in Focus

McGill

MEDICINE

SPRING'08

TRANSLATING RESEARCH INTO BETTER CARE

IN THIS ISSUE

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COVER PHOTO BY OWEN EGAN
Jacquetta Trasler (right) and graduate student Amanda Fortier examine a human embryo under a microscope. See page 6 to read about their research in pediatrics.

YOUR COMMENTS AND INQUIRIES ARE WELCOME. PLEASE DIRECT THEM TO:
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Message from the Dean

175 YEARS IN THE MAKING

Christinne Muschi

The celebration of a milestone is an opportunity to reflect on the past and contemplate the future.

This year, McGill's Faculty of Medicine proudly commemorates the 175th anniversary of the awarding of its first degree, and does so in a time that is fundamentally different from those that came before. We have solved many scientific mysteries with new knowledge in molecular, developmental and genomic biology. We are on the edge of uncovering the molecular secrets of many chronic diseases, and dramatically improving our quality of life as a result. We have brought research in patient care and health promotion to an entirely new level.

In doing all these things, we are humbled by the knowledge that the building blocks of basic academic research have been put in place by the many great scientists who preceded us. And so the cycle continues with the next generation of great minds.

Recently in the *New England Journal of Medicine*, Eric Hoffman, BSc'74, MSc'75, described a curious situation. He wrote that the technology for tailoring drugs to individual patients might be realized "in the same time frame as the achievement of the 'warp drive' that hurtled the Enterprise into new galaxies," while "on the contrary, personalized molecular medicine appears to be at our doorstep." To many of us, this situation describes the feeling of the moment in biomedicine – both enormous immediate possibility and vast distances to travel.

This brings us to the theme of this issue of *In Focus*: translating research into better health and patient care. McGill's health researchers are among the best. In fact, over the last decade, they have garnered more citations per research paper than any other Canadian medical school. The Faculty's close relationship with its teaching hospitals helps us bring the fruits of our research from the bench to the bedside, which is shown in the work of the great minds featured in this issue.

I applaud the Faculty of Medicine's students, professors and health care professionals, as well as the accomplished alumni who continue to make us proud. Their expertise, dedication and vision are creating a new future in medical research and care delivery that will certainly stand the test of time.

RICHARD I. LEVIN, MD
Vice-Principal (Health Affairs)
Dean, Faculty of Medicine

Message from
Development and Alumni Relations

Owen Egan

Dear alumni and friends,

Your loyal support of McGill and your belief in our core mission and values are the reasons the Faculty remains a leader in medical education, both in North America and around the world. I am delighted to have the opportunity to mention but a few of the thousands of donors who have given and continue to give to our institution.

A loyal alumnus, donor and faculty member, Charles Scriver, BA'51, MDCM'55, recently donated more than $100,000 to the Scriver Family Fund in support of human genetics research and education. This funding comes from stock options given to Scriver in recognition of his research career, and he has generously transferred them to McGill. A trailblazer in medical genetics at McGill for close to 50 years, Scriver knows first-hand the value of this research to our understanding of health and disease.

Thanks to a transformative gift from the Sackler Foundation, the Faculty of Medicine has established the Sackler Program in Developmental Psychobiology and Epigenetics. Building on the pioneering research of Drs. Michael Meaney and Moshe Szyf, the Sackler Program will help create a premier research facility where McGill scientists and their international partners will study environmental influences on gene activity in the brain.

William Bentham, MDCM'55, has contributed over $100,000 over the last two years to research on Parkinson's and Alzheimer's diseases at the McGill Centre for Studies in Aging. This funding will support research exploring the genetic make up of these complex and all too common diseases.

Isadore Rosenfeld, BSc'47, MDCM'51, DSc'98, made a generous gift in support of student research at the Division of Cardiology through his Rosenfeld Heart Foundation. A cardiologist himself, Rosenfeld also supports the Isadore Rosenfeld Chair in Cardiology, which he established in 1999.

A donor who appreciates the art of music as much as the science of medicine, Graham Sommer, MDCM'72, has donated $65,000 to establish the Graham Sommer Piano Fund. Thanks to his generosity, pianos in the student residences of Royal Victoria College and New Residence Hall will be restored and maintained over the next five years, while the one in Douglas Hall, Sommer's former student residence, will be replaced.

The Faculty of Medicine is pleased to announce the recent establishment of the Edward B. Greenshields Chair in Genomics and Systems Biology, made possible by a bequest from Edward Greenshields in honour of his father.

For almost three-quarters of a century, Mildred Lande, BA'36, has been a loyal McGill alumna. Her philanthropic spirit has touched the lives of many McGill students and her latest gift is no exception. The recently established Mildred Lande Scholarship in Nursing will recognize the academic achievements of promising nursing students. As a young woman, Lande longed to pursue a degree in nursing or medicine. Although her life took a different path, her passion for and dedication to supporting education in the health sciences have never waned.

To get to know students better, Dean Levin started a series of unique and successful social gatherings for each medical class, held throughout the academic year at historic Holmes Hall. Students chat with the dean in a casual atmosphere and discuss their experiences and challenges at McGill, while he shares the latest Faculty news. Dean Levin looks forward to continuing the tradition in years to come.

As always, it's a pleasure to share our Faculty news with you. Please don't hesitate to share yours with us – we'd love to hear from you. Consider becoming an alumni class secretary (see the advertisement on page 18) or simply stay connected with your former classmates by completing an online alumni profile at www.medicine.mcgill.ca/alumnicorner/submitprofile.asp.

On behalf of the entire Development and Alumni Relations team, I wish you a safe and wonderful summer.

MICHÈLE JOANISSE
Executive Director
Development and Alumni Relations Office
Faculty of Medicine

The MUHC and McGill:
One Big Research Family

When they begin the journey from a researcher's initial experiments to a clinician's medicine cabinet, even the most brilliant ideas set out on a long and difficult road. Along the way, they are tested, challenged, manipulated and refined by teams that could include biologists, chemists, mathematicians, bioinformatics experts, animal researchers, pharmacologists, engineers and clinicians.

Only a few make the entire journey, but even a perfectly robust idea risks being lost or abandoned if the path is somehow disrupted. To keep this from happening, the Faculty of Medicine collaborates closely with the Research Institute of the McGill University Health Centre (MUHC).

"Take for example our research in trauma regeneration and tissue repair," says Vassilios (Vassili) Papadopoulos, who was named director of the MUHC's Research Institute in the summer of 2007. "That effort includes people from the basic sciences, biochemistry, physiology, neuroscience, dentistry and materials engineering, as well as orthopedic surgeons, cardiovascular surgeons and other clinicians." As well, the MUHC's front-line clinical researchers work in conjunction with scientists from the Centre for Bone and Periodontal Research and the McGill Institute for Advanced Materials.

Owen Egan

Vassili Papadopoulos, director of the MUHC's Research Institute, is also a leading researcher in steroid-production mechanisms.

Such cross-disciplinary collaboration demands an organizational effort, but it is also the way of the future. "The nature of research has changed," Papadopoulos stresses. "Sometimes we have tensions because the boundaries between departmental entities are becoming less real, but we have no choice but to address questions in a very interdisciplinary way. And I've seen a lot of universities, so I can say for certain that McGill does this better than most. We have conflicts, like in every family, but we have dinner together; that's McGill's culture and its strength."

The Research Institute, while an independent entity, enjoys a particularly close relationship with the Faculty of Medicine. "The boundaries between us are very flexible and a lot of our activities are coordinated," says Papadopoulos, who, like the Research Institute's other professors and researchers, is also a professor in the Faculty of Medicine.

This spirit of collaboration not only helps ideas flow and develop through the system, but also helps McGill acquire the research infrastructure needed to develop these ideas. "The University, the Faculty of Medicine and the MUHC must also integrate their research efforts to compete for funds for the very sophisticated, expensive technology that our work requires," says Papadopoulos.

Last fall, McGill and the MUHC jointly submitted a $250-million grant request to the Canada Foundation for Innovation (CFI) to develop new facilities at the Glen Campus. "It is the largest CFI grant ever prepared by McGill, and obviously you don't do that over the weekend," says Denis Therien, McGill's Vice-Principal (Research and International Relations). Part of the challenge was ensuring that researchers from the MUHC and the Faculty of Medicine were working along the same trajectory, so that the new facilities would be employed to their fullest potential. "We worked together closely, for a long time, to put together a proposal we are very proud of," says Therien. The results of this application are expected in June.

