THE SQUARE

n February of this year, an International Charter on Professionalism was published simultaneously in *The Lancet* and *The Annals of Internal Medicine*. This was the result of the work of an international committee established by the American Board of Internal

Professionalism: An Unanticipated Journey

Medicine and its Foundation and the European Society of Internal Medicine. Sylvia and I served as special consultants to the committee, with our task being to en-

sure that the content of the Charter was consistent with the literature on professionalism. We also assisted in drafting the final document. The editor of *The Square Knot* has asked me that we briefly discuss the Charter and the events in our lives which lead up to our involvement in the creation of the International Charter.



Drs. Richard & Sylvia Cruess

When Sylvia and I stepped down from our respective administrative jobs in 1995 (when we were both 65), we embarked upon a sabbatic year at the Institute for Advanced Study at Princeton and at Oxford University. Because of her experiences, Sylvia felt that many of our excellent and well-meaning colleagues did not fully understand what it meant to be a professional and we consequently decided to study professionalism in medicine. We discovered an enormous and rich literature on the subject which began in the early twentieth century and continued to the present time. This literature existed almost entirely in the social sciences and in

philosophy, with some contribution from ethics. There was no cross-over literature at the time and consequently the medical profession itself was largely unaware of its ex-

(please see Professionalism, pg. 4)

Inside

By Richard Cruess, M.D.

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DEPARTMENT OF SURGERY

NEWSLETTER

McGILL UNIVERSITY

SUMMER 2002





Dear Editor,

I have switched jobs. I work for a new tertiary care center in Saudi Arabia. I am the Chief of Surgery and the Deputy CMO. It is a very challenging job to start a new hospital. I can see a lot of the difficulties you folks are going through with the



MUHC new center. Not all our programs are functioning yet, but they are coming slowly on line. We

are actively recruiting in every specialty, and if any are interested, please e-mail me. Please note my new address and e-mail, so I remain in touch and receive The Square Knot.

Sameh Barayan, MD, FRCSC P.O. Box 473 Al-Khobar, 31952 Saudi Arabia. sbarayan@saad.com.sa

Dear Editor,

I am writing to enquire if The Square Knot maintains a list of addresses of former residents. Specifically, I am trying to locate Lynn Whelchel. Would appreciate it if you do have his address.

My transition from McGill to Southern Alberta has been an interesting one, and I am enjoying my practice here. Hope this finds you well and in good spirits. Kind regards,

Bernie Costello, M.D.

Editor's Note: Yes, we do keep a list of Alumni and Dr. Welchel's address was sent to Dr. Costello.

Dear Editor,

I wanted to write for several reasons. First, I wanted to tell you how much I enjoy and

look forward to receiving the *Sqare Knot* each quarter. It is clearly a labor of love and serves to keep me constantly reminded of my great years in Montreal. The second reason is to let you know about a major life change for me and my family. I have closed my plastic surgery practice here in Sacramento to pursue a longstanding dream. We are moving to New Zealand to start a big new adventure. I will be a consultant plastic surgeon in Christchurch and also have extensive teaching responsibilities in the teaching and residency program there. My new duties will commence on May 1st.

We are looking forward to our new life and also the birth of my second child (a girl!) which will happen in August. If you, or any of my friends there find yourself "way down under", please let us know. The south island of New Zealand

(continued on pg. 5)

Dear Editor,

I wish to share a recent lighthearted story with your readers.

Our residents in the research lab have been doing not too badly collecting various prizes (attached file). A few days ago, Derek Mac-Donald, an R3 in our residency program and spending a lab year with me, was invited to participate in the "McGill Graduate Biomedical Conference" to present a paper and compete for a prize with other graduate students and post-docs from biomedical departments throughout McGill, from Cell Biology, Genetics, Pharmacology, Physiology, Medicine, etc. Derek gave his 10 minute talk, couldn't understand and got bored of presentations by others, so he walked out to have a hair cut. When they announced he was the winner, he wasn't there. But he says he is happy to accept the \$1,000 prize. I was also rather pleased that a surgical resident from our Department could beat doctoral students in basic sciences in presenting research work.

Ray Chiu, M.D.

YEAR	RESIDENT	PRIZE WON
1997	Julia Dorfman	Walter C Lillehei Residents' Research Prize (US) American Association for Thoracic Surgery
1997 Marc Pelletier		Thoracic Surgery Directors' Association Prize (US) Society of Thoracic Surgeons
		Terrance Donnelly Prize (Canada) University of Toronto
1998	Victor Chu	Thoracic Surgery Directors' Association Prize (US) Society of Thoracic Surgeons
		Walter C Lillehei Residents' Research Prize (US) American Association for Thoracic Surgery
2000 Eddie Chedrawy		Walter C Lillehei Residents' Research Prize (US) American Association for Thoracic Surgery
		Terrance Donnelly Prize (Canada) University of Toronto
2001	Bindu Bittira	Young Investigator's Award (US) American Heart Association
		Terrance Donnelly Prize (Canada) University of Toronto
2002 Derek MacDonald	McGill Graduate Biomedical Conference Prize McGill University	
	Montreal Children's Hospital Research Institute Prize McGill University Health Centre	
2002	Abdulaziz Al-Khaldi	Terrence Donnelly Prize (Canada) University of Toronto
2002	Hilal Al-Sabti	Fraser Gurd Surgical Day - 2nd Prize



CGILL AND CRITICAL CARE

Do you remember as an intern in the 1960's going out on Emergency calls with Royal or Murray Hill ambulances? Well, "you have come a long way" since that time. McGill has been at the forefront in Emergency, Trauma and

Editorial

Critical Care since then.

Just witness the pioneering work of the late **Dr. Fraser Gurd** of the MGH on <u>shock</u> or the establishment of the first Canadian SICU at the RVH on 8-West Surgery by **Dr. Lloyd D. MacLean** with **Doctors John Duff** and **Peter McLean** working therein. **Dr. Rea Brown** started the ATLS courses at the MGH and **Dr. David Mulder** was invited to give the Scudder Lecture on Trauma for the American College of Surgeons in 1988 after setting up a Level I Trauma Center at the MGH. Previously, **Dr. H.F. Moseley** had set up an Accident Service at the RVH and its Surgeons were giving courses to the Montreal Police who staffed the ambulances.

McGill set up the first Postgraduate Training Program in Emergency Medicine in Canada (second in North America) which became recognized by the Royal College. The first qualified physician, **Dr. Judy Levitan**, graduated in 1970. A second graduate, **Dr. Bruce Rowat**, went on to head the Emergency

Department at the Toronto General Hospital. The third year residency (R-II bis) for extra training in Emergency Care for Family Physicians was also begun at McGill.

We had a role to play in the founding of The University Association for Emergency Medical Services and The Society for Critical Care Medicine, the latter with the Anesthetist, Dr. Peter Safar, inventor of the Safar tube. Our staff also paved the way in the paramedical field. There were developments such as Intensive Care Modular Ambulances and we had a role to play in the establishment of the Emergency Medical System (911) in Montreal. The RVH trained Certified Ambulance Attendants in the 1970's and this led to paramedics (EMTs) in the ambulances.

Dr. Catherine Milne and "The Patient Care" committee at the RVH obtained approval so that nurses could be delegated certain medical acts and this led to the qualification of Critical Care Nurses.

Recently, following the Bernier Report, the Quebec College of Physicians, the Office des Professions and the Ministry of Health have announced plans to allow doctors more latitude in delegating duties to nurse practitioners, auxiliary nurses, pharmacists, ambulance paramedics, nutritionists, physiotherapists, and radiology technicians.

A government bill tabled on May 1st by Justice Minister Paul Begin (who has jurisdiction over professional orders) and Health Minister François Legault, redefines the roles of 120,000 health workers in 11 professions (this includes doctors). Ambulance technicians, for example, will be able to administer 5 medications: Salbutamol, Epinephrine, Glucagon, ASA and Nitroglycerine. This welcome new "power" for paramedics is a far cry from when both ambulance attendants just sat up front in hearse-like transport ambulances, and raced through red lights with siren blaring on the way to the hospital.

McGill can be proud of its record in the field of Emergency Primary Care. •



"It's not our policy to disclose details of a future operation."

— The New Yorker

▶ istence in spite of the fact that almost everyone who studied professionalism spent most of their time analyzing medicine as it is considered to be the archetypical profession.

Professionalism

(continued from pg. 1)

Briefly, professionalism serves as the basis of the social contract between medicine and society. This contract is largely written and evolves as both society and medicine change. Medicine

is granted considerable autonomy, status, the privilege of selfregulation, and substantial financial rewards in return for an assurance of competence, a commitment to service, the expectation that it will concern itself with health problems concerning society, and to morality and virtue in the altruistic practice of medicine. There is and always has been inherent tension in the concept because physicians and their organizations are expected to be altruistic (putting the welfare of patients and society above their own), but humans generally tend to be devoted to their own self-interest. The literature on the subject supported the benefits of professionalism to society until about 1960, expecting that physicians would understand that it really was in their own best interest to be altruistic, as it was one of society's fundamental expectations. With the arrival of the questioning society, all forms of authority were greeted with skepticism and medicine did not escape. The social scientists questioned the actual benefits of professionalism to the public, feeling that medicine had exploited its monopoly to its own advantage, had failed to self-regulate, and had consistently pursued its own financial selfinterest rather than the public good. In addition, because at that time the profession largely controlled the medical marketplace, it was blamed for the growing defects in the health care system. There has been a recent change in the way sociologists view professions after seeing the results of the intervention of both the state and the corporate sector into medicine. They decried the lack of values in either a state or market oriented system, and have actually returned to supporting professionalism as the basis of medicine's social contract with society.

We expected that, on our return, we would write a paper and then gradually disappear over the horizon. Writing the paper proved to be more difficult than we had anticipated and our first publication did not appear until 1997. We brought the social sciences literature into the medical literature for the first time, publishing a major work in *Academic Medicine*. This coincided with a great increase in interest on the part of medical schools, licensing bodies, and professional organizations in the subject of professionalism. Many of the values which we cherish are derived from the traditions of the professions (as opposed to the healer) and there is a consensus that these values are threatened by re-organization of health care systems throughout the world. Thus, the subject which we had been studying for two or three years became "hot" and we have not

yet disappeared. We've published other articles, talked in various locations around the world, further developed our thinking, and worked within McGill to help develop the teaching and evaluation of professionalism at the undergraduate and postgraduate levels. We have also worked with other universities, professional associations, and certifying bodies.

The American Board of Internal Medicine, which is an extremely progressive organization, had actually recognized the importance of professionalism over a decade ago and had begun to include it in their evaluation of physician's performance. They felt that there was a need for a document which would outline the universal values which had long been associated with being a professional. They wish this to go beyond a simple specialty or country and they consequently set up an international committee with representatives from thirteen countries and cultures. We were asked to serve as consultants and gave a presentation on the nature of professionalism, stressing the commonalities found in different countries. After a series of meetings, The Charter emerged with three fundamental principles (the principle of the primacy of patient welfare, the principle of patient autonomy, and the principle of social justice) and a set of ten professional responsibilities (commitment to professional competence, to honesty with patients, to patient confidentiality, to maintaining appropriate relations with patients, to improving the quality of care, to improving the access to care, to work towards a just distribution of finite resources, a commitment to scientific knowledge, to maintaining trust by managing conflicts of interest, and to professional responsibilities). Each of these principles and commitments is expanded in The Charter which is roughly three pages long. It is hoped that The Charter can serve as a guide to what it means to be a professional. It has been submitted to professional organizations, medical schools, and licensing bodies throughout North America and Europe. The reaction has been interesting and positive. One Canadian medical school will adopt it as their benchmark for professionalism. A major body which is responsible for examinations ensuring competence has sent it to their examination committees in order that it may be incorporated into the evaluation process. There will be other uses.

Before its publication, Sylvia and I presented it to groups of medical students, residents, and to the patient's committee of the MUHC and the RVH. It was interesting. Both the residents groups and the patient's committee felt that The Charter could serve as a public statement of what we as physicians are committed to do and be. They stated that they would like to see it on the wall of physicians's offices. If that happens to any significant degree, the effort to create The Charter will have been well worth it.

The Charter can be found in *The Annals of Internal Medicine*, 2002, vol. 136, 243-246 or *The Lancet*, 2002, vol. 359, 520-522. ◆

By Martin Black, M.D

ince our last newsy letter in 1996, there have been many changes in the JGH Department of Surgery. Our physical teaching offices and clinics remain in the "A" pavilion and we continually upgrade with up-to-date equipment. Over

News From The JGH Dept. of Surgery

the years the surgical staff has changed considerably. The Division of General Surgery has expanded with the recruitment of two new general sur-

geons, **Dr. Anna Derossis** and **Dr. Gabriella Ghitulescu**. Both McGill grads have joined our group augmenting our thrust in advanced laparascopic surgery, breast surgery and surgical teaching. We wish them both the best for a long association with our hospital and McGill University. We have established a full-time surgical teaching office with secretariat and a wonderful Surgical Education Resource room on the fifth floor for residents and students.

