

M U H C

MCGILL UNIVERSITY HEALTH CENTRE

## PERSPECTIVES

## HEALTH



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# Tiny donors, huge benefits

Pierre Laneuville has told this story countless times, but his face still lights up when he talks about Patrizia Durante, the patient whose life was saved when Laneuville, Director of Hematology at the McGill University Health Centre, and his colleagues performed Canada's first successful infant-to-mother umbilical cord cell transplant in March 2002. It all began at a routine prenatal check up, when Durante was 26 weeks into her first pregnancy. Tests revealed that she was suffering from acute myeloid leukemia, an aggressive form of blood cancer. Durante immediately started chemotherapy, but when she didn't respond doctors decided to induce labour so that higher doses could be administered without harming the baby.



“When Patrizia's daughter, Victoria, was delivered, we preserved her umbilical cord in liquid nitrogen. At the same time Patrizia was put on the waiting list for a bone marrow transplant and received more chemo,” Laneuville recalls. “Unfortunately, after a short period of remission the cancer came back in force, and it was clear that Patrizia probably wouldn't survive the wait for a bone marrow match. That's when we decided to perform the cord cell transplant.”

Although babies have been successfully treated with their own cord blood for several years, Durante's procedure was risky because her daughter's cord cells, which carried her father's genes as well as her mother's, were only a 50 percent match. “We knew there was a possibility of rejection, but in some cases mismatches can be therapeutic. Happily, this was one of those cases,” Laneuville says. Both baby and mother are now healthy, and Laneuville and his MUHC colleagues received international attention for the groundbreaking transplant.

*(continued on page 2)*





(Cord cells continued from page 1)

Cord cell transplantation was more than a decade away when Laneuville was a first-year medical student in the late 1970s, but it was the promise of this kind of procedure that drew him to specialize in hematology. "From my first rotation I pretty much knew that hematology was for me," he says. "Hematologists were just beginning to consider the possibilities of stem cell transplantation and there was a feeling that this was a discipline where huge strides were about to be made."

Laneuville's enthusiasm continued through his training in internal medicine and eventually led to his involvement in a landmark discovery: the development of a new class of cancer drug to treat chronic myeloid leukemia (CML). "CML was the first cancer in humans for which scientists identified a specific genetic cause," Laneuville explains, "so it was a disease where significant progress had already been made." By the mid-1980s, researchers knew that people with CML had a genetic mutation that produced an abnormal protein that interfered with the body's ability to regulate the production of stem cells (stem cells are a sort of proto-cell that can differentiate into every kind of cell in the body). Researchers, including Laneuville, began to look for a drug that would disable this protein, restoring the normal "on and off" switch that keeps cells from proliferating unhealthily. Two years ago the breakthrough came in the form of a highly successful drug called Gleevec. "My lab was one of several racing to find the drug," Laneuville says. "Although we lost the race, I was involved in several key steps along the way. It was incredibly inspiring to see that so much progress

could be made in such a short time. We went from knowing nothing about the mechanism of this disease to knowing what was broken and how to fix it."

Feeling that the major work on CML had been accomplished, Laneuville moved on to his current passion: umbilical cord cell transplantation. "During the years I worked on CML, I was still doing stem cell transplants on patients," Laneuville says. "Like most physicians in the field, I was frustrated by our inability to provide most patients with a matching stem cell graft."

Although the 1990s saw major advances in the procedure for harvesting stem cells, fewer

total transplant population. Although the factors for matching cord cells have been identified and much of the initial work has been done, there is a great deal of progress to be made before we'll be able to provide cord cells to everyone who could benefit from them," Laneuville says. "That's where I hope to make a contribution."

Laneuville is well on his way to doing just that. Under his stewardship, the MUHC will soon be the site of Canada's first multi-purpose umbilical cord cell bank, a facility where thousands of cords can be logged and stored for both transplantation and research. "These banks already exist in the United States and Europe. Hema-Quebec is considering

starting one, but we decided to take the initiative. We've already got a business plan and we've secured nearly all the start-up funding needed to get the bank up and running," Laneuville says. "We're just looking for that last little bit and we'll be truly ready to go."