The new Glen Campus will unite researchers and clinicians currently based at the Royal Victoria Hospital, the Montreal Children's Hospital and the Montreal Chest Institute, and there are plans to rejuvenate the Montreal General Hospital and the Montreal Neurological Institute. All this will involve the shared labour of Papadopoulos, Therien, Dean of Medicine Richard Levin, MUHC Executive Director Arthur Porter and many others. "This project will change the landscape, not only of health care and biomedical research at McGill, but across Canada, and even North America," Papadopoulos stresses. "This is the largest

project of its kind underway in North America right now, and it will make research percolate from the lab right into the hospital."

This past year, the MUHC hosted a public lecture series – From the Microscope to the Stethoscope – that showcased the role of McGill and MUHC research efforts in the creation of new treatments. But Papadopoulos wants to ensure that the impact extends beyond the MUHC. "We should be thinking about how to apply our knowledge and innovations not just to our patients here but to everybody," he says. "That requires a new mentality. Sometimes there is a tendency to wait for someone else to say 'Eureka, I have discovered Aspirin,' but instead we could be proactive and set out to determine what could be the next Aspirin, the next 'Eureka.' Our next step should be commercialization," he says,"and that means we need to define priorities and develop partnerships with local industry."

To help bring new discoveries to the public market, McGill and the MUHC formed a partnership last summer called Montreal Excellerator, a non-profit venture company that will support the commercialization of homegrown medical research. The firm is in the process of receiving its first major funding. As a result, those brilliant ideas that make the trek from the laboratory to the clinic will soon find it a lot easier to jump into the marketplace, thus completing their long journey and bringing the benefits of research – both in the lab and the clinic – to the wide world beyond McGill and the MUHC.

Centre universitaire de santé McGill
McGill University Health Centre

AT A GLANCE: THE RESEARCH INSTITUTE OF THE MUHC

- The Research Institute of the MUHC, supported in part by the Quebec government's Fonds de la Recherche en Santé, is the largest medical and life sciences facility of its kind in Canada, with more than 600 members, 750 graduate students, 250 post-doctoral fellows, 800 clinical fellows and 200 medical students.
- It brought in over $100-million in research grants in 2007.
- At any given time, it is running 1,400 clinical studies – each year, 400 end while another 400 begin.
- Its members publish over 1,500 times annually.
- In recent months, MUHC researchers have announced major findings with therapeutic implications in autism, diabetes, cystic fibrosis and Crohn's disease, among others.

LEADING THE CHARGE: VASSILI PAPADOPOULOS

The energetic Vassili Papadopoulos has much on his agenda as director of the Research Institute of the McGill University Health Centre, but that will not keep him from his own research activities.

His lab activities focus on understanding the mechanisms underlying the body's production of steroids, a field with wide-ranging therapeutic possibilities. "Steroids are fundamental. We can trace them to the Precambrian period 500 million years ago, and have found them in plants, insects and humans," he explains. "They are so basic that every time steroid levels change, the impact is evident." As a result, he says, "while we are investigating something very focused – how steroids are made in the body – the information we discover immediately applies to different diseases." For instance, pathologies such as cancer, infertility and Alzheimer's often exhibit levels of steroid production that are abnormally high or low. "So learning about steroid-production mechanisms also helps us to develop drugs that address the metabolic errors that contribute to these diseases," he explains.

Because many of his discoveries have therapeutic potential, Papadopoulos holds numerous scientific patents and has also served as a consultant to pharmaceutical and biotechnology companies. These experiences have come in handy when establishing Montreal Excellerator. "Vassili is a master of commercialization," says Denis Therien, McGill's vice-principal (Research and International Relations), "and he really sped up the company's creation."

A native of Greece, Papadopoulos received his first degree in pharmacy from the University of Athens, earned his PhD from the Université Pierre & Marie Curie in Paris, and worked as a post-doctoral fellow in France and Australia. He then joined Georgetown University in Washington, D.C., in 1988, where he served as chair of Biochemistry and Molecular Biology and associate vice-president of research for the university's Medical Center. In 2007, he moved to McGill with his wife Martine Culty, a specialist in the biology of testicular germ cells and an associate professor in the Faculty of Medicine.

"I now have five different social insurance numbers," he jokes. Fortunately, it was not a difficult decision to add the most recent one. "Choosing to come to McGill was easy – it's a truly international community with an outstanding reputation," he says. "And in life you only have so many opportunities to really help build something as big as what we are doing here."

From Child to Adult: the Montreal Children's Hospital Research Institute

As a young resident in obstetrics and gynecology, Jacquetta Trasler, MDCM'80, PhD'87, was struck by the number of birth defects she witnessed – usually from unknown causes.

Owen Egan

Jacquetta Trasler conducts research on the earliest stages of human development.

"Some fathers had undergone chemotherapy and radiation treatment for testicular cancer, and I wanted to know if these treatments could affect sperm and, potentially, the children of the treated men," says Trasler, whose curiosity brought her back to McGill to earn her PhD. No researcher had ever studied this question at a basic level, so her research involved collecting animal – rather than human – evidence. Today, this animal research has provided enough information to allow clinical studies of men who have undergone these treatments, and Trasler, now the scientific director of the Montreal Children's Hospital (MCH) Research Institute, is confronting new research questions. "About one per cent of Canadian children are conceived using assisted reproductive technology," she says, "so we need to ensure the safety of the process, which can affect gene expression profiles later."

Her research focuses on the earliest stage of development, as gametes develop into early embryos – and is also one of the initial stages of research on the human life cycle performed at the MCH. "But all our work here is interrelated," she says. "If my group sees something unusual happening early in the cell culture, then we can look for consequences of that at a later stage. If there is an effect on kidneys, for example, we can track the molecular pathways, the genes, and the environmental interactions that may have led to this effect." The MCH has a highly regarded nephrology research group that could then examine the interaction between the relevant genes and the kidneys.

"Our researchers are primarily involved in developmental events related to childhood, running from the prenatal period through infancy, childhood and adolescence, including the childhood origins of adult disease," explains Harvey Guyda, physician-in-chief at the MCH and chair of Pediatrics in the Faculty of Medicine. "And this happens from laboratory science – especially involving genetics – to clinical research. It's all connected. Even when we talk about cancer, we're talking about genetics as well."

Guyda points to Michael Kramer's groundbreaking studies in preterm births and mortality; to Robert Koenekoop, MDCM'89, and his recent discoveries in the genetics of childhood blindness; to Rima Rozen, BSc'75, PhD'81, and her research linking colorectal cancer and diets low in folates; and to Francine Ducharme, MSc'90, and her renowned work on asthma treatment. "Some of this research is basic and some is clinical, but the combination brings us all the way from the gene to the patient, and enables us to follow patients from the earliest stages through adolescence," says Guyda.

The MCH Research Institute includes about 50 funded investigators, 80 graduate students and 25 post-doctoral fellows, all working in a dynamic environment with an open lab design. "Clinician-scientists are working alongside basic developmental biologists, and there is a lot of crosstalk," says Trasler. "And when we move to the MUHC's new facilities at the Glen site in Montreal's West End, we'll have children and adult patients at one site. It will give us an amazing opportunity to follow people along their entire life trajectory."

IT'S ALL IN THE PLACENTA

Owen Egan

Recent evidence suggests that assisted reproduction increases the risk of babies being born with gene expression abnormalities known as imprinting disorders. Amanda Fortier, a doctoral candidate working with Jacquetta Trasler, has found that mice that receive ovulation-inducing hormones have more of these abnormalities. "But the abnormalities appear more often in the placenta than in the embryo," she explains. "This means that the placenta, which is normally discarded after birth, might provide a good non-invasive screening tool to determine if further tests on the baby are required."

The finding has sparked a partnership with other researchers at McGill, as well as in Ottawa and Toronto, to collect and test placenta samples from human infants. "My lab work has translated very directly to clinical research," says Fortier. "Hopefully we will turn up something really interesting."

