The last several years have been marked by change within the Division; changes that mirror a dramatic evolution within the specialty of vascular surgery. As with other surgical specialties, the trend to less invasive methods of treatment has been the hallmark of vascular surgery in recent years. The feasibility of endovascular treatment of aortic aneurysms first revolutionized the field of vascular surgery in 1991 and newer technologies allowing the effective percutaneous treatment of carotid artery atherosclerosis, renal artery hypertension, and peripheral arterial occlusive disease have broadened further the potential for minimally-invasive treatment of vascular disease. This revolution in technology and trend to minimally invasive treatments has been embraced enthusiastically by vascular surgeons at McGill University. Since 1998, when Dr. Daniel Obrand, Dr. Oren Steinmetz and Dr. Normand Miller performed the first cases of endovascular aortic aneurysm repair at McGill, the endovascular stent-graft program at McGill has expanded dramatically under their leadership and McGill is currently recognized as a Canadian leader in the field of endovascular aortic surgery.

The Division of Vascular Surgery is now entering its seventh year as a distinct Division of the Department of Surgery at McGill University. The Division currently functions administratively as two separate vascular services at the McGill University Health Centre.
Dear Editor,

It was nice to have been back in Montreal for the McGill Homecoming Week-end. I attended the Medical Seminar, the Leacock Luncheon and visited with some classmates, one who stayed at McGill and the other, practiced on the Lakeshore. Fortunately, the weather was nice and I still remember how to get around downtown Montreal. Since I was put at the '43 table at the Leacock Luncheon, I talked with Dr. Estrada and Dr. MacCallum, both of whom taught me and some '53 grads that came back. Bill Wilson was class of '53 and I missed him. I also missed seeing Geoff Lehman (by very little time since he signed in before me at the Osler Library), who was an Attending Surgeon at the Vic.

Now that I have a bit more "free" time, hope to get back next year!

John Hsu, M.D.,
Downey, California

Dear Editor,

The Square Knot finds me quarterly in Southern California. It keeps me connected with pride to my surgical roots at McGill and particularly the Royal Victoria Hospital. After completing my training, I rolled down the hill to St. Luc Hospital on Dorchester for one year, then was recruited to join Dr. Fred Ingles Surgery Department at the University of Saskatchewan for two years. Dr. Myron Goldstein, the RVH alumnus opened the door to a wonderful private practice opportunity in Long Beach where I have settled since 1978. I have enjoyed a very balanced cardiac, vascular and thoracic practice to this day. I write mainly to offer thanks to my mentors in General and CVT Surgery (1968-1974) who prepared me well for a career that has been both satisfying and rewarding in more than a financial sense. The memories of the RVH are particularly vivid and frequently warm my heart.

Guy Lemire, M.D.
Los Alamitos, CA

Editor's Note: TSK thanks Dr. Lemire very sincerely for his generous donation to the McGill Department of Surgery.

Dear Editor,

Our time has been taken up with the post-hurricane cleanup. We have lost a few trees along the shore but the boat is OK. Many people still do not have electricity. We only lost ours for 17 hours. The downtown area of Halifax is devastated. Many boats were washed ashore, many of them landing on people's lawns. A huge schooner sank at the wharf in the harbour. There is extensive damage to the marinas in town. All hospitals, schools, universities are closed until at least Monday. The whole region is huming with the sound of chainsaws. But life is progressively getting back to normal. Thank you for thinking of us.

Bernard & Betty-Lou,
St. Margaret's Bay, Nova Scotia

Editor's Note: Response from Bernard Perey after our inquiry regarding Hurricane Juan (Oct. 5, 2003).

Dear Editor,

I'd like to receive "The Square Knot" issues just as I did when I was a resident. I graduated from the McGill General Surgery Program (1998-2003) and passed the Royal College Certifying Exam in General Surgery in June 2003. I also graduated from the Master's Program at the Faculty of Graduate Studies at McGill and obtained a M.Sc. Degree in October 2003. In July of this year, I started a two year fellowship in Vascular Surgery at the University of British Columbia in Vancouver. Sincerely,

Dhafer Kamal, M.D.
WE COULD LEARN FROM ANIMALS...

It is amusing to muse over some animal traits that could be of interest to Medical Science. Perhaps we should invite Zoologists to our Rounds. Let us consider a few wonders of nature.

THE COLD

How do animals withstand the cold of winter? Deer are supposed to have hollow coarse hair (fur), but why aren't their thin limbs cold? Why don't their lacrimal tears freeze? Husky sled dogs in the Arctic sleep in the snow. If you go cross-country skiing, a little chickadee might come to eat breadcrumbs in your hand and then retire for the night, not in a warm place but in a nest of twigs at 30 degrees below zero. These animals and others such as moose, wolves and caribou are homeothermal. Poikilothermic animals, such as fish, spend the winter at the bottom of our lakes. Naturalist Bernd Heinrich, in his book From the Winter World: The Ingenuity of Animal Survival (2003) postulates that the hibernating frogs' low-temperature limits go as low as -8°C without the lethal formation of ice crystals. Perhaps we should study cryoglobulins more. Do domestic pets really need added clothes when you take them for a walk in the winter?

DIET

The basic standards of good nutrition are based on a well-balanced diet. Is that so? One of the strongest and fastest animals is the horse and its daily staples are oats and hay. Try feeding vegetables to your dog. The wild cats in Africa thrive on red meat alone. Thousands of grazing herds of zebras, gnus and cattle eat only grass. Talk about a low fat diet! Veterinarians will tell you that most autopsies of cows will show gallstones precisely because of the hypokinesia of the gallbladder fostered by this type of regimen.

EXERCISE

We all agree that this is good for you, but how is it that the fastest cat in Africa, the cheetah, spends 20 hours a day lounging around and sleeping? An Irish Setter will loll around the house all day and when taken for a walk will dash all over the place without being out of breath. And it is not overweight. Seabirds such as terns learn to fly by diving from a cliff.

SLEEP

Bears hibernate all winter, horses sleep standing up, bats sleep upside down, and sharks don't sleep at all. How come? Insomnia and hyposomnia are unknown in the Animal Kingdom.

DIGESTION

This gets complicated. The breakdown of foodstuffs starts by mastication. We are supposed to chew a morsel many times. Some types of animals like cats chew a lot, but there are anomalies in others. Ruminants return the food from the first stomach (or maw) as a cud to their mouth and chew it again! Crocodiles and alligators have lots of big teeth and can only chew up and down, not sideways, but anyway they mostly gulp their prey. Snakes must have very powerful gastric juices because they don't chew at all. How do wild dogs and hyenas process the bone splinters? Of interest to General Surgeons is that rabbits and goats have a rather large appendix, which is thought to have a role to play in the digestion of methylcellulose.

Senses

The philosopher tells us that only humans can think, as this requires an Intellect and a Will. Cogito, ergo sum. How then to explain some of the marvels of fauna? How is it that a stork can leave a rooftop in Brussels in the fall, fly to Africa and return in the spring to the same nest? That is pretty good navigation. How can geege fly in almost perfect formation? Dolphins communicate with each other underwater. Chimpanzees use twigs as tools to forage in anthills. Consider the keen eyesight of an eagle or the heightened sense of smell of a bloodhound. To find its prey surely the predator must have a plan.

Animals are supposed to behave only by instinct or reflexes. Think of Pavlov's dog. But pet dogs make decisions don't they? Or do they really? Perhaps Dr. Doolittle was onto something. Maybe, we should stop being whimsical and apply for a Research Grant!

"Which will it be today, doctor—Bach, Beatles, or Backstreet Boys?"
Vascular

(continued from pg.1)

The Division has been fortunate in successfully recruiting Dr. Abraham to McGill and to the Jewish General Hospital. Dr. Abraham obtained his General Surgery training at Dalhousie University and then completed his Vascular Surgery fellowship at The University of Western Ontario in London, Ontario. Prior to starting at McGill last summer, Cherrie spent a full year training in endovascular surgery at Dr. Timothy Chuter, a renowned vascular surgeon from San Francisco, and recently returned from a further 6 month endovascular fellowship with Dr. John Anderson in Australia. His 18 month post fellowship training with two of the world’s leaders in the field of endovascular surgery represents a huge clinical experience and adds tremendously to the depth and authority of the Division.

Several exciting developments have occurred over the past year within the Division which highlight the direction of vascular surgery in general as well at McGill. Dr. Abraham’s arrival at McGill facilitated the completion of the first branched stent-graft repair of an abdominal aortic aneurysm ever performed in Canada. This 14-hour procedure was jointly performed by the patient’s surgeon Dr. Steinmetz as well as Dr. Abraham, visiting surgeon Dr. Timothy Chuter, Dr. David Valenti from Radiology, Dr. Kent MacKenzie and vascular surgery fellow Dr. Leonard Tse. The patient was very high-risk for open surgical repair because of a previous infrarenal aneurysm repair, presence of an iliac conduit, a large incisional hernia, severe chronic obstructive pulmonary disease and a single, functioning kidney. When offered the possibility of this new and exciting technology as an alternative to open surgical repair, the patient accepted. The procedure was successful in treating the patient’s complicated aneurysm involving the celiac axis, superior mesenteric artery and the right renal artery (see figure, branched stent graft) and clearly illuminates the potential of endovascular technology.

Several months ago, work began in the research laboratory for endovascular surgery at the JGH’s Jady Davis Institute. This laboratory will have many purposes, but was born out of the desire to develop local expertise in advanced endovascular surgical techniques and to bring these skills to the clinical arena. The development of an animal model for suprarenal and thoracoabdominal aortic aneurysms, which can
be used to refine skills and develop technology for branched and fenestrated stent grafts, is a first priority. All the vascular surgeons within the Division will be involved in work at this facility and it is expected that each will pursue their own line of investigation in a collaborative environment. Considerable industry support has been secured to help fund the work in the lab and ongoing financial support from external, peer-reviewed funding sources is being sought. At the recent annual meeting for the Canadian Society for Vascular Surgery, Dr. Kent MacKenzie was awarded the Blair/Gore Research Award for his research proposal entitled *An animal model for pararenal and thoracoabdominal aortic aneurysms - applications for branched endovascular stent grafts*. The financial support from this award, industry sources and other peer-reviewed sources will help to keep the research lab active.