The MUHC cord cell bank will store cord cells for three purposes. First, for a fee, parents will be able to store their babies' umbilical cords for use should they or their children get sick. "Not only can these cords save the life of a child or adult who develops leukemia, the fees help make a cord bank economically self-sufficient," Laneuville says. The second

function will be to store donated cords for use in the general patient population, as is the case with tissue banks which store items such as corneas and bone for later transplan-



**A**s research makes cord cell transplantation in adults more successful, it will be essential to have a large and well-coordinated network of banks. Having the first multi-purpose bank in Canada at the MUHC will increase our profile internationally.

than 50 percent of patients today are fortunate enough to find a matching donor. "The chance of a brother or sister providing a match is only one in four, and the probability of finding a match through the bank of unrelated donors is about 40 percent," Laneuville says. "That's why cord cell transplantation is so exciting. Not only are cord cells younger and healthier than adult stem cells, the immunological constraints are much more relaxed. Mismatches are tolerated in cord cells and can even be advantageous in some cases, meaning that almost everyone potentially has a cord cell match."

Cord cell transplantation first began about ten years ago and was performed exclusively on pediatric patients. As Laneuville explains, "Umbilical cords provide a small number of cells, so it made sense to start with small patients." Cord cell transplantation in adults has become common only in the last two years. "Currently, one in three requests for cord cells are for adult patients, and that represents only the tiniest fraction of the

tation. As Laneuville points out, the comparative immunological flexibility of cord cells over blood-derived stem cells will prove advantageous for Canada's increasingly diverse population. "The likelihood of finding a conventional stem cell match is anthropologically determined, so that a match is more likely within your own race or ethnic group. Because current banked stem cells come primarily from white donors, many Canadians are at a disadvantage. Cord cell transplantation could eventually eliminate that disadvantage." Finally, cords that can't be used for other purposes will be made available for research and clinical trials that may improve transplantation procedures in the future.

As Laneuville explains, the benefits of having such a bank at the MUHC will be wide-ranging. "Patients have the most to gain from increasing the number of umbilical cord cells that are potentially available for transplant. As research makes cord cell transplantation in adults more successful, it will be essential to have a large and well-coordinated network of banks. Having the first one in Canada at

## M U H C HEALTH PERSPECTIVES

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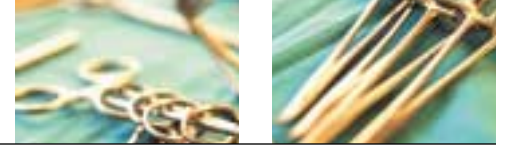
the MUHC will increase our profile internationally; we've already spoken to the head of an international association of cord cell banks who has invited us to join the association when we're operational. I also anticipate that our clinical and laboratory research will get a big boost from having a supply of cord cells readily available at the bank."

Such an ambitious project presents considerable technical, logistical and financial challenges. "On the laboratory side, we'll need more space than we currently have to meet our target of storing 20,000 cords," Laneville says. "We'll also need many more technicians and other specialists to handle the cords and respond to requests for cord grafts." Laneville expects that the MUHC's redevelopment, and particularly the new facilities at the Glen, will solve many of these problems and serve as an incentive for potential recruits to the bank. In addition to space and manpower considerations, the laboratories will need to be certified by outside agencies and a powerful database must be purchased and set up to log and organize information about the banked cord cells. Certain bureaucratic hurdles must also be cleared, for example, the MUHC cord cell bank will be required to register with the international agency responsible for coordinating stem cell donor lists, and consent policies for the various uses to which the cord cells will be put must be codified.

