

Pediatric Neurosurgery celebrates its 50<sup>th</sup> anniversary.

#### This IS brain surgery

The Montreal Children's Hospital leading the way in pediatric neurosurgery for 50 years

#### **Lisa Dutton and Christine Zeindler**

"Children are not just small adults, they need special pediatric care," says neurosurgeon Dr. Jean-Pierre Farmer, director of Pediatric Surgical Services of the Montreal Children's Hospital (MCH) of the McGill University Health Centre (MUHC). "This especially applies to a field like neurosurgery, which requires experts (intensivists) who are trained to care for children who are critically ill."

This sentiment is what motivated Dr. Preston Robb, MCH Chief of Neurology (1961) and Dr. John Blundell to create the MCH Neurosurgery Department in 1961, 50 years ago. Dr. Blundell had originally come to Montreal to train and eventually worked at the Montreal Neurological Institute. Seeing a need for pediatric neurosurgery, he switched gears. "Dr. Blundell saw that additional care was required for children, such as a more nurturing environment, pediatric surgeons, who were familiar with the developing brain, etc. He decided to dedicate his efforts to this cause."

Dr. Blundell worked on his own until 1971, when he was joined by a second full-time pediatric neurosurgeon Dr. Rob Hollenbelg.

#### 1960s: A time without advanced imaging

"In the sixties, there wasn't the modern imaging technology that we have today," says Dr. José Luis Montes, MCH Chief of Neurosurgery. "There was no CT scan and no MRI."

Diagnoses of spina bifida defects, hydrocephaly, epilepsy, and tumours were typically done by transillumination (shining light through the skull) and x-rays. For more elaborate problems, indirect analyses were done, using invasive procedures such as angiograms (injection of dye in the arteries) and in some cases, pneumoencephalograms were used. These were extremely painful and risky procedures involving the injection of air into the child's brain, via the spinal canal.

"These were rudimentary technologies, which limited the neurosurgeons ability to diagnose and treat," says Dr. Farmer.

#### 1970s: The first CT scanner

Many of these primitive techniques were abandoned when the MCH purchased its first CT scanner. "Although the CT scanners were not as good as they are today, they were a major leap forward. We could image the brain without doing an invasive procedure," says Dr. Farmer.



#### (Continued from page 1)

Treatment for tumours, hydrocephaly and some forms of epilepsy improved with the new imaging technologies. "We could even see if a shunt (a valve to drain excess fluid) for hydrocephaly was functioning properly. This allowed us to attend to problems much more quickly," says Dr. Montes.

In addition, CT scans were important for diagnosing head trauma. "We could see the injury right away with a CT scan. This is critical when time is of the essence and surgery is immediately required."

#### 1980s: The silicon era

The advancement of computer technology in the eighties had a significant impact for medical devices. "We were able to stimulate the brain and record its response in a process called evoked potential," says Dr. Farmer. "This is important for identifying essential areas, for example, those involving the senses or movement. Having this information is critical during surgery."

"The introduction of computers in the management of all this data made a big difference in our techniques and technology," agrees Dr. Montes.

#### 1990s: The robotic stage

Although CT scans have many uses, they are unable to image the spinal cord. Spinal cord disorders such as cysts, tumours and tethered spinal cord syndrome (a group of neurological disorders involving malformations of the spinal cord) are only directly observed by using the MRI.

The Children's was among the first (in Canada) to install an MRI, dedicated specifically to pediatric patients, in 1993. Previous to this, critical patients were brought to the Montreal Neurological Hospital (MNH) for diagnoses. "Having our own MRI meant we could diagnose and treat more patients at the Children's without the inconvenience of having a child move from one hospital to another," says Dr. Farmer.

A year later, the MCH became the second hospital in the world to install a neuro-navigation and robotic-arm system. Once again, relying on computer technologies, this procedure helped guide or "navigate" neurosurgeons during surgery. This allowed real-time images of the patient's brain to guide the surgeon's instrument or probe to a selected target.

"This was extremely helpful, as we could assess where we were in the brain at any given time," says Dr. Montes.

The equipment was upgraded in 1998.