Cells Stemming from Xenotransplants

Not so long ago, McGill scientists could develop stem-cell technology in mice but lacked the infrastructure to bridge the translational gap between lab research and experimental therapeutics for clinical studies. Recently though, all that changed.

"We can take cells from a patient, perform some gene engineering in Petri dishes, and return it to the patient as, say, a blood transfusion that acts as a pharmaceutical," says Jacques Galipeau, a McGill associate professor of Medicine and Oncology. "But you need an ultra-sterile environment to do this kind of work." The clean environment is provided by the cell processing centre at the Jewish General Hospital, which boasts one of Canada's finest sterilization suites.

Galipeau, a hematologist at the Jewish General and head of the therapeutics group at Canada's Stem Cell Network, leads a team of two dozen researchers. Together they are manipulating blood stem cells for use in treating illnesses such as cancer, cardiovascular disease, and immune modulation diseases like multiple sclerosis. "At McGill we're vertically integrated, at least for certain types of illness," says Galipeau, whose lab forms a link between clinicians and scientists. "Scientists can do the basic work with mice and rats, and then we can move this knowledge to experimental therapy."

Regenerative medicine is a hot science these days, and while some of that heat is generated by the controversy around embryonic stem cells, more than 1,000 clinical trials taking place internationally use adult stem cells only, which have a long history of testing and development. Galipeau is leading research in new directions, enhancing stem cells by introducing synthetically created genes to provide pharmaceutical properties. This strategy is being used in clinical trials sponsored by Montreal-based Northern Therapeutics as a potential treatment for primary pulmonary hypertension, a rare but lethal lung ailment. The next step is for McGill's researchers to follow with some of their own ideas developed from lab research.

Those ideas represent "truly next-generation research," Galipeau explains. "We will soon be exploring xenotransplantation, an absolutely unique technology that involves animal-to-human tissue transplants." Last fall, Vilceu Bordignon, director of large animal research at McGill's Macdonald Campus, led a team that successfully cloned pigs, and so Galipeau and Bordignon will be collaborating to genetically engineer pigs whose tissue will not be rejected by humans. "These pigs can then be a source of cells

Owen Egan

Jacques Galipeau is one of McGill's leading experts in stem cell research.

such as insulin-producing pancreas cells, or stem cells from the marrow for the repair of damaged organs," he says. "Tens of thousands of people are waiting for cells, and pigs could provide more than enough material to treat all the diabetics in the world. And now, if we develop a really good gene-engineered pig, we can clone it."

Pigs and humans have comparable organ sizes and structures, and medicine already looks to pigs to supply heart valves and collagen for human use. "McGill has great research strengths in regenerative therapies, especially in neural regeneration, bone regeneration, diabetes, cardiovascular disease and immune disorders," says Galipeau. "And with the added value of xenotransplantation, we have an alignment of the stars."

Despite his successes in bringing knowledge from the lab to the clinic, Galipeau and other clinical researchers face a constant challenge. "There is a significant funding gap for experimental therapies, which fall between pure research and pharma-sponsored clinical trials. We need to fill this gap if we are going to bring people these promising experimental therapeutics," he says, noting that his own facilities were built with "angel money" from generous donors. "We're the dreamers and the artists. We're the ones doing these early trials. People have to understand that experimental therapeutics will only be done by universities in their research institutes and hospitals."

Understanding Lou Gehrig's Disease

When Wilder Penfield established the Montreal Neurological Institute and Hospital (MNI) in 1934, his first patients were also his research participants.

The research of Angela Genge (right) and Danielle Lavoie is improving quality and length of life for patients with ALS.

Without their help, his revolutionary neurological discoveries, his "Montreal procedure" for treating epilepsy, and his pioneering efforts to map the human brain would all have been impossible.This patient-researcher collaboration continues today. Amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease, is a devastating terminal illness that affects between two and five people per 100,000. Its victims experience paralysis and eventually lose their ability to speak, swallow and breathe. At any given time, the MNI follows over 150 ALS patients from Quebec, Ontario and the Atlantic provinces. Under the care of Angela Genge, who investigates all forms of neurological disease as director of the Clinical Research Unit (CRU), these patients can opt to participate in research trials. "With a disease like ALS, they usually want to be involved," says Genge, a specialist in ALS and other motor-neural diseases. "Our research has included examining neuropsychological effects, family dynamics, and the psychological wellness of the patient, as well as clinical trials of new medications or therapies."

The cause of ALS remains a mystery, so in addition to upcoming clinical trials of new drug treatments, Genge's team is currently working with Christina Wolfson, BSc'76, MSc'78, PhD'85, of the Department of Epidemiology and Biostatistics, to establish a baseline of potential risk factors that can help identify patterns that characterize ALS patients. Interestingly, various papers have found an unusually high incidence of the disease among both soccer players and soldiers. Sparked by these reports – and inspired by one of her patients, former professional football player Tony Proudfoot, who was diagnosed with ALS in 2007 – Genge's team is carrying out an epidemiological study of Canadian Football League players, among whom anecdotal evidence also suggests a high incidence.

The MNI has a long tradition of combining innovative care with research. When Genge came to McGill as an intern, she worked with multiple sclerosis (MS) researcher and CRU founder Gordon Francis. "At the time, MS was thought to be untreatable," she says. "But Dr. Francis insisted that we should be testing new drugs and looking at other therapies. Today, thanks to the work of pioneering scientists like him, we have medications to decrease the number of attacks that MS patients experience, and other strategies to intervene when they do have attacks. All the evidence suggests that we are decreasing the amount of disability they have, and this dramatic change has happened in only 20 years."

Genge continues this innovative approach to treatment in her ALS research. Today, patients at the MNI's multidisciplinary ALS clinic are supported by a team that includes a nurse, a physiotherapist, an occupational therapist, a speech therapist, a dietitian, a social worker, a pastoral care provider and others – a holistic approach shown by studies to extend the patient's life expectancy by up to two years.

"The Montreal Neurological Institute and Hospital provide a good example of how an established institution can allow programs to grow and become internationally known," Genge says. "Treating our patients is not simply a job. For everyone in our group, it's a mission."

TESTING PROMISING TREATMENTS

In 2003, Montreal Neurological Institute researchers Jean-Pierre Julien, PhD'82, and Jasna Kriz published findings that reverberated through the ALS community. They had discovered a "cocktail" of three prescription drugs that improved the strength and extended the lifespan of mice with the disease. This promising therapy needed further exploration before it could be tested in clinical trials, but today that stage is drawing near.

Danielle Lavoie, a medical doctor with a fellowship from the Fondation André-Delambre, is designing experimental protocols for clinical trials. Set to begin sometime this year, the trials will determine whether the treatment has the same impact on human patients. Since joining Angela Genge's Clinical Research Unit last fall, part of Lavoie's fellowship has involved work on state-of-the-art clinical treatments for ALS. "I love both the treatment and the research," she says. "We're helping patients by working to find better treatments and cures." Eventually, she hopes to put her knowledge to work in her hometown of Chicoutimi, Quebec.

"I would be the only specialist in that part of the country," she says.

Tubercular Diversity

The World Health Organization suggests that one in three people carries tuberculosis (TB) bacteria. Humans can harbour TB for decades, and only five per cent of TB cases develop on first contact with the bacteria. But while most carriers never develop the disease, a change in immune status caused by, say, malnutrition or old age, can trigger delayed-onset or reactivation TB.

Recent years have seen a resurgence of TB, which now claims over two million lives annually, particularly in areas where HIV/AIDS is also rampant. And some TB cases seem to be more virulent than others – for many years, researchers believed that the differences between cases were due to differences in the immunity of patients, but about ten years ago they discovered that all TB bacteria are not created equal.

Owen Egan

Michael Reed is one of McGill's promising young researchers and the winner of the 2007 Peter Lougheed/CIHR New Investigator Award.

"When I got into this field about seven years ago, some strains of a certain type of TB, known as W-Beijing TB, were shown to be more virulent than others in mice," says Michael Reed, a bacteriologist at McGill's Centre for the Study of Host Resistance and the 2007 winner of the Peter Lougheed/Canadian Institutes of Health Research New Investigator Award as Canada's Premier Young Researcher. "So, I began looking for the molecules that were involved in this hyper-virulence." The research paid off: Reed discovered that a particular lipid in certain W-Beijing strains could inhibit the inflammatory response of macrophages, which are critical for controlling the TB infection within the human lung. He has since found other phenotypes of W-Beijing strains that warrant more investigation.