Despite the complexity of the undertaking, Laneville is confident that he and his colleagues will get the country's first multi-purpose cord cell bank off the ground, allowing the MUHC to assume a key role in further research into adult cord cell transplantation. "One area we're interested in is multiple cord cell transplants, where a patient would receive cells from more than one cord," he says. This would help compensate for one of the major limitations of cord cell transplantation in adults: the small number of cells contained in an individual cord. "In multiple cord transplants, the cells from one matched cord act as the primary transplant material, eventually surviving to replace the body's own cells. In what's called transient engraftment, cells from other, mismatched cords are also implanted, and these act as a kind of support system for the main graft."

Although multiple cord cell transplantation is a very new procedure (only about 20 such operations have been performed in the world so far), the results are promising. "I'm optimistic that this is the way things are going with adult stem cell transplants," Laneville says. "We're planning to set up clinical trials at the MUHC, and I think this procedure could become common in only a few years."

With Durante's landmark surgery almost two years past and the MUHC's cord cell bank well on its way to completion, is Laneville ready to take a break? Far from it. Asked where he hopes to see the Division of Hematology in five years, Laneville replies that the cord cell bank will be fully functional and that protocols and procedures will be established worldwide for adult stem cell transplantation. "As for me," he says with a smile, "I'll be looking for a new research project." ❀



# Portraits in Time

Thousands of individuals have helped advance the development of the McGill University Health Centre, and in every issue of *MUHC Health Perspectives*, we feature one or more of these significant contributors.

## ROBERT PALMER HOWARD (1823-1889)



For medical students at McGill University, the name Robert Palmer Howard has a familiar ring. The McIntyre Medical Building's largest amphitheatre is named for this influential teacher and administrator whose 41-year career left an indelible impression on both the Montreal General Hospital and the Faculty of Medicine at McGill.

A native Montrealer, Howard received his medical degree from McGill in 1848. Four years later he joined the staffs of the Faculty of Medicine at McGill and the Montreal General Hospital. He rose rapidly through the ranks of both institutions, beginning with his election in 1858 as chairman of the Medical Board at the Montreal General, a post he held for 30 years. In 1860, he was named to one of the senior chairs at McGill, the Professorship of the Theory and Practice of Medicine. Twenty-two years later Howard became dean of the McGill Faculty of Medicine and served in this capacity until his death.

Of his many accomplishments, Howard is perhaps best remembered as an educator who worked tirelessly to improve the quality of medical curricula across the country. His best-known student was a young William Osler, who fondly described Howard as "an ideal teacher" who combined "a stern sense of duty with the mental freshness of youth."

## OCTAVIA GRACE RITCHIE (1868-1948)



In 1891, Octavia Grace Ritchie became the first woman to receive a medical degree in the province of Quebec, scoring the highest marks in her class on the final exam. A pioneer in politics as well as medicine, Ritchie was one of the first female candidates for the Liberal Party of Canada, running in the riding of Mount Royal in 1930. Although she failed to win her seat, she continued to ardently promote women's suffrage and was finally rewarded with the right to vote in 1940.

Born in Montreal to a well-to-do family (her father was the prominent lawyer Thomas Weston Ritchie), Ritchie was among a small group of intrepid women who entered McGill University in the class of 1884, the first year the university accepted female students. She earned a bachelor's degree in natural science in 1888 and, in her valedictory address, demanded, "now that the Faculty of Arts has been opened to women, when will the doors of medicine open?" Unfortunately, her call went unheeded until well into the next century, so she was forced to move to Lennoxville where she attended Bishop's Medical College and received her landmark MD in 1891.

Ritchie returned to Montreal to practice medicine at the Western Hospital. In addition to her medical practice, she served for many years as president of the Montreal Local Council of Women (MLCW), a high-profile association dedicated to philanthropic, social and cultural causes in the community. As both a medical pioneer and a leader in the women's movement, Ritchie's principled activism helped usher the university, the city and the province into the modern era. ❀



# Easing the stress for kidney patients

It's not unusual to walk into a doctor's office and see pictures of family, friends or even pets. But visitors to the office of Dr. Sarah Prichard, Director of Peritoneal Dialysis at the McGill University Health Centre, are in for a surprise. Hanging over Dr. Prichard's desk is a large photo of Prichard, her teenaged son and ... Nelson Mandela.