#### The new millennium

The hospital and physicians kept pace as new imaging technologies were introduced. In 2009, The MCH became the first pediatric hospital in Canada to install an intraoperative MRI, the hospital's fourth generation of neuro-navigation systems. With each upgrade, neurosurgeons were given an increasingly accurate view of the brain. This new MRI allowed the surgeons, for the first time, to see the brain without interrupting the surgery. Traditionally, they had to stop surgery, and go to another room to image. Now this can be done at the same time.

"Over the last five decades, as the tools improved, we were able to attack more complex problems and do a more complete job with less risk to the child," says Dr. Montes.

#### **Neurosurgery team adds new members**

Along with the addition of new technology, the Neurosurgery team welcomed new members. Dr. Montes joined the hospital in 1981, Dr. Farmer was hired in 1990 and Dr. Jeffrey Atkinson was recruited in 2003. Very few pediatric hospitals can boast that their neurosurgery team is dedicated only to the care of children. Traditionally neurosurgeons are asked to divide their time between adult and pediatric care. The team at the MCH devotes itself exclusively to the care of children, which has allowed them to become world leaders in the treatment of children with epilepsy, spasticity and tumours.



#### Advancing care through the years

#### Spasticity surgery

The MCH was the first hospital in Canada, and only one of two today, to perform surgery on children suffering from spasticity. Spasticity is a neuromuscular condition in which muscles are continuously contracted. These stiff or rigid muscles affect normal activity, including walking, movement, and speech. Spasticity in children has numerous potential causes, most of which include some form of damage to the nervous system, such as brain damage caused by a lack of oxygen, brain trauma, stroke, or spinal cord injury. Surgery for severe chronic spasticity includes orthopedic and neurological approaches. The MCH performs a procedure known as selective dorsal rhizotomy, in which the nerves that carry sensory information to the spastic limbs are cut where they emerge from the spinal cord. The procedure has been shown to improve leg function. "This surgery helps children walk again or even to sit," says Dr. Farmer.

#### Epilepsy surgery

The Children's is also considered a world leader in the field of epilepsy surgery. In the 1980s, it became one of the first centres in the world to perform surgery on children with epilepsy. Up until then, primary care physicians widely believed children with epilepsy would simply outgrow the illness. As a result of this misconception, surgery to control or even stop the seizures was often delayed for years. Also around this time it was becoming quite clear that certain catastrophic epileptic disorders in infants and young children were causing long-term damage to their developing brains. "Surgery removes the lesion in the brain that is initiating the seizures," says Dr. Montes. "Some of these lesions are benign (noncancerous) tumours and some are malformations of the brain or brain's circulation. Our hope is by removing the origin of the seizure, the seizures will stop. The great

There are currently two openings available in the 4-year old group at Le Papillon Daycare (next to the Children's). The openings are for children who will be going to school in September 2012.

Please contact Chantale Théroux for more information (514-937-6171, local 225).

advantage of the MRI is that we can feel more confident about removing non-vital parts of the brain."

#### Advocacy

The neurosurgeons at the MCH have always advocated for their patients. For example, in 1992, they lobbied Health Canada to approve the use of gadolinium, a silvery-white metal used to enhance the image of tumours, for their diagnoses. Thanks to Dr. Montes's efforts, the product was approved, not just for children, but for adults as well.

#### **Training future neurosurgeons**

The neurosurgery team at the MCH is one of only three hospitals in Canada and one of only 21 in North America to offer a pediatric neurosurgery fellowship. Neurosurgeons from around the world come to the MCH to train as pediatric neurosurgeons. For 12 months to two years these fellows are offered additional training, from the use of new technology to new procedures. In addition the fellows can engage in clinical or fundamental research. "We would like to give our fellows all the necessary tools and training to become full-fledged pediatric neurosurgeons," says Dr. Farmer.

#### By the numbers

The MCH Neurosurgery Department treats approximately 2,500 patients per year. Clinics include general neurosurgery, spina-bifida, brain tumour, and one dedicated to spasticity.

The Pediatric Neurosurgery Team

- **Dr. José Montes**, Director
- **Dr. Jean-Pierre Farmer**, surgeon in chief
- Dr. Jeffrey Atkinson

Turn to page 11 of this issue to read our profile of Dr. Atkinson.