Lipids in general seem critical to TB, and scientists have long known that they have properties that make TB strains more resistant to disinfectants and drugs. The TB chromosome has five times as many genes involved in lipid biosynthesis as other bacteria like *E. coli*, so Reed is studying the lipid variations of TB strains. "My research is really all about studying variation," he says. "What is different about TB strains and how do these differences influence the disease process?"

McGill is a particularly fertile environment to ask such questions, boasting a large cohort of TB researchers. "It's unusual to have so many researchers looking at the one problem from different angles, and it's really great for me as a new researcher," says Reed.

There are other perks, too. Every year, Montreal sees about 150 new TB cases; provincial health officials collect clinical samples from these patients and, for the past ten years, have been sending them to Dr. Marcel Behr, MSc'95, a molecular epidemiologist at the Centre for the Study of Host Resistance. Today, Behr has an impressive database of about 1,500 samples that he and Reed have begun classifying into groups.

Currently, there is only circumstantial evidence that certain strains are more lethal to humans, or more easily transmitted – records of the disease among humans in parts of South Africa show that specific strains have gained dominance over the last 40 years, suggesting that these variations are significant. "If this is the case, then we may need to treat particular cases of TB differently," Reed says. "So I'm looking at the bacteria to identify which molecules may make certain strains more or less virulent. If we can say that some strains are more closely associated with drug resistance, are more transmittable, or involve a special type of TB such as extra-pulmonary TB, then perhaps we'll have to treat specific populations in other ways."

"The important thing in the long run is to show that these variations matter to the patient. The ultimate goal is to make a difference in diagnosis and treatment."

Communication Sciences and Disorders:
Babbling in Tongues

When Susan Rvachew, a professor in the School of Communication Sciences and Disorders, came to McGill in 2000 from Western Canada, she made a personal discovery common to many anglophones new to Quebec.

"French has quite a few vowels that don't occur in English, and I'm still totally incapable of perceiving them the way a native French-speaker would," she says. "But infants learn to perceive them before they're six months old." That last observation runs against conventional wisdom and grows from Rvachew's groundbreaking research in speech perception and interventions. "Until recently," she says, "people believed that when babies are babbling in their first 18 months, most of their sounds are accidental." Babbling has long been considered universal, with babies around the world all making the same noise. But recently, Rvachew and her collaborators, Linda Polka, Karen Mattock and Abdulsalam Alhaidary, MSc'06, completed a long and labour-intensive analysis of 51 anglophone and francophone babies and came to a surprising conclusion: they babble differently.

Owen Egan

Susan Rvachew has developed the Speech Assessment and Interactive Learning System to help children improve their speech perception.

"This finding implies that how the baby perceives speech is a crucial factor in how they talk from very early on," Rvachew says. "So if a four-year-old child has unintelligible speech, we can hypothesize that the problem probably started much earlier." These findings not only move the age of sound awareness back considerably, but also upset the accepted notion that childhood speech pathologies are primarily difficulties in articulation and motor control, not in language perception.

Speech problems in childhood can lead to difficulties with language learning in later years, and Rvachew cites a Statistics Canada projection that a one per cent increase in literacy would permanently raise the national GDP by more than $18-billion annually, since research has proven that greater levels of literacy lead to greater economic output. If speech therapists can identify young children who are at risk for reading disability, they can intervene early to minimize its impact.

Rvachew is taking her research in speech perception directly to practitioners, most prominently through SAILS (Speech Assessment and Interactive Learning System), a computer game designed to help kids refine their speech perception. The program features recordings of youngsters trying to say a word – "cat," for example. Children click a picture of a cat if they hear the word "cat," or an "X" if they hear a pronunciation error like "tap."

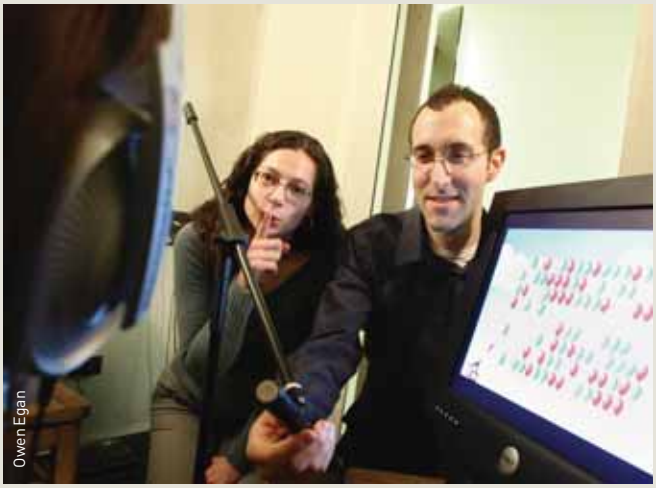
"Often, children with developmental speech and language disorders simply need to hear more speech," Rvachew explains. "With this game, they're having fun with pictures so they are listening closely, and in a ten-minute period they hear hundreds of words." In follow-up studies, 20 per cent of control group children with speech problems achieved normal speech before starting grade one. Of the group playing the computer game, 50 per cent reached that level. "So it's simple and inexpensive, but very effective," she says. "The intervention focuses precisely on where they are having problems."

PERCEIVING CHILDREN'S SPEECH

Speech-language pathology crosses languages, so doctoral student Françoise Brosseau-Lapré, BA'00, MSc'02, is creating a version of Susan Rvachew's SAILS computer game in Canadian French. "Translating the program is more complex than I had expected," she says. "We select words based on the sounds composing them, but kids need to be familiar with the words, and we need to be able to represent them with pictures. One-syllable words are better, but there are fewer of these in French than in English. So we have some two-syllable words but have to ensure that the sounds in the second syllable won't confuse the children."

"We understand very little about why some children have a hard time acquiring speech sounds," says post-doctoral fellow Doug Shiller, BA'96, MA'98, PhD'03, MSc'06. "Research focuses on issues at the conceptual level of language processing, on motor articulation and on the perception of language. When a kid has difficulty producing speech sounds, the problem could be at any one of these levels, or a combination of them."

Shiller is developing testing tools that could allow therapists to pinpoint the cause of a particular child's speech problems, enabling them to tailor their interventions to specific problems. "Basically, we want to develop a more nuanced approach to testing," he says, "while at the same time learning more about speech disorders in general."



Owen Egan

Doctoral student Françoise Brosseau-Lapré is helping francophone children improve their speech perception, while post-doctoral fellow Doug Shiller is developing testing tools to help therapists determine the cause of a particular child's speech problems.

THE GROWTH OF COMMUNICATION SCIENCE

"Communication disorders are tremendously costly both to individuals and to society," says Shari Baum, director of the School of Communication Sciences and Disorders. While the field includes linguistics, psychology and neurobiology, Baum says, "We need to be even more multidisciplinary, to incorporate everyone from geneticists to experts in health policy and service delivery, in order to make significant advances and mature as a field."

Owen Egan

Shari Baum, director of the School of Communication Sciences and Disorders

"Since we lack fundamental knowledge of the origins of both developmental language disorders in children and acquired language disorders in adults, it is necessary to invest energy and resources in learning about the neural basis of speech and language," she says. Neural research has benefited from new sophisticated technology, including neural imaging that tracks brain activity during language production. "But we also need more documentation of the efficacy of interventions."

With a wide range of research interests, the School's researchers are leading the way in these efforts. Some, like Baum herself, investigate the neural underpinnings of speech and language, trying to understand what parts of the brain are involved in those processes and how breakdowns occur. Others study language loss in people with neural-motor disorders like Parkinson's disease, while still others explore second- or third-language acquisition and autism. "All of us," stresses Baum, "even those working on developing a basic understanding of speech and language systems, hope to see our findings eventually translated into clinical methods."

Another objective is to integrate more clinicians into research. "They have a different area of expertise, and are the ones delivering the care," says Baum. "We would like to have clinician-researchers based in the hospital system who could not only foster more research in the field, but also ensure that other clinicians are kept abreast of research and developments."