Within the past 6 months, the MUHC site, with Dr. Oren Steinmetz as principle investigator, became a study center for the ERA (Endovascular Stent Graft for Ruptured Aneurysm) study, a multicenter trial comparing open repair to endovascular stent graft repair for ruptured abdominal aortic aneurysm. This study involving 10 centers in Europe and Canada hopes to answer the question of whether or not endovascular stent-graft repair of ruptured aneurysms is a better operation for the patient than is open repair. Since the start of the study, we have treated 3 patients with ruptured infrarenal aortic aneurysm using endovascular stent grafts with very favorable results — two of the three patients left the hospital within 5 days of suffering their rupture! While still awaiting the results of the trial, these are encouraging early results.

Vascular surgeons here and elsewhere continue to face the same clinical problems on a day-to-day basis now as they did 10, 20 and 30 years ago and by and large, these problems are treated in a similar way to the ways they were treated in the past. The role of standard, proven surgical procedures like carotid endarterectomy, open aneurysm repair and femorotibial bypass continue to be the pillar of treatment for patients with vascular pathology. However, with the advent of minimally-invasive and percutaneous techniques to treat many of the common vascular surgical problems encountered in a typical practice, the skills-set required of the vascular surgeon is changing. In addition to being familiar with the normal and abnormal anatomy of the arterial and venous system and being a competent, safe surgeon, comfortable with unexpected findings at the time of surgery, increasingly, the vascular surgeon will have to also possess the skills required to treat vascular problems with stents, balloons, catheters and wires. It is important to note that endovascular stent-graft repair is now considered a standard treatment for selected patients with infrarenal abdominal aortic aneurysms, renal artery angioplasty has by far supplanted operative renal artery revascularization to treated renal vascular hypertension and current trials examining carotid angioplasty and stenting are expected to show equivalency to carotid endarterectomy! The possessor of the skills required to perform these procedures will thus be in a position to best provide care for the vascular patient in the future. Up until the recent past, this individual would not have typically been a vascular surgeon — it most probably was an interventional radiologist or a cardiologist. The surgeon who is as equally comfortable in the operating room with an open surgical procedure as he or she is looking at a video monitor of a fluoroscopically-guided intraluminal procedure is becoming increasingly common not only in Vascular Surgery but also in Urology, Neurosurgery, General Surgery and even Cardiac Surgery.

At McGill, efforts in developing and maintaining a strong endovascular stent-graft program, recruiting individuals well-trained in advanced endovascular techniques and becoming involved in bringing advanced, 'on-the-cusp' treatments to patients who will most benefit, will help to keep us to the forefront of the field. Providing the best care for our patients and ensuring the highest quality of training for our residents and fellows will continue to be our primary mission.
KUDOS!!

Dr. Arman Aprikian, in collaboration with Dr. Eduardo Franco and their post-doctoral fellow Dr. Salah Mahmud, have been awarded a US Army Cancer Research Grant of US $307,000.00 to study the effects of non-steroidal anti-inflammatory drugs on the development and progression of human prostate cancer. Dr. Aprikian (Surgery/Oncology) and Dr. Franco (Cancer Epidemiology) have recently teamed up to establish a Prostate Cancer Clinical Epidemiology Program at McGill.

Dr. Jeffrey Barkun of the RVH has been named Chairman of the Utilization Management Committee of the MUHC. At the ACS meeting in October, he gave a talk on "Chronic Pain After Groin Hernia Repairs." He also chaired a post-graduate course as well as a free paper session. In December, he will be a Guest Lecturer at the Quebec Association of Gastroenterologists meeting. His talk will be on "Surgical Resection of Pancreatic Cancer." He has also been renamed to both Health Technology Assessment Committees - at the Canadian Coordinating Office for Health Technology Assessment (Federal), and the Agence d'Évaluation pour Technologies et Mode d'intervention en Santé (Provincial).

Dr. Nicolas V. Christou, Head of the Division of General Surgery of the MUHC, is the author of a newly updated chapter on Antibiotics for the Practicing Surgeons Web-based Surgical Reference on the Online Version of ACS Surgery: Principles and Practice. Subscribers may view the full text at "Antibiotics" at www.acssurgery.com. Here one will find the principles of antimicrobial therapy and the best antibiotics to select for infections in surgical patients as well as adverse reactions to antimicrobial agents.

Dr. Richard L. Cruess has been named an Officer of the Order of Quebec. This was presented to him along with two other physicians who were honored at the Legislative Assembly in Quebec City. The citation is that he distinguished himself by his research in orthopedics and his contributions to medical education and health research.

Dr. David Evans of the MGH is the Chairman of the Adult Trauma Committee of the MUHC Council of Physicians, Dentists and Pharmacists. David is also the Chairman of the Critical Care, Trauma, Infectious Diseases and Surgical Nutrition Committee of the Canadian Association of General Surgeons.

Dr. Hélène Flageole of the MCH has been appointed as a member of the Central Executive Committee of the CPDP of the MUHC.

Dr. Gerald M. Fried has been elected to the post of President of the Canadian Association of General Surgeons. For a long time, Gerry has served as the Chairman of the Information Technology Committee of CAGS.

Dr. Michel Gagner, one of our alumni in New York, served as co-ordinator and presiding officer of the closed circuit television operations during the Clinical Congress in Chicago on October 20th.

During the Annual Meeting of the Canadian Fertility and Andrology Society, Dr. Claude Gagnon received the Award of Excellence for 2003 at the President's Dinner held November 7th.

Dr. Francis Glorieux, Head of the Genetics Unit and Director of Research at the Shriners Hospital for Children, and Professor of Surgery, Pediatrics and Human Genetics, has been made an Officer of the Order of Canada. In addition, he received 3 major awards this year: The Elsevier Award to the International Bone and Mineral Society (IBMS) to recognize a distinguished career as scholar, educator and leader in the field of bone and mineral research; The Career Award from the "Vitamin D Workshop" to recognize the same accomplishments with emphasis on Vitamin D-related research; and The Jonas Salk Award from the Ontario March of Dimes for outstanding contribution to the alleviation of a disabling condition (bisphosphonate treatment in osteogenesis imperfecta).

Dr. Philip H. Gordon, Vice-Chairman of the Department of Surgery at the JGH, to commemorate the arrival of the specialty of Colon and Rectal Surgery at the Sir Mortimer B. Davis - Jewish General Hospital and McGill University 30 years ago, is organizing a postgraduate course in colon and rectal surgery which will be held June 3-4, 2004. Internationally renowned surgeons have been invited from around the world to participate in this landmark event.

Dr. Eric Lenczner, orthopedic surgeon at the MGH, has been appointed Vice-Chairman of the Central Executive Committee of the Council of Physicians, Dentists and Pharmacists of the MUHC.

Dr. Kent MacKenzie was awarded the Blair/Gore Research Award by the research committee of CSVS for his research proposal to develop animal models to evaluate and develop branched endovascular stent grafts. Kent also

Dr. Peter Mclean of the RVH is the Chairman of the Adult Infection Control Committee of the MUHC.

Dr. Sarkis Meterissian, Program Director of the General Surgery Program, had a rare achievement this year. In January, he was named for a 3-year term as a grant reviewer on an NCIC Grant Panel. In June, he was named for a 5-year term as an examiner for the Royal College. In addition, Sarkis was recently asked to be on the Faculty Development Committee of McGill University, thus completing the full cycle of educational responsibilities. He has been Director of the Undergraduate ICM-C Program from 1997-1999, Program Director of General Surgical Oncology from 1997-2001, and presently Program Director of the General Surgery Residency Program since 2001.

Dr. David Owen of the MGH has been appointed on the Central Executive Committee of the MUHC.

Dr. Lawrence Rosenberg of the MGH continues to be recognized for his research in the biological therapy of Types I and II diabetes mellitus. The ongoing clinical trial uses the drug INGAP to stimulate the body to create new insulin producing islet cells.

Dr. René St-Arnaud, Associate Professor of Surgery, Medicine, and Human Genetics, was awarded the 2003 Prix d'Excellence of the Foundation for Research in Children's Diseases.

Dr. Oren Steinmetz was an invited speaker at the TEAMS (Transfemoral Endovascular Aneurysm Management Symposium) in Victoria, B.C. on October 24th, 2003. He gave two talks, one on their Four Year Experience with Endovascular Stent Grafts to Treat Thoracic Aortic Lesions, and the other on Endovascular Stent Grafts to Treat Ruptured Abdominal Aortic Aneurysms. Dr. Steinmetz was Program Committee Chairman for the annual meeting of the Canadian Society of Vascular Surgery which was held in Victoria, B.C., October 23rd - 24th, and was elected to the Executive Committee of the CSVS in the position of recorder.

Dr. John Robert (Jack) Sutton was appointed Chief of the Department of Surgery in September 2003 at St. Mary's Hospital. As you may remember, he had served for nearly 3 terms as Director of the Division of Orthopedics. A new Director of the Division of Orthopedics has not yet been appointed. This is the first time in the history of the Hospital that a surgeon other than from the Division of General Surgery has become Chief of the Department of Surgery. A graduate of McGill (1973), he replaces Dr. Carl Emond.