“This is one of my favourite stories of all time,” says Prichard, laughing. “The picture was a fiftieth birthday present from my husband. Several months before the photo was taken, I was at the birthday party of an old friend whose wife had arranged for a childhood hero of his, a hockey player, to come to the party as a surprise. I told my husband about it and mentioned that for my fiftieth I'd love to meet Nelson Mandela, never expecting anything to come of it. Much to my absolute astonishment, he did it! My son and I flew down to South Africa and were received by Mr. Mandela in his home. Whenever I need inspiration at my job, I just look up at Mr. Mandela and none of the challenges we face here seem insurmountable.”

Perhaps the biggest challenge faced by Prichard and her colleagues in the MUHC's Division of Nephrology (*nephros* is the Greek word for kidney) is one of sheer numbers. “The most common cause of kidney failure is diabetes,” Prichard says. “As the population ages and rates of diabetes increase, more and more Canadians every year are diagnosed with renal disease.”

The Kidney Foundation of Canada reports that every day an average of 12 Canadians learn that their kidneys have failed, and the number of patients requiring renal replacement therapy — either dialysis or a kidney transplant — will double over the next ten years. This explosive growth rate is reflected in the expanding numbers of nephrology patients seeking treatment at the MUHC. “Over the last 20 years the growth rate for renal replacement therapy has been between five and nine percent a year. This increases the waiting lists for transplants, and it puts incredible pressure on our resources, and particularly our dialysis units.”

Not only must nephrologists contend with an ever-increasing caseload, renal replacement thera-



pies require the involvement of a large number of departmental professionals and staff. From the moment they are diagnosed, renal patients at the MUHC experience a truly comprehensive treatment program that addresses their physical, psychological and social needs. “Every patient is seen by a social worker, a dietitian, a pharmacist and a nephrology nurse, all of whom are there to assess the patient's condition and provide information and support,” says Prichard. “At the same time the patient is learning about the disease and treatment options, we're learning about the patient's physical condition and such issues as whether they have family members who might be possible kidney donors. In many cases we arrange

for them to meet other patients who are undergoing dialysis or transplants, which many people find extremely helpful.”

According to Prichard, the MUHC was a pioneer in this sort of multidisciplinary approach and one of the first hospital centres in the country to offer a pre-treatment program of this kind. “About 20 years ago we started looking at the impact of educating patients in the pre-treatment stage of renal replacement therapy, and we now have a dedicated clinic called the Chronic Renal Insufficiency Clinic (CRIC), which caters to newly diagnosed patients.”

Throughout their treatment patients can ask to see the same team of caregivers, offering a sense of continuity and the opportunity for ongoing therapeutic relationships. “Renal replacement therapy, whether it involves dialysis, the wait for a transplant or the transplant surgery itself, is extremely demanding. Having familiar faces around goes a long way towards making it a bit easier,” Prichard says.

Once patients have been assessed at the CRIC, a decision is made about what kind of therapy is needed. For patients waiting for a transplant, those for whom a transplant isn't appropriate, or in some cases patients whose

transplants have failed, kidney dialysis is usually prescribed. About 80 percent of these patients receive hemodialysis, which involves filtering their blood through a machine to remove impurities. With the exception of a small number of patients who perform the procedure at home, patients on hemodialysis must come to the hospital three or more times a week for three or four hours at a time while the procedure is performed. The remaining 20 percent receive peritoneal dialysis, which is done at home and involves introducing bags of fluid into the abdominal cavity through a catheter. Although peritoneal dialysis saves patients from the needles and long hospital visits associated with hemodialysis, as Prichard explains, “many of our patients are



too frail to administer this therapy at home.”