Bringing Out
the Science of Nursing

It has been said that nursing is the heartbeat of health care, and anyone who has spent time in a hospital can attest to that.

Nurses are keenly aware of the many facets of a patient's health and well-being, often moving beyond the initial diagnosis made and medical treatment offered. As key partners in health care delivery, nurses are also pivotal in research related to health and illness.

Owen Egan

Carmen Loiselle (left) with doctoral student Rose Matousek at a Psychosocial Oncology Research Training seminar

"Nurse-scientists are not only increasing in numbers, they are becoming a critical component of interdisciplinary research," says Carmen Loiselle, an assistant professor at McGill's School of Nursing, director of the McGill University Oncology Nursing Program, and senior researcher at the Jewish General Hospital's Centre for Nursing Research. Loiselle knows all too well the challenges and opportunities that nursing-centred research present. Just a few decades ago, nurse-scientists played second fiddle to biomedically led studies that were considered far more credible and influential. But that opinion has changed dramatically since then. Today, Loiselle has found her niche in oncology nursing, leading profound studies on psychosocial adjustment to cancer and creating a renowned research training program in psychosocial oncology.

"Today's patients want to be more involved in their care and often request timely information on treatment options, side effects, follow-up care and quality of life," she says. In response, she has created the first-ever Canadian study that uses online multimedia tools to provide health information to cancer patients. "Essentially, we want to know whether individuals who are more informed about their cancer become less distressed by the realities of treatment and care, and end up using available services in a more informed way," she says. This study will help health care practitioners develop more effective psychosocial oncology interventions.

Research aside, Loiselle has led the Psychosocial Oncology Research Training (PORT) program for the last five years. Funded by the Canadian Institutes of Health Research and the National Cancer Institute of Canada, this nursing-led interdisciplinary initiative was founded in 2003 by Loiselle and researchers at three other Canadian universities – Dalhousie University, the University of Manitoba and the University of British Columbia. It aims to train the next generation of researchers to develop, implement and evaluate innovative psychosocial interventions that significantly impact cancer patients and their families.

"Despite geographic barriers across the four university training sites, this program fosters a real sense of a community for scholars in psychosocial oncology," says Loiselle. The PORT program has so far trained 28 graduate students from a wide range of disciplines including nursing, psychology, philosophy, management, nutrition, human kinetics and dentistry. Using real-time videoconferencing, trainees at all four universities engage in a 13-week seminar with PORT mentors as leaders. Seminar topics range from cancer care for marginalized groups and remote populations to spiritual issues related to cancer, coping mechanisms and family care-giving. Trainees are offered financial support and given the opportunity to participate in conferences and internships.

Moving her mission beyond Canada's borders, Loiselle helped establish a similar program in Bangalore, India, in 2003. The resulting Centre for Psycho-oncology for Education and Research receives funding from the Shastri-Indo Canadian Institute and the Canadian International Development Agency, and has been applauded for its innovative and collaborative training approaches to psychosocial oncology. The PORT program has also caught the attention of universities in the U.S. and Brazil, which are consulting with Loiselle on similar projects in their countries.

If it's true that nurses are the heartbeat of health care, Loiselle's contributions are a testimony to this strong and unwavering pulse. As nursing science flourishes, so will developments aimed at examining, expanding and valuing the important role played by nurses in the health-illness continuum.

A Pioneer of Preemie Pain

Most groundbreaking research is led by those who challenge current knowledge and venture off the beaten path, guided by a list of unanswered questions.

Celeste Johnston, BN'70, DEd'79, a James McGill professor and associate director of research in the School of Nursing, happened upon her research path through natural curiosity. "Do babies experience pain? How severe is it? How can we tell? The lack of definitive answers to these questions sparked my interest in this research field and it just grew from there," she says.

Named a Fellow of the Canadian Academy of Health Sciences, and chosen to receive the 2008 Canadian Nurses Association Centennial Award this November, Johnston's successful career has made her a world authority on pain. In the early 1980s, she started to make a name for herself as director of nursing research at the Montreal Children's Hospital, the first position of its kind in Canada. At the time, she discovered that there were no accurate tools for measuring pain in infants. "For premature infants who are poked and prodded at least 10 times a day for the first few weeks of life, pain is a constant experience," says Johnston. "They are unable to express their pain in any other way than to cry, but when is a baby's cry a sign of pain versus some other distress? How is that distinguished? This is what I wanted to find out."

Together with former doctoral student Bonnie Stevens, PhD'93, who is now a successful nurse-researcher at the Hospital for Sick Children in Toronto, Johnston developed the first systematic, multidimensional pain assessment tool for infants – the Premature Infant Pain Profile (PIPP). This tool measures seven pain indicators in newborns, such as changes in heart rate and oxygen saturation, as well as facial activities like grimacing, squinting of the eyes and brow furrowing. After observing the degree of pain that babies experience from such routine procedures as a heel lance – where the heel is pricked to draw a blood sample – Johnston concentrated her efforts on ways to alleviate their suffering.

One of the methods she has rigourously tested is maternal skin-to-skin contact, or "kangaroo care," a playful name that fittingly describes holding a diaper-clad infant to a mother's bare chest. Johnston has proven that kangaroo care has a positive effect on blunting the pain response. Based on this finding and results from other studies that indicate the benefits of skin-to-skin contact, she is now examining whether the same effect is apparent if kangaroo care is provided by the birth father or an unrelated female.


Owen Egan

Celeste Johnston with nurse Mario Bonenfant, assistant manager of the Department of Neonatology at the Montreal Children's Hospital

Already, Johnston's research findings have influenced infant health care practices across the country. She recently conducted a survey on pain and analgesic use in 14 neonatal intensive care units, which showed that infants today undergo just half the painful procedures they did ten years ago. Pain policies for infant care now exist in most hospitals in Canada, a big change in just one decade.

Johnston credits McGill with helping build her passion for nursing's role in health care research, and now has the enviable position of passing her vision on to others. As associate director of research at McGill's School of Nursing, she is helping the next generation of nurse practitioners catch the research bug.

"When I came here to study, I felt like a dry sponge and I just soaked up everything the University had to offer," she says. "It's great to have the opportunity to mentor students as they begin to ask the same kinds of questions that I once did."

Are you a McGill Nursing graduate?

Reconnect with your alma mater by joining

McGill's Nursing Alumni Association.

For more information or to become a member, please visit

www.mcgill.ca/nursing/alumni or e-mail alumni.nursing@mcgill.ca.

McGill's School of Nursing . www.mcgill.ca/nursing . 514.398.4144

Bringing Knowledge Home

When professional knowledge flows from the laboratory, it need not stop in the clinic or the hospital. Sara Ahmed, BSc'96, MSc'98, PhD'04, is bringing it all the way home to patients.


Owen Egan

Sara Ahmed discusses ways to help asthma patients manage their health and care.

Ahmed, appointed assistant professor in the School of Physical and Occupational Therapy in the summer of 2007, is engaged in a project that involves nurses contacting asthma patients to discuss their health care and asthma management. While patients appreciate the support, this approach is both time-consuming and labour-intensive. To improve the system, Ahmed proposed a Web-based tool that integrates patients' medical records with educational information, bringing them into the knowledge-exchange loop. "The goal is to help patients acquire emerging knowledge so they can use it to manage their health, which actually leads to better outcomes," she says. "The Web offers an open line of communication, so we're not only bringing knowledge to clinicians, but to patients as well."

So why is a physical therapist, who works in a field that focuses heavily on the individual patient, examining the management of chronic disease among the greater population? "Physical and occupational therapists can play a major role in dealing with health and prevention within large groups," she says, "but we need evidence showing what approaches will be most effective." Ahmed's proposed project to develop and evaluate a Web-based tool for asthma patients could be one such approach; patients would log on to the website, which would then provide up-to-date information based on their medical records, as well as timely personal feedback to health-related questions.

However, much remains to be done before such an initiative can be integrated into the health care system, including such basic things as developing secure electronic health records. Ahmed stresses that "ongoing communication with patients can help all health professionals provide effective care, although obviously the same approach won't work for everyone," as people have different needs and various preferences for receiving care. Still, this plan could liberate resources for those who need closer contact with the health care team.