Dr. Christo Tchervenkov has been very busy academically in the last year, in addition to his busy clinical practice in pediatric and adult cardiac surgery at the MCH and MGH. In October 2003 in Vienna, Austria, he gave a presentation entitled The International Working Group for Mapping and Coding of Nomenclatures for Pediatric and Congenital Heart Disease at the Congenital Heart Surgery business meeting of the 2nd Joint Meeting of the European Association for Cardio-thoracic Surgery and the European Society of Thoracic Surgery. Immediately after the Vienna meeting, he flew to Abu Dhabi, United Arab Emirates where he was on the faculty of a Course in Congenital Heart Disease presented by The Boston Children's Hospital and Harvard Medical International. He gave the following 4 lectures: Norwood Operation for Hypoplastic Left Heart Syndrome; Hypoplastic Left Heart Syndrome: Long-term Survival and Cognitive Outcome; Surgery for Complex Tetralogy of Fallot; and Surgery for Heterotaxy. Dr. Tchervenkov has also been extremely busy on several international projects and committees. He is currently the Chairman of the Program Committee and member of the Council of the Congenital Heart Surgeons Society. He is also member of the Workforce on Congenital Heart Surgery and is on the Congenital Heart Surgery Database Taskforce of the Society of Thoracic Surgeons. He is on the Executive of the International Aristotle Complexity Score Committee for Congenital Heart Surgery. He is the Chairman of the International Working Group for Mapping and Coding of Nomenclatures for Pediatric and Congenital Heart Disease, and is Secretary of the International Nomenclature Committee for Congenital Heart Disease. He was also among the first ever group of four North Americans to be elected to full membership of the European Congenital Heart Surgery Association. Finally, Dr. Tchervenkov was chosen to be the President-Elect of the International Pediatric Cardiovascular Society "Aldo R. Castaneda".

Dr. Carol-Ann Vasilevsky of the JGH gave a lecture on Management of Anastomotic Strictures in the Post-graduate Course entitled "Complications in Colorectal Surgery" at the Canadian Surgical Forum on September 18th, 2003 in Vancouver. Later at the American College of Surgeons in Chicago in October, she presented a paper entitled Preoperative Imaging: How Much, What and When. This was during a symposium in "Challenging Anorectal Fistulas".
Dr. Zainab Al-Balushi, Dr. N. Christou (Head of Division of General Surgery) and Dr. S. Meterissian (Program Director, General Surgery) both take a moment on October 1st to celebrate the 1st birthday of Mariam, Zainab's daughter.

Achievements

Residents and Fellows

Dr. Robert Andtbacka is the resident chosen by McGill to receive the CAGS/Merck Frosst Teaching Award for 2002-2003. This award of $1000.00 per medical school recognizes the senior general surgery resident who demonstrates the greatest commitment to teaching of the other Residents and Medical Students.

Dr. Sebastian Demyttenaere (R-2) won the CAGS Clinical Research Award for a project entitled The Advanced Breast Biopsy Instrumentation (ABBI) at McGill: More Than Just a Diagnostic Tool? He presented the work at the Surgical Forum in Vancouver in September. The project was done with Wael Hanna, a medical student, and Lorenzo Ferri. Dr. David Fleiszer was their supervisor.

Dr. Leonard Tse, vascular fellow, presented an abstract at the CSVS meeting, The Proximal Landing Zone in Endovascular Repair of the Thoracic Aorta (L.W. Tse, K.S. MacKenzie, B. Montreuil, D.I. Obrand, O.K. Steinmetz).

Dr. Marc Zerey, R-IV in General Surgery, in conjunction with Drs. P.H. Gordon, L.K. Beitel and M. Trifiro presented a paper on Functional Analysis of Human MLH1 Missense Mutations using Saccharomyces Cerevisiae at the Canadian Surgery Forum September 18-21, 2003 in Vancouver, B.C.

Can You Read This?

According to a research at Cambridge University, it doesn't matter in what order the letters in a word are, the only important thing is that the first and last letters be in the right place. The rest can be a total mess and you can still read it without problem. This is because the human mind does not read every letter by itself, but the word as a whole.

Amzanig huh?
NEW MUHC HEAD OF ORTHOPAEDIC SURGERY and CHAIRMAN OF THE MCGILL DIVISION OF ORTHOPAEDIC SURGERY

Dr. Robert Turcotte:

The members of the Department of Orthopaedic Surgery and the rest of our colleagues within the MUHC community welcome the arrival of Dr. Robert Turcotte as the Head of Orthopaedic Surgery at the MUHC and Chairman of the Division of Orthopaedic Surgery at McGill University as of the 1st of September 2003.

Dr. Turcotte's expertise in orthopaedic oncology is already well known to us from his previous attachment to the MUHC since 1994. The establishment of a specialty group within our Department in the McGill network represents a significant expansion of our position as one of the centers of cancer treatment and research.

Dr. Turcotte is a graduate from the Université de Montréal in 1982 and from the Edouard-Samsom Orthopaedic Program in 1987. His residency was followed by fellowships at the Hôpital Cochin in Paris and at the Mayo Clinic in Rochester. Since 1989 he has been a member of the staff at Hôpital Maisonneuve-Rosemont and an Associate Professor at the Université de Montréal. He was an ABC Travelling Fellow in 1995. He has extensive administrative experience both within the oncology field and as a member of the Executive Committee of the Quebec Orthopaedic Association.

Dr. Turcotte's arrival at the MUHC will establish our institution as a principal Orthopaedic Oncology Centre in the Province.

T

he Orthopedic Spine Group was quite busy in the last few months.

News From the MUHC Orthopaedic Spine Group

Dr. M. Al-Obaid, spine fellow in the Division of Orthopaedic Surgery presented the following poster at the Scoliosis Research Society, Quebec in September 2003, and the European Spine Society, Prague, October 2003 - Increased pull-out strength of the suprapedicle claw construct - A biomechanical study. His co-authors were Dr. Thomas Steffen and Dr. Vincent Arlet who had piloted the project.

Dr. Arlet presented the New Software SCOLISOFT that was developed by the McGill Group in collaboration with the Quebec Scoliosis Network. The software SCOLISOFT is an extensive electronic spinal deformity registry that enables the surgeon and the patient to see the future outcome of their specific scoliosis surgery. Different international centers are currently enrolling to participate in this study. This Software was lately represented at the Hibbs Society meeting in Quebec City where Dr Arlet was the course organizer.

Dr. Arlet was the Chairman of the AO North American Spine annual meeting in Quebec on August the 6-10. He was later invited as a guest speaker for a Tour in Western Canada. On October the 16th, he was in Winnipeg for the Annual Orthopedic Conference of the University of Manitoba. He gave the following conferences: The artificial lumbar disc: its role in chronic low back pain, and Surgical treatment of Adolescent Idiopathic Scoliosis. The next day in Calgary, he was invited to give the University of Calgary Townsends Lecture: Management of cervical spine injuries in children. He also gave the following lectures: Congenital Scoliosis, and Selection of Levels in Adolescent Idiopathic Scoliosis.

Dr. Arlet was also invited by the Department of Neurosurgery to give the following lecture at the International Neurosurgical Neuroradiology Symposium organized by Pr Gerard Mohr in Montreal. He spoke on Surgical treatment of spinal metastases.

Dr. Rudy Reindl kept sharing his time between trauma and spine surgery. He was an invited faculty on the AO North America Spine Symposium in Quebec City in August. He gave 2 lectures on the management of spine trauma. Later, Dr. Reindl traveled with Dr. Arlet to Tokyo at the AO International Advanced Spine Course in which he gave the following lectures: Surgical management of Spinal metastases, and Posterior surgery for thoracolumbar fracture.
Dr. Jean A. Ouellet has been busy continuing to refine his skill in managing complex spinal deformities. Over the last 6 months, he has been involved in learning a new surgical technique to manage young children with thoracic insufficiency syndrome. He has been to Harvard - Children’s Hospital in Boston as well as Children’s Hospital; Salt Lake City to partake in the implantation of the Vertical Expandable Titanium Prosthetic Rib. This procedure is designed to give new hope of life to children that suffer from severe respiratory failure secondary to severe restrictive lung disease (Jeune’s Syndrome, Congenital fused ribs, Severe congenital scoliosis). In the next few weeks, Dr. Ouellet will be the first surgeon to insert this prosthesis here in Canada. He was also in Memphis in the month of June in preparation to start managing scoliosis via the minimal invasive technique of thorascopic spinal instrumentation.

Not only has he been learning, but he has also been teaching. Dr. Ouellet has been appointed as faculty member to the AO ASIF International Spine Association and has been touring Canada and United States giving instructional lectures on spinal deformity and innovative spinal surgery. In March, he was in Calgary representing McGill Scoliosis and Spine Center in a First North American Spine Fellow Forum where he presented the new software Scisoft developed by the McGill Spine Group. In July, he was in San Diego giving 3 talks on management of Idiopathic Scoliosis at an AO ASIF Course on Spinal Deformity. In August, Dr. Ouellet gave a talk in Quebec City for the North American AO ASIF Course on Spinal Disc Arthroplasty for management of Axial Low back pain. In September, he was accepted in the prestigious Scoliosis Research Society as a Candidate Fellow.

On October 18th in Rivière du Loup, 18 year old Louis Coté was unfortunate enough to have an accident at work wherein a giant saw amputated his hand at mid forearm. At first he was treated in the hospital in Rivière du Loup where the bleeding was stopped and his extremity was cooled. He was then airlifted to Montreal where a team of surgeons at the MGH site of the MUHC worked for 12 hours straight to attach the forearm. Dr. David Evans, general surgeon, co-ordinated this intervention which was started less than 5 hours after the accident. Orthopaedic surgeon, Dr. Rudy Reindl, and Dr. Chen Lee, Chief of Plastic and Reconstructive Surgery attached the bones, blood vessels, 25 tendons to the hand and wrist, and 3 major nerves.

It is expected that Mr. Coté will eventually regain about 75 to 80% function.

Where Are They?

Please help us find the following surgeons whose addresses we have are no longer valid. If you know where they are, please e-mail Emma Lisi at or fax us at (514) 934-8289.

Dr. Antoine Alzarian-Hallak
Dr. Zaid Rushdi Arekat
Dr. R. Bend-Jabal
Dr. Erwyn W. Bissell
Dr. Luis Bueno
Dr. Marlise Bueno
Dr. C.E. Brooks
Dr. W.E. Collins
Dr. E.D. Cranshaw
Dr. A. Gervais
Dr. G. Ghazal
Dr. G. Haddad
Dr. A. Jain
Dr. Jochen Knackstedt
Dr. David Konowalchuk

Dr. Joseph B. Kornacki
Dr. Marc Lanser
Dr. James F. Murray
Dr. Folabi Olumide
Dr. Raimo U. Repo
Dr. M.A. Shervin
Dr. M. Slapak
Dr. Sidney L. Snow
Dr. L. Tin
Dr. Ivan Matthew
Tomek
Dr. Hugh Loch
Tringhman
Dr. Terrence G. Watts
Dr. John Yee
Changing the Properties of Cells by Transferring Chromosomes

By Mario Chevrette, Ph.D.