For many patients, the most desirable form of therapy is a kidney transplant. “The preferred situation is to find a living donor such as a family member or spouse,” Prichard says. “This saves the patient the stress of being on a waiting list, and also means we can do the procedure right away without the patient having to undergo dialysis.”

When a living donor isn’t available, patients begin the wait for a cadaver organ, which can vary tremendously from case to case. As Prichard explains, “In Quebec, the waiting list for kidneys is prioritized by match. Whichever patient has the closest immunological match to the available organ, and therefore the greatest chance of a successful transplant, receives that organ regardless of how long they have been waiting. Some patients receive an organ in a matter of weeks, whereas others wait far longer than that.”

From their initial assessment through the sometimes lifelong course of treatment, patients suffering from kidney disease spend countless hours managing their disease. Fortunately, nephrologists at the MUHC are investigating several promising advances in renal replacement therapy. On the dialysis side, research is focused on finding ways to change the frequency of the procedure and on expanding the range of locations where it can be performed. “At the moment, home hemodialysis is a very small program, but we hope to expand it as technologies make the procedure easier,” Prichard says. Breakthroughs are also being made into the mechanics of hemodialysis delivery, opening the door for shorter treatments and the possibility of filtering the blood while the patient sleeps. Similarly, developments in new peritoneal dialysis fluids and equipment may make that procedure less intimidating to patients.

Nephrologists at the MUHC are also working to set up places outside the hospital where patients can receive their treatment in a more convenient and less institutional setting, such as a shopping centre. “Satellite dialysis units are common in some locations around the country, and we’d like to see them in Montreal. This would benefit the patients and alleviate some of the strain on the hospital,” Prichard says. Such units would be staffed by dialysis nurses and technicians from the MUHC, and patients would continue to come to the hospital when necessary to see their primary care physician.

Another exciting satellite dialysis program is already underway at the MUHC, this one designed to bring modern expertise to outlying regions of the province. Under the direction of Dr. Murray Vasilevsky, clinics have been set up in Chibougamau and Chisasibi to allow renal patients to receive dialysis in their communities instead of having to travel to a metropolitan centre. The MUHC helped design the facilities, provided training sessions for nurses, doctors, pharmacists, social workers, dietitians and other professionals, and assumes medical responsibility for the patients receiving dialysis. “These units provide an incredible improvement in the quality of life of kidney

patients in outlying regions,” Prichard says. “They no longer have to travel to a distant hospital, a burden which, given the frequency with which hemodialysis must be performed, is almost impossible to imagine.”

In terms of kidney transplants, nephrologists are working to expand the living donor program. “Successful transplants are possible with a much broader range of living donors than was previously thought. It doesn’t always have to be a brother or sister or parent — even close friends are now considered candidates.” In addition,

understand kidney disease at the most fundamental genetic and molecular levels.”

All these efforts, from satellite units to laboratory research, put the MUHC’s Division of Nephrology at the forefront of the fight against kidney disease. “We’re doing everything we can in the facilities we have, many of which are terribly inadequate for our needs,” Prichard says. “Things will be immeasurably improved with the renovations and new facilities that the MUHC’s redeveloped sites will offer.” The ultimate goal, she says, is to “stamp out kidney disease for good.”

From the moment they are **diagnosed**, renal patients at the MUHC experience a truly **comprehensive** treatment program that addresses their physical, psychological and social **needs**.

tion, MUHC researchers are searching for more effective immunotherapies that will reduce the rate of organ rejection. “We’re running several clinical trials and we have a number of well-funded basic scientists who are working to

Although this is a long way off, a glance at Prichard standing side by side with Nelson Mandela provides a reminder that, with patience and determination, even the seemingly impossible can be achieved. ❄

## Equipping Excellence: Dialysis Chairs

For kidney disease sufferers whose treatment includes hemodialysis, patience is a virtue. That’s because this life-saving but demanding procedure involves coming to the hospital and sitting in a specially designed chair for three or four hours at a time while having your blood filtered through a machine. Hemodialysis is usually performed three times a week and, depending on a number of clinical variables, can last anywhere from a period of weeks to several decades.

