven years later, he has released two CDs and has even co-authored a book outlining his experiences and reflecting on his positive view of life. He attends a school that emphasizes the performing arts.

All of his positive energy and powerful singing has resulted in his being chosen patient ambassador. Every year, two children are chosen from nominees put forward by each of the 22 hospitals within the Shriners Hospitals for Children network. Jérémy is the first French Canadian, joining Hunter Woodhall of Syracuse, Utah to take on the duties of a patient ambassador for 2012-2013.

Over the next several months Jérémy and Hunter will be travelling across Canada and the US, attending prestigious

national Shriners events, sharing their story with media, attending conferences and visiting Shrine temples to talk about their experiences. Jérémy is proud to represent all of the patients and families and the work done by the staff at Shriners Hospitals for Children – Canada. |

"The work they do every day in caring for children is extraordinary," he says "What they were able to do for me is tremendous."



Jérémy with Hunter on the red carpet following their nomination in Charlotte, North Carolina.

To have Jérémy attend an event, contact the hospital's Public Relations office at moncommunications@shrinenet.org



To follow Jérémy's travels visit:
facebook.com/shrinershospitalsforchildrenCanada

Jérémy's official page:
facebook.com/jeremygabrie

Tween's Leg Saved from Ravaging Infection

[Julia Asselstein] Sydney is a self-professed tomboy. Getting scraped or bruised during sports and play is nothing out of the norm for this 11-year old tween. But one year ago when Sydney developed a persistent fever following cuts to her arm and leg, her parents knew this was anything but normal.

"We took her to The Montreal Children's Hospital (The Children's) where she was initially diagnosed with the flu," remembers Kelly Murphy, Sydney's mom. "But when the fever did not break and her lower leg started to hurt so much that a tissue touching her skin was painful, we knew it was something more."

Sydney's parents brought her back to The Children's where, taking into account continued symptoms, she was then diagnosed with osteomyelitis, which is an infection in the bone. She was placed on strong antibiotics and she underwent

six surgeries to remove the infection. Unfortunately, it always returned. Then during a return visit to The Children's she met Marie Gdalevitch, M.D., an orthopaedic surgeon at Shriners Hospital for Children® – Canada, who specializes in

"Without pulling out the long list of questions I had ready for the attending physician, Dr. Gdalevitch was answering every one of my concerns and explaining the next steps in Sydney's recovery process," recalled Mrs. Murphy. "Her confidence and straight forward nature made us feel like we were in good hands."

bone regeneration in children who have either lost bone due to infection, trauma and tumour or who are born with short limbs.

settled down, 5.5 centimetres of dead bone were removed. Cement that contained antibiotics was then used to fill in the bone gap. This was left in for six weeks, during which time a fibrous membrane, which contains very important cells for new bone growth, formed around the cement. At the six-week mark the membrane was carefully opened and the cement removed. Bone grafts from Sydney's hip were then placed inside the membrane, which was closed up to begin the bone regeneration. To stabilize her leg, Sydney was fitted with a specialized external fixator called a Taylor Spatial Frame that she wore for five months while her bone regenerated. Once her bone was strong enough, Sydney wore a cast for another four weeks as it continued to strengthen.

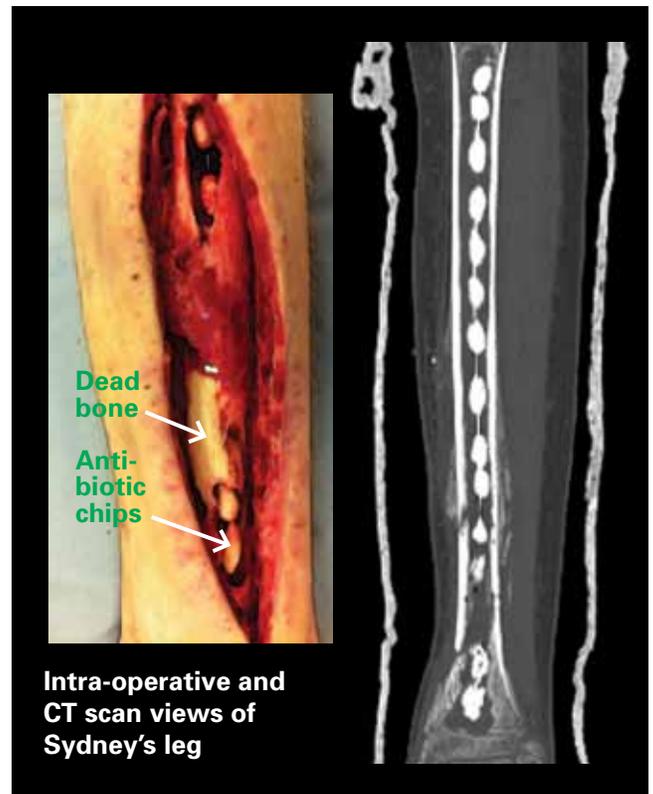
Sydney is now undergoing physiotherapy for her leg. Although she missed her grade 5 year she made sure to keep up