"The evidence shows that empowering patients to manage their health leads to better outcomes," she says, "so we need to make sure they have the right information when they need it, and evaluate the most efficient way to provide support."

While her research focuses on asthma patients, the same considerations apply to sufferers of any chronic disease; Ahmed is also involved with the Montreal Stroke Network, and notes that the two pathologies share many self-management issues. "We need to ensure that patients have the information they need to take care of their disease from day to day," Ahmed says, "and we need to give them the skills and knowledge to determine what health care services they need. But ultimately, the key to providing the best outcome for patients is ongoing communication with the care team."

BELIEF-CHANGING RESEARCH


Owen Egan

Every physiotherapist aims to help the patient, but sometimes their own beliefs may work against them. Master's student Tamar Derghazarian, BSc'02, has been investigating how physiotherapists' beliefs about disabling lower back pain affects treatment.

"Most people with lower back pain recover in a matter of weeks," she explains, "but some develop a disability, and they may try to avoid certain movements that they fear will cause more pain. And then they become hyper-vigilant, which creates a vicious cycle that increases pain. There are certain attitudes and beliefs which perpetuate disability – and one possible source may be the physiotherapists themselves."

Derghazarian's research, which is funded through a generous grant from the *Ordre Professionnel de la Physiothérapie du Québec* (OPPQ), explores this possible relationship, and while her work may eventually help other physiotherapists, it's influencing her own practice already. "I've really been addressing people's attitudes toward lower back pain as well as analyzing my own responses," she says. "And I question established methods a lot more."

FacultyKudos

McGill's latest Canada Research Chairs:

Jorge L. Armony, Tier 2 (Renewal), CRC in Affective Neuroscience

Salah El Mestikawy, Tier 1, CRC in Neurobiology

Thomas Schlich, Tier 2 (Renewal), CRC in History of Medicine

McGill's 2008 Faculty of Medicine Honour List for Educational Excellence:

Ronald Fraser, Psychiatry

Nicol Korner-Bitensky, BSc'76, MSc'86, PhD'93, Physical and Occupational Therapy

Kevin Lachapelle, Surgery and Medical Simulation Centre

Marc McKee, BSc'82, MSc'84, PhD'87, Anatomy and Cell Biology

Louise Pilote, MDCM'85, Medicine

David Ragsdale, Neurology and Neurosurgery

Steven Backman, BSc'77, PhD'83, MDCM'88, associate professor of Anesthesia, is the incumbent of the Wesley Bourne Chair in Anesthesia.

Alan Barkun, MDCM'83, MSc'95, professor of Medicine and director of the Division of Gastroenterology, is this year's recipient of the *Prix André-Viallet-Proctor & Gamble from the Association des gastro-entérologues du Québec*.

Gerald Batist, MDCM'77, a professor in the Departments of Medicine and Oncology, has been named the Minda de Gunzburg Chair in Oncology.

Margaret Becklake, professor emerita of Medicine and the Respiratory Epidemiology and Clinical Research Unit, has been named a Member of the Order of Canada. Dr. Becklake was among 61 appointees receiving one of the country's highest civilian honours.

Alain Beaudet, professor of Neurology and Neurosurgery, was elected a Fellow of the Canadian Academy of Health Sciences and has also been named the new president of the Canadian Institutes of Health Research.

Howard Bergman, BSc'67, MDCM'69, professor in the Departments of Medicine and Family Medicine, was elected a Fellow of the Canadian Academy of Health Sciences.

The *Concours de vulgarisation de la recherche de l'Acfas* has recognized the work of **Marie-Ève Brault**, an Anatomy and Cell Biology doctoral student who recently published a paper on the enzyme telomerase as it relates to aging and cancer.

Professor **Claude de Montigny** was named an emeritus professor in Psychiatry at McGill's 2008 spring Convocation ceremonies. He ranks among the top 0.5 per cent of the world's most cited scientists.

Liane Feldman, MDCM'93, professor of Surgery, has been chosen to receive the 2008 Junior Award for Distinguished Contribution to Medical Education from the Canadian Association for Medical Education.

Gerald Fried, BSc'71, MDCM'75, professor of Surgery, has received the John Ruedy Award for Innovation in Medical Education from the Association of Faculties of Medicine of Canada.

Claudio Calligaris

Laurie Gottlieb, BN'69, MSc'74, PhD'85, professor of Nursing, has been selected to receive the Canadian Nurses Association Centennial Award.

Celeste Johnston, BN'70, DEd'79, James McGill professor and associate director of research for the School of Nursing, has been selected to receive the Canadian Nurses Association Centennial Award.

Michael Meaney, professor in the Departments of Medicine, Psychiatry, and Neurology and Neurosurgery, and associate director of the Douglas Mental Health University Institute Research Centre, has won the inaugural Lougheed Prize in fetal and early childhood development from the Alberta Heritage Foundation for Medical Research.

Aparna Nadig, an assistant professor at the School of Communication Sciences and Disorders, has been awarded one of the International Society for Autism Research's two 2007 Young Investigator awards for her work on the development of early detectors of developmental delay in infants who are at risk for autism.

Pediatrics professor **Constantin Polychronakos** has been selected as the recipient of the 2008 Sessenwein Award for academic excellence from the Montreal Children's Hospital Foundation. Polychronakos also published a study in *Nature* magazine that was named by *Science Watch* newsletter as a "Red-Hot Research Paper" of 2007.

Assistant professor **Michael B. Reed** of the Department of Medicine has been recognized by the Canadian Institutes of Health Research (CIHR) with the Peter Lougheed/CIHR New Investigator Award for his important contributions to the study of tuberculosis.
(See story, page 9)

Richard Riopelle, professor and chair of the Department of Neurology and Neurosurgery, was elected a Fellow of the Canadian Academy of Health Sciences.

Maya Saleh, PhD'01, assistant professor of Medicine, wrote a paper that was selected as a *Journal of Biological Chemistry* "Paper of the Week." This distinction is awarded to only one per cent of the journal's publications.

A study published in *Nature* magazine by Human Genetics Professor **Rob Sladek** was named by *Science Watch* newsletter as a "Red-Hot Research Paper" of 2007.

Owen Egan

Nahum Sonenberg, James McGill professor of Biochemistry, has been honoured with the prestigious Gairdner International Award for his outstanding contributions to the field of medical science. Sonenberg and Biochemistry professor **Thomas Duchaine** were awarded one of the Ten Discoveries of the Year Award from *Quebec Science* magazine for their research on gene regulation.

Michel L. Tremblay, professor of Biochemistry and director of the McGill Cancer Centre, and colleagues received one of the Ten Discoveries of the Year Award from *Quebec Science* magazine for their research on breast cancer.

Spotlight on the Department of Medicine

"This is my dream job and I'm privileged to be doing it," says David Eidelman, MDCM'79, chair of the Department of Medicine. Recently, he sat down with us for a primer on research in McGill's largest department.

Owen Egan

What kind of research takes place in the Department?

It runs the gamut, from basic biology to clinical research to population-based research, and from work on allergies to cardiology to lungs, kidneys and so on. Some takes place on campus, but most is in the hospitals, with our faculty members split roughly evenly across the Royal Victoria, Jewish General and Montreal General Hospitals.

What's big in medical research these days?

There's so much going on! One of our major thrusts is in infection and immunity, where researchers are looking at infectious diseases like tuberculosis and malaria, host defense mechanisms and inflammation. Our endocrinology and metabolism group has members studying diabetes, while others are looking at the relationship between hormones and cancer. We have a strong respiratory program, mostly based at the Montreal Chest Institute and the Meakins-Christie Laboratories. And we also have a new vascular biology program, based primarily at the Jewish General and led by Ernesto Schiffrin, PhD'80, which complements our other programs in cardiovascular disease at the MUHC. And there is much more.

How does the department's research cover so much ground?

We are very large. We have about 190 full-time faculty members and about 250 clinician members on the books, along with many other part-time people with nominal appointments. We work closely with other departments and even share some faculty members – especially in epidemiology and biostatistics, pediatrics, oncology and surgery. We believe strongly in collaborating across disciplines. For example, in our planning of the redevelopment project of the Research Institute of the MUHC, we have made a conscious decision not to build research along departmental lines. After all, the most important thing is the science, not where researchers are based.