Our laboratory is located in the research institute building of the Montreal General Hospital (R4-103). Currently, the lab is composed of two Ph.D. graduate students (Audrey Gagnon and Valerii Zvieriev) and two research assistants (Jean-Sébastien Ripeau and Patricia Tellis). All our projects are based on a technique called microcell-mediated chromosome transfer (also called microcell fusion; Figure 1) that allows the transfer of chromosomes (either a whole one or fragments derived from it) from one cell into another. The introduced chromosome fragments can be used to map specific regions, but more importantly, to alter the properties of the cells in which they have been introduced. We are currently collaborating with Canadian and international (Japan) scientists. We are particularly interested in the identification of genes implicated in prostate or ovarian cancer.

Cancer progression is the result of modifications occurring in the genetic material of the cells. These modifications result in activation of specific genes (oncogenes), and in inactivation of others (tumor suppressor genes). Recently, genes involved in the replication of the genetic material of the cells (such as the telomerase genes) have also been implicated in cancer progression. It is the inadequate regulation of these genes that transform a normal cell into a cancerous one. Using microcell-mediated chromosome transfer, we are currently working on the following projects:

1. Suppression of Tumorigenic/Metastatic Properties of Prostate Cancer Cells

In Canada, prostate cancer is the most diagnosed cancer in man, and their third leading cause of cancer death. Contrasting with these alarming figures, the mechanisms implicated in the progression of prostate cancer are not understood. Using microcell fusion (in which normal human chromosomes are transferred into tumorigenic human prostate cancer cells), we have shown that human chromosomes 12 and 18 encode tumor suppressor genes whose inactivation are implicated in the progression of prostate cancer. Upon mapping of the introduced chromosome 12 regions in our prostate cancer cell hybrids, we have recently identified a new putative marker, called CD9, whose expression is lost during prostate cancer progression. We have shown that the CD9 gene is mutated in both human prostate cancer cell lines and prostate cancer samples. Moreover, we have also shown that over-expression of a normal CD9 protein can induce the death of human prostate cancer cells in vitro. We are studying the action of this protein in vivo in an animal model and are now pursuing CD9 characterization by identifying its molecular partners.

Using similar approaches, we have recently started to identify proteins that are expressed in prostate cancer cells with the goal of using these proteins as antigenic determinant in order to develop cancer vaccines.

2. Suppression of Tumorigenic/Metastatic Properties of Ovarian Cancer Cells

It is estimated that in 2003, 2,600 new cases of ovarian cancer will be diagnosed in Canada and that this cancer will kill 1,550 Canadian women. Like for many other cancers, the genes implicated in the development of this disease are still unknown. However, linkage analyses have implicated regions of human chromosome 3 with the development of ovarian cancer. Collaborating with Dr. Patrici Tonin (McGill University Health Centre) and Dr. Anne-Marie Mes-Masson (Centre Hospitalier de l'Université de Montréal), we have transferred a normal human chromosome 3 into an ovarian cancer cell line. We have shown that the presence of this chromosome rapidly leads to growth arrest, and completely suppresses the tumorigenic potential of these cells. We are now mapping the region of human chromosome 3 responsible for this phenotype and will clone this ovarian cancer suppressor gene. We are also applying this approach to identify human chromosome 17 suppressor gene(s) implicated in this form of cancer.

3. Inhibition of Telomerase

Although many genes have been associated with cancer progression, most of them are implicated only in a subset of tumors. The most striking exception is the hTERT gene encoding the catalytic subunit of an enzyme called telomerase. This enzyme is responsible for cancer cell immortality: its activity is detected in more than 85% of human tumors but is undetectable in most normal human somatic cells. We are using our panel of mouse/human hybrid cells to identify the natural regulator of telomerase. We have isolated mouse/human hybrids that are completely devoid of telomerase activity and have also shown that transfer of a specific human chromosome inhibits hTERT transcription and decreases telomerase activity of human prostate cancer cells. We are performing extensive genome mapping to identify the location and eventually clone the telomerase repressor.

4. Mapping the Genome of Model Organisms

In collaboration with Drs. Ekker and Akimenko (Ottawa Health Research Institute), we have generated a
radiation hybrid panel for the zebrafish, the best available animal model to study vertebrate development. Our group has also generated, in collaboration with Dr. Makoto Furutani-Seiki (Japan Science and Technology Corporation) a radiation hybrid panel for another model organism: the medaka fish. Radiation hybrids contain many different chromosome fragments from the genome of the radiated cells. Using such hybrid panels, researchers are rapidly able to precisely map any genes on their respective chromosomes even before the genome of such organisms is fully sequenced.

5. Identifying Viral Accessory Proteins
Using our cell hybrids, we are collaborating with Dr. Paul Jolicoeur (Institut de Recherche Clinique de Montréal) to identify cellular proteins involved in HIV infection. Collaborating with Dr. Christopher Richardson (University Health Network, Ontario Cancer Institute), we are also attempting to identify cellular proteins implicated in hepatitis C replication in liver cells.

SIGNIFICANCE
Since in human, telomerase is not expressed in the majority of normal cells, the understanding of its regulation could lead to therapeutic applications, which in theory will be devoid of important side effects. Moreover, and as it has been already shown in other human neoplasia, the cloning of tumor suppressor genes could have tremendous effects on the diagnosis and treatment of cancer and will increase our knowledge of the malignant process.

Our work has received funding from the Canadian Institutes for Health Research, the Cancer Research Society, Inc, and Valorisation Recherche Québec. We are a member of the Canadian Network for Vaccines and Immunotherapeutics (CANVAC), whose aims are to develop vaccines and immunotherapeutics for cancer and chronic viral diseases.

Separation of Conjoined Twins
McGILL MEDICINE GRADUATE PLAYS KEY ROLE IN SUCCESSFUL SEPARATION OF CONJOINED TWINS
While the surgical separation of Ahmed and Mohamed Ibrahim - two twins joined at the head and treated in Texas - has drawn much media attention, a separation of conjoined twins in a Los Angeles hospital was also noteworthy. The successful operation on two girls, Baby A and Baby B, occurred in only the second known case of conjoined twins being part of a set of triplets. Dr. William B. McIlvaine, MDCM '78, led a team of eight anaesthesiologists, two nurses and two technicians who were part of a larger medical team performing the procedure.

Welcome Aboard
Dr. Jeffrey Atkinson has joined the Division of Pediatric Neurosurgery of the MUHC as of September 1st, 2003. Dr. Atkins is a graduate of the University of Toronto Medical School. He did his neurosurgical training at McGill, as well as a Ph.D. in Functional Imaging at the MNI. He completed one year of pediatric neurosurgical fellowship in Salt Lake City in the University of Utah Program.

Chromosome transfer

<table>
<thead>
<tr>
<th>Transfer of</th>
<th>Phenotype</th>
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<tr>
<td>Chromosomes 12, 18</td>
<td>Tumor Suppression of Prostate cancer</td>
</tr>
<tr>
<td>Chromosome 3</td>
<td>Tumor Suppression of Ovarian cancer</td>
</tr>
<tr>
<td>Chromosomes ...</td>
<td>Telomerase suppression</td>
</tr>
<tr>
<td>Chromosomes ...</td>
<td>HIV and Hepatitis C accessory proteins</td>
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Cell with a tagged normal human chromosome
Recipient cell (Cancer cell)
Hybrids with a tagged human chromosome.
Items of Interest in the Good News Category

FEDERAL GOVERNMENT TO HAND MORE MONEY FOR HEALTH CARE TO THE PROVINCES

Finance minister, John Manley, in his speech on the budget update to the House of Commons on November 3rd forecast a surplus of 2.3 billion dollars for the year to March 31st. All of this money save 300 million dollars will go for health care to the provinces. Quebec's share of this is about 427 million dollars. Health minister, Philippe Couillard's office was delighted that the Federal Government had come through on its pledge. Dr. Hugh Scott, Executive Director of the MUHC, also welcomed these funds as they are "sorely needed".

EX-PRIME MINISTERS TO SERVE ON COMMITTEE TO OVERSEE SUPERHOSPITAL PLANS

Mr. Daniel Johnson, ex-premier of the Province of Quebec, and the Right Honourable Mr. Brian Mulroney, ex-prime minister of Canada, have agreed to serve at the request of Premier Jean Charest and Health Minister Philippe Couillard on a board to oversee the plans to create a superhospital. The provincial government has given the Centre Hospitalier de l'Université de Montreal (CHUM) and the McGill University Health Centre (MUHC) until December 15th to submit their superhospital proposals for review. Mulroney and Johnson along with Mr. Marcil Villeneuve who ran the Montreal Regional Health Board for 9 years will then have until February 27th to provide the government with a report recommending whether the project should go ahead or not. This news was welcomed by Dean Abraham Fuks as well as by Dr. Denis Roy, Chief Executive Officer of the CHUM and formerly Medical Director of the RVH.

WAITING TIMES FOR APPOINTMENTS AND O.R.'S NOW AVAILABLE ON THE INTERNET

Under the aegis of Health Minister Philippe Couillard, a website has been opened for health professionals and/or patients to gain information on the waiting times for various types of surgery in specific hospitals in specific regions. The address is: www.msss.gouv.qc.ca

BURSARIES OF 9 MILLION DOLLARS FOR SPECIAL CARE NURSING

Health Minister Philippe Couillard has announced the approbation of a 9 million dollar Bursary Fund to train nurses in specialized care such as Cardiac Surgery, Eye Care, et al.

...would like to thank all our readers who responded to the appeal for funds in the last issue of The Square Knot. The following surgeons have donated $100.00 or more to this cause.