Basic physical comfort during hemodialysis is paramount for patients. If the chair they are sitting in isn’t supportive, flexible and well cushioned, then the already onerous therapy can be nearly intolerable, leading to back pain, stiffness and skin chafing. For the staff in charge of administering hemodialysis, whose job includes placing their patients in the optimal position for the treatment, these chairs must be easy to position.

At the MUHC, as is the case across Canada, rates of kidney disease are rapidly increasing, leading to more patients on hemodialysis and more wear on aging dialysis chairs. By purchasing at least 12 new chairs at a cost of about \$2,000 each, the MUHC will not only keep up with the increasing demand for this procedure, but will be able to offer its patients more comfort and less trauma during treatment, week after week, month after month. ❄ *This series is intended to be informative; the McGill University Health Centre Foundation does not endorse any particular manufacturer or model of the equipment shown and described here.*





# Pediatrics

## Reaches Out

Imagine you are a parent living almost 2,000 kilometres north of Montreal in the town of Kuujjuaq, an isolated community on the shore of the Koksoak River about 20 kilometres upstream from Ungava Bay. With a population of around 2000, Kuujjuaq is served by a small, 20-bed health centre that responds to the acute and long-term medical needs of the six communities of Ungava Bay. There is no full-time pediatrician in Kuujjuaq — in fact, there are no full-time specialists of any kind in the region. Although visiting specialists do come north, it is impossible to ensure that their visits coincide with the acute needs of patients.

**A**t a routine check up, the local family doctor notices that your baby's heart is producing an unusual sound. With the nearest full-service hospital hundreds of kilometres away and no cardiologist on hand to determine whether the murmur is benign or life-threatening, your only choice is to make the long, costly and stressful trip to a metropolitan hospital centre with the specialized facilities to make a definitive diagnosis.

Now, imagine you have been told that your baby has a heart murmur, but there is a nursing station a short snowmobile ride from your house where staff trained by the Montreal Children's Hospital of the McGill University Health Centre (MUHC) can administer an echocardiogram and transmit the results to a pediatric cardiologist at the Children's. The cardiologist can then interpret the images and decide whether it is necessary to arrange an airlift out of Kuujjuaq or if treatment can safely be administered locally. With great relief, you learn that your child's condition is harmless, and a difficult journey to the city has been avoided.

More and more often across Quebec, this second scenario is replacing the first, in large part due to the efforts of doctors, nurses, professionals and staff at the Montreal Children's Hospital of the MUHC. Recognizing the importance of these efforts and the need to nurture and promote them more widely, pediatrician Anne-Marie MacLellan and her team recently decided to form the Child, Youth and Family Health Network. According to MacLellan, who is the Network's inaugural director, technologi-



cal links like the one described above, collectively called telehealth, are just some of the

exciting initiatives that are thriving at the Network. "Our goal is to provide every resource we can to allow children to receive thorough, top-quality treatment as close to home as possible," she explains. "This means developing and nurturing creative links with collaborators across the health-care system, including other hospital centres, CLSCs and schools."

The Child, Youth and Family Health Network was conceived as a way to coordinate, promote and expand a wide range of specialized pediatric outreach programs that had operated in an ad hoc fashion in the past. MacLellan, whose previous posts at the Children's included Emergency Room Director and Associate Pediatrician in Chief, had just completed her term as Associate Dean of Postgraduate Medical Education at

**"Our goal is to provide every resource we can to allow children to receive thorough, top-quality treatment as close to home as possible."**

McGill University when she was asked to return full-time to the Children's and head the project. "I'd had the chance to meet a lot of different people across the province, in government and within the MUHC, so it seemed like a job I was well-suited for," she says.