Photo: Daniel Héor

#### New MCH ER promises improved experience for patients and staff

Our hospital, our future

#### By Tamara Nowicki

Not everyone can boast about playing a key role in the design of one of North America's busiest pediatric emergency departments, but Dr. Harley Eisman, Medical Director of The MCH Emergency Department has those bragging rights. Dr. Eisman has been working closely with the MUHC's planning office to iron out plans for the new ER at the Glen Campus. "I am excited; we are all excited about the developments that are underway," he states enthusiastically, "It is a unique, once-in-a-lifetime opportunity."

Patient needs have been paramount in the design of the new ER. Children and families who come through

the department will enjoy larger waiting areas that offer a soothing ambiance. Dr. Eisman hopes the new layout, which includes private patient rooms, will allow children to move in and out of the emergency room faster and more efficiently. "Right now at the hospital, many patients are shifted from one area to the next due to lack of equipment in each room." With better equipped individual rooms, patients will be examined and diagnosed in one spot thus speeding up the entire process.

The new ER will not only benefit patients and their families, but will also improve the work environment for staff. One of the greatest perks will be additional working space. Dr. Eisman explains the new hospital features dual circulation hallways, which will allow patients and staff to move about with ease. The hallway design separates patients who are undergoing observation and tests from those patients waiting to be seen. As well it separates the doctors and nurses treating patients from students and

residents doing rounds. This new set-up aims to improve flow and avoid bottlenecks within the department. "Staff won't be bumping into strollers and families as they sometimes do right now, making the department more functional for everyone," says Dr. Eisman.

Another greatly anticipated change is the addition of a pneumatic tube system within different areas of the ER. The tubes allow doctors and nurses to send blood work

> and other samples to the diagnosis lab, which greatly reduces time spent traveling to get results. The current emergency room has

one such tube, but plans for the new site will include the

addition of several more.

Since the MCH is also a teaching hospital, students and those completing their residency will also enjoy modernizations that will enhance their learning experience. The new ER will include larger study and research areas; the aim is to improve the overall learning experience, allowing residents and medical students the opportunity to observe hands-on patient care, without sacrificing much-needed space for equipment and patient/visitor circulation.

- Stroller parking area
- Designated breastfeeding zones
- Play areas in the waiting rooms
- Covered ER entrances for patients and families
- Dedicated trauma elevator that will be separated from the public

#### Chez nous is published by the MCH Public Relations and Communications office.

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To submit story ideas or texts to Chez nous, contact the Public Relations and Communications office at ext. 24307 or send your email to info@thechildren.com.





#### MCH's new Surgical Day Centre is up and running

#### By Lisa Dutton

The Montreal Children's Hospital has officially opened its new Surgical Day Centre on 7C2. The centre is a merger of all nursing pre-surgical services including the pre-op clinic (formerly located on B-250), the Alternative Care Module (formerly located in C-737) and some plastic and general surgery clinical activities.

The new Surgical Day Centre includes six examination rooms, a treatment room, a reception area and a large waiting area. Its mission is to prepare patients for surgery including day surgery, to perform assessment, procedure, post-surgical care and to be a resource for parents and patients post-op. On certain days, the Child Life department provides activities to children in order to make their visit a pleasant one.

"We are only one phone call away for our patients and families who might have a question or concern after surgery," says Helene Rainville. "Sometimes they can ask the simplest of questions, but they are very relieved when an experienced nurse or health professional is there to help."

"The major benefit of this merger is that patients are now treated by the same team from pre-op to post-op," says Nadia Eldaoud, the Clinical Manager of the Surgical Day Centre. "In addition, we can now offer patients and families a lot more space and privacy where before the ACM was very crowded."

Ms. Eldaoud also points out that because of the new environment and organization, the Surgical Day Centre has a larger team so there is much more flexibility in organizing patient activities so that wait times are optimally managed and the workload for the nurses is more easily addressed on those very busy days.



The new Surgical Day Centre team
First row (l. to r.): Nadia Eldaoud, Martine Lestage, Sabrina
Drudi, Thao Le, Anna-Maria Bonilla. Second row: Hélène
Rainville, Linda Blanchard, Sandra Safulko and Farah Jean-

Absent from the picture are: Hélène Pelletier and Julie-Ann Doucet

The work flow and team work in the Surgical Day Centre is an example of how health professionals will collaborate once the MCH moves to its new hospital on the Glen Site. In our new hospital the Surgical Day Centre will be located on the 3<sup>rd</sup> floor of block B and will be part of the pediatric interventional platform which will include the surgical suites of the main OR, the cardiac catheterization suite, an expanded PACU and an endoscopy and procedure rooms.

Currently, the new Surgical Day Centre on 7C2 will be open from Monday to Thursday from 7 a.m. to 7 p.m. and Friday from 7 a.m. to 5 p.m.

For more information contact Nadia Eldaoud, Clinical Manger at x23439.

#### Chez nous / Townhall survey results are in

A big thanks to the more than 450 staff members and volunteers who completed the *Chez nous* / Townhall survey in June. Your opinions on the content, design and delivery of the news you need is helping us fine-tune the newsletter and the Townhall meetings to make sure we continue to provide the news and features that interest you most.

A key point that came across is your interest in learning more about developments at the new hospital site. Stay tuned for the October 27 issue of *Chez nous*, a special edition that will be entirely devoted to the new MUHC.

Congratulations to the **lucky winner of the \$100 Future Shop gift certificate**: **Alexandra Tassy**, nurse on 7C.

#### Wheelchairs at the ready

Just call x44000

#### By Lisa Dutton

Getting access to a clean, functional wheelchair has become a lot easier. With a new system launched in early September, Transport Services, i.e. the Porters, are now responsible for managing the MCH's fleet of some 45 wheelchairs. They will make sure that wheelchairs are delivered in a timely manner. To request a wheelchair all you need to do is call x44000.

"The goal is to make our wheelchairs safe, clean, functional, equipped with standardized accessories, and most importantly, readily available," says Demetra Kafantaris, MCH Senior Advisor Corporate Affairs, who led the development of this new system. "Staff and parents alike were becoming increasingly frustrated because there was never a wheelchair available when they needed one and often when they got one it wasn't in the best condition. Over time, this has caused numerous delays and conflicts, compromising our patients' mobility and at times their safety. With this new system, wheelchairs will be stored in a central depot in the basement and when you need one you just have to call x44000. It is important that

everyone give the porters a little lead time, so they can respond within a reasonable delay."

In addition to managing wheelchair flow and circulation, the Porters will also be responsible for officially requesting repairs or maintenance as needed.

You may have noticed two wheelchair "hubs" that have been set up at the MCH: one at the main entrance and one at the ER entrance. This was created to ensure that wheelchairs are available for our patients when they arrive at the hospital. Families needing a wheelchair are required to provide Security with a piece of identification. Security then unlocks a wheelchair for them. To reclaim their ID, the family must bring the wheelchair back to Security. When the number of wheelchairs at the "hubs" gets low, Security will call x44000 to advise a Porter that the stock needs to be replenished.

Thanks to a donation from the MUHC Central Users Committee and the MCH Family Advisory Forum, the hospital was able to purchase 22 standardized, fully-

equipped wheelchairs with oxygen tank holders, leg and foot rests, seat belts, and IV poles, increasing our fleet to 45. Each wheelchair will be numbered and tracked in a central registry and will feature a large flag with the Caramel image and the x44000 number.

"We are asking staff to call x44000 if they notice an unused wheelchair sitting in a corridor. The porter will collect the wheelchair and return it to the storage depot," says Ms. Kafantaris. "If demand warrants, we may acquire a few more wheelchairs. In the meantime, I would like to thank Hany Georges, Tom Lomardi and Transport Services for agreeing to take on this important mandate. I would also like to thank Fabien Welp-Barr and Technical Services for creating the pivotal storage depot and for taking care of assembling our new wheelchairs. Finally, I must extend thanks to Logistics Services for their enthusiastic commitment to implementing new improved ways of providing basic but fundamental services to our staff and families alike. The new system should make access to safe and functional wheelchairs easier for everyone."

# Practicing Patient and Family Centred Care Listen and show respect

Back-to-school time is a time of change and transition for children and their families. We must recognise that both children and families may be feeling anxious. We need to listen and show a little respect for what they may be going though. What may be simple to some can be a huge hurdle for others.

A message from **Imma Gidaro**, MCH Coordinator for Patient and Family Centred Care



#### The Bookends of Medicine

#### By Sherif Emil, MD, CM

Last June, I shared some thoughts with the audience at the MCH Townhall. As a McGill medical graduate and pediatric surgery trainee who has always taken great pride in his McGill heritage, I expressed some anguish about what I've seen happen to the MUHC over the past two decades. This medical school and this medical centre are still amongst the best health care institutions in the world. Superb medical and nursing care is delivered daily at the many McGill hospitals and clinics by hundreds of dedicated and selfless professionals. However, a certain malaise has crept in, a malaise that would threaten the very foundations of any medical establishment. Whether as a patient myself, a patient's family member, or a patient's physician, I have observed an air of indifference take hold. This is manifested in the lab technician who uses foul language in public, in the clinic clerk who treats patients as a burden, in the nurse whose every move is saturated with frustration, in the physician who belittles the patient's concerns or never returns his messages, in the supervisor or administrator who fails to provide leadership. The result much too often is a patient who is lost in the system, who is misinformed or mistreated, who feels threatened and unsupported in the battle with his disease, who is taken for granted and rendered helpless. That is not the McGill I thought I was returning to after many years away.

We are in difficult financial times where budgets are being cut and services are being restricted. However, much of what renders a medical environment professional and compassionate costs nothing. Identifying yourself to a patient, dressing in an appropriate and professional manner, accurately following up on information, treating patients as you would like yourself or your loved ones to

be treated are all examples of how we can once again make the MUHC the best hospital in Quebec cost-free.

After living multiple stories with my family, friends, and patients at the adult hospitals over the past three years, I have come to believe that the MCH is the last bastion of the type of medicine McGill always represented. We who work here are not only citizens of the MCH. We are also citizens of the MUHC, and this citizenship will be further solidified when we unite at the Glen. The onus is on us to bring our culture to our parent institution. Large medical centres have many missions including patient care, administration, research, and teaching. Those are all worthy of support. But we must recognize that healing, in every sense of the word, is where medicine starts, and where it ends. It forms the bookends, between which lie all other endeavours of health care professionals and a health care system. As our excitement builds regarding our new medical centre, we must remember that no amount of brick or mortar can replace the human touch. Let us not tear down our values as we build new walls.

Judging by the overwhelming response from dozens of MCH employees after my June presentation, I am not the only one troubled by where we are. We can do better, and we must.

If you would like to submit an editorial to be published in Chez nous, please send it to lisa.dutton@muhc.mcgill.ca. The editorial should not exceed 500 words and should be a fair commentary on a health care issue. The Public Relations and Communications Service reserves the right to choose which editorials will be published.

The McGill University Department of Translation and Written Communication and The Montreal Children's Hospital (MCH) joined forces to create French-language course materials for the Emergency Nursing Pediatrics Course (ENPC) created by the U.S. Emergency Nurses Association (ENA). Certified nurses at The Montreal Children's Hospital use this publication and course material to train nurses and nurse instructors in pediatric emergency care. To date, more than 250 nurses from all across Quebec have followed and completed this course.



#### MCH Trauma shares its expertise with community partners

#### By Debbie Friedman

In keeping with its mandate as a Trauma Centre, this spring and summer, MCH Trauma worked hard at conveying this important message through its Injury Prevention Program, by partnering with different community organizations and also through participating in numerous community events.

Throughout the 2010-2011 school year, MCH Trauma partnered with the SPVM and ThinkFirst Quebec in a large scale project aimed at secondary 5 students by targeting the important issue of risky driving behaviours. Presentations reached over 1,000 students.

In April, MCH Trauma partnered with SAAQ to promote the importance of car seat safety at the *Salon maternité* paternité enfants. According to SAAQ every year in Quebec at least 1,250 children age nine and under die or are injured in motor vehicle collisions. Furthermore, if properly installed the possibility of death or serious injury is reduced by up to 70%. In June, our Trauma Centre



hosted an In-House Prevention Day for children, teens, and parents, in partnership with SAAQ, the Quebec Lifesaving Society and Saint John's Ambulance. Also in June, the MCH Trauma Centre organized a car seat verification clinic in partnership with SPVM, Sun Youth, Walmart Decarie and SAAQ, with a group of hard-working CEGEP students as volunteers. Over 100 car seats were

verified and at least 80% required some form of adjustment to adhere to safety standards.

Throughout the summer months our Trauma Centre provided timely information to CTV News, Global News, CBC radio and television, and La Presse. To find out more, visit www.thechildren.com/trauma.

## Awards and Nominations

**Dr. Nada Jabado** has been nominated to participate in the Canadian Gene Cure Foundation (CGCF) Champions of Genetics research grant for 2011, which recognizes distinguished scientists who have played a vital role in the genetics community through their research, leadership and mentorship.

**Dr. Richard Haber** has been named Pediatric Advisor – Patient Education at the MCH in recognition of his support of the Public Relations and Communications Service in the area of webinars, media relations, consultation and publication editing and review. This honourary title, which is awarded for a two-year period, acknowledges Dr. Haber's sustained and substantial

contribution to promoting the hospital and helping the MCH fulfill its mandate to provide patient education.

Nurses **Linda Massé** and **Valérie Ann Laforest** from 9D recently completed the exam for certification in Critical Care Pediatrics from the Canadian Nurses Association.

**Lori Seller** has been named clinical ethicist for The Montreal Children's Hospital and McGill's Biomedical Ethics Unit.



#### **Health Seminar**

# Navigating the health care system: Learn your rights and learn how to communicate effectively

The Family Advisory Forum (FAF) is hosting a seminar entitled: *Navigating the health care system: Learn your rights and learn how to communicate effectively* on **Sunday October 2 from 10 a.m. till noon** at The Children's. The talk will give parents a better understanding of their rights; will explain how to express concerns or lodge a complaint about their child's care; and will provide tips on how to make their hospital visit

easier. The keynote address is – Be heard: Empower yourself using communication and negotiation skills given by Executive Coach Christianne St-Amour. Admission is free.

The FAF is a group of parents, family members and caregivers of children who have been cared for or are being cared for at the hospital. The goal of the FAF is to improve the care and services offered at The Children's.



The FAF is recruiting new members. If you know of a parent or caregiver who might be interested in joining please have them contact the FAF at (514) 412-4400, ext. 28737 or fcf\_faf@muhc.mcgill.ca.

#### MCH Neurosurgery 50<sup>th</sup> anniversary Gala and Fundraiser

An evening of fine dining, entertainment and great prizes!

**Saturday, October 29, 2011** Cocktails at 5:30 p.m. Dinner at 6:30 p.m.

The Holiday Inn Plaza Hotel 420 Sherbrooke West Montreal H3A 1B4

#### **RSVP:**

514-412-4400, ext. 25224 or 23294

Ticket price: \$130

Proceeds from this evening will go to supporting patients with brain tumours, their families, and those who need care in neurosurgery and neuro-oncology.

# Back to school, back to Pilates!

The **FALL SESSION** starts the week of

September 19.

When: Mondays (Sept. 19 start) and/or

Wednesdays (Sept. 21 start) **Time:** 5:00-5:55 p.m.

**Place:** Rm. D-292 **Duration:** 10 weeks

**Cost** \$100 for 1 class per week, \$180 for 2 classes per week

To reserve your place, contact Karen at karenkunigis@hotmail.com or (514) 489-7717.

# Dancers wanted: The Lighthouse Children and Families 24 Step it Up Event

November 19 at 6:00 p.m. until November 20 at 6:00 p.m. Centre Pierre-Charbonneau, 3200 Viau

The Lighthouse's Children and Families 24 H Step it Up Event is a one-of-a-kind event created to raise funds for the Lighthouse Children and Families organization, which helps provide respite and support to families of children living with illnesses requiring complex care.

This first-ever edition of the event will be hosted by ballroom dance champion and choreographer, Jean-Marc

Généreux, from the Fox dance competition-reality show *So You Think You Can Dance*, alongside Pascale Wilhelmy. All styles of dance will be represented. Only 500 places are available, so register quickly. Rise to the challenge alone or in a team! Teams must raise a minimum of \$1,500. For more information or to register a team or individual participant, visit www.phare-lighthouse.com and click on the 24 H du Phare button.





L'Hôpital de Montréal pour enfants The Montreal Children's Hospital

Centre universitaire de santé McGill McGill University Health Centre

# Mini-Med School at The Children's

Starting October 4th, 2011

Spend I.5 Hours a Week with Five Leading Medical Specialists from The Montreal Children's Hospital of the McGill University Health Centre

Brought to you by Children's AccuDial. The only rotating label for weight-based dosing.



#### **Learn and Discover**

- The uniqueness of children's diseases and challenging medical problems.
- Exciting scientific advances in pediatrics.
- The "feeling" of attending a real medical school lecture.

#### Den to Everyone

Mini-Med School at The Children's is open to anyone interested in science and medicine: parents and grandparents wanting first hand medical knowledge, young people considering medical careers, budding science journalists, as well as teachers and daycare workers.

Lectures will be given by distinguished physicians, professors and researchers from The Montreal Children's Hospital and the McGill Faculty of Medicine. Graduation certificates will be presented at the last lecture. No medical or science background is required and there is no homework or exams.

When: Tuesday evenings

October 4, 11, 18, 25 and November 1

**Time:** 7:00 pm - Registration, Course Handouts, Refreshments

7:30 to 8:30 pm - Lecture

8:30 to 9:00 pm - Questions and Answers

Where: The Montreal Children's Hospital of the MUHC, Forbes-Cushing

Amphitheatre • 2300 Tupper Street corner Atwater

#### **Enrollment Information**

· Advance enrollment and payment are required.

• Cost for series: Adults \$65.00

Seniors/Full-Time Students \$45.00

 The lectures are a series, enrollment in individual lectures is not possible. No refunds after September 5, 2011.

E-mail: info@MCHminimed.com
Telephone: (514) 412-4400 extension 23996

#### Space is limited! --- Enroll online today! --- www.thechildren.com



**OCTOBER 4 | SURGEON** 

Organ donation: a special gift Jean Tchervenkov, MD



OCTOBER II | ENDOCRINOLOGIST

Sex Hormones: from precocious to delayed puberty **Preetha Krishnamoorthy, MD** 



**OCTOBER 18 | PATHOLOGIST** 

Pathology is for life!

Chantal Bernard, MD



OCTOBER 25 | NEUROLOGIST

Cerebral Palsy: It's Not What You Think!

Michael Shevell, MD



NOVEMBER I | JGH - SURGEON

Curing diabetes one cell at a time.

Lawrence Rosenberg, MD

Tuesday lectures will be in English

Mini-Med School Lectures will also be offered in French on Wednesdays – see reverse for details.

This lecture series is possible thanks to generous sponsorship from:

Ministry of Health and Social Services Government of Québec



## Our People

#### **Dr. Jeffrey Atkinson**

MCH pediatric neurosurgeon talks about his career and his research

It's a long road to becoming a pediatric neurosurgeon. The MCH's Dr. Jeffrey Atkinson knows that first hand, and he credits a few key influences along the way for helping him get here.

Dr. Atkinson grew up in St. Thomas, Ontario, where his father was a pediatrician. "St. Thomas is a small town near London," he says. "For 18 years, my dad was the only pediatrician in town. He was a consultant pediatrician and was involved in various areas such as neonatal care. He was on call all the time." Eventually Dr. Atkinson's father was joined in his practice by several partners, but it didn't reduce his workload that much. "Ironically, I think my dad had fewer calls when he was the only pediatrician. People probably thought they should only bother him for true emergencies!"

Our own Dr. Atkinson embarked on his medical career at the University of Toronto where he completed two years of undergraduate study before going to medical school. His electives in neuroscience turned out to be some of his favourite courses and that, combined with his dad's good opinion of several neurosurgeons he knew, set Dr. Atkinson on the path to neurosurgery. "Charles Drake was a very well-known neurosurgeon at the University of Western Ontario; patients came from far and wide to be treated by him. Putting the pieces together, I can see how I became interested in neurosurgery."

After graduating from University of Toronto, Dr. Atkinson was matched to McGill so he set off down the 401 for his neurosurgery residence, which ran from 1994 to 2002. In the middle of his residency he did three years of research on functional magnetic resonance imaging (fMRI) at the Montreal Neurological Institute (MNI) brain imaging centre. In 2002, he left



for Salt Lake City for a year to do a pediatric neurosurgery fellowship at the University of Utah.

In the five years of clinical work during his residency, Dr. Atkinson did six months of pediatric rotation at the MCH. Dr. Jean-Pierre Farmer, who was the program director at the time, acted as Dr. Atkinson's mentor. Dr. Farmer and Dr. José-Luis Montes set up the fellowship opportunity in Salt Lake City, and they were instrumental in Dr. Atkinson's eventual decision to join the MCH team.

Together, the three MCH neurosurgeons perform 350 to 400 surgeries a year and follow approximately 2,500 patients across a number of clinics. Dr. Atkinson emphasizes the strong multidisciplinary aspect to what they do at the MCH; they frequently work with staff from Neurology and Oncology, as well as people from other sites. "We get quite a lot of consults from Université Laval and Université de Sherbrooke," he says. "They often participate by teleconference in our tumour board meetings."

### Conducting fMRI research in the clinical setting

Dr. Atkinson is currently working on developing an fMRI program at the

MCH. His interest in fMRI research has been helped by the addition of the Pediatric Interventional Brain Suite, or iMRI suite as it's commonly known, which opened in October 2009. This new equipment has provided many advances to the neurosurgical team. "Although brain tumour and epilepsy surgeries actually take longer in the iMRI suite, our hope is that by performing one single surgery instead of repeat surgeries, we'll have better outcomes," he says.

The idea behind fMRI is to look at the function of the brain to guide treatment. Patients need to be awake and cooperative to undergo neurosurgery. "With the iMRI suite, and more new equipment brought in last year, we're now able to do fMRI on patients," he says. "Hopefully we'll be looking at clinical patients to help guide our research."

Interest in this area of research is gaining ground and several of Dr. Atkinson's colleagues, including Drs. Pia Wintermark, Isabelle Gagnon, and Cathy Limperopoulos, are also pursuing research in fMRI. As well, the speech-language group has been looking at how to identify speech centres in the brain.

Away from the MCH, Dr. Atkinson enjoys being at home with his wife Dr. Marie-Emmanuelle Dilenge, a neurologist at the MCH, and their young son. It's now going on 17 years since he first came to Montreal, and Dr. Atkinson reports that he likes living here. "Sometimes I think it would be nice to live in a small town but given our career choices, it's not likely that's going to happen," he says with a laugh.

#### By Maureen McCarthy



# Our Heroes

# A Doctor in the Making: A Young Cancer Patient Hopes to Swap Hospital Gowns for White Coats

**By Pamela Toman** 

sk 15-year-old Simon Léonais Bourque what he'd like to do later in life, and he will quickly tell you he plans on becoming a doctor, roaming the halls of The Montreal Children's Hospital as a staff member, instead of a patient.

The West Island resident is no stranger to the wards of the MCH. In September 2010, just a couple of months before his 15<sup>th</sup> birthday, Simon was diagnosed with a rare form of cancer that affects his immune system. Referred to as lymphoblastic lymphoma, Simon's condition is a type of blood cancer that is part of the non-Hodgkin's lymphoma group.

When he first came to The Children's, it was September 21st, 2010, and Simon was very sick. A cancerous mass had invaded his lung, causing him severe respiratory problems requiring urgent care. He was stabilized and was supervised in the Pediatric Intensive Care Unit for a number of days, where the medical team

inserted a pulmonary drain to help him breathe.

"It was a rather different experience," recalls Simon about his initial hospitalization, "when the doctors told me and my family about my diagnosis, I didn't have much of a reaction because I was so heavily medicated."

Just three days after his admission to the hospital and under the care of Dr. David Mitchell, oncologist at the MCH, Simon began chemotherapy treatments which, given his type of cancer, must be administered for two full years. There are nine months within this time frame that Simon cannot attend school. "It's pretty sad, because I can't see the people that I love and I miss my friends a lot," confesses Simon, "but I have teachers who come to my home and see me in the hospital so that I can keep on track with my school vear."

Simon explains that despite the fact that he does not have to undergo

radiation, the chemotherapy and other treatments he receives can cause intense side effects, which can make his battle against the disease different from week to week. Even so, one thing is for sure: this soft-spoken young man doesn't let the day-to-day struggles get him down. "I think the most important thing is to stay positive," he says, "and not think of what can go wrong, but focus on what is going right."

While still undergoing treatment, Simon participated in the 2011 Caring for Kids Radiothon, and was able to speak about his experience at The Children's on live radio. He spoke of his appreciation for the kind staff who made his hospitalization more enjoyable, and for the many programs that helped distract him from his illness.

To hear more about what Simon had to say about his experience at The Children's, visit thechildren.com to watch his video testimonial.