Does this research travel from the lab to the patients?

Translational research takes knowledge out of the theoretical construct of an academic milieu and puts it into actually making patients' lives better. In science, you start with cells or molecules and work your way up to animals. But to develop a new drug or therapy, you have to test it on real people, which is difficult. Trials are structured for proper experimental design and controls, but that doesn't reflect what happens in the clinic, where human behaviour, psychology and life in general become factors. So translational research is extremely challenging, but we still have many successful examples. The work of David Goltzman, BSc'66, MDCM'68, and his colleagues on vitamin D and cancer is directly applicable in the clinic, and Ernesto Schiffrin's study of the biology of blood vessels directly affects how we understand hypertension. And translational research does not only come from the biology labs. For instance, Robyn Tamblyn, PhD'89, is conducting informatics research on the optimal design and use of electronic medical records, which will have a tremendous impact in helping us track medical errors and design charts to make physicians more effective.

Save the Date for HOMECOMING '08

WE LOOK FORWARD TO WELCOMING YOU HOME!

Do you remember your favourite class in the McIntyre Building, or that one McGill professor whose words of wisdom stay with you to this day? Perhaps you recall having a slice at Pine's Pizza on Park Avenue, or discussing those exciting first days of a clerkship at the Montreal General Hospital.

These fond memories of your time at McGill are most valuable when shared with the ones who helped make them special. Join us for this year's Homecoming from **Thursday, October 16, to Sunday, October 19** for a weekend of fun and reminiscing with old friends, colleagues and faculty members.

Don't miss the Leacock Luncheon featuring John A. Rae, chair of the MUHC's Best Care for Life Campaign, as well as a fascinating Classes Without Quizzes series and the regular Martlet, Jubilee and James McGill dinners for classes celebrating milestone anniversaries. Homecoming has something for everyone, and most events are open to all graduates and their guests.

The Faculty of Medicine will host its own special festivities, including the Dean's cocktail reception and a medical seminar presented by the Medicine Class of '83, both taking place on Friday, October 17. The Dean's reception is open to all Medicine alumni, including those from our affiliated Schools of Nursing, Physical and Occupational Therapy, and Communication Sciences and Disorders.

This weekend is also your chance to sample the popular Mini-Med public lecture series! This 90-minute discussion entitled *From the Patient to the Bench to the Bedside* will take place on Saturday, October 18. An all-star faculty panel of leading cancer researchers will share the critical discoveries being made at McGill's brand new research mecca, the Life Sciences Complex.

Check your mailbox in August for your Homecoming brochure, chock full of exciting happenings and registration details. Be sure to book early to avoid disappointment.

Class reunion plans are underway for alumni who graduated in the following years: 1943, 1948, 1953, 1958, 1963, 1968, 1973, 1978 and 1983. Graduates from these classes are encouraged to visit their class web page at the Alumni Corner website provided below and click on Homecoming 2008 in the menu bar, or contact Melanie Lane at 514-398-1299.

Your class representative(s) will mail you your reunion itineraries and other pertinent information as plans unfold throughout the summer.

To learn more about this year's schedule of events, please visit the Faculty of Medicine's Alumni Corner website at: www.medicine.mcgill.ca/alumnicorner.

MEDICINE CLASS REPRESENTATIVES & REUNION COMMITTEES

1943A	John W. McMartin, BA'41, MDCM'43
1943B	J. Lester McCallum, BA'37, MDCM'43
1948	James H. Darragh, BSc'46, MDCM'48, MSc'59
1953	J. Lawrence Hutchison, BSc'49, MDCM'53
1958	Douglas D. Morehouse, MDCM'58; John Burgess, BSc'54, MDCM'58; C. Philip Larson, MDCM'58; Gordon Dickie, MDCM'58
1963	David R. Boyd, MDCM'63; David H. K. Chui, MDCM'63
1968	W. Robert Courey, BSc'66, MDCM'68; William Wallace Watson, MDCM'68
1973	Catherine Oliver, MDCM'73
1978	Claus Hamann, MDCM'78; Gail (Yenta) Beck, MDCM'78
1983	Silvana Grace Trifiro, BSc'77, MDCM'83; Paul-André Lachance, MDCM'83; Gordon Rubin, BSc'79, MDCM'83

NURSING CLASS REPRESENTATIVES & REUNION COMMITTEES

1978	Carol Common, BSc'78, MSc'97; Patricia Rose, BSc'78, MSc'91

PHYSICAL AND OCCUPATIONAL THERAPY CLASS REPRESENTATIVES & REUNION COMMITTEES

1958	Barbara Bolton, Dip(PTh)'58, Dip(OTh)'59; Sylvia J. Ommanney, Dip(P&OT)'59; Anelia Wright, Dip(PTh)'57, BSc'58

Volunteers Needed to Organize Reunion Activities for the Medicine classes of 1988, 1993, 1998, 2003

For more information, please contact Melanie Lane, Development and Alumni Relations associate, at 514-398-1299 or melanie.lane@mcgill.ca.

Alumni Moments

CLASS ACTION BRINGS STUDENTS TOGETHER

(Left to right) Melanie Lane, Development and Alumni Relations associate, Michèle Joanisse, executive director of Development, Medicine alumnus David Holbrooke, Dean of Medicine Richard Levin and Medical Students' Society Med-4 class president Luke Lavallée appear at the Class Action Campaign launch in March.

The lives of medical students are often chaotic and stressful, and do not allow much time for leisure. But rare as these free moments are, students will soon have a place to enjoy them, thanks largely to the initiative and generosity of Medicine's 2008 graduating class.

As part of Class Action, an annual fundraising drive focused on enhancing student life, medical students will donate towards the creation of a new on-campus social space in the Lady Meredith Annex, complete with computers, study desks, sofas and other furnishings. This campaign has been spearheaded by graduating medical students Luke Lavallée, BSc'04, MDCM'08, Kristin Lyons, MDCM'08, and Yasaman Rajabieh Shayan, MDCM'08. To help bring this project to fruition in time for the fall semester, David Holbrooke, BSc'64, MDCM'69, has pledged to match up to $20,000 of student donations if first-, second- and third-year students also give. Furthermore, Dean Richard Levin will give up to $2,500 in a similar challenge.

Class Action has been funding worthy student initiatives for nearly 20 years, and the opening of the revitalized Annex is no exception. If you are interested in supporting this project, please contact Melanie Lane at 514-398-1299 or melanie.lane@mcgill.ca. You can also make a gift online at www.alumni.mcgill.ca/classaction.

HELP YOUR CLASSMATES RECONNECT WITH MCGILL

BECOME A CLASS SECRETARY

The Alumni Relations Office is looking for dedicated graduates to act as liaisons between McGill and their class.

Specific responsibilities:

- **Collect information about your classmates for inclusion on the Faculty of Medicine's website and alumni newsletter**
- **Disseminate interesting McGill news to fellow alumni**
- **Serve on your class reunion committee**
- **Identify other classmates willing to assist with reunions**
- **Commit yourself to this voluntary position for five years**

For more information or to nominate yourself as class secretary, please e-mail alumni.medicine@mcgill.ca or phone 514-398-7686.

IMPROVING PUBLIC HEALTH FOR NATIVE AMERICANS

David Boyd, MDCM'63, is a general trauma surgeon with 23 years of experience in the U.S. Public Health Service Commissioned Corps. He is considered a pioneer in trauma and emergency medical services systems, and when Quebec implemented such a system in the late 1980s, they called it *"le modèle de Boyd."* He has spent the last 12 years as the surgeon for the Blackfeet Indian Reservation in Montana and is currently the national trauma systems coordinator for the Indian Health Service. In January, Boyd had the honour of meeting President Bush at the White House, where he participated in a national meeting concerning substance use disorders. He recently developed an Alcohol Injury Control Program for the Native American population that will be the largest targeted rural accident prevention initiative in the U.S. to date. Boyd lives in New Market, Maryland, with his wife, Joyce, MDCM'63.