Dr. Marie Gdalevitch, orthopaedic surgeon with her patient Sydney, who is wearing her Taylor Spatial Frame.

While completing her fellowship in Orthopaedics in Australia, Dr. Gdalevitch saw many bone infections similar to Sydney's. "In Canada these bone infections are not common in children; therefore healthcare professionals don't always know how to readily treat these patients," she says. "You have to act fairly aggressively when fighting bacteria in bone."

In Sydney's case, Dr. Gdalevitch began with ridding of all the dead tissue and affected bone. One way to do this is with local antibiotic chips placed directly in the infected area. Once Sydney's infection



Intra-operative and CT scan views of Sydney's leg

with her schoolwork at home and while she was a student at the Shriners Hospitals for Children – Canada School Program. She started grade 6 this fall, joining her peers at school.

“Dr. Gdalevitch not only saved our daughter’s leg, she saved our sanity throughout this whole ordeal,” added Mrs. Murphy, who realizes with her husband Greg Choules that without Dr. Gdalevitch’s intervention Sydney could have lost her leg. “She is an exceptional surgeon and an exceptional person.”

Sydney can’t wait to kick a soccer ball but because it will be the middle of winter when she finishes her physiotherapy she is looking at alternatives. “I think I will take up hockey,” she said, without missing a beat. |



After her tenth surgery for a bone infection, Sydney was fitted with a specialized external fixator called a Taylor Spatial Frame while her bone healed. She wore the fixator for the better part of the summer, but she didn’t let that slow her down.

Innovation Now

The next generation



[Reggie Hamdy, M.D.] An important part of our role at Shriners Hospitals for Children® is to teach. To prepare the next generation of care givers that will not only care for children here, within our hospitals, but also in other health care centers around the world. They will forever carry with them the skills they have learned, our unique family approach to care, and more importantly, they become the best possible referral network for all our hospitals. It is a privilege, and honour and a duty to train the next generation, as they are the ones that will carry our work forward and continue to push the boundaries in order to ensure that we continue to always offer the best possible care to the children and the families who turn to us for answers.

At Shriners Hospitals for Children – Canada we also encourage our staff members to continuously pursue knowledge, to learn and develop new techniques and protocols. This serves to give our staff the opportunity to become experts in their fields, to improve the care we give, and also to add depth and breadth to our teaching.

As you will see in Sydney’s story, a great example of this philosophy is that of Marie Gdalevitch, M.D., who brought with her new, cutting edge techniques and technologies when she joined our staff a year ago after pursuing specialty training subsequent to her residency at the hospital.

We are proud to be preparing the next generations of caregivers who will carry on the mission of Shriners Hospitals for Children for the next generations of children who will need them. |

Q: How is Research Funded?

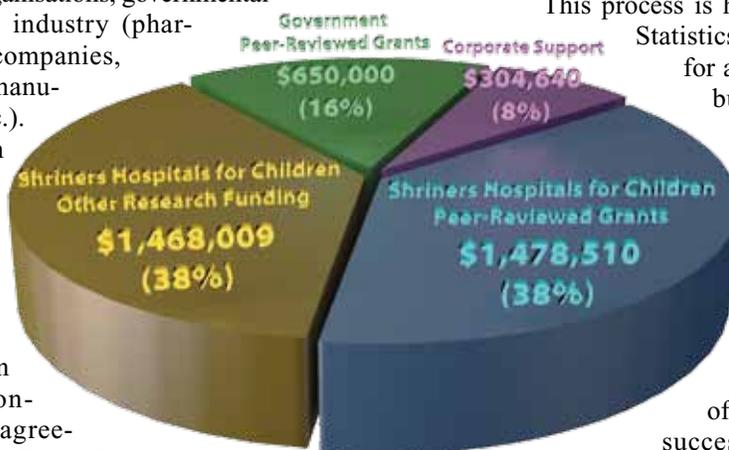
The answer is provided by René St-Arnaud, Ph.D., Interim Director of Research