Dr. Sameh Barayan  Dr. David Fleiszer  Dr. Douglas J. Mirsky  Dr. James F. Symes
Dr. Carlos Barba  Dr. Michel Gagner  Dr. David S. Mulder  Dr. Alan B. Turnbull
Dr. Ghassan Baslaim  Mrs. Sally Goss  Dr. Richard O'Connor  Dr. Carol-Ann Vasilevsky
Dr. Greg Kenneth Berry  Dr. John Hsu  Dr. Jemi Olak  Dr. Garrett L. Walsh
Dr. W.B. Callaghan  Dr. A.R. Ismail  Dr. Lawrence Rosenberg  Dr. William Wallace
Dr. Wayne Anthony  Dr. Frank H. Kanovsky  Dr. Alison Ross  Dr. William E. Wilson
Colizza  Dr. Guy Lemire  Dr. Marc Savoie  Dr. J. Derek Wyant
Dr. John H. Duff  Dr. Lloyd D. MacLean  Dr. Jorge Schwarz  Dr. Ihor A. Zakaluzny
Dr. Peter Feldman  Dr. Reza-John Mehran  Dr. Susan E. Skanes
Dr. Annie Fecteau  Dr. Sarkis Meterissian  Dr. Joseph Stratford
Dr. David M. Mirsky  Dr. James F. Symes

...
DR. FRED WIEGAND WRITES ABOUT HIS TRAVELS AS A "MÉDECIN SANS FRONTIÈRES"

Many thanks, Ed, for your kind invitation to scribble down some notes on my surgical adventures in recent years. In 2001, I did a five-week stint for Médecins sans Frontières/Doctors Without Borders working behind the Tamil Tiger lines in northern Sri Lanka at a small regional hospital. Did all the usual stuff plus a number of personnel-mine-injury victims, plus some nasty snake bites - many of which required immediate fasciotomy and some of which needed amputation.

Security was very tight, so I was not allowed to take my video camera in. In the village square, sadly, were pictures of 12 young men who had carried out suicide missions (they are called "Black Tigers"). While I developed great affection and respect for the Tamil people (all living in marked poverty), you can imagine my dismay when I found out the conflict between Sri Lankan Tamils (who are Hindus) and the Sri Lankan majority (who are Buddhists) dates back to 700 A.D. Happily, Norwegian mediators have brought about peace talks and one can only hope they hold. Over 61,000 people have died in the last ten years and it's a stunning display of what happens when a majority adopts an exclusive rather than an inclusive political regarding a minority!

In 2002, I had a fascinating five and a half weeks with Afghan refugees in Quetta, a large city in Western Pakistan, not far from the border with Afghanistan. I was recruited by CAUSE Canada (website: www.cause.ca) and seconded to Dr. Sima Samar - a fabulous 50ish Afghan female physician - who set up her Shuhada Organization (www.shuhada.org) in 1988 to improve educational, medical, and work opportunities for Afghan girls and women. This incredible woman (who was in Montreal a year and a half ago to receive a humanitarian award) has set up six hospitals and clinics and 49 schools with 20,000 students! I would not be surprised if Dr. Sima Samar is eventually awarded the Nobel Peace Prize!

I had three functions at her hospital in Quetta: operating with the hospital surgeons; teaching bright young Afghan refugees who were pre-med students (and had never received the bedside teaching that Dr. Osler started for all of us to benefit from!); and wrote a list of recommendations to optimize the work of the hospital there.

Afghans are wonderful people but, unfortunately, it is a totally male-dominated society and the literacy rate is only 39% - I saw Afghan housewives "signing" for an aid package with a thumb print! I doubt if even the best-meaning coalition forces there can ever overcome these two issues - change will have to come from within one would think. Without doubt, they are the most courageous patients I have ever operated on - many Afghan patients will refuse local anaesthetic for suturing lacerations, and women often refuse sedation or anaesthetic for minor surgeries like D and C, etc.! I made a 20-minute video of my experiences there.

Earlier this year, MSF asked me to pinch-hit for four weeks working behind the rebel lines in the Ivory Coast (western Africa). It was an extraordinary experience. They called me on a Tuesday, saying the need was urgent. I got my visa on Wednesday, got tuned up by the Tropical Disease Centre on Thursday, my tickets arrived on Friday and I flew there on Saturday (some guys will do anything to get away from a Montreal winter!)

You fly through Paris to arrive in Abidjan - a prosperous, bustling city that has been called the New York of western Africa - and I was briefed there by MSF, etc. You pass through three checkpoints on the day-long drive up-country to Bouaké, a city of 1 million in rebel held territory, where I worked. The first is the federal forces checking you, your MSF vehicle, and its contents; and when they clear you, you enter a 20 km wide strip controlled by a pan-African peacekeeping force (and they check you); and finally, you are checked as you enter the rebel held part of the country.

The country's second largest hospital is located in Bouaké but as the rebels closed in on the city (October 2002), every single doctor, professor, and administrator fled this university hospital center, leaving a 400-bed hospital of four pavilions entirely deserted! MSF felt this was a disservice to the population, and therefore, sent in a small team to partly re-open the empty halls and wards of what had been a show piece hospital center for western Africa. I was the only "staff surgeon" in effect but there were also two ex-pat physicians, and three ex-pat R.N.'s. The rag-tag rebel soldiers - many of whom were late teenagers with kerchiefs around their foreheads, a cigarette in one hand, and an AK-47 in the other - acted as "security guards" for the hospital and there were almost surreal times when I almost felt I was in a Frederico Fellini film! Their company commander adopted the nickname "Spiderman" and had the Spiderman logo
painted on vehicles he stole from the population. The Rambo-like images from Hollywood seem to be having an effect in far off places!

Needless to say, being on call 24/7, it was very busy, and although there was no nearby warfare, there was a constant stream of GSW's, some fatal (I did a very distinguished looking 73 year old gentleman who had been needlessly shot when a rebel soldier tried to shake him down at a checkpoint).

The GSW in his LUQ area shredded six inches of colon, ruptured his spleen, lacerated his (L) diaphragm, caused a severe pulmonary contusion and broke several ribs. Immediate surgery went well but, unfortunately, he died from respiratory failure three days later. We have no respirators.

A perfectly nice 17 year old lad was needlessly shot in the right shoulder area; at immediate exploration he had a shattered right clavicle and his right subclavian artery was thrombosed. The AK-47 has a muzzle velocity of 3000 FPS and hence incredible maiming and killing power. I hoped collaterals would carry the day (I've seen them do so in the past), but it didn't work out and you can imagine the sadness in my heart and on his face, a couple of days later, when I had to tell him his (dominant) arm needed high amputation. Hard to believe, but I eventually did a total of 175 surgical procedures of all kinds in the four weeks there.

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During my tour of duty there, I sent a satellite e-mail communiqué to my wonderful wife and kids to let them know how much fun I was having. Amusingly enough, it was circulated to every medical student at Harvard where MSF had made a recent presentation! This is it:

"WOW! This mission ROCKS! Yesterday, good olde Doctors Without Borders - I still think it's one of the most wonderful organizations in the world - got me to reach down into myself and find deep wells of productivity - to say nothing of lofty heights of happiness - that even I didn't know I had! The first time I've done 14 operations in a single day in my entire life ever! They ranged from two ops. for patients with hernias that had intestines strangulated inside them, through "clean and clear" ops. for severely infected gunshot wounds (mostly old), to the repair of a nice boy's severely lacerated eyelid (I have no training or experience in eye surgery), to an emergency hysterectomy in the middle of the night on a 39 year old mother of 11 who presented at midnight with a ruptured pregnant uterus and was bleeding to death. My 'Day To End All Days' began at 8 a.m. and ended at 4 a.m. the next morning! Happily, all patients are A and W.

I send up silent prayers of thanks to DWB for bringing this decrepit and aging surgeon (70 in five months time) more damned happiness and satisfaction per diem than most mere mortals experience per year, or even in a lifetime! I'm on such a high, even the sleep deficit, jet lag, severe climate change (from -30°C to +30°C), nor even disagreeable antimalarial pills could hope to bring me down now!"

As you can well imagine Ed, after a full day's work, when I'm starting my second GSW of the night at 2:30 a.m., I can assure you that I am NOT the sharpest knife in the drawer!

Cheers!
Fred Wiegand

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**Ethics and Morals**

In the LETTERS section of the August 2003 Bulletin of the American College of Surgeons, Dr. Michael Van Ronzalen describes the distinction between ethics and morals.

**Ethics** are what keep us from misbehaving at work and **moral** keep us from misbehaving after work.
over the last decade, laparoscopy has achieved an ever-increasing importance in the field of general surgery and in the surgical residency. The challenge has been to facilitate the acquisition of the novel skills associated with minimally invasive surgery. Dr. Gerald Fried has been at the forefront of developing educational tools with development of the MISTELS (McGill Inanimate System for Training and Evaluation of Laparoscopic Skills). The MISTELS is a physical simulator, which involves a series of tasks designed to both teach and evaluate a subject's laparoscopic performance. As studies have shown, practice using the MISTELS has resulted in improved performance of laparoscopic tasks. Virtual reality simulators have also been designed to teach the acquisition of laparoscopic skills. Practice using these simulators results in improved performance in the physical environment. To facilitate resident education, the Steinberg-Bernstein Centre for Minimally Invasive Surgery at McGill has invested in an extensive training centre. The centre includes stations for the MISTELS physical simulators, as well as cutting edge virtual reality simulators. The centre is open to both residents and staff looking to improve their minimally invasive technical skills.

To promote the skills lab, the First Annual MIS Skills Competition was held earlier this year. Residents were invited to test their mettle in a fierce competition of minimally invasive technical skills. Nerves were tight and concentration was strong as residents completed time trials at the various stations. In the end, one winner emerged to claim the top prize: Simon Bergman. Other winners included Sebastian Demytenaere (peg transfer station), Ali Taqi (LapSim station), Melina Vassiliou (MIST-VR station), and Gabe Chan (intracorporeal suturing station). Although yours truly was not permitted to participate, due to extensive investment of time in the laparoscopic skills lab, I was still able to amaze the crowd with a record-setting performance for intracorporeal suturing. The event served to show that training for minimally invasive surgery, which is vital to one's career as a general surgeon, can be an enjoyable and stimulating experience. The records for this year have been set and the winners announced. So, until next year and the Second Annual MIS Skills Competition, the lab is open for practice.

-established over five years ago, the goals of the MGSRC remain unchanged. The committee represents the General Surgery residents in the program and in the MUHC. The priority will always be to improve resident surgical training and education. In addition, traditions unique to our program are upheld, such as the Annual Rea Brown Cup of Hockey, the Chief's Dinner and Teaching Awards.

Currently, several issues are at the forefront. The current shortage of resident manpower compounded with the limitations of the frequency of calls has left the residents on research rotations in charge of filling holes in the call schedule for numerous services over four hospitals. The committee is working hard with Department Heads, the Program Director and the Chief Residents to achieve the best arrangement for the services, residents and most importantly, the patients.

A journal club has been restarted after a two year hiatus. Selected topics have been presented in Oncology and Transplantation. Residents on research rotations have given the additional benefit of assisting the Organ Procurement Team at the RVH. A Reading Program based on the Dallas Selected Readings in General Surgery is also in the works.

Finally, in light of the emerging pattern of recent CaRMS matches, we are also emphasizing the importance of an active recruitment of medical students. In 2003, there were less students choosing General Surgery as their primary selection (46) than allotted quota (70). One program even had five unmatched positions. The solutions should focus on mentoring and role models.

Gabriel Chan, Simon Bergman, Vadim Sherman, Robert Baird, Sebastian Demytenaere
MGSRC, November 2003
Colorectal Surgery has undergone significant changes in the past five years, both at the McGill level and at the McGill University Health Centre. **Dr. Phil Gordon** is in charge of the Section of Colorectal Surgery, Division of General Surgery, McGill University. He is based at the Jewish General Hospital.

**THE PAST**

A separate Division of Colorectal Surgery exists within that hospital which is headed by Dr. Phil Gordon. In addition to Dr. Gordon, **Dr. Carolyn Vasilevsky**, **Dr. Barry Stein** and **Dr. Julio Faria** were all attached to the Division of Colorectal Surgery, Jewish General Hospital. At the McGill University Health Centre, **Dr. Paul Belliveau**, based at the RVH Site and **Dr. Judith Trudel**, based at the MGH Site formed the Colorectal Surgery team.

Three years ago, Dr. Paul Belliveau elected to relocate to Queens University in Kingston and we were saddened to see him go, but wished him well in his new endeavor. Dr. Belliveau has continued to be an enthusiastic supporter of McGill University and has been giving us regular feedback as to his progress. He has furthered his career plans and was given the resources to expand his interest in surgical education. Dr. Judith Trudel left two years ago to pursue employment in the United States. At the time, she was also Program Director so this left a significant gap at the McGill University Health Centre, both in colorectal surgery and in surgical education. **Dr. Sarkis Meterissian** was appointed Program Director and has done an admiral job in our Surgical Training Program. Dr. Meterissian, though not recognized as a colorectal surgeon, has made rectal cancer one of his top priorities. He does one of the best mesorectal excisions of the rectum, according to our Pathology colleagues, and a significant portion of his practice deals with rectal carcinoma.

**THE PRESENT**

The process of rebuilding Colorectal Surgery at the MUHC started two years ago. Several discussions were held at the Executive level and Dr. Phil Gordon was also consulted. There were at least two potential recruits, **Dr. Nancy Morin** and **Dr. Patrick Charlebois**. Both were sent to do colorectal fellowships at the Cleveland Clinic in Ohio and in Chicago, respectively. Colorectal surgeons at McGill were redistributed in order to fulfill the needs of all of the main teaching hospitals, both the clinical as well as the academic education missions. This was accomplished as follows:

Dr. Barry Stein was relocated from the Jewish General Hospital to the McGill University Health Centre. He brings a vast experience in colorectal surgery and especially anorectal pathology. He is an accomplished teacher and has won the Best Teacher Award (voted upon by the residents) on more than one occasion. Dr. Patrick Charlebois will be based at the McGill University Health Centre and will be mentored by Dr. Stein. The two will work together to re-establish colorectal surgery at the McGill University Health Centre, primarily at the MGH Site. This decision was taken after close consultation with our colleagues in Gastroenterology as well as administration and the interim Chair of Surgical Services, **Dr. Mostafa Elhilali**. By concentrating the two colorectal surgeons at one site, the resources necessary to fulfill their mission can be committed prior to our move to the Glen Yards. There is considerable construction to take place to build a colorectal clinic at the MGH within the next year. In the meantime, temporary office and patient seeing spaces for Drs. Stein and Charlebois have been found at the MGH. Dr. Nancy Morin will be based at the Jewish General Hospital, will be mentored by Dr. Phil Gordon and continue her interests in colorectal surgery and small bowel transplantation. She will collaborate closely with the Transplant Research Team at the McGill University Health Centre.

**THE FUTURE**

The future plan for colorectal surgery is to recruit one additional colorectal surgeon with a primary focus on surgical oncology who will be based at the RVH Site until the move to the Glen Yard integrates all of colorectal activity under one roof. This colorectal surgeon will complement the work performed by Dr. Sarkis Meterissian. We are also building close ties between Colorectal Surgery and Hepatobiliary Surgery because ~50% of liver resections carried out by that service currently deals with colorectal metastases. The development of the McGill Liver Tumor Network will integrate seamlessly with colorectal surgery so that referrals will flow from one service to another. This way, we can offer the best possible care for our patients as well as provide material for research activity as well as resident education. 

Nicolas V. Christou, MD, PhD  
Head, Division of General Surgery  
McGill University and MUHC
The project examined assumptions regarding the recommendations and practice of pediatric urodynamics and consisted of 2 studies. The first study looked at the variability between two consecutive room temperature (RT) cystometrograms (CMG) performed in the same child. Based on these findings, a study comparing consecutive room temperature and body temperature (BT) CMGs performed in random order in the same child was conducted. Significant differences between consecutive RT and BT CMGs were found in the 91 children studied. Capacity and detrusor activity were diminished during BT cystometry. However, the magnitude of the difference was not clinically relevant to change management. "This project is important because it provides the evidence upon which recommendations and practices regarding bladder infusion temperature and repeat cystometry in children can be based. The project is also an excellent example of nursing research and how nurses and physicians can work together to improve patient care through science," says Ms. Chin-Puckert.

**MCH-Pediatric General Surgery**

Dr. Jean-Martin Laberge accompanied his wife Dr. Louise Caouette-Laberge on missionary work with Operation Rainbow Canada to Oaxaca, Mexico from October 4-11. Besides helping with translation and screening of patients to be operated for cleft lip and palate repair, Dr. Laberge scrubbed with local surgeons on a few operations and gave some lectures to residents and staff of the Hospital de la Niñez Oaxaqueña.

Dr. Jean-Martin Laberge served as Associate Editor and contributed to Principles of Pediatric Surgery, Second Edition, publishers James A. O'Neill, Jr., MD; Jay L. Grosfeld, MD; Eric W. Fonkalsrud, MD; Arnold G. Coran, MD; and Anthony Coldamone, MD. Contributions were made to six chapters, they are: Neuroblastoma; Liver Tumors; Endocrine Tumors; Gonadal Tumors; Infections of the Lung and Airway, and Chylothorax. We would like to acknowledge Dr. Pramod Puligandla's help with the contributions of this chapters.

This year the 35th Annual Meeting of the Canadian Association of Pediatric Surgeons was held from September 18-21 in Ontario, Niagara-On-The-Lake. The Division of Pediatric General Surgery had two abstracts accepted for presentation. Dr. Ioana Bratu's resident presentation Same-day surgery for thyroglossal duct cyst excision: A safe alternative was co-authored by J-M. Laberge. Routine Cesarean Delivery Does Not

**MCH Centennial**

In 2004, the Montreal Children's Hospital will celebrate its 100th Anniversary. The fun kicks off on January 30th, 2004 and continues throughout the year when a series of fun and educational events including festivals, medical conferences, dances, a golf tournament, and most importantly a HOME-COMING will be held to mark this milestone and to highlight The Children’s achievements in medicine, surgery, and research. Alumni of The Children’s are invited to ‘come on home’ for these special celebrations especially the Homecoming from June 17th to 20th, 2004. Medical conferences and exhibits, as well as social events are scheduled. Don't miss the fun!
McGill hosts the annual conference of the Canadian Administrators of Medicine, Pediatrics and Surgery (C.A.M.P.S) October 2-3, 2003, Montreal

The Annual CAMPS

By Madalene Beauline

McGill were the proud hosts of the fifth annual conference of C.A.M.P.S. on October 2-3, held at Hotel Nelligan in Old Montreal. The conference is a unique occasion for administrative officers of departments of Medicine, Pediatrics and Surgery from across Canada to discuss issues of common interest and shared administrative challenges. It is also a great forum for networking and exchanging ideas.

The C.A.M.P.S. group has been meeting annually since 1999, each time hosted by a different university. Montreal was a magnet this year and attracted 36 administrative officers from Memorial to UBC and most medical schools in between. Typically the participants are involved with the management of resources, human and financial, in their home departments. Many are also involved with the implementation of alternative funding plans.

The meeting opened with a “Chair’s panel” centered on the MUHC’s merger experience. Our sincere thanks to Dr. David Goltzman (Medicine), Dr. Harvey Guyda (Pediatrics) and Dr. Mostafa Elhilali (Surgery) for a most informative session as well as to Dean Fuks for skilfully moderating the panel.

Dr. Micheline Ste-Marie (MCH), Dr. Francine Tremblay (RVH), Ms. Susan Law (AETMIS), and Ms. Linda Christiansen and Mr. Ernie Kinney (McGill 2000+) were also guest speakers. All were key to the success of the conference and were warmly received.

It was also most interesting to hear from our colleagues from Edmonton and Calgary on their experience with PDA-based physician time-tracking. As well we heard from the Edmonton group on the impact implementation of an AFP has had on physician satisfaction.

Our thanks to Daniel Héon of Multimedia Services at the Children’s who managed the technical end of things for us; to Jennifer Day, webmaster at the Faculty of Medicine, who designed our web site; to Filomena Goncalves, of the Department of Pediatrics, for the layout of the program; as well as to the members of our staff who helped us pull it all together.

THE HOSTS:

Christine Dolden, Department of Medicine
Marlene Davis, Department of Pediatrics
Maria Bikas, Department of Surgery
Madeleine Beauline, Department of Surgery

Dr. Jean Tchervenkov
Appointed Director of Multiorgan Transplant Program

It is a pleasure to announce that Dr. Jean Tchervenkov has been appointed Director of the Multiorgan Transplant Program for a 3 year period. We are delighted that Dr. Tchervenkov has accepted to continue at the helm in the consolidation of McGill’s position as a leader in transplantation in the Province of Quebec and Canada. Under his strong leadership, the dedicated transplant team will continue to reach its goals and maintain a longstanding premier program. The Multiorgan Transplant Program, which incorporates kidney, liver, pancreas and heart, is the large multiorgan program in the Province of Quebec. It serves the Montreal region, the Outaouais and Val d’Or and handles specific problems for the entire province.

Please join us in extending Dr. Tchervenkov our best wishes for continued success.

M.M. Elhilali, M.D.

“Looks like Pharmacy’s gotten their hands on a new diuretic.”
Welcome Aboard To the New R1's

THE MCGILL DIVISION OF GENERAL SURGERY held their 3rd Annual Welcome Dinner on Tuesday, September 9th 2003 at Elounda. This is a very popular event in the Division of General Surgery. It was well attended by staff and residents. An introduction of the staff, chiefs and R1's was conducted by the Program Director, Dr. S. Meterissian, who revealed intriguing information on the new recruits. The R1's and the Chief residents received McGill Key chains. Thanks to all who participated in making this evening a pleasant one.

Rita Piccioni
THE SQUARE
On September 21st at the Palais des Congrès, a live broadcast was held to urologists gathered from around the world as Dr. Mostafa Elhilali, the Head of Urology at the McGill University Health Centre, did advanced laser prostate surgery at the Royal Victoria Hospital on a 79-year-old man with benign prostatic hyperplasia. Close-up images projected onto a screen, along with the surgeon’s running commentary, were used to teach these urologists about this procedure. First, the patient received a spinal anesthetic. Then, with computer screens displaying the man’s vital signs, Elhilali inserted a tiny microscope with a laser at the end into the urethra. Spectators watched as the probe moved down the penis to the patient’s prostate and the excess obstructive tissue was vaporised. There was no bleeding and no complications. “Though the instruments are small, everything is magnified by the microscope that is 0.5 mm thick,” said Elhilali who performs six or seven such operations at the RVH every week. The procedure took about 45 minutes. When Mostafa finished the operation, he received a round of applause from the conference delegates across town.

This group of urologists presented a paper at the University of Montreal Scientific Day on November 21st at Notre Dame Hospital entitled *Performance clinique du test UPM3: un nouveau test moléculaire pour la détection du cancer de la prostate* by F. Saad, A. Aprikian, J. Dessureault, M. Elhilali, C. Trudel, L. Piché, C. Chypre and Y. Fradet, Quebec and Montreal, Canada.

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**MINIMALLY INVASIVE SURGERY PROGRAM**

**4TH ANNUAL VISITING PROFESSOR**

**SEPTEMBER 24-25, 2003**

**Dr. David W. Rattner**, who is Professor of Surgery at Harvard Medical School and Chief of the Division of General and Gastrointestinal Surgery at the Massachusetts General Hospital, was this year’s Visiting Professor in Minimally Invasive Surgery.

On Wednesday, Dr. Rattner spoke on *Patient Selection for Laparoscopic Anti-Reflux Surgery*, followed by video and scientific presentations by McGill M.I.S. faculty, fellows, residents and alumni. The following day, at Surgical Grand Rounds, he spoke on *Challenges in Designing the O.R. of the Future*. This was followed by live surgery with video-conferencing to the Osler Amphitheatre on procedures of "Laparoscopic Nissen Fundoplication" and "Laparoscopic Inguinal Hernia Repair".

It was a pleasure to have Dr. Rattner, who is one of the leaders of Minimally Invasive Surgery and Surgical Innovation, as this year’s Visiting Professor.

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**Visiting Professor**

**6TH ANNUAL ANTHONY R.C. DOBELL VISITING PROFESSOR OF CONGENITAL HEART SURGERY**

On Monday, October 6th, 2003, it was a pleasure to welcome **Dr. Bohdan Maruszewski**, Associate Professor of Congenital Heart Surgery and Director of the Department of Pediatric Cardiothoracic Surgery of The Children’s Memorial Health Institute in Warsaw, Poland as this year’s Visiting Professor.

At Surgical Grand Rounds in the Forbes-Cushing Amphitheatre of the Montreal Children's Hospital, Dr. Maruszewski spoke on *Congenital Heart Surgery in Europe: Successes, Problems, Solutions*, followed by presentation by residents and staff. Later that day at the McGill CVT University Rounds, he spoke on *Allogenic Tissues in Congenital Heart Surgery*.

In the evening, a reception was held at the Mount Stephen Club.
LIVER TRANSPLANT / HEPATOPANCREATEOBIARY SURGERY VISITING PROFESSOR

On October 16th 2003, The Liver Transplant and Hepatopancreatobiliary Surgery Section of McGill University held The First Annual Liver Transplant and Hepatopancreatobiliary Surgery Symposium at the Ritz Carlton Hotel. The Visiting Professor, Dr. Pierre-Alain Clavien, Professor and Chair of Visceral and Transplant Surgery of the University of Zurich started the day off by giving Multidisciplinary Surgical Grand Rounds on Regeneration After Hepatectomy at 8am.

The rest of the conference was organized into three sections. The first section encompassed "Clinical Liver Transplantation". Talks were given by Dr. George Tzimas on the Management of Hepatocellular Carcinoma, Dr. Jean Tchervenkov spoke on Immunosuppression, Dr. Jeffrey Barkun covered Bile Duct Complications after Liver Transplantation, and Dr. Marc Deschênes spoke on Hepatitis C.

The second section was entitled "Preservation Injury During Liver Transplantation". Dr. Clavien spoke again, this time on Ischemic preconditioning of the liver: from mice to human. Dr. Chevet's and Dr. Metrakos' Ph. D. students from the Transplant and Hepatobiliary Research Labs, Anouk Emadali and Tarek Boutros, also presented.

The third section was entitled "Proteomics and Genomics for the Clinician". Dr. Malcolm Whiteway explained Microarray technology and Dr. Eric Chevet spoke on Proteomics.

The last and final section covered "Colorectal Liver Metastases". Dr. Pnina Brodt spoke of the Molecular Aspects of Liver Metastasis, Dr. Giovanni Artho presented on Imaging Modalities, and Dr. Peter Metrakos gave a talk on the Surgical Management of Liver Metastases.

The conference was followed by a banquet at the Ritz held for the Surgeons, Residents, Radiologists, Oncologists, and Clinician Nurses. ✯

Marie M. Cimon
Molecular Biology of Cancer and the Thoracic Surgeons

By Dao M. Nguyen, MD, MS, FACS, FAS

The field of thoracic surgery as defined by Archibald, Alexander and other pioneers has come a long way in the last fifty years. It is not only totally independent from the specialties of cardiac surgery and general surgery, but it is also expanding rapidly. Advances in the practice of thoracic oncology has defined and redefined the term "resectable tumors," but it appears that the extent of how much the surgeon can do has reached its limit. Thoracic oncologists have learnt a great deal through clinical trials in the past 3 decades and now have developed an evidence-based algorithm for the rational treatment of patients with cancers of the lung, the esophagus or of the pleura (termed collectively as thoracic malignancies). The multidisciplinary approach to the diagnosis/treatment of cancers of the chest is now the standard-of-care. There is little doubt that the results of modern oncologic treatment of thoracic malignancies have improved, but they are far from desirable. For instance, the 5-year survival rate of early stage (stage IA or IB) NSCLC (non-small cell lung cancer) is only 70% to 80%. What happens to the 20% to 30% of patients who succumb to disease recurrence within 2 to 3 years after a potentially curable surgery? Why them and not the other 70% to 80%? There is no current adjuvant therapy regimen known to improve the overall survival of completely resected early stage NSCLC patients. The role of neoadjuvant chemotherapy and radiotherapy for locally advanced NSCLC is being defined with a multi-institution phase III clinical trial. The role of neoadjuvant chemotherapy alone using the most up-to-date agents (carboplatin and taxol) for "high risk" readily resectable NSCLC is the focus of another ongoing trial. It appears that thoracic oncologists are striving for incremental improvement of the therapeutic outcomes using combinations and permutations of chemotherapy, chemoradiotherapy and surgery, treating cancers from individual patients with diverse genetic and environmental background as if they all would respond similarly to a common therapy. Perhaps, one should add another dimension to the treatment paradigm: the biology of individual tumors.

It becomes clear to thoracic oncologists early in the development and evaluation of treatment outcomes of patients with thoracic malignancy (this applies to all other cancers as well, but the focus here is on primary cancers of the chest) that the underlying biology of the cancer cells (not all cancer cells from the primary tumor of a single patient nor all malignant tumors of similar histology from a patient population are the same) significantly influences their clinical behavior including their response to therapy. The incorporation of applied molecular biology (bench) to the treatment of thoracic malignancies (bedside) lags behind the enormous advances in the understanding of carcinogenesis at the molecular levels. Recent development and refinement of biomedical technology enables thoracic oncologists bridge the gap of bench discovery and bedside application. Applied molecular biology permeates the field of thoracic oncology as a multifaceted/interrelating discipline. One can view the application of molecular biology to the field of oncology as follows:

BASIC SCIENCE/EXPERIMENTAL MOLECULAR THERAPEUTICS

The discovery of tumor suppressor genes such as the p53 gene and oncogenes such as K-ras and the relationship between their mutations and carcinogenesis have laid the ground works for therapeutic application of molecular biology of cancer. Restoration of normally functioning p53 gene using adenovirus vector in tumor masses of lung cancer patients who had shown refractory to standard therapy, as studied by Roth and colleagues of MD Anderson, have shown clinical response and offered the first proof of concept of gene therapy for cancer. Overexpression of growth factor receptors such as the EGFR or HER2/neu has been observed in a wide variety of solid tumors of epithelial origin. Blockade of receptor function using antagonistic monoclonal antibodies or low-molecular weight pharmacologics leads to growth inhibition and sensitization of tumors to standard chemotherapy or irradiation in preclinical studies. Translational clinical studies have validated the bench observation, providing the most direct bench-to-bedside application of applied molecular biology to development of novel therapeutics. Herceptin, humanized antiHER2/neu monoclonal antibody, is an FDA-approved drug for breast cancers that overexpress HER2/neu that are refractory to conventional cytotoxic chemotherapeutics. Combination of Herceptin with Taxol or Doxorubicin has yielded synergistic antitumor effects, translating to prolongation of disease-free intervals. Iressa, an EGFR tyrosine kinase inhibitor, is being evaluated as adjuvant therapy for completely resected NSCLC. Gleevec, a specific antagonist of BCR/ABL, a known aberrant signal transduction pathway in CML, has shown spectacular therapeutic efficacy, yielding more than 80% durable remission in patients with CML refractory to standard therapy. It is being used to treat rare gastrointestinal stromal tumors that are known to overexpress c-kit, another target of Gleevec, with promising results. These are few positive results of novel cancer therapeutics developed based on understanding of the (molecular) biology of disease, a product of basic science research. These represent few "bench-to-bedside" success stories. Another aspect of experimental therapeutics that is rapidly expanding is the deve-
opment of novel strategy aiming at blocking new blood vessel formation in growing cancer masses (angiogenesis therapy). This is being achieved, at least in preclinical model as well as in clinical trials (matured or ongoing phase III trials), by directly blocking VEGF (vascular endothelial growth factor) receptors using selective tyrosine kinase inhibitors or by depleting VEGF in serum using humanized anti-VEGF monoclonal antibody. The antitumor effect of chronic sublethal doses of cytotoxic agents in vivo animal model has been attributed to an angiogenesis mechanism. Moreover, inhibition of growth factor function and phenotypic expression in cancer cells can suppress the production of pro-angiogenesis cytokines such as VEGF, basic FGF, IL-8 and thus can mediate inhibition of tumor development by an angiogenesis mechanism in addition to direct effect on inhibition of tumor growth by the virtue of interfering with growth factor signalings.

**DRUG DEVELOPMENT**

Massive high-throughout screening of natural and synthetic chemicals and biologics for anticancer properties as performed by pharmaceutical companies has yielded many interesting and potentially useful compounds, many of which have undergone extensive preclinical evaluations and currently in early phase clinical trials. Novel chemicals with anticancer property and high potential for clinical applications are evaluated in-depths to decipher their mechanisms of action and their selectivity for transformed malignant cells. Thousands of compounds, classified according to their mode of action, are deposited in the NCI drug repository and made available to investigators worldwide for research. Understanding of molecular biology of cancers enables rational development of targeted molecular therapy either by utilizing drugs deposited in the repository or by designing novel "custom-made" drugs. For instance, gene silencing by DNA methylation results in incapacitation of tumor suppressor gene expression and function, and contributes to carcinogenesis. DNA demethylation using drug such as Decitabine results in reexpression of p16 tumor suppressor gene (causing cell arrest at G0/G1 checkpoint) as well as tumor-associated antigens such as NY-ESO-1 (increasing the immunogenicity of cancer cells). Understanding the 3-D structure of proteins that play important roles in growth-signaling (e.g., EGF Receptor or HER2/neu) or survival/anti-apoptosis (e.g., Bcl2, Bax) allows synthesis of low molecular weight compounds that specifically inhibit their crucial function (e.g., Iressa - that inhibits tyrosine kinase function of EGF Receptor or Gleevec - STI-1765 that inhibits signal transduction mediated by c-kit or BRC/ABL). Active induction of tumor cell to undergo apoptosis by engagement of the death-signaling pathways such as those mediated by FasL/Fas (CD95/Apo1) or TRAIL(Apo2L)/DR4,DR5 is also actively pursued as novel therapeutic strategies for cancers. The section of Thoracic Oncology of the Surgery Branch at the NCI/NIH has focused its basic science and translational research efforts on development of novel therapeutics for thoracic malignancies. Among the drugs evaluated, both at preclinical and at phase I or phase II clinical trials, are those that belong to the different classes of anticancer agents such as histone deacetylase inhibitors (Depipeptide), DNA demethylating agents (Decitabine), proteasome inhibitors (Epoxomycins), clk inhibitor (Flavopiridol) tyrosine kinase inhibitors (PD153035, Iressa), heat-shock protein targeting agents (17AAG), members of the TNF family death inducing protein ligands (FasL and TRAIL).

**DIAGNOSTICS/ PROGNOSTICS**

Standardization and automatization of complex biological assays such as RT-PCR (reverse transcription - polymerase chain reaction) or cDNA microarray have allowed rapid incorporation of these complex yet extremely powerful molecular biology tools to clinical applications. Working on microscopic amount of cellular RNA from cancer cells (relatively free of stromal contamination by laser-capture microdissection technique), these techniques allow high-fidelity amplification of the RNA messages (PCR) and quantitation of differential expression of individual genes or groups of genes (microarray) between normal tissues and malignant cells. Cancers derived from different individuals may now be identified based on their own genetic "fingerprints" (another more sophisticated way of classifying tumors in addition to the basic histologic descriptions) that can be correlated with their clinical behaviours. Certain patterns of genetic fingerprints have been shown to correlate with poor clinical outcome as reported by Bueno and his colleagues from Brigham and Women's Hospital (Boston, MA) in a retrospective study. If this finding can be confirmed in a prospective study, this technology will be used to select high-risk patients for adjuvant therapy and spare low-risk patients the burdens of unnecessary postoperative chemotherapy. Better selection will enhance any potential positive impact of adjuvant therapy that has not been proven due to inclusion of low-risk patients leading to dilution of positive results. Genomics and proteomics will undoubtedly be used to enhance the pathologists' ability to make accurate diagnosis of cancer based on minute amount of materials obtained by needle aspirates.

In conclusion, great strides have been made in the basic science front to elucidate the cellular and molecular biology of cancer. Such progress comes with the development and refinement of biotechnologies as well as novel molecular targets and therapeutic strategies that now can be translated from bench-to-bedside for clinical application. Academic surgeons, particularly surgical oncologists, should take a leadership position in applying cutting edge basic science knowledge to clinical practice. Clinicians/scientists, as "bridge tenders straddling the fields of basic and clinical sciences" are in the best position to develop and conduct clinical trials to evaluate novel anticancer therapy.
Obituaries

W. MASON COUPER, MD., CM, BSc, FRCS(E), FRCS(C)
peacefully on October 17, 2003 at Central Park Lodge, St. Lambert in his ninety-eighth year. Predeceased by his loving wife Dorothy (Sellars) and his sisters Mildred Couper and Beatrice Saunders (late Roy). Sadly missed by his daughter Beverley Ryan (Frank).

During World War II as a member of the R.C.A.M.C. he served overseas in England, Italy and Holland. His war experiences included surviving the sinking of the Santa Elena, a ship that was torpedoed while crossing the Mediterranean.

His professional life was devoted to the practice of General Surgery, and during his long career gave outstanding care to many. He was associated with the Royal Victoria and Queen Mary Veterans Hospitals, and was a Senior Consultant to the St. Anne's Veterans Hospital.

Dr. Couper held office in various organizations within the profession. He was a Past President of the Association of Surgeons of the Province of Quebec and of the Defence Medical Association of Canada. He was a member of the Disciplinary Council of the College of Physicians and Surgeons of Quebec. He was a governor and director of the Quebec Hospital Service Association and the Quebec Blue Cross.

His hobbies included oil painting, gourmet cooking and life long love of cats. He was a founding member of the Canadian Cat Association.

IRVING H. HELLER, M.D., PH.D., F.R.C.P.(C). Born March 26th, 1926, died October 26th, 2003 in Montreal. Professor of Neurology at McGill, Irving practised his career in Neurology for many years at the M.N.H. and M.N.I. Beloved husband of Anita Fochs, father of Monica (Timothy Kaiser) and Julian (Ronni Brott).

Fondly known as Sandy, died on October 21st, 2003 in Victoria, B.C. Sandy was born September 7th, 1904 in Charlottetown, P.E.I., where he attended Prince of Wales College. He took further studies at McGill University and the University of Edinburgh Medical School. While in Scotland, he was selected for the British Olympic Hockey team and was to have competed in St. Moritz, Switzerland in 1928. However, at the last moment, he was disqualified on the basis of his Canadian citizenship.

He did his surgical residency at Barnes Hospital in St. Louis, Missouri where he met his future wife, Bodine Keene Forde. Sandy began his medical career in London, Ontario. During World War II, he served in the Royal Canadian Navy as Lt. Commander and Chief Medical Officer aboard the destroyer HMCS Haida, which he claimed was a charmed ship and he in fact survived a number of hazardous convoy assignments on the Murmansk Run. After the war, Sandy became a prominent and well respected urological surgeon. He also held a professorial position at McGill University Medical School and also had the honour of serving a term as President of the Canadian Urological Association.

Sandy was a keen sailor and was a long time member of the Royal St. Lawrence Yacht Club. He sailed for Canada in two Olympic games. In the 1963 Pan American Games, Sandy won the gold medal in the Dragon Class for Canada. At first Sandy retired in Keppoch, P.E.I., but after his wife’s death in 1986, Sandy moved to Victoria, B.C. where he continued to enjoy his hobby of silversmithing well past his 90th year. ♠

Death, is not an entrance into obscurity, it is to extinguish a lamp at the break of day. —Anon.
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