Richard Margolese continues to actively supervise the Oncology Service and is involved clinically with the breast cancer clinic that has been established at the JGH. Our part-time staff includes Ben Mitmaker, Roger Fenster, Jeff Rivilis, Arthur Freedman, Harry Glick, Issie Weissglas and Issie Shanfield. Our full-time general surgical group is headed by Harvey Sigman and includes Jacob Garzon as well as our two new recruits. Colorectal Surgery has been significantly strengthened by the recruitment of Julio Faria. Julio is a surgeon/scientist who has great potential to add to the academic lustre of this strong, busy and productive group headed by Phil Gordon. Barry Stein and Carol Ann Vasilevsky round out the group at the JGH and both have made significant contributions to the undergraduate and resident teaching programs at McGill. We also note that Dr. Steve Karp has

left Montreal several years ago as well **Dr. Henry Korman** and **Dr. Robert Levine** have retired. We sadly note the passing of **Dr. Bobby Rothstein** and **Dr.Allan Spanier** since our last report.

The Vascular Surgery group includes **Daniel Obrand** and **Nate Sheiner** and we have added a third full-time recruit **Dr. Cherrie Abraham**. We are delighted to welcome him to our institution and McGill University. Our emphasis in Vascular Surgery continues to be endovascular surgery.

The Plastic Surgery Division is active in head and neck reconstruction and breast reconstruction as well as a busy general plastic service including a busy emergency room. We are actively recruiting junior staff to compliment **Tassos Dionisopoulos**. We note with regret the passing of **Dr. Maynard Shapiro** this past year.

Cardiac Surgery has expanded significantly. We have three full-time cardiac surgeons, including McGill grad Felix Ma and recent recruit Jean-Francois Morin joining Yves Langlois. Cardiac Surgery is a priority service in our hospital. We have recruited Christian Sirois to join Nate Sheiner in our Thoracic Surgical Division in collaboration with the division at the MGH. This busy McGill service is re-organizing and we look forward to progress in recruitment.

Ms. Judy Pollack remains as the executive assistant to the Chief of Surgery. She looks after the departmental affairs with good humour and wise counsel. The current departmental Chief, **Martin Black** has fulfilled his mandate and at this time there is a search for a Chief of Surgery at the JGH.

The Department remains committed to excellent teaching, the best clinical care and a serious commitment to engage in ongoing clinical research. ◆

Letters

(cont'd from pg. 2)

is one of the most beautiful places in the world and the people are lovely. With best wishes and warmest regards

Howard Klein, MD Scarborough, Christchurch, New Zealand

Dear Editor,

Thanks for continuing to send *The Square Knot*. My year as the first postgraduate Vascular Fellow from 1987-88 at the Royal Vic stands out as one of the most rewarding experiences and professionally advancing periods of my life. I especially remember Drs. Jim Symes, Alan Graham, Normand Poirier, Nick Christou and

Albert Guerraty. I also remember a bright, energetic, skinny kid named Oren Steinmetz, M.D. who was my intern. Congratulations Oren!

I enjoyed private practice in Santa Monica, California after leaving naval duty in 1991. I was recalled last year and was proud to have been Battle Group Surgeon for USS Enterprise in October in the Arabian Sea when Operation Enduring Freedom began. I am Chief of Vascular Surgery here at Naval Medical Center San Diego. I miss you all as well as the beautiful city of Montreal.

Capt. Stephen F. McCartney, MC, USN San Diego, California

Chairman's Message

- By Jonathan L. Meakins, M.D., D.Sc., F.R.C.S.C., F.A.C.S.

he McGill Department of Surgery has always prided itself on its academic values and its excellence in research. There may have been a small decrease in productivity through



Dr. Jonathan L. Meakins

the 90's. As can be seen elsewhere in the *Square Knot*, research continues to be a very important component of our Department of Surgery. If we go back to the Retreat of the Department of January 2000, the Mission Statement, at that time, highlights very clearly the importance of scholarly activities and the importance of training surgeon scientists and surgeon educators for the renewal of the Department. Indeed, at that time, we took the fourteen criteria utilized by the University of Toronto for the allocation of resources, criteria examined them in detail, and voted as a collectivity on which we thought were the most important. The table that follows demonstrates

those fourteen criteria, the orders of importance at McGill and Toronto, and the scores in brackets voted on a scale of 1-5, where 1 is the best and 5 is the worst, for each of the criteria. There are three major differences in the way in which the

McGill Department looks at these criteria. The first identifies that meeting the terms of recruitment is the 6th most important; where as in Toronto, it was the eleventh. Two other major differences are administration and status of prior commitments both ranked substantially lower by the McGill Faculty than by the Toronto Department. My interpretation of these scorings indicates that we have a major commitment to the future and to the young recruits who will be our future. Things change, therefore, commitments of an older nature may not be possible to maintain as a result of the evolution of a disease, changes in the way it is managed, or the loss of personnel, or indeed a change in the constellation of priorities for clinical activities either by the hospital, the department or both. Sadly, for those of us involved with lots of administration, McGill values this somewhat lightly. Such is life.

Research activities and its excellence is ranked second at McGill as a criteria for the allocation of resources. That together with our commitment to the young is a very significant statement. This is curiously in conflict with a recent letter concerning allocation of resources where the statement was made that it is odd that clinical resources should be given to those excellent in research.

Recruiting to the Department has in recent years highlighted as a specific criterion, academic values, training, and productivity. Educational degrees have not been characteristic, basic science experience and Masters and PhD. degrees have been the norm. The value of this discipline is exemplified in the list of our Faculty receiving career development, and/or salary support awards given by the Canadian Institute for Health Research, or le Fonds de Recherche en Santé du Québec highlighted elsewhere in this issue. In recent years, acquiring tenure has become increasingly difficult, and indeed, there was a freeze for five years, which was relieved only in the year 2000. Criteria to enter into tenure track now incorporates, not only a salary award, but a peer review grant. Already, some of the award recipients noted have been placed on tenure track, and it is our complete belief that their productivity will

continue and that tenure will be awarded in due course. In the pipeline, there are many others who will be returning to McGill with the same qualifications. It can be expected over the next five to ten years that our Research productivity and profile will rise again dramatically. Support for this evolution has been through the initiative of Division Heads as well as the Surgical and Scientist Program supported by the Fast Foundation and Johnson & Johnson.

It is worth noting that faculty members are, indeed, pursuing these various lines of activities, as **Bernard Montreuil** of the Vascular Division

CRITERIA FOI	RPRIORITIZING	ALLOCATION OF RESOURCES
	IN ORDER OF	IMPORTANCE
D 1 - 1		

Rank at McGill	Criteria and Overall Score
1	Excellence of Patient Care (58)
2	Excellence in Research (69)
3	Importance of Clinical Service (70)
4	Excellence in Teaching (75)
5	Excellence in Innovation (85)
6	Terms of Recruitment (90)
7	Long Range Plans (116)
8	Full-time vs. Part-time Status (130)
9	Administration (139)
10	Fellows (142)
11	Cost of Program (148)
12	Determination of Program Size (153)
13	Status of Prior Commitments (181)
14	Non-insured Services (191)

It appears at the Surgical Forum that research productivity is declining. In fact, it is increasing as subspecialties in Surgery

create their own societies and our scientific productivity is spread to many different Journals and presented at a wide variety of meetings. New knowledge and its creation is the lifeblood of a Department. We are cooking with gas.



By Jean-Martin Laberge, M.D

THERE HAS BEEN a significant re-organization of trauma care at the Montreal Children's Hospital under the leadership of Dr. Kenneth S. Shaw, Medical Co-ordinator and Ms. Debbie Friedman, Program Head. This resulted in the development of one coordinated, patient and family focused interdiscipli-

nary program which meets the needs of all pediatric and adolescent trauma.

Trauma at the MCH

The MUHC Trauma/Neurotrauma Program achieved Accreditation from the Canadian Council on Health Services Accreditation (CCHSA) and was commended for its commitment to providing quality care and service in the community. The MCH-MUHC Pediatric and Adolescent Trauma Program received the maximum 5 years designation as a pediatric and adolescent trauma center. Its achievements and dedication to trauma care were acknowledged by the Groupe-conseil ministériel en traumatologie. As well, the MCH was designated as a Pediatric Neurotrauma Center of expertise for the province.

Last December the MCH opened a newly renovated trauma resuscitation room. The new changes to the Crash Room further enhance the MCH's availability and expertise as a trauma center.

Welcome Aboard



Dr. Suneel Khetarpal joins the General Surgery staff at the MUHC (MGH site) as of July 1, 2002. He will round out the present complement of general surgeons at the MGH dedicated to trauma and critical care. A Canadian-trained general surgeon (Calgary,

1996), Dr. Khetarpal has completed fellowships in Trauma Surgery and Critical Care in Minnesota. He returns to Canada after having worked three years at the Fairview-University Medical Center in Minneapolis and the Regions Hospital in St. Paul, a Level 1 Trauma centre.

Dr. Cherrie Z. Abraham joins the Division of Vascular Surgery at the JGH (with a cross-appointment at the MUHC) effective July 1, 2002. Dr. Abraham is a graduate of the Dalhousie Medical School in Halifax where he also did his General Surgery training (1994-99). He then completed a Vascular Surgery Fellowship at the University of Western Ontario and an Endovascular Fellowship in San Francisco and New York (Albert Einstein College of Medicine). It is expected that Dr. Abraham will in due course spend some time in Australia becoming familiar with carotid and visceral aortic endovascular procedures that he will bring back to Montreal. ◆

Madeleine Beaulne

Division of Plastic Surgery

DR. CHEN LEE returns to McGill University as the new Chairman of the Division of Plastic Surgery

Following completion of his medical degree at the University of Toronto, Dr. Lee completed his Residency in General Surgery and In Plastic Surgery at McGill University (1992). He went on to do a Clinical Fellowship in Adult Craniofacial Surgery and also in Paediatric Craniofacial Surgery at the University of Toronto. He is certified in Plastic Surgery through the Royal College of Physicians and Surgeons, Canada, and the American Board of Plastic Surgery. Following his Fellowships, he was on staff at the University of California, San Francisco as an Associate Professor in the



Dr. Chen Lee

Department of Surgery. While at the University of California, he was involved in research projects on Endoscopic Repair of Complex Zygomatic Fractures; Endoscopic Repair of Condylar Neck Fractures; Construction and Evaluation of a Totally Autologous Vascular Conduit.

A warm welcome is extended to Dr. Lee and we look forward to his continued contributions to the Division of Plastic and Reconstructive Surgery at McGill University.

By H. Bruce Williams, M.D.

HE EVOLVING ROLE OF MECHANICAL CARDIAC ASSIST DEVICES—Renzo Cecere, MD, FRCSC, FACS, is Surgical Director, McGill University Heart Failure and Thoracic Transplant Program and Director, McGill University Mechanical Cardiac Assist Program

Managing End-Stage Heart Failure Patients

In the last decade, significant advances have been made in the use of mechanical blood pumps

(total artificial hearts, left ventricular assist devices) as the primary surgical therapy for end-stage heart failure. This condition is an increasingly prevalent clinical problem in Canada. A

new paradigm for managing these patients, which involves a close alliance between surgical and medical specialists, has led to the development of novel approaches involving mechanical devices. Heart failure teams are seeking ways to identify more clearly and much earlier, which patients may benefit from surgery. With only medical management, heart failure patients continue to deteriorate at an alarming rate — despite progress in the use of new therapies administered by highly experienced clinicians, often in clinical trials.



Dr. Renzo Cecere

TYPES OF DEVICES

Several models of mechanical cardiac assist devices, which are implantable to varying degrees, are in clinical use. Most are pulsatile, totally implantable, and designed to support the left ventricle. Others replace the heart altogether. Energy transmission and control of the pumps are achieved via percutaneous drive-lines, or transcutaneous systems.

USES OF THE DEVICE

A mechanical device can be used as a:

- bridge to transplant, or
- destination therapy (permanent implant), or
- bridge to recovery of ventricular function

BRIDGE TO TRANSPLANT

In this application, the devices are typically implanted semielectively in patients on heart transplant lists, whose severe heart failure is refractory to optimized medical therapy, and who face impending end-organ failure. Ideally, the device permits patients to rehabilitate outside the hospital and enjoy full mobility and independence on minimal medication. Mechanical bridging does not increase the number of heart transplants performed, which depends on available organs. (In Canada, the number of new heart transplants is constant at about 150 a year). Bridging allows stabilization and transplantation of patients who would otherwise be transplanted with multiorgan failure, or who would die while waiting for donor organs. In practice, bridging shifts the supply of scarce donor hearts towards the "sicker" heart failure patients who require mechanical assistance for stabilization, while "healthier" patients wait longer for transplants.