Working alongside MacLellan are a number of specialists whose expertise is essential to the functioning of the Network. They include administrative assistant Carole Legault, Coordinator of MUHC Telehealth Services Madeleine St-Gelais, Administrative Head of Community Outreach, Native and

Northern Health and Telehealth Johanne Desrochers, and Laurent Soussana, the Network's telehealth technician. "I want to emphasize that the Network isn't just me, it's a true example of teamwork and couldn't exist without every one of these people," MacLellan says, "not to mention the doctors, nurses and other professionals who put these programs together in the first place."

The first step in forming the Network was undertaking an inventory of all the outreach programs that were operating through various departments of the hospital. This job was more complex than it sounds. "Once we put the final report together, there were 17 pages of programs," MacLellan laughs. "I was amazed to discover how many people over the years had decided on their own to find ways to bring the expertise of the



MUHC to patients and health-care providers outside of our immediate reach.”

As this abundant inventory demonstrated, community outreach programs have a long and proud history at the Montreal Children’s Hospital of the MUHC. More than 30 years ago, doctors at the Children’s began training the parents of children with hemophilia, along with doctors and nurses from their local hospitals, how to treat the potentially devastating injuries that are common in children with this disorder. “The Children’s now offers 11 specialized programs of this type which we call Intensive Ambulatory Care Services (IACS),” says MacLellan. “They provide alternatives to hospitalization for children with acute infectious, chronic or complex illnesses requiring specialized care.” IACS help parents and local health-care providers with everything from administering IV antibiotics to caring for children who have had a liver or heart transplant.

Like IACS, Northern and Native Health programs have long been a part of the Montreal Children’s Hospital’s mandate. For more than 40 years, doctors and other health-care professionals have brought the MUHC’s pediatric expertise to Northern and other isolated regions of the province. “One of the goals of these programs is to minimize the number of times a child needs to be brought to Montreal,” MacLellan explains. “The cost of transporting the child, a parent and an interpreter from a remote community is astronomical. When you take into account the considerable stress of travelling to an unfamiliar urban setting, the logistics of finding accommodation and the potential language barrier, it’s easy to understand why we prefer to treat the child closer to home.”

In the past, this goal was most often accomplished by sending pediatricians and other specialists to remote communities to provide consultations, treatment and training. Although these visits still take place, telehealth is generating new ways for MUHC practitioners to treat children in distant communities, as demonstrated by the cardiology technique described above. “We’re investing a lot of energy into exploring all the possible uses of telehealth,” says MacLellan.

One of the earliest applications, which continues today, was as a tool for teaching. With the aid of satellite and Internet connections, grand rounds performed at the Children’s are beamed to hospitals and clinics across the province. Recently, this training mandate has been extended to include nursing rounds, which are now offered on specific subjects based on the requests of regional health centres.

Some of the most exciting developments in telehealth involve using remote link-ups for innovative diagnostic interventions. “A really incredible new procedure helps isolated hospital centres deal with infant sleep apnea, a respiratory abnormality that’s one of the major causes of Sudden Infant Death Syndrome,” MacLellan says. Under the supervision of Dr. Aurore Côté,

doctors in remote areas have been trained to take special readings, called cardio-respiratory tracings, on babies with sleep apnea. These tracings are then transmitted to the Children’s, where Côté interprets them and advises on the appropriate treatment. “Now, a mother and her new baby are only brought to Montreal when the condition is severe enough to warrant it,” says MacLellan.

A similar technology allows MUHC pediatric radiologists to receive and interpret, in real time, the results of abdominal ultrasounds being conducted by technicians in distant hospitals. Based on the success of these initiatives, telehealth programs are presently in development in a wide range of other disciplines, including psychiatry, trauma, emergency services and neurology.