A: State-of-the-art research requires a considerable investment of money. These sums are used to cover the salary of highly qualified personnel (trainees and staff) and to purchase supplies, services, and equipment necessary to carry out the projects. Where does this money come from? What are the mechanisms used to ensure that the proposed research is feasible and relevant? Is it easy to obtain financial support for research?

In academic and hospital-based research, funding invariably comes from three types of sources: charitable organisations, governmental agencies, or industry (pharmaceutical companies, equipment manufacturers, etc.). Support from industry is negotiated between the company and the researcher and often involves confidentiality agreements. Funding from charity organisations or government sources relies on expert peer-review, which is an evaluation of the proposed projects by a committee of scientists qualified to assess the suggested work.

Researchers seeking support must submit a grant application. This document includes information about the applicant and the proposed team, such as training and performance, measured by publication track record, awards, and previous support obtained. A detailed budget with justification must be attached. The description of the project is the key section of the proposal. In about 10 pages, the applicant must provide relevant background information, formulate a hypothesis, describe the

specific aims of the research, its significance and novelty, and the methods to be used. Potential pitfalls and alternative strategies must be identified. It also helps to include figures showing preliminary data that support the hypothesis. In this limited page format, the applicant must describe/anticipate the work that will be performed in the next three to five years. The grant application is reviewed by experts in the field, which assess its strengths and weaknesses, evaluate the budget, and provide a numerical rating of the application, which allows ranking. A cut-off rating is selected and projects above the cut-off are considered for funding, depending on the available budgetary envelope.



This process is highly competitive. Statistics are not available for all support sources, but the success rate at the operating grant competition of the Canadian Institutes for Health Research is 18%, while it is reported at 12% for the US National Institutes of Health. These low success rates represent a real challenge for the academic research enterprise. Many valid projects cannot be supported and the careers of talented investigators and their teams are at risk.

Nevertheless, researchers at Shriners Hospitals for Children® – Canada have experienced impressive success at recent funding competitions. New clinical and basic science projects have been funded by Shriners Hospitals for Children as well as through the Canadian Institutes for Health Research. This exemplifies the pertinence, quality and competitiveness of our research program and insures that high quality jobs and education will be maintained. |

Recent success in the Operating Grant competition of the Canadian Institutes for Health Research (CIHR):

René ST-ARNAUD

- The alphaNAC transcriptional coregulator as a downstream effector of PTH action in bone
- CIHR Operating grant \$125,439/yr for 5 years

Peter J. ROUGHLEY

- (Principal Investigator) with Pierre Moffatt (co-Investigator)
- The role of hyaluronan in the growth and function of the skeletal system
- \$110,283/yr for 5 years

Reggie C. HAMDY

- (Principal Investigator) with Pierre Moffatt and Maryam Tabrizian (co-Investigators)
- The effect of a hybrid and injectable Nanoparticle BMP Delivery System on Bone Regeneration during Distraction Osteogenesis
- \$150,836/yr for 3 years

Listbet A. HAGLUND

- (Jean A. Ouellet, co-Investigator):
- Intervertebral disc degeneration and pain
- CIHR Operating grant \$108,653/yr for 3 years

Monzur MURSHED

- (Principal Investigator)
- Molecular mechanisms underlying the vascular calcification phenotype in matrix gla protein-deficient mice
- \$96,730/yr for 3 years

Pierre MOFFATT

- Functional and molecular characterization of the novel chondrocyte-specific gene Smpec
- CIHR-IMHA Priority Announcement \$100,000/1 year

Frank RAUCH

- The role of Pigment Epithelium Derived Factor during skeletal development
- CIHR-IMHA Priority Announcement \$100,000/1 year