Bridging to transplant also serves as a "safety net" for patients who receive novel, alternative-to-transplant therapies. Heart failure teams should have as their mandate the responsibility for selecting patients for reasonable alternatives to transplant in an effort to narrow the gap between potential recipients and available organs. Proposed alternative procedures include high-risk myocardial revascularization, valve surgery in patients with severe left ventricular dysfunction, cardiac resynchronization, ventricular volume reduction, and other "shape change" therapies.

DESTINATION THERAPY

While an ideal artificial replacement for a normal, natural heart may seem elusive, current clinical trials hold promise for using mechanical devices as permanent substitutes for a failing heart. Conventional, pulsatile pumps, as well as novel implantable, non-pulsatile, valveless axial flow devices, are all under consideration for permanent cardiac assist — natural extensions of current technology.

BRIDGE TO RECOVERY

Cardiac assist devices as bridges to recovery also help shorten heart transplant lists. Patients who fail to wean from cardiopulmonary bypass can be supported mechanically with pumps specifically designed for this purpose. When cardiac function returns, the pump is removed. Several intriguing groups of patients with chronic heart failure have shown reversal of symptoms and objective recovery of cardiac function following variable periods of left ventricular unloading with a mechanical cardiac assist device. When the device was removed, a significant number of patients maintained their clinical improvement. The clinical features of these patients and their heart failure syndrome, which are crucial for proper patient selection, are yet to be clearly defined.

MANAGING RISKS

The risks associated with implantation of a mechanical assist device — including hemorrhage, thrombo-embolism, infection, mechanical failure and death — can all be minimized with careful patient selection. It is crucial to match

the patient's current clinical situation to the available therapy. Once the therapy is delivered, close follow-up by a trained heart failure team helps assure favourable outcomes. The effective care of these complex patients requires total commitment by many dedicated individuals.

THE MCGILL UNIVERSITY MECHANICAL CARDIAC ASSIST PROGRAM

At the MUHC, we currently offer four distinct types of pulsatile cardiac assist devices, capable of supporting patients for extended periods of time. The Novacor LVAS and the HeartMate LVAD are totally implantable, and powered via a percutaneous driveline. The Thoratec VAD is paracorporeal, with the blood pump positioned externally on the abdominal wall, and the inflow and outflow cannulas entering the mediastinum percutaneously. The Berlin Heart VAD, recently acquired in order to bridge a 2-year old child at the Montreal Children's Hospital site, is implanted in a similar fashion. Both these latter blood pumps can be adapted for uni- or bi-ventricular support. In addition, we are the first and currently the only Canadian program to enrol patients in the INTrEPID destination LVAD clinical trial, having successfully implanted two Novacor systems for long-term use, as alternatives to transplant. We have also developed a VAD technical training program based

on a swine model, through which several Canadian centers have been recently trained. In an effort to offer this technology to non-transplant cardiac centers, our future plans include the development of a hub-and-spoke network, whereby patients in peripheral hospitals in need of mechanical cardiac assist could be stabilized locally with the use of devices specifically designed for short-term use, then transferred to our institution for weaning, or bridging to transplant. We also have commitments to participate in several upcoming clinical trials to test innovative new blood pumps.

THE ROAD AHEAD

Mechanical cardiac assist technology will continue to evolve towards permanent cardiac replacement. Improvements in biocompatibility and in device-to-patient matching will lead to more widespread application of this form of therapy and in tandem with more conventional treatment plans, will form the basis for a broader armamentarium in the management of end-stage heart failure.

Were You There? RVH - 1985





The Jo Miller Research Laboratory (Division of Orthopedic Surgery) has been awarded the prestigious Otto Aufranc Prize

Hip Society Research Award

By Edward Harvey, M.D.

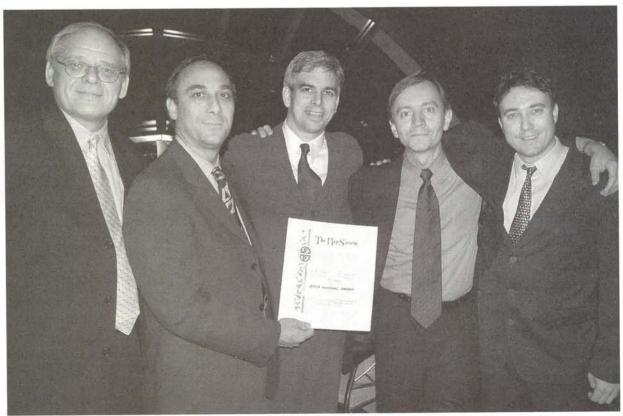
for the manuscript entitled *The Relative Contributions of Surface Topography and Surface Chemistry to The Osseointegration of HA Coated Implants*. This award is recognized as the penultimate interna-

tional research prize for disorders related to the hip. The co-authors are SA Hacking, M Tanzer, EJ Harvey, JJ Krygier and JD Bobyn. This award represents a small part of the outstanding work that has been accomplished at the laboratory over the last decade. The lab was also awarded the Founders Medal as top research project in orthopedic basic science research from the Canadian Orthopedic Research Society in 1993. Members of the JMORL have won a Hip Society award an unprecedented five times in the last 9 years. Over that period the lab members have been equally prolific in other areas. Sixty-one journal articles and 15 chapters have

been published. Lab associates have had 94 presentations at peer reviewed research meetings and have been invited to lecture 109 times over that time.

Currently, the lab has four active CIHR and FRSQ grants. It continues to enjoy industry support and is part of the Canadian arthritis centers of excellence. Research is centered on two main axes: biological and biomechanical parameters of total joint arthroplasty, and fracture/bone metabolism characterization. The lab enjoys ongoing collaboration with the University of Waterloo (Professor J. Medley) and the Departments of Engineering and Mining and Metallurgy (Professor S Yue, McGill University) which has resulted in multicenter research opportunities and combined Ph.D./Master student education. Thirty-three students at all levels have come through the lab under Dr Bobyn's tutelage. At McGill, the laboratory continues to attract students from the medical school and other departments. Orthopedic residents also take advantage of resources that allow them good exposure to the basics of sound fundamental research.

Hopefully, the new millennium will be as successful as the last decade has been for the Jo Miller Laboratory that is now enjoying its 37th year of existence.



Presentation of the Otto Aufranc Hip Society Award 2002 in Dallas, Texas, at the American Academy for Orthopedic Surgeons.

Lab Members- (Left to right) Jan Krygier, Michael Tanzer, Edward Harvey, Dennis Bobyn, Adam Hacking.

IVISION OF VASCULAR SURGERY

The Department of Surgery and Division of Vascular Surgery says farewell to **Dr. Ronald Lewis** as he moves on to the University of Ottawa this summer. Ron has had a long history at

Ron Lewis: McGill to Ottawa

By Oren Steinmetz, M.D.

McGill University in the Department of Surgery. Ron originally came from the West Indies to Montreal back in 1960's where he started his surgical residency train-

ing in 1968 at the Montreal General Hospital. After completing his surgical training in 1972 and a short stay back at home, he returned to Montreal in 1974 and came on staff at

the Queen Elizabeth Hospital Department of Surgery, and 1987 he became Surgeon-in-Chief at the Queen Elizabeth Hospital.

After the closure of the Queen Elizabeth Hospital, he came over to the MUHC — Royal Victoria Hospital Site as the first chief of the newly formed Division of Vascular Surgery. Ron has guided us through our first five years as a Division of the Department of Surgery at McGill. Under his competent leadership, vascular sur-



Dr. Ron Lewis

geons and vascular lab technicians from three separate hospitals were integrated at one site (Royal Victoria Hospital) and molded into a cohesive group working within the MUHC. He strengthened the ties between the vascular surgeons at the MUHC and the Jewish General Hospital and we now work closely together with respect to clinical activities, the vascular fellowship, and academic endeavors. Within the division, we will all miss his steady leadership and depth of

experience. After his move, he will be particularly missed by the large population of patients to who he is unfailingly dedicated. We wish him all the best in his future endeavors and we will be keeping in touch.



Thanks to Our Contributors

As a result of the Letter of Request for Donations to the McGill Surgical Alumni and Friends in the last issue of *The Square Knot*, we are encouraged by the response. We would like to extend our thanks to all those who have sent us funds and particularly the following who have generously contributed \$100.00 or more.

EDM

Dr. C. Barba	
Dr. S. Burwell	
Dr. Richard Cruess	
Dr. Robert A. Forse	
Dr. Jacob Garzon	
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Dr. Edwin Lafontaine

Dr. Ramesh Lokanathan Dr. Lloyd D. MacLean

FRSQ Awards

Dr. Jonathan L. Meakins, Chairman of the Department of Surgery, is very heartened by the number of current FRSQ award recipi-

ents in his Department of Surgery. Indeed, this is a tribute to the talent and dedication to research of the individual awardees, but also greatly enhances the profile of the Department and the University. *The Square Knot* along with Dr. Meakins offers sincere congratulations and we would like to highlight their achievements with the Federation de Recherche en Santé au Québec.

NEW FRSQ SALARY AWARDS 2002		
GUY, Pierre	Chercheur-boursier clinicien Junior 1, Clinique et Épidemiologie	July 1/02 - June 30/06
SAMPALIS, John	Chercheur-boursier "Senior" Clinique et Épidémiologie	July 1/02 - June 30/06
SHUM-TIM, Dominique	Chercheur-boursier clinicien Junior 1, Fondamental	July 1/02 - June 30/06

ANTONIOU, John	Chercheur-boursiers Junior 1, Fondamental	July 1/01 - June 30/05
APRIKIAN, Armen	Chercheur-boursiers "Senior", Fondamental	July 1/01 - June 30/04
HARVEY, Edward	Chercheur-boursiers clinicien Junior 1, Fondamental	July 1/01 - June 30/03
METRAKOS, Peter	Chercheur-boursiers clinicien Junior 1, Fondamental	July 1/01 - June 30/04
PHILIP, Anie	Chercheur-boursiers "Sénior", Fondamental	July 1/01 - June 30/04
ROSENBERG, Lawrence	Chercheur national	July 1/01 - June 30/06
ST-ARNAUD, René	Chercheur-boursier "Sénior", Fondamental	July 1/00 - June 30/03
TANGUAY, Simon	Chercheur-boursier clinicien Junior 2, Fondamental	July 1/01 - June 30/03

FRSQ Salary Award Recipients

DEPARTMENT OF SURGERY, MCGILL UNIVERSITY-2002

New Awards

GUY, Pierre

FRSQ Chercheur-boursier clinicien Junior 1, Clinique et Epidémiologie

TITLE: Developing an Activity-Based Costing (ABC)
System for Trauma Care

DATE: July 1, 2002 - June 30, 2006

DESCRIPTION: The project aims at identifying costs related to in-hospital care of trauma patients, using a management accounting method originating from the manufacturing industry. Using ABC, the various steps (activities) of a production process can be identified and assigned a "driver" based on: intensity, frequency, or quality. From there, costs and their related drivers can be identified. Relating this information to

clinical outcomes allows the generation of clinically-relevant funding formulas and cost-benefit assessments.

OBJECTIVES

- Develop a <u>link between care and cost</u> (using an Activity-Based Costing (ABC) model).
- Generate a <u>funding formula</u> for Trauma Care (link between cost and funding)
 - 2.a) Compare new formula and other funding formulas (DRG, ISS...) to Actual Total Costs
- Develop a <u>link between costs incurred and clinical outcome</u> (Cost-Benefit assessment).

SAMPALIS, John, S.

FRSQ Chercheur-boursier "Sénior", Clinique et Epidémiologie

TITLE: Evaluation of Trauma Care Services in Canada

DATE: July 1, 2002 - June 30, 2006

DESCRIPTION: The research that I will be pursuing during the next five years will be a natural continuation and an expansion of the work that I have completed and initiated during the last five to ten years. This work focuses on the evaluation of trauma care services with a secondary focus on Surgical Epidemiology.

During the next five years, my research will advance in the following directions: First, from a geographical scope the research will now evaluate trauma care services in Canada as a whole and will establish the basis for international projects. The following studies are included in this: 1. Evaluation of the association between the degree of trauma care regionalization/integration and mortality and morbidity in patients with major trauma. 2. Evaluation of the impact of trauma hospital designation and characteristics on the mortality and morbidity of patients with major trauma. 3. Evaluation of the association between trauma patient triage and transport policies on mortality and morbidity of patients with major trauma. 4. Evaluation of the association between the type of pre-hospital trauma care and mortality and morbidity.

Second, from a content point of view, my research will evolve with respect to outcomes assessed by studies that will evaluate the impact of trauma care on functional status, and guality of life. In addition, a series of studies will develop models for health economic evaluation of trauma care. The population studied will expand from the general urban population to specific sub populations including rural, geriatric and pediatric patients. These are groups that have unique trauma Epidemiology and specific needs for trauma care. In collaboration with surgical residents who are also my graduate students, I will pursue the following studies that will address specific clinical issues: 1. Evaluation of risk factors for hospital acquired pneumonia in trauma patients. 2. Assessment of risk profile for thrombo-embolic events in trauma patients, and 3. Evaluation of diagnostic assessment of the spine in trauma patients. From a trauma care point of view, my research will expand in the development of trauma patient triage algorithms and a more focused comparison of paramedics, physicians and emergency medical technicians in the pre-hospital management of trauma patients.

Third, from an implementation and dissemination point of view, my research will evolve by introducing a National Canadian Internet Network for the exchange of information and the implementation of trauma care evaluation that will be based on common standards and methodologies. In addition, through two program grants, I will participate in the development of a critical mass of trauma researchers in Canada as well as in the training of new clinical and health service researchers.

In Surgical Epidemiology, my research will focus on advancing my previous work on surgical waiting times. In addition, I will continue my work on the evaluation of diagnostic methods for breast cancer and outcome assessment for plastic and reconstructive surgery.

Funding for my research over the next 2-4 years has been received from the Canadian Health Services Research Foundation, one program grant and two operating grants from the Fonds de la recherché en santé du Québec (FRSQ). Applications for funding of ongoing and related projects will be submitted to the same agencies over the next 3–5 years.

SHUM-TIM, Dominique

FRSQ Chercheur-boursier clinicien Junior 1, Fondamental

TITLE: Contrôle de la circulation extracorporelle et de la protection cérébrale lors d'une chirurgie cardiaque chez le nourrisson

DATE: July 1, 2002 - June 30, 2006

DESCRIPTION: My current research activity focuses on two main areas. The first one is the Management of Cardiopulmonary Bypass and Cerebral Protection during Pediatric Cardiac Surgery. This research project basically brings our bedside cardiopulmonary bypass protocols and studies them in a controlled bench-side experimental condition. As the outcome of complex cardiac surgery is improving in the pediatric population, the neurological morbidity has become a prominent issue. This research is aimed at improving the quality of life and social dependence of many of our patients following repair of cardiac malformations. We have received our first peerreviewed Award, the Jonathan Ballon Award, from the Heart and Stroke Foundation of Quebec in 2000. With this Award, we have been able to continue our work which I have started since I was in Boston and thus far, we have presented our work at the Society of Thoracic Surgeons, the American College of Surgeons and the American Heart Association. As a busy clinical surgeon, the Award from the FRSQ undoubtedly provides me with some protective time to continue my interest as an academic surgeon. Hopefully, it will continue to help my lab to achieve our goals.

My second area of research is in Tissue Engineering, on which I also spent some time doing while in Boston. As soon as I returned to McGill, my mutual collaboration with my mentor, Dr. Chiu, had become inevitable. We had multiple publications in the peer-reviewed Forum, in addition to several honors and Awards won by our residents. At the time of this writing, I am very excited also to receive an Award led by Dr. Thomas M.S. Chang, from the Department of Physiology, in a joint venture of medical research in the area of transfusion medicine. Together, we have recently received an FRSQ grantin-aid Award (approximately \$350,000/year) for the next three consecutive years. My role in this particular project is to use artificial red blood cells during cardiopulmonary bypass, specifically to minimize systemic inflammatory reaction, as well as neuroprotection. This special Award has given me the unique opportunity to work with our basic scientists, as well as unifying my dual interest in "cellular engineering" and "protection of the brain during cardiopulmonary bypass". I hope this exciting future will be a productive one and I am very excited to be able to contribute to this academic achievement as a member of the surgical department.

Ongoing Awards

ANTONIOU, John

FRSQ Chercheur-boursier clinicien Junior 1, Fondamental

TITLE: La résonnance magnétique quantitative comme outil diagnostique de la composition et l'intégrité de la matrice des disques intervertébraux

DATE: July 1, 2001 - June 30, 2005

DESCRIPTION: Intervertebral disc degeneration has been implicated as a major etiologic component of spine pathology. Much research has been aimed at treating the symptomatic effect of disc degeneration and at attempting to create disc like spacers. In many instances, these treatment modalities have been disappointing. Disc pathology treatment is now shifting toward the prevention and treatment of underlying etiologic processes. This involves treatment at the level of the disc matrix. The ability to perform such treatment relies on one's ability to accurately and objectively assess the state of the matrix and the effectiveness of treatment. Recent developments in the quantitation of magnetic resonance data, along with our advances in the quantitative assessment of biochemical changes in the disc, offer the unique opportunity to assess quantitative MR technology as a method of investigating the age and treatment related degenerative and reparative changes that occur in the human lumbar intervertebral disc. Thus, we hope to develop a non-invasive clinical technique (quantitative MR) that will enable us to accurately assess aging, degenerative and pathologic disc processes and to quantify the efficacy of treatment modalities in degenerative disc disease.

APRIKIAN, Armen

FRSO Chercheur-boursier "Sénior", Fondamental

TITLE: Progression du cancer de la prostate par les cellules neuroendocrines

DATE: July 1, 2001 - June 30, 2004

DESCRIPTION: Prostate cancer is the leading malignancy in terms of incidence and the second most common cause of cancer deaths in Canadian males. Hormonal therapy remains the primary treatment of advanced prostate cancer. Although most patients experience a remission, almost all inevitably relapse. Thus, discerning the mechanisms of tumour progression, metastasis and androgen-independent growth is crucial to the development of effective therapeutic strategies. Prostate cancer is composed of a diverse population of cells each possessing distinct characteristics. We have focused on a subpopulation of cancer cells known as neuroendocrine (NE) cells. The main feature distinguishing these cells is the abundant production of potent peptides, such as bombesin/gastrin-releasing peptide (GRP) and VEGF. It has been shown that cancers that contain numerous NE cells portend a poor prognosis. We have shown that GRP peptides can stimulate prostate cancer cells to spread and invade. These observations raise the hypothesis that the aggressive nature of prostate tumours containing a NE component as well as their association with the androgen-independent state may reflect bombesin/GRP mediated stimulation of tumour progression. This proposal is focused on elucidating the mechanisms involved in bombesin/GRP and VEGF prostate cancer modulation.

HARVEY, Edward

FRSQ Chercheur-boursier clinicien Junior 1, Fondamental

TITLE: Caractérisation de la surface de frature: microtypographe osseuse, biochimie de surface et paramètres de guérison

DATE: July 1, 2001 - June 30, 2003

DESCRIPTION: The general goal of this project is to better understand the fracture surface and the localized effect of both microtopography and surface chemistry. This grant represents a multiaxial approach to delineate basic cellular

changes and microstructure implications to clinical fracture healing. The general goal is to provide a more complete understanding of the bone at the fracture and nonunion site. Microtopography and surface chemistry of the fracture site both contribute to the physiological processes of fracture healing. The relative contribution of these and other parameters is poorly understood. Clarification of these parameters could have a huge effect on orthopaedic trauma care through modification of treatment, implant design, implant type and adjuvant therapy. Fracture modeling will be carried out to better understand fracture mechanics, fixation modalities and delineate treatment options at a fracture site (ultrasound stimulation, distraction osteogenesis, synthetic graft and others) by developing a long bone model capable of reproducing assorted fracture patterns. With the use of the fracture model, the microtopographical structure of different fracture types will be determined. This knowledge with cell culture data is to determine which fracture types need more aggressive therapy such as operative treatment.

We should be able to determine which fractures need adjuvant therapy such as bone grafting or immobilization. We will then examine coated and textured surfaces currently in common usage to supply some of the information needed to fine tune management of fracture surfaces. Expense of bio-engineered morphogenic proteins and ingrowth lattices increases the overall cost of grafts. Optimal dosage of microtopography and surface chemistry has yet to be determined and the relative contribution at the level of the nonunion has not been delineated. If this was evident the initial treatment of fractures can be changed to decrease the incidence of nonunions. Cell culture studies will be carried out to evaluate the effects of different surface topographies and materials on bone formation in vitro.

This project will have a direct impact on orthopedic trauma care and could reduce the overall costs (hospital stay, reduced surgery, and reduced loss of productive years) to the medical system. Through cooperation with industry (surface analysis, donated implants) there is an opportunity for direct technology transfer (manufacture of implants, design of implants). This information could have a huge effect on orthopaedic trauma care through modification of treatment, implant design, implant type and adjuvant therapy.

METRAKOS, Peter

FRSQ Chercheur-boursier clinicien Junior 1, Fondamental

TITLE: Un modèle in vitro de xenotransplantation d'îlot: le rôle des cellules endothéliales

DATE: July 1, 2001 - June 30, 2004

DESCRIPTION: Xeno-transplantation is seen as a solution to the growing disparity between the lengthening waiting lists for transplants and the availability of donor organs. Xenogenic islet transplantation may have two advantages over the problems that have been encountered with whole organ xenotransplantation. (1) Primarily vascularized xenografts, including whole pancreas, are destroyed first by hyperacute rejection (HAR), which is not yet preventable by treatments sustainable in clinical use. HAR is a vascular phenomenon resulting from the fixation of complement by xenoreactive natural antibodies (XNAs) that bind to carbohydrate determinants on cells of the graft; particularly its vascular endothelial cells (ECs). Cellular xenografts, such as pancreatic islets, are vascularized by the ingrowth of host vessels and are therefore not susceptible to XNA-mediated endothelial damage. The principle target for HAR is the Gala(1-3)Gal epitope whose expression is diminished on islet cells and, therefore, appear not to generate as severe an HAR. (2) Islets offer the opportunity for in vitro pretransplant modification. Islet endocrine cells have a low inherent immunogenicity; therefore careful choice of isolation techniques can exclude those cells that are important for the initiation of a rejection response such as macrophages, dendritic cells and endothelial cells. In vitro culture of islets also offers the opportunity for transfection of genes that can modify the rejection process.

PHILIP, Anie

FRSQ Chercheur-boursier "Sénior", Volet fondamental

TITLE: Caractérisation de l'action du facteur de croissance transformat-B (TGF-B) dans les cellules de la peau humaine

DATE: July 1, 2001 - June 30, 2004

DESCRIPTION: Impaired healing and hypertrophic scarring are major medical problems with no satisfactory treatments. The efficacy of topically administered transforming growth factor-b (TGF-b) to promote wound healing is well documented in animal models. However, clinical results in humans have been discouraging, possibly due to the inappropriate timing of administration or the unavailability of the delivered factor. An alternative would be to manipulate the action of endogenous TGF-b locally using regulatory molecules. Thus, my

research is focused on identifying molecules that may regulate TGF-b availability and TGF-b signaling in skin cells. The specific objectives are: (i) to characterize the mechanism by which a novel TGF-b receptor (r150) that we have recently identified regulates TGF-b signaling; (ii) to identify steroids, ECM proteins and oxygen tension as regulators of TGF-b bioavailability, TGF-b receptors and TGF-b responses using in vitro and in vivo models. These studies are novel in that they will provide a unique therapeutic approach in which novel factors may be used to modulate TGF-b action locally to manipulate wound repair. Agents that promote the healing of chronic wounds or that reduce hypertrophic scarring will result in tremendous savings in health care costs.

ROSENBERG, Lawrence

FRSO Chercheur-national

TITLE: Control of Islet Cell Survival and Differentiation

DATE: July 1, 2001 - June 30, 2006

DESCRIPTION: Current islet isolation procedures presuppose that islet cell survival is independent of other elements of the pancreas, and that islets remain unaffected by conditions to which they are subjected. Yet these presumptions have never been tested. Thus, loss of trophic support, as well as exposure to likely mediators of cell death, need to be explored as causes of ß-cell loss leading to islet graft failure. Alternatively, ß-cell loss could also result from a change in the differentiated state of the cell.

Hence the objective of my research program is to identify intracellular signal transduction networks implicated in islet cell survival, death and transdifferentiation, in order to understand the mechanisms involved in islet transplant failure.

ST-ARNAUD, René

FRSQ Chercheur-boursier "Sénior", Fondamental

TITLE: Signal transduction pathways and control of gene tran scription in developing bone

DATE: July 1, 2001 - June 30, 2003

DESCRIPTION: We have cloned a novel transcriptional coactivator, alpha-NAC, that is specifically expressed in bone during development and can potentiate c-Jun-mediated transcription. We have shown that the Integrin Linked Kinase(ILK) can efficiently phosphorylate alpha-NAC. Using the yeast two-hybrid assay, we have identified a novel factor interacting with alpha-NAC that we termed PIN, for protein interacting with al-

pha-NAC. PIN is a member of the basic domain-leucine zipper (bZIP) family of transcription factors and dimerizes with ATF4, another bZIP factor. We have begun to elucidate the signaling cascade regulating the function of alpha-NAC, to determine the role of alpha-NAC, PIN, and ATF4 in the control of gene expression in bone cells, and generate strains of mice deficient for alpha-NAC and ILK. Specific inactivation of ILK in growth plate chondrocytes, using the Cre/lox methodolgy, inhibits chondrocyte adhesion and growth and leads to chondrodysplasia. Our research program will develop animal models of bone disease and should lead to the identification of novel 'targets' for pharmacological intervention. The identification of such targets is indispensable for the elaboration of rational and effective therapeutic approaches for the pathologies affecting the bone cell.

TANGUAY, Simon

FRSQ Chercheur-Boursier Clinicien "Junior 2",

Volet: Fondamental

TITLE: Treatment of renal cell carcinoma with dendritic cell therapy

DATE: July 1, 2001 - June 30, 2003

DESCRIPTION: Immunotherapy remains the prefered treatment for metastatic renal cell carcinoma. This research program evaluates the ability of using dendritic cells to generate a specific anti-tumor response using a murine renal cell carcinoma model. This program should serve as preclinical studies to identify optimal conditions for subsequent human trial. ◆



"Put that down as 'no', Nurse."

r. Armen G. Aprikian
from the Division of Urology was awarded
the McGill University William Dawson
Scholarship and he has become a Senior

KUDOS !!

Chercheur Boursier Clinicien of the FRSQ. (See elsewhere in these pages).

Dr. Jacques Corcos, Chief of the Department of Urology at the JGH, had the honor of being invited to a number of speaking engagements: In November, he gave a talk at the Asian Surgical Association Meeting on the Pelvic Floor. In Shenzen, China, he was a member of a workshop in Urodynamics and in Xian and Beijing, he spoke about Minimally Invasive Surgery to Treat SUI. Last March in Montreal, he spoke to approximately 100 participants in the McGill Geriatric Medical Course for Practitioners on The Aging Urinary Tract. In April, he addressed a group on the following subject La Réadaptation: L'intégration de connaissances pour une clientéle complexe. In May in gave two talks, one in Quebec City as the invited guest speaker entitled Mise à jour sur le traitement des symptômes de l'appareil urinaire inférieur and in Vancouver he spoke to the American Spinal Cord Injury Association Meeting on Intrathecal Clonidine.

We congratulate **Dr. Hélène Flageole** who has been appointed as Associate Professor of Surgery, McGill University.

Dr. Philip H. Gordon of the JGH was presented with the Dr. Carl Arthur Goresky
Memorial Award in recognition of
his dedication and outstanding
contributions to Inflammatory

Bowel Disease. This was with the McGill Inflammatory Bowel Disease Research Group last April. Philip has

also been appointed an External Reviewer for the Alberta Heritage Foundation for Medical Research. His two recent publications are as follows: Yuan ZQ, Gottlieb B, Beitel LK, Wong N, Gordon PH, Wang Q, Puisseux A, Foulkes WD, Trifiro M. Polymorphisms and HNPCC:PMS2 - MLH1. Protein Interactions Diminished by Single Nucleotide Polymorphisms. Hum Mutat 2002;19:108-113. Andermann A, Thiffault I. Wong N, Gordon PH, MacNamara E, Chong G, Foulkes WD, Percesepe A, Ponz de Leon M, Peltomaki P. Multimodality molecular screeing is required to improve the sensitivity of MLH1 and MSH2 Mutation Analysis. J Clin

Dr. Jean-Martin Laberge participated in several conferences and presentations early this year. February 18-21 in Nice, France he attended the International Congress on Pediatric Pulmonology

Oncol 2002;20:1705-1707.

(CIPP-V) and was asked to chair a Symposium on "Congenital Pulmonary Anomalies". He gave a presentation on The Management of Asymptomatic Congenital Lung Lesions.

Dr. Laberge was invited as Visiting Professor at British Columbia Children's Hospital,

Vancouver from April 11-12. He presented at Surgical Grand Rounds The Effects of Fetal Tracheal Occlusion and Release on Lung Growth and Function in the Ovine Congenital Diaphragmatic Hernia Model. This year the Children's Oncology Group Meeting (COG) was held from April 23-27 in Jacksonville, Florida. He was part of the Surgical Discipline Committee and presented Nephroblastomatosis: A Concept Study. This will form the basis for a prospective study. Also, Dr. Laberge has been appointed as a member of the Comité de la rémunération of the Quebec Association of General Surgeons.

Dr. Antoine Loutfi of the MUHC (RVH site) was the moderator of a seminar on Cancer of the Breast at the meeting in Hull of the Quebec Association of General Surgeons during the week-end of the 25th of May. Antoine has also been named to the Board of Directors of the Canadian Network for International Surgery.

Drs. Peter McLean and **Tarek Razek** represented the C.N.I.S. as observers at a course on *Essential Surgical Skills for Graduating Doctors* from May 3rd to 14th at the Goudar Medical School in Ethiopia. There are three medical schools in Ethiopia - the other two are in Addis Ababa and the Jimma Insti-



Dr. Tarek Razek with Surgery students in Ethiopia.

tute of Health Sciences. The Surgical Department of the RVH has been associated with the C.N.I.S. project for the past seven years. The C.N.I.S. is involved in Ethiopia, Uganda, Malawi and Mozambique. It also helps with the Trauma Prevention Program in Uganda and Ethiopia.

Dr. Sarkis Meterissian, Program Director of General Surgery, was just appointed as a faculty member of the Center for Medical Education. He was also granted tenure and promoted to Associate Professor of Surgery and Oncology. Sarkis is also a member of the Rapport du Comité des Effectifs of the Quebec Association of General Surgeons.

Dr. David S. Mulder has been appointed to the Governors Committee of the American College of Surgeons on Blood Borne Infection and Environmental Risk.

It is noteworthy that **Dr. Dickens Saint-Vil** is also a member of the Rapport du Comité des Effectifs of the Quebec Association of General Surgeons.

Dr. Gaston Schwarz, Associate Professor in the Division of Plastic Surgery, has been elected the National Secretary for Canada to the International Society of Aesthetic Plastic Surgery.

Dr. Judith L. Trudel, now in Minnesota, has been appointed as one of the sixteen associate examiners for the American Board of Colon and Rectal Surgery.

Dr. Francine Tremblay of the MUHC (RVH site) discussed Sentinel Node Biopsy at a Seminar on Cancer of the Breast during the meeting of the Quebec Association of General Surgeons in Hull on the 25th of May.

Dr. Jacques Corcos (at right) and Dr. Erik Schick, from the University of Montreal, have just launched their second book together: a textbook on The Urinary Sphinc-

ter published by Marcel Dekker (New York). This 880 page reference provides comprehensive coverage of the male and female sphincteric mechanisms and their connection to the pelvic floor, as well as lower urinary tract function.

Achievements Residents and Fellows

D

r. Patrick Charlebois was

married to Geneviève Miller on May 4th, 2002 in Montreal. Geneviève has a 5 year old son Vincent, and the whole family will be moving to Chicago so that Patrick can complete his Colorectal Fellowship.

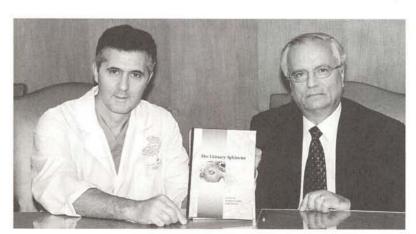
Dr. Ali Hussain, resident in Plastic Surgery, won The Jose Guerrerosantos "Best Reconstructive Paper Award" at the Plastic Surgery Senior Residents Conference March 21st to 24th, 2002

in Seattle, Washington. The title of his presentation was Assessing the Need for Reconstruction after Breast-Conserving Mastectomy.

Dr. Saundra Kay completed her fellowship in Pediatric General Surgery at the end of June. She has been granted a Fellowship in Laparoscopic Pediatric Surgery with Dr. Steven Rothenberg, in Denver, Colorado from July 1 — December 31, 2002. Upon completion of this fellowship position, Saundra plans to take some time to travel; then, we hope to have Saundra join us, on staff, at the Montreal Children's Hospital.

Dr. Mark Martin of Plastic Surgery has won the following prizes: the Dr. Gerald Franklin Prize which is awarded to the student attaining the highest academic standing in the third year of the Dental Undergraduate Program; the Dr. Lyman E. Francis Prize awarded to the student in the third year of the Program who has obtained the highest standing in the Unit 8 (Pathobiology, Treatment and Prevention of Disease),

Dental Pharmacology and Therapeutics, and Oral and Maxillofacial Pathology and Oral Medicine over the second and third years of the Program; and the J. McConnell Award which is awarded on the basis of high academic standing and faculty recommendations to students pursuing degrees in any field. It is noteworthy that Dr. Martin was also named to the Dean's Honour List.



Dr. Jacques Corcos and Dr. Erik Schick

Dr. Nancy Morin will be going to the Cleveland Clinic for a Fellowship in Colorectal Surgery.

Dr. Andreas Nikolis has two papers which were presented in May at the World Health Organization's 6th World Conference on Injury Prevention and Control. These were entitled as follows: Nikolis A, Zerey M, Liberman M, Mulder DS, Brown R, Sampalis JS Assessment of Risk Factors in the Development of Thromboembolism in a Trauma Population. The second paper by Nikolis A, Zerey M, Salasidis R, Gursahaney A, Chaudhury P, Mulder DS, Flesizer D, Sampalis JS was entitled Evaluation of Peripherally Inserted Central Catheter Placement in a Critically Injured Population.

Dr. Wendy Parker, Plastic Surgery resident working on her Ph.D. with Dr. Anie Philip, was the recipient of this year's Benjamin Shore Prize in Plastic Surgery. At the recent meeting of the Plastic

Surgery Research Council held in Boston, Massachussetts in April, Dr. Parker won the Clifford Synder Prize in Plastic Surgery. Her presentation was entitled Endoglin is Expressed on Human Chondrocytes and Forms a Heteromeric Complex with Betaglycan in a Ligand and Signaling Research

pressed on Human Chondrocytes and Forms a Heteromeric Complex with Betaglycan in a Ligand and Signaling Receptor Dependent and Independent Manner. This work was done with **Dr. Anie Philip** in her laboratory at the MGH.

Congratulations to **Dr. Jose Pascual** of General Surgery and to his wife Do-

minique on the birth of their first born son Matéo Paul Pascual born May 18th and weighing 7 pounds, 5 ounces.

Dr. George Tzimas of our Transplant Program is the recipient of the Dolgin and Cohen Fund for Transplant and Hepatobiliary Surgery. He begins the clinical year

of his two year Fellowship on July $1^{\rm st}$, 2002. This past year, he has been doing

his research year in Transplantation and Hepatobiliary Surgery and received the Canadian Society of Transplantation Trainee Award

for 2002. He completed 3 manuscripts along with 9 abstracts accepted and gave 3 oral presentations. •



Matéo Paul Pascual



"You'll feel better when you see the doctor."



Welcome to the New Chief Residents 2002-2003

CARDIAC SURGERY

Program Director: Dr. Patrick Ergina



Dr. Edgar Chedrawy was born in Lebanon and lived in Halifax, Nova Scotia. He obtained his B.Sc. in Chemistry with distinction in 1993 from Dalhousie University. Eddy graduated in 1997 from the combined B.Sc. Med/M.D. Program at Dalhousie Medical School. He joined the Cardiac Surgery Program at McGill in 1997. In 2000, he completed a Master's of Science Degree in Experimental Surgery on *Cellular Cardiomyoplasty Using Satellite Cells and*

Marrow Stromal Cells. In May 2000, he was the recipient of the Bigelow Award for Basic Science Research during the Terrence Donnelly Cardiac Surgery Resident Research Day at the University of Toronto. In May 2001, he was a finalist for the Lillehei Resident Research Award at the American Association for Thoracic Surgery. After completing his training, he plans to do a fellowship in heart failure surgery.

GENERAL SURGERY

Program Director: Dr. Sarkis Meterissian

Adnan Al-Hendal graduated in 1993 from the Royal College of Surgeons in Ireland. From 1993-94, he completed his internship in Kuwait. He was then an assistant registrar in Surgery 1994-95 and in the Surgical Oncology Department of the Kuwait Cancer Control Cen-



ter from 1995-96. He joined the General Surgery Program in 1998 with a special interest in Surgical Oncology. His precious achievements are his children Hasan (4 yrs old) and Malak (2.5 years old).



Robert Andtbacka is originally from northern Finland. He served as Corporal (first degree) in the Finnish Marine Forces (1988-89). Robert is a graduate of McGill. He received his B.Sc. in 1993 with Honors in Biochemistry and his MD in 1997. He joined the General Surgery Program in 1997. He has completed 1.5 years of research with Dr. Morag Park and Dr. S. Meterissian in Molecular Oncology. Robert has a strong interest in Surgical Oncology.



Tony DiCarlo is a graduate of McGill. He received his B.Sc in 1992 with Honors in Biochemistry. His undergraduate training in biochemistry and research experience in molecular biology has provided Tony with a strong theoretical background. He received his MD in 1996. Tony joined the General Surgery Program in 1996 with a

special interest in Transplantation. Congratulations to Tony and his wife (Laura) on their first born baby Juliana.

Rumi Faizer is a graduate of McGill. He obtained his B.Sc. in 1994 with Honors in Biochemistry and received his MD in 1998. Rumi has a strong background in research having won 3 National Science and Engineering Research Council grants from 1992-1994. He joined the General Surgery Program in 1998.





Kashif Irshad is a Graduate of McGill 1998. He was born in England and grew up in Quebec City and Montreal. He joined the General Surgery Program in 1998. He has completed research in Vascular Surgery and is working on a Masters in Experimental Surgery with Dr. J. Sampalis.

Dhafer Kamal is from Bahrain. He obtained his MD degree in 1993. He was a resident at the Bahrain Defence Force Hospital from 1994-97. He joined the General Surgery Program in 1998 with an interest in Vascular Surgery. Congratulations to Dhafer and his wife who gave birth to their second child Mohammad on March 23, 2002.





Jim Koumanis is a graduate from the University of Western Ontario (1997). He obtained his B.Sc. with Honors in BioPsychology in 1993. He was then accepted into the McGill Obstetrics & Gynecology Program in 1997 and in March 1998 he transferred to the General Surgery Program. He has a special interest in Mi-

crovascular Surgery. Congratulations and Best wishes to Jim and his finance (Natalie) who will be getting married on Oct 13, 2002.

Nina (Ordas) Davies obtained a Bachelor of Science with honors in Biology (1994) from the University of Western Ontario. She received her MD from the University of Ottawa in 1998. She joined the General Surgery Program in 1998 with an interest in Trauma and Crit-



ical Care. Congratulations to Nina and John Davies who got married in Dec 2001.



Naim Otaky is originally from Dubai. He is a graduate of McGill. He obtained his B.Sc. in Psychology with first class honors in 1994. He received his MD in 1998. He joined the General Surgery Program in 1998 and is planning a career as a Community General Surgeon.

Michael Tan is a Graduate of McGill. He obtained his B.Sc. in Microbiology and Immunology in 1992 with great distinction and a university scholarship. He received his MD in 1996. He joined the General Surgery Program in 1996 with a special interest in Transplantation.



He completed his M.Sc. Degree in Transplantation.

ORTHOPEDIC SURGERY Program Director: Dr. Michael Tanzer



Kevin Draxinger, our former Olympic swimmer who has not seen a pool in the past 5 years, is the pride of Kelowna, B.C. Kevin arrived at McGill as a whirlwind, but the storm has been calmed by something even more powerful, Hurricane Sarah. Next year, he will be pursuing a Spine Fellowship at John Hopkins. We wish him all the best dodging bullets in Baltimore.

Farhad Moola, born of Indian and Irish parents and separated at birth from Milan, Farhad was banished to Prince Albert, Saskatchewan. After an unfortunate stint in Family Medicine, he was reunited with his long lost brother in the wonderful world of Orthopaedics. Farhad heads off to



Vancouver next year to pursue a Fellowship in Sports Medicine, where he will be reunited with another old friend, Peter Guy.

Dr. Mohammed Nahhas is a native of Saudi Arabia, where he completed his medical school training. Dr. Nahhas received his medical degree from the King Abdulaziz University in Jeddah and then went on to complete a one year internship at the King Fahad Hospital, also in Jeddah. He had begun residency



training in General Surgery at the King Khalid Hospital in Jeddah before joining the Orthopedic Surgery Residency Program here at McGill in 1998. Dr. Nahhas is married and the proud father to a beautiful baby girl.



Andy Pickle born on the Rock and raised in a potato barn, this rambunctious redhead enjoys Screech, codfish, and minigolf. He has recently discovered the world of the internet and is learning now to finger type. After completing his seven year residency at McGill, Andy will be pursuing a research fellowship in the sports in Ot-

tawa with his true love, CH.

Milan Sen, born of Indian and Irish parents, "Luc" came to Montreal on the boat from England in 1975. He is our international man of mystery who prides himself on supporting the local fashionistas. Future career paths take Milan to Louisville, Kentucky to pursue a



Hand Fellowship and hopefully be a competitor in the championship tractor pull.



Monika Volesky, the Czech chick from Montreal, affectionately known as "Monster", is the only narcoleptic to successfully complete an Orthopaedic residency program. Indeed, she has proven that she can operate with her "eyes wide shut". Monika will pursue a Sports Fellowship in Ottawa where she will learn how to treat her many

Volleyball and Hockey injuries.

PEDIATRIC SURGERY

Program Director: Dr. Jean-Martin Laberge

Dr. Ioana Bratu was born in Romania and immigrated to Canada with her parents at 10 years of age. She completed undergraduate studies and medical school in Edmonton, graduating first in her class and accumulating many



awards and honors, including being vicepresident of the Alberta Chapter of the Alpha-Omega-Alpha Society. Ioana came to McGill in 1996 for surgical training with a strong desire to pursue research, having developed a taste for it during her undergraduate years. She enrolled in the Surgical Scientist Program and received her Master's of Science degree in 2000 with her thesis entitled *Lung*

growth, structural remodeling, surfactant levels and lung function after reversible fetal lamb tracheal occlusion in congenital diaphragmatic hernia. Along the way, she obtained an FRSQ research fellowship and the CAGS-Davis and Geck Award for Basic Research; she presented her work at several meetings including the Surgical Forum of the ACS and the Society of University Surgeons. Now that she has completed her General Surgery training with an impressive demonstration of knowledge and skills, we are honored to welcome loana in our Pediatric General Surgery Training Program.

SURGICAL ONCOLOGY

Program Director: Dr. Antoine Loutfi

Dr. Guy Leblanc is a native of Hull, Quebec. Dr. Leblanc did his medical studies at the Université de Montréal. He obtained his MD in 1997. Since then, he has been in the general surgery training program at the Université de Montréal finishing in 2002. His research interests were in apoptosis of endothelial cells. However in the later years of his surgical training at Maisonneuve Rosemont Hospital, he developed an interest in surgical oncology and applied to our training program at McGill where he was accepted to start in July 2002.



Dr. Rami Younan, after completing his Diplôme d'Etudes Collégiales in Montréal, Dr. Younan went to do his medical studies at Université Laval in Quebec City. He obtained his MD in 1997. Since then he enrolled in the general surgery program at the Université Laval finishing in 2002. During his residency, Dr. Younan found time to explore and pursue his interests in surgical oncology, especially in the field of sentinel node mapping in colon

cancer. He applied and was accepted in our training program in surgical oncology at McGill starting August 2002.

UROLOGY

Program Director: Dr. Armen Aprikian



Dr. Waleed Al-Taweel is a graduate of the King Saud University in Riyadh, Saudi Arabia and joined our Urology Program at McGill University in 1998. Upon completion of his residency here at McGill, Dr. Al Taweel is planning to do a fellowship in Voiding Dysfunction and Female Urology at Sunnybrook Health Sciences Center in Toronto. In his spare time, Dr. Al Taweel enjoys a few rounds of tennis.

Dr. Antoine Heijely was born in Lebanon and pursued undergraduate training in Canada. He completed a B.Sc. in Biology at the Université de Québec à Montréal (UQAM) and received his medical degree from the Université de Laval in Quebec City. Antoine is interested in pursuing an academic career in urology and hopes to do a Fellowship in urologic oncology or kidney transplantation.

Dr. Wassim Kassouf is a native of Montreal where he pursued his undergraduate training. Wassim received both a B.Sc. in Biology and his medical degree from McGill University. He joined the Urology Residency Program in 1998 and upon completion of his residency training,



will be headed to Houston, Texas to complete a Fellowship in uro-oncology at the MD Anderson Cancer Center.



Dr. Jordan Steinberg was born, raised and schooled in Montreal. He is married to Nathalie Toledano, an immigration lawyer, originally from Paris, France. Throughout his residency, Jordan has been active in both basic and clinical research, presenting at numerous meetings and writing articles as well as book chapters. Upon completion of his resi-

dency, he is heading to Houston, Texas for a Fellowship in uro-oncology at the MD Anderson Cancer Center. He plans to return to Montreal and pursue a career in academic urology with emphasis on teaching and research activities. In his spare time, Jordan enjoys playing golf, tennis and other competitive team sports.

VASCULAR SURGERY Program Director: Dr. Oren Steinmetz



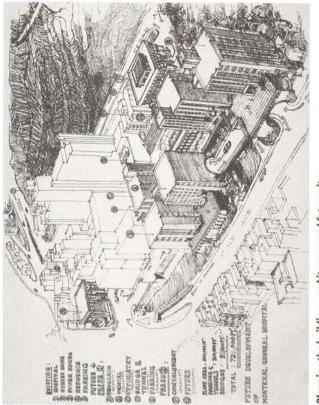
Dr. Badr Al-Jabri is no stranger to the McGill Surgery Program. He has just finished his General Surgery training and will now stay with us to complete his two-year fellowship in Vascular Surgery. During his general surgery training, he did clinical research in laparoscopic assisted aortobifemoral bypass and endovascular

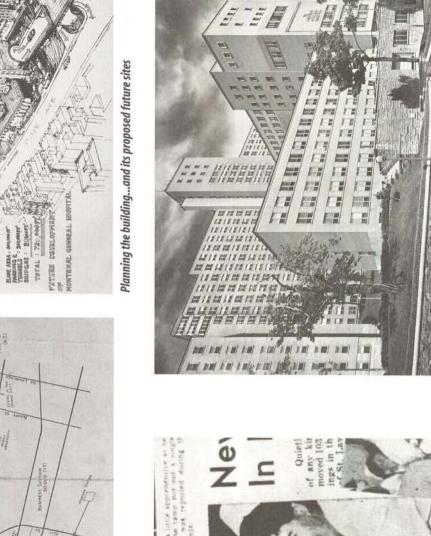
aneurysm surgery. After completing his fellowship, he will return home to Saudi Arabia where he has a position in the Faculty of Medicine at King Saud University in Riyadh.

Dr. Leonard Tse is originally from Ottawa. He completed a Bachelor of Science degree at the University of British Columbia in Vancouver and then completed medical school at the University of Toronto. He has just completed his General Surgery residency at the University of Toronto. He starts his two-year fellowship in Vascular Surgery in July 2002.

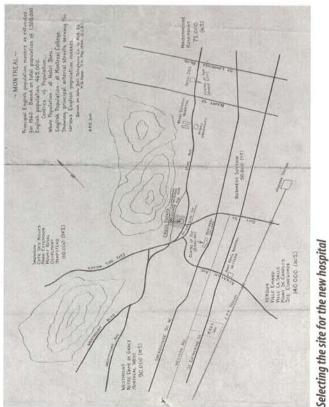
THE REPORT OF THE PROPERTY OF

Looking back....The Current Site of The Montreal General Hospital





The "New" Montreal General Hospital



The big move...May 1955



13th Annual Fraser N. Gurd Day May 23, 2002



Dr. J. A. Muir Gray Director, Institute of Health Sciences, University of Oxford

- AWARDS-

BASIC SCIENCE RESEARCH AWARD

(Oral Presentation) 1st Prize: Wendy Parker, 2nd Prize: Dr. Hilal Al-Sabti, 3rd Prize: Dr. Stephen Kantor

CLINICAL SCIENCE RESEARCH AWARD

(Poster Presentation) Dr. Shannon Fraser

OUTSTANDING TEACHER AWARD

Orthopedic Surgery: Dr. Thierry Benaroch

Plastic Surgery:

Dr. Bruce Williams

Urology:

Dr. Armen Aprikian

General Surgery:

Dr. Sarkis Meterissian,

Dr. Tarek Razek,

Dr. Roger Tabah

OUTSTANDING RESIDENT-TEACHER AWARD

Dr. Robert Andtbacka, Dr. Stephen Korkola, Dr. Michael Tan

EDMOND D. MONAGHAN PRINCIPLES OF SURGERY AWARD

Dr. Nicolas Noiseaux

KATHRYN ROLPH AWARD

Dr. Hélène Flageole















































Top 10 Caddy Comments



- Golfer: "Think I'm going to drown myself in the lake".
 Caddy: "Think you can keep your head down that long?"
- **9 Golfer:** "I'd move heaven and earth to break 100 on this
 - **Caddy:** "Try heaven, you've already moved most of the earth".
- **Golfer:** "Do you think my game is improving?" **Caddy:** "Yes sir, you miss the ball much closer now".
- Golfer: "Do you think I can get there with a 5 iron?"
 Caddy: "Eventually".
- Golfer: "You've got to be the worst caddy in the world". Caddy: "I don't think so sir. That would be too much of a coincidence".

- 6 Golfer: "Please stop checking your watch all the time.
 - It's too much of a distraction". **Caddy:** "It's not a watch it's a compass".
- **4 Golfer:** "How do you like my game?"
 - Caddy: "Very good sir, but personally, I prefer golf".
- Golfer: "Do you think it's a sin to play on Sunday?" Caddy: "The way you play, sir, it's a sin on any day".
- Golfer: "This is the worst course I've ever played on".
 Caddy: "This isn't the golf course. We left that an hour ago".

AND the #1 best caddy comment:

- Golfer: "That can't be my ball, it's too old".
- Caddy: "It's been a long time since we teed off, sir".

URRENT TRENDS IN SPINAL SURGERY AT
McGILL UNIVERSITY: VERTICAL SPECIALITY AND TEAM
APPROACH

With the recent addition of **Dr. Jean A. Ouellet**, the McGill Orthopedic Spine Center has expanded its already very active

From the McGill Spinal Group

surgical activities. The chairman of our orthopaedic division **Prof. Max Aebi** has remained at the helm of our group. He has put together a team of dynamic spinal surgeons able to manage all aspect of spinal

pathology. To assist him in his multiple responsibilities he recently appointed **Dr. Vincent Arlet** as Director of McGill Spine group. The group comprises of **Dr. Max Aebi, Dr. Vincent Arlet, Dr. Rudy Reindl, Dr. Jean A. Ouellet, Dr. Phil Lander** from the Radiology department, and **Dr T.Steffen** PhD Chief of the Royal Victoria Orthopedic Lab.

Dr. Aebi's expertise in all aspects of Spinal Surgery is world-wide known and is a tremendous asset for McGill. He has been the cornerstone of the minimal invasive spine concepts and has developed many ideas, tools, and techniques that are now used worldwide. With the help of T. Steffen he has developed a state of the art biomechanical as well as biological Spinal Laboratory at the RVH. They have developed a multitude of instrumentation and implants specific to spinal surgery. These tools have enabled us to develop and push the envelop of minimal invasive spinal surgery.

Dr. Arlet's specific interest remains complex spinal deformities both in pediatric and adult patients as well as degenerative spine.

Dr. Rudy Reindl has expanded his expertise from acute spinal fracture to posttraumatic and degenerative spinal conditions.

Dr. Jean Ouellet has particular interest in neuromuscular pediatric scoliosis and adult spinal deformity.

Dr. Lander is our invaluable musculo-skeletal interventional radiologist doing all kinds of diagnostic and therapeutic procedures helping us in the management of our patients.

T. Steffen is our Research Laboratory director. He runs a fully funded lab at the Royal Victoria Hospital. On the top of his multiple biomechanical and biologic research, he has set up

with Dr Aebi a World Wide Based Internet Outcome study site (Orthoglobe) that is already used by many centers for outcomes studies in orthopedics.

Granted that each member has a particular field of interest and expertise, we remain a highly interactive group that routinely operate in tandem to manage the most complex adult scoliosis deformity as well as other complex spinal cases (ie tumors, multiple spinal osteotomies, revision spinal surgery...) Not only do we work together in the operating room, we meet twice a week for pre-op and post-op rounds at the MGH in the radiology amphitheater. Monday mornings are classically "fracture rounds" and "pre-op rounds" where the emergency cases done over the weekend are reviewed and the cases to be done that week are brought up for discussion. Difficult and challenging cases are also presented to the group to get a consensus on the optimal management. Friday mornings are so called post-op rounds where we critically review what was done during the week. These rounds are also attended by Dr. Mormer and Dr. Goulet both Neurosurgeons at McGill. Their interaction is essential as spine surgery has evolved into a subspecialty that belongs to the Orthopaedic, as well as the Neurosurgical world. These rounds are an integral part of our team approach to spinal pathology. The addition of a spine fellow Dr. Al Obaid and the attendance of our residents make our group extremely dynamic.

The spinal pathology that we see and manage at McGill University Health Centre is colossal. We address spinal pathology that span from the occiput to the sacrum, ranging from posttraumatic cervical instability to congenital hypoplastic odontoid instability to acquired C1-C2 rheumatoid instability. We manage and treat patients with all types of scoliosis: that is from the infantile, to the congenital, to the idiopathic all the way to adult degenerative scoliosis. We see and manage all type of disc herniations from the simple lumbar disc that fail conservative treatment to midthoracic disc herniation presenting with frank myelopathy. We obviously see patients with cervical or lumbar spinal stenosis that require spinal decompressions. Our spinal team provides emergency coverage for all the MUHC hospitals hence we have been managing patients with acute fractures with and without neurological injuries as well as patients with spinal metastasis and spinal infections.

Instead of continuing to describe what we do, I figured that we could show you some of our challenging cases that we have managed over the last 6 months.

By Drs. Jean Ouellet and Vincent Arlet, The Spinal Group Case #1. This child had a low thoracic myelomeningocele and due to his spinal deformity had tremendous difficulties with seating arrangement for his wheel chair. Over the last year, it was found that his kypho-scoliosis was progressing and that his vital capacity was worsening as his deformity was progressing. The decision was made to proceed with a Kyphectomy (resection of 3-4 vertebra) with posterior spinal instrumentation. Due to the complex previous skin closure, we had plastic surgery help us plan our skin incision to minimize the risk of skin loss. On a second sitting, the patient then had an anterior spinal fusion with a tibial strut graft from T10-S1 to prevent recurrence of the deformity.













PRE-OP

POST-OP

Case #2. This 16 year old girl was found to have a severe scoliosis with associated neurological deficit. It turned out that she had a massive syrinx secondary to do a Arnold Chiari Malformation.

Prior to us undertaking a posterior spinal instrumentation and fusion, Dr. Farmer from the neurosurgical division proceeded to an Arnold Chiari decompression.







PRE-OP



MRI-Syrinx



POST-OP



POST-OP

Case #3. This is a 76 yr old gentleman that was noticing gradual loss of strength both in his upper and lower extremity. On exam the patient was markedly myelopathic with hyperreflexia and long tract signs. The CT myelogram (done instead of an MRI because of a pacemaker the patient has) revealed significant cervical spinal stenosis at two levels. A C4 corpectomy and partial corpectomy of C5 had to be done to achieve the spinal cord decompression. The reconstruction of the spine was achieved with a cage and cervical plating. The patient was discharged home after 5 days showing already some neurologic improvement.



PRE-OP



MYELOGRAM





CT MYELO

Case #3 cont'd



INTRA OP POSITIONING OF THE CAGE AFTER SPINAL CORD DECOMPRESSIO



POST-OP

Case #4. The minimal spine surgery concept was developed at Mc Gill: This is a fourty-five year old female with 3 years history of severe debilitating discogenic back pain after a previous discectomy at L5/S1. Patient was dependant on Dilaudid to control her pain. The MRI shows 2 degenerated black discs at L4-L5 and L5-S1. Dr Lander confirmed the pain generator as being the L4-L5 and L5-S1disc with discogram. An anterior spinal fusion was performed through a 6 cm incision with the help of a special retractor developed at McGill. To avoid bone graft harvest site morbidity, the graft was harvested from the vertebral body itself. The weakened vertebral body was reinforced with a tricalcic phosphate plug. Posterior stabilization was carried out during the same anesthesia pa-

tient was discharged home 4 days postoperatively and is now 18 month post-op and is off all narcotics.

Our academic activities consist in teaching our residents and fellows as well as our colleagues from the MUHC and the province of Quebec. These activities have however extended nation and worldwide under the leadership of Dr Aebi who travels as a guest speaker all over the world. Under his leadership, the other members of our group travel to the different regions of the globe to put McGill on the map. More than 100 spine lectures were given by our group during the year 2001 in North and South America, Middle and Far East, and Australia.



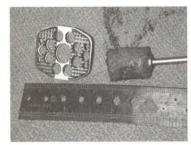
MRI



SKIN INCISION



SYNFRAME



ANT. CAGE & BONE GRAFT



INTRA-OP SYNTHETIC BONE PULGE



INTERVETEBRAL SYNCAGE



POST-OP L4-S1 360 SPINAL FUSION

We are well aware that as a surgical specialty we cannot work in a void. Our clinical success relies heavily on every link in the managing chain of our patients. We require a specialized and dedicated medical team, nursing team and auxiliary team to manage our challenging cases. That chain starts from our secretaries that manage our time and mans the phones trying to sort out which patients need to be seen urgently or not and our long waiting list; to the nurses in our outpatient department educating our patients for their up-coming surgery; to the internist, cardiologist and anesthesiologist that ensure that our patients are medically fit to undergo major surgery; to the orderlies that help us position our patients in often challenging positioning on the operating room; to our dedicated OR staff that need to be knowledgeable on the ever more complex spinal instrumentation; to our intensivist and to our

nurses on the ward who care for our patients post-operatively; and finally to our physical therapist that rehabilitates our patients to normal activity.

Without their help, our group would not exist.

Well in brief, that is what the McGill Orthopedic Spine Group is all about. We are striving toward providing cutting edge spinal surgery to patients in the greater Montreal area and across North America. Our next project is to expand our field and to include artificial disc replacements. Two members of our group are soon going to Europe to acquire expertise on this technique.

The MUHC Move: A Perspective



Each of the MUHC facilities has been upgraded and renovated and continue to be modified - so that we can provide the best care we can under the circumstances.

When the Vic opened its doors in 1893, its total floor space was 180,000 square feet, and there were 14 medical staff to treat the 1,500 in-patients and 4,800 out-patients, who came there that year. Today, the MUHC facilities take up 3.4 million square feet; we have 11,000 people on staff and our patients open the doors of our facilities nearly 1 million times every year. More than 900,000 of these patients walk in and out again the same day.

Let me put this in perspective - we've gone from a 1 to 3 ratio of in-patients to out-patients to a 1 to 30 ratio. Three thousand people, many of them needing high-tech specialized treatment, come into our hospitals and go home the same day. Every day - 365 days a year.

None of our original buildings, renovated spaces or additions were designed to accommodate this immense volume of traffic.

None of them were designed to manage the patient flow needs of our hospital today.

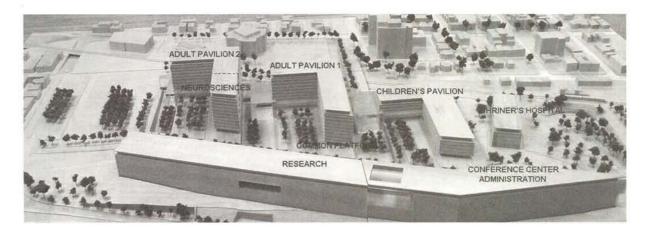
And none of them were built to support the large and heavy equipment that's needed for surgery and diagnosis and treatment.

In any other working environment what we are asking our people and facilities to do is unacceptable. And the question is not whether we can afford to build this new hospital, but whether we can afford not to.

- Philip O'Brien

Editor's Note:

Philip O'Brien, board member of the McGill University Health Centre Development Corporation and Chairman and CEO of Devencore, speaking to a room full of people at a breakfast organized by the Board of Trade of Metropolitan Montreal entitled *Healthy Opportunities for Montreal*.



Surgical Research

By Lawrence Rosenberg, M.D.

s this academic year draws to a close, I want to take this opportunity to thank all those who contributed to the success of this year's Fraser Gurd Research Day. I would especially like to recognize the efforts of Irene Sidorenko and Maria Bikas who smoothed the move out of the hospital and down to the Marriott Hotel. I have had nothing but very positive feedback, both for the change of venue and for the expanded format of research presentations that included posters and faculty participation. We hope to continue to evolve the format of the day so that it continues to meet the changing needs of the Department.

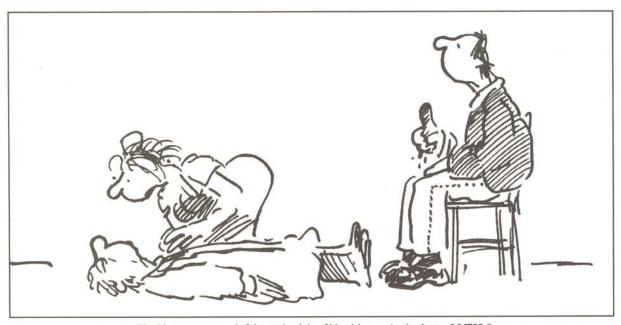
The presentations this year were of stellar caliber, and many of them will be presented at national and international meetings in the coming months. I would like to congratulate the winners of this year's awards competition - the scoring was difficult and all presenters should be commended for a job well done. This was the first year that poster presentations were incorporated into the program. While some logistical issues remain to be resolved, the feedback was extremely positive and we will continue with posters in the future.

First prize in the oral presentation category went to **Dr. Wendy Parker** (Division of Plastic Surgery) for her talk *TGF-fl Receptors: Bridging the Gap of Cartilage Injury*. Second prize went to **Dr. Hilal Al-Sabti** (Division of Cardiac Surgery) for his talk *Route of Delivery for Marrow Stromal Cell Induced Angiogenesis: Therapeutic Implications*. Third prize was awarded to **Dr. Stephen Kantor** (Division of Orthopedic Surgery) for his talk *Waiting times for ACL surgery: "Are We Giving-Way to Inferior Results?"* In the poster category, the award for research excellence went to **Dr. Shannon Fraser** (Division of General Surgery, MIS Program) for her work on *Evaluating Laparoscopic Skills: Setting the Pass/Fail Score for the MISTELS System*.

The graduate program in Experimental Surgery had a banner year, with seven individuals being awarded graduate degrees: Ms. Betty Yuet Ye Tam (Division of Plastic Surgery), Ph.D.; Dr. Abdulazia Al-Khaldi (Division of Cardiac Surgery), M.Sc.; Dr. Bindu Bittira (Division of Cardiac Surgery), M.Sc.; Dr. Edgar G. Chedrawy (Division of Cardiac Surgery), M.Sc.; Mr. Mizanul Chowdhury (Division of Plastic Surgery), M.Sc.; Mr. Ali Hazrati (Division of General Surgery), M.Sc.; and Dr. Michael Tan (Division of General Surgery), M.Sc. Congratulations to all!

In closing, the Division of Surgical Research is planning a second retreat to be held in August. As details are developed, information will be disseminated to department members.

I wish our graduating residents the best of luck in the next stage of their careers. •



"Yes, I know some people faint at the sight of blood, but you're the doctor, DOCTOR."

Visiting Professors

r. Fernando Ortiz-Monasterio was the Visiting Professor to the Plastic Surgery Division at McGill University, April 24-25, 2002. Dr. Ortiz-Monasterio is the Emeritus Professor, Universidad Nacional Autonomas de Mexico. During his visit, he gave two presentations on *The Problem Rhinoplasty* and *Modern Management of Complex Craniomaxillofacial Deformities in Children and Adults*.

Flanders Visiting Professor

DR. WILLIAM SASSER
APRIL 18, 2002
CHARLES MARTIN AMPHITHEATRE - MCINTYRE BUILDING

This year, Kappy Flanders instigated an awareness program for lung cancer patients to coincide with the Flanders Visiting Professor. The Visiting Professor was **Dr. William Sasser** who is currently Chief of Thoracic Surgery at St. John's Mercy Medical Center in St. Louis, Missouri. He discussed *The Current Application of PET Scanning in the Management of Lung Cancer*.

The program, Community Forum: Treating Lung Cancer in the 21st Century [Up in Smoke: Exploding the Myths of Lung Cancer], for the education or increased awareness in lung cancer for the community at large was sponsored by Bristol-Myers Squibb and Aventis. Speakers included Dr. D. Mulder (Chief, Cardiothoracic Surgery MUHC), Dr. J. Gruber (Pulmonary Oncologist MUHC), Dr. L. Ofiara (Medical Oncology), Dr. L. Souhami (Radiation Oncology), and Dr. W. Sasser (Visiting Professor) who gave the medical perspective. Mrs. Doreen Jones (Living with Lung Cancer) and Mrs. Kappy Flanders (Affected by Lung Cancer) gave the patient perspective.

The goal of this Community Forum was to highlight the many options for treating lung cancer and by so doing, dispel some of the many myths surrounding lung cancer.

Stikeman Visiting Professor

MAY 2 - 3, 2002

Dr. Alain Carpentier, Professor of Cardiovascular Surgery from the University of Paris, was this year's Stikeman Visiting Professor for the Division of Cardiovascular and Thoracic Surgery at McGill University.

At Surgical Grand Rounds at the MGH on Thursday morning, Dr. Carpentier gave a very well received talk entitled *What Remains To Be Discovered*. Following Rounds, laboratory and clinical presentations were given by residents, staff and alumni. During the luncheon, Dr. Carpentier had the opportunity to meet with residents and staff.

A banquet was held Thursday evening in honour of the Visiting Professor and the graduating resident, **Dr. Stephen Korkola**, at the University Club.

On Friday morning, clinical presentations by alumni, faculty and residents took place at the RVH followed by a luncheon.

It was a pleasure to welcome Dr. Carpentier, a world renowned cardiac surgeon and teacher, as the 35th Stikeman Visiting Professor along with many of our Quebec French colleagues who attended the two-day events.

EKL

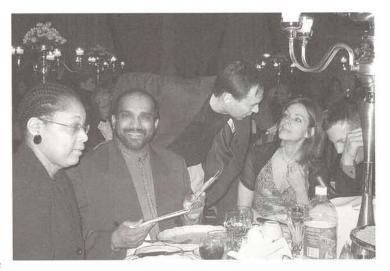
It is more agreeable to be important, but it is more important to be agreeable.

MGH-General Surgery Gala Evening

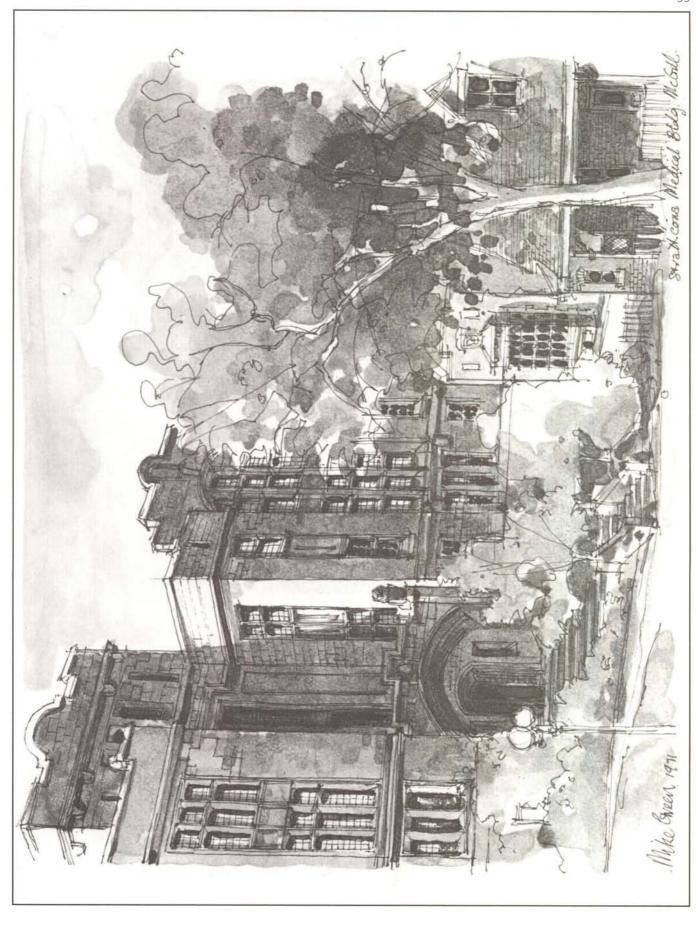
ast February 15, Tina Lamanuzzi, an OR nurse at the MGH, organized and hosted a gala evening to benefit the Division of General Surgery at the MGH. Tina and her committee consisting of Kay Radivojevic (MGH) and Toni Savella (MGH) sold over 500 tickets to their 2nd annual Valentine's Party. The evening featured, as Master of Ceremony, radio personality Luciano Pipia who saw to the awarding of over 150 door and raffle prizes, including a well needed new suit for Dr David Owen. Participants included many current and former OR personnel. In addition to the door and raffle prizes, Tina and her committee secured donations of desserts and table decorations from a variety of businesses as well as a 5 thousand dollar sponsorship from Dorel Inc. Hospital employee, Angelo Garafolo, acted as DJ for the after dinner dancing. In Italian no less, Dr Tabah thanked Tina, the organizing committee, sponsors, donors and all participants for their support. The proceeds will be used to purchase an electrocautery machine for the Surgical Clinic.

The first Valentine's Party, held in February 2001, was for the benefit of Thoracic Surgery at the MGH. Tina received her inspiration to hold her first fundraiser after her mother was cared for by Dr David Mulder. Her choice to support the Division of General Surgery this year was in part in recognition of the care her late father received many years ago. Both galas proved to be a mini homecoming for OR personnel and were a welcome break from the daily stress of the OR. Tina is to be commended not for her leadership and vision alone, but also for her industry and selflessness . Many thanks, Tina and an extra-big thanks to your hubby, Dominic who got to do the grunt work.











hese are things people actually said in court, word for word, taken

Evidence Given in Court

down and now published by court reporters who had the torment of stay-

ing calm while these exchanges were actually taking place:

- Q: What is your date of birth?
- A: July fifteenth.
- Q: What year?
- A: Every year
- **Q:** This myasthenia gravis, does it affect your memory at all?
- A: Yes.
- Q: And in what ways does it affect your memory?
- A: I forget.
- **Q:** You forget. Can you give us an example of something that you've forgotten?
- **Q:** How old is your son, the one living with you?
- A: Thirty-eight or thirty-five, I can't remember which.
- Q: How long has he lived with you?
- A: Forty-five years.
- Q: What was the first thing your husband said to you when he woke that morning?
- A: He said, "Where am I, Cathy?"
- Q: And why did that upset you?
- A: My name is Susan.
- Q: And where was the location of the accident?
- A: Approximately milepost 499.
- Q: And where is milepost 499?
- A: Probably between milepost 498 and 500.

- Q: Sir, what is your IQ?
- A: Well, I can see pretty well, I think.
- Q: Did you blow your horn or anything?
- A: After the accident?
- Q: Before the accident.
- A: Sure, I played for ten years. I even went to school for it.
- Q: Do you know if your daughter has ever been involved in voodoo or the occult?
- A: We both do
- Q: Voodoo?
- A: We do.
- Q: You do?
- A: Yes, voodoo.
- Q: Trooper, when you stopped the defendant, were your red and blue lights flashing?
- A: Yes.
- **Q:** Did the defendant say anything when she got out of her car?
- A: Yes, sir.
- Q: What did she say?
- A: What disco am I at?
- Q: The youngest son, the twenty year old, how old is he?
- **Q:** Were you present when your picture was taken?
- **Q:** So the date of conception (of the baby) was August eight?
- A: Yes.
- Q: And what were you doing at that time?
- Q: She had three children, right?
- A: Yes.
- Q: How many were boys?
- A: None.
- Q: Were there any girls?

- **Q:** How was your first marriage terminated?
- A: By death.
- Q: And by whose death was it terminated?
- Q: Can you describe the individual?
- A: He was about medium height and had a beard.
- Q: Was this a male, or a female?
- **Q:** Is your appearance here this morning pursuant to a deposition notice which I sent to your attorney?
- A: No, this is how I dress when I go to work.
- Q: Doctor, how many autopsies have you performed on dead people?
- A: All my autopsies are performed on dead people.
- Q: All your responses must be oral, OK? What school did you go to?
- A: Oral.
- Q: Are you qualified to give a urine sample?
- Q: Doctor, before you performed the autopsy, did you check for a pulse?
- A: No.
- Q: Did you check for blood pressure?
- A: No.
- Q: Did you check for breathing?
- A: No
- Q: So, then it is possible that the patient was alive when you began the autopsy?
- A: No.
- Q: How can you be so sure, Doctor?
- A: Because his brain was sitting on my desk in a jar.
- **Q:** But could the patient have still been alive nevertheless?
- A: Yes, it is possible that he could have been alive and practising law somewhere!





The McGill University Surgical Clinic 2001-2002

TOP (L-R): Ali Hazrati, Reid Aikin, Mark Lipsett, Maria Petropavlovskaia, Osama Benhameid, Derek MacDonald, Munemoto Endo, Roya Haghighat, Lilal