Although IACS, Native and Northern Health and telehealth are three of the largest outreach programs at the Children’s, the Child, Youth and Family Health Network encompasses many other services, from the virtual to the hands-on. Falling into the former category is a bilingual Family Resource Library that provides a wide range of educational materials, both on-site and via the Internet, to anyone in need of information. Of the latter type is the MUHC’s Neonatal Transport Team, which, when it was established in 1990, was the first unit of its kind in Quebec. Composed of specially trained nurses and respiratory therapists working under the supervision of neonatologists, the team responds to calls from across the province, bringing medications and state-of-the-art equipment to support the care and transport of unstable newborns. While the team is in transit, experts at the Children’s remain in constant contact with the distant hospital to stabilize the infant until the team arrives. Finally, the affiliated Neonatal Outreach Program provides training to doctors, nurses and other professionals working in remote centres so that they will be better equipped to respond to newborns in distress.

Despite the complexity of the activities it supports, MacLellan says that the Network’s mandate is straightforward. “Whether it’s through training, information exchange, clinical services or research initiatives, we want to work with as many partners as we can across the province to ensure that families are getting uniformly excellent care as close to home as possible. As an academic tertiary-care pediatric hospital, we have a responsibility to act as a catalyst in this process.”

Over the next five years, MacLellan will continue to consolidate the Network’s services and find new ways to promote its activities so that it becomes widely known. “One of the first things we did was publish a patient referral guide listing all the services we offer,” says MacLellan. “The response was incredibly positive from both patients and health centres, and we plan to put out a second edition soon. This should help us develop even more partnerships. Eventually, I’d like to see every community in the province connected to us in one way or another.” ❄

# Cedars Golf Tournament Bigger Than Ever

As the snow melts and the grass begins to show hints of green, plans are well underway to make the Cedars Cancer Institute’s 26th Annual Golf Tournament the most successful one yet. In keeping with the organization’s history of leadership and innovation, our friends at the Cedars have this year pledged to raise \$5 million for the McGill University Health Centre’s Best Care for Life campaign, directed as always towards research, teaching and patient care in oncology.

The theme of the 2004 tournament is “Together, the Best Care For Life.” This phrase reflects the close bonds that have evolved between the Cedars and the MUHC over nearly four decades of shared service to Montreal’s cancer patients. It also symbolizes our excitement that, this year, the Cedars and the MUHC Foundation are coming together to make such an important contribution to the MUHC’s groundbreaking capital campaign.

This year’s tournament will take place July 5, 2004 at the Elm Ridge Country Club. Tickets for a foursome are \$3,200 and include a spectacular dinner and gala that will follow the tournament. For more information, to purchase tickets or to inquire about sponsorship opportunities through the event’s souvenir program book, please contact Silvana Orrino at the Cedars at (514) 843-1606 or Marc Weinstein at the MUHC Foundation at (514) 931-5656. ❄



Long drives and fancy footwork keep the crowd entertained at last year’s tournament and gala.

# Volunteers Step Forward to Support MUHC Campaign

Over 220 doctors, nurses and community leaders responded quickly and positively to an invitation to stand behind the MUHC's \$300 million *Best Care for Life* campaign. This critical undertaking is a partnership of the foundations affiliated with the McGill University Health Centre that will raise \$100 million to meet the urgent needs of the MUHC's current sites and \$200 million to support the MUHC's future redevelopment.

Under the plan approved by the MUHC board and delivered to the government's Technical Review Committee, the MUHC's vision is to consolidate its services on two sites: the Montreal General Hospital site and the Glen. The final breakdown of which services are to be offered on which site will be confirmed by the government in short order. What is known is that the community must play an important role in helping finance improvements to the delivery of care at the MUHC. When Health and Social Services Minister Philippe Couillard announced last July that he was fully supportive of the MUHC's redevelopment and committed \$800 million to realize this vision, he indicated that private support was critical.

We are grateful to the following individuals who have stepped forward to support our campaign. If you would like to be a part of the *Best Care for Life* campaign, please contact Marc Weinstein or Don Taddeo at (514) 931-5656.



## The Best Care for Life

C A M P A I G N

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Michael Darwish and Anna Burgos  
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