Golf Success = 2 courses, 30 volunteers, 57 foursomes and 275 guests

The 2nd Annual Shriners Hospitals for Children®– Canada Golf Tournament presented by Desmeules Fiat took place on August 6th 2012. The event raised \$500,500 in support of construction of the new hospital, under the leadership of

an extraordinary Organizing Committee led by football legends Gino Berretta and Peter Dalla Riva, businessmen Benito Migliorati and Michel Poirier and Robin Burns, an ex-patient of Shriners Hospitals for Children®–Canada and celebrated

national hockey league player. Among the 240 players were hockey greats Stéphane Richer and Sergio Momesso. Dinner guests were entertained by comedian Sugar Sammy and Emcee Sonia Bénézra. |



Jérémy Gabriel, international patient ambassador for Shriners Hospitals for Children with celebrity comedian Sugar Sammy



"I am so proud of the hard work and dedication of the Organizing Committee and touched by the generosity of our sponsors." declared Gino Berretta, member of the hospital's Board of Governors and Honorary Chairman of the event

Hospital patients, Guillaume (centre) and Nathaniel (right) with the help of Guillaume's sister Catherine, raised over \$ 3,000 at the Tunis Shriners Kids putting contest



Special recognition is owed to our major sponsors:

- Desmeules Fiat de Laval
- Résidence Au Fil de l'eau
- Air Canada Foundation
- Italian-Canadian Community Foundation
- J.E. Hanger
- Willow Inn
- Château Vaudreuil
- SAQ
- BMO Banque De Montréal
- Bentley Leathers
- BBG Ortho Appliances
- Forensic Technology WAI
- Tunis Shriners
- Cummins Eastern Canada
- Les Habitations Sylvain Ménard

Thank you to all the participants, donors and hole sponsors.



Both the live and silent auctions raised \$88,500



To see the highlight reel:
facebook.com/shrinershospitalsforchildrencanada



Iron Worker Comes Back to Say Thanks – Philae Shriners

[Maurice Crossfield] When John Russell looked out over the site where the new Shriners Hospital for Children® – Canada will be built in Montreal last spring, a lot of things went through his mind.

“It will be very state-of-the-art, and architecturally beautiful,” the 52 year-old iron worker says. “When it’s finished I’ll definitely come back and check it out.”

But his closer connection to the Shriners – and to Montreal – dates back to his childhood in Cape Breton, Nova Scotia, in 1968. By the age of seven he had developed a serious limp. With the blood flow to one leg seriously compromised, the local doctor was out of options.

“There was a Shriner who happened to be living in my town,” said Mr. Russell. “He could have been living ten miles down the road and would have never seen me,

and that would have been that.”

Instead, that Shriner arranged to have John and his mother go to Shriners Hospitals for Children – Canada in Montreal. As he recalls, he was fitted with casts that held his legs far apart, complete with a cross brace. At the time it was the only way to restore proper blood flow to his weakened leg. As he grew the casts were changed four times during the next 17 months, each change requiring a trip to Montreal and a stay at the hospital.

“I remember the night before they would put the new casts on, and they would put pulleys on my legs to pull them apart to prepare me. The pain was something

terrible,” he said. “But when they sent me home for the last time, when I was nine, I walked off the plane like I was Bambi.”

Still, Mr. Russell has no shortage of fond memories of those times when he was flown from home to Montreal by the Shriners to have his casts changed. He also notes that the same condition can now be remedied in six to eight weeks, with much less discomfort.

“I still feel there were kids who were a lot worse off than me,” he says. “They never had to cut into me, and they were able to fix me. When I stood up out of that wheelchair I felt ten feet tall.”

And Mr. Russell has been looking up ever since: A fascination for climbing led to his becoming an iron worker. Over the last 32 years Mr. Russell has climbed some of the tallest structures in the country. Today he travels frequently in his work building industrial windmills. When he heard that the new Shriners Hospitals for Children was being built in Montreal, he wanted to pay a visit to see old facility one last time.

“I’ve got an awful lot of gratitude for the Shriners and what they did for me,” he says. “That’s the bottom line, I’m very fortunate.” |



John Russel, with his brother at home in Nova Scotia.

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