TACKLING TEENS' HEALTH ISSUES

Sylvester Braithwaite, MDCM'78, has dedicated his career to addressing adolescent health issues, with a focus on sexually transmitted diseases and teen pregnancy. He has founded or advised more than 15 organizations, including the Making Barbados Better Foundation and the BayView Hospital in Barbados, and has served on the Adolescent Health Care Committee of the American College of Obstetricians and Gynecologists. He is the author of *Teen Spirit: The Ultimate Family Manual*, and recently launched a comprehensive sexual education DVD entitled *Teens, Sex & Health*. Braithwaite practises obstetrics and gynecology and lends his medical expertise to the Reach for the STARS Foundation and Alert Health Inc. in Miami, Florida.

TRAINING RUSSIAN DOCTORS

Edward Burger, BSc'54, MDCM'58, has helped train countless young doctors – as a professor of Community and Family Medicine, as founder of the Institute for Health Policy Analysis at Georgetown University Medical Center and as director of the Eurasian Medical Education Program (EMEP). During his time as a White House staffer working with the President's science adviser in the early 1970s, Burger helped create several key health research partnerships between the U.S. and the Soviet Union. This experience eventually led him to found the EMEP in 1997, in partnership with the American College of Physicians. The EMEP contributes to continuing education for doctors in Russia, a country which has historically enjoyed an extensive health care system, but where in some regions, medical practices have not kept pace with Western advances. As part of the program, internists from the United States and Western Europe volunteer their time for lectures, seminars and clinical teaching rounds at academic medical centres across Russia. Since its establishment, the EMEP has contributed to continuing medical education programs for roughly 9,000 doctors, and has helped 12 groups of Russian health leaders obtain clinical experience in the United States. Burger resides in Washington, D.C.

McGILL HONORARY DOCTORATE AWARDED

McGill University awarded an honorary Doctor of Science degree to Victor Dzau, BSc'68, MDCM'72, at its spring Convocation ceremonies in May. Dzau is the Chancellor for Health Affairs, James B. Duke Professor of Medicine, and director of Molecular and Genomic Vascular Biology at Duke University. He also serves as president and CEO of the Duke University Health System.

AWARD-WINNING NURSES

As part of this year's Canadian Nurses Association (CNA) centennial celebration, two McGill nursing alumni were among 14 others honoured with a CNA Nurse to Know Centennial Achievement Award for their contributions to the Canadian health system. On February 1, Prime Minister Stephen Harper and Health Minister Tony Clement recognized Daniel Savoie, MSc'99, and Janet Bryanton, PhD'07, at a ceremony in Toronto.

Savoie, a native of New Brunswick, was inspired to pursue nursing rehabilitation studies after a severe car accident rendered him paraplegic in 1988. In 1991, he became the first paraplegic to complete a baccalaureate nursing program in Canada. Following his graduate studies at McGill, Savoie became a senior nursing instructor at the University of New Brunswick. In addition to numerous scholarly and voluntary pursuits, Savoie sits on the CNA certification rehabilitation nursing exam committee. For the past three years, he helped to develop the Canadian Association of Rehabilitation Nurses and established a rehabilitation nursing consulting firm for persons with disabilities. This November, Savoie will also receive a CNA Centennial Award honouring 100 exceptional registered nurses who have made a significant impact on the nursing profession.

For more than three decades, Janet Bryanton's passion for teaching and research, has had a tremendous impact on nursing. Throughout her tenures at the Prince Edward Island School of Nursing and the University of Prince Edward Island, she has coordinated successful projects ranging in focus from research on mental disabilities to reproductive care for newborns and mothers, and she is actively involved in several provincial and national nursing organizations. Bryanton received her certification in perinatal nursing from the CNA in 2000 and earned a PhD from McGill in 2007. Today, her research focuses mainly on perinatal health promotion.

Courtesy: CNA

(left to right) Federal Health Minister Tony Clement, CNA President Dr. Marlene Smadu, Dr. Janet Bryanton and Prime Minister Stephen Harper

Courtesy: CNA

Daniel Savoie (left) pictured with Prime Minister Stephen Harper

KeyDates

Faculty Development Workshops

WRITING FOR PUBLICATION
Oct. 23 – 8:30 a.m. to 12:00 p.m.
Jonathan C. Meakins Amphitheatre, McIntyre Building (5th floor)
3655 Promenade Sir William Osler, Montreal

EFFECTIVE USE OF TECHNOLOGY IN TEACHING AND LEARNING
Nov. 11 & 19 – 8:30 a.m. to 12:00 p.m.
Room 409, McIntyre Building
3655 Promenade Sir William Osler, Montreal

Medical Education Rounds

SYMPOSIUM ON EDUCATION IN THE HEALTH SCIENCES
June 12 – 4:00 to 5:30 p.m.
Jonathan C. Meakins Amphitheatre, McIntyre Building (5th floor)
3655 Promenade Sir William Osler, Montreal

THE M31 MEDICAL SCHOOL ADMISSIONS PILOT
Oct. 30 – 4:00 p.m.
Dr. Saleem Razack – Pediatrics
France Drolet – Admissions, Faculty of Medicine
Jonathan C. Meakins Amphitheatre, McIntyre Building (5th floor)
3655 Promenade Sir William Osler, Montreal

For information about faculty development programs or medical education rounds, or to RSVP, call 514-398-2698, e-mail facdev-events.med@mcgill.ca or visit www.mcgill.ca/medicinefacdev.

Office of Curriculum Development and Physicianship

2008 WHITE COAT CEREMONY
Oct. 3 (time TBA)
Palmer Howard Amphitheatre, McIntyre Building (6th floor)
3655 Promenade Sir William Osler, Montreal
Contact: 514-398-5343 or currdev.med@mcgill.ca

Centre for Continuing Medical Education (CCME)

McGill's CCME offers several series of fully accredited presentations for medical students, physicians, medical and surgical residents and other health care professionals.

The **THURSDAY EVENING LEARNING SERIES** features updates on hot topics in medicine, delivered by leading health care professionals. The upcoming 2008-09 calendar will include talks on psychiatry, neurology, cardiovascular medicine, dermatology, dietary supplements, genetics, geriatrics, infectious disease, nephrology/urology, musculo-skeletal medicine and more. The series will be held at the McIntyre Building on campus and can be viewed online as webcasts following each lecture.
Sept. 11, 2008 to Apr. 2, 2009 – 6:30 to 8:30 p.m.

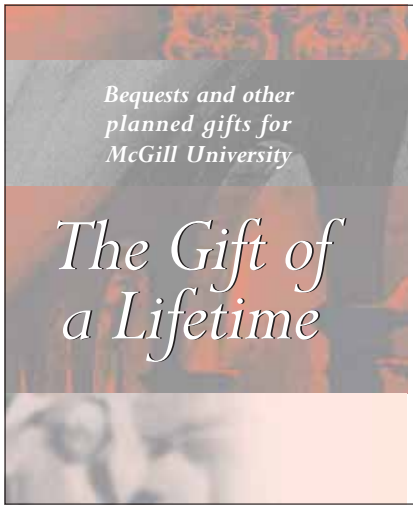
The CCME also offers weekly rural Web conferences for health care workers in remote areas. The interactive presentations are held each Wednesday (in English) and Thursday (in French) throughout the academic year, and are posted on McGill's Continuing Medical Education website. More than 700 lectures are currently available online. **Sept. 10, 2008 to April 1, 2009 – 12:00 to 1:00 p.m.** Contact: 514-398-5637, cmespecialevents.med@mcgill.ca or http://cme.med.mcgill.ca

Alumni Events

McGILL MINI-MED LECTURES
Wednesdays from Oct. 15 to Nov. 26 – 6:00 to 8:00 p.m.
Charles Martin Amphitheatre, McIntyre Building (6th floor)
3655 Promenade Sir William Osler, Montreal
Registration is on a first-come, first-served basis
Contact: 514-398-5332 or minimed.med@mcgill.ca

HOMECOMING
Oct. 16-19
Homecoming 2008 will feature many Medicine-specific events (see page 17) as well as McGill's University-wide celebrations. To find out more, visit www.medicine.mcgill.ca/alumnicorner and navigate to "Homecoming 2008 Schedule of Events."

39TH ANNUAL MONTREAL LEACOCK LUNCHEON
Oct. 17 – 12:00 to 2:15 p.m.
Hilton Montreal Bonaventure Hotel
900 de la Gauchetière West, Montreal
Contact: 1-800-567-5175 or 514-398-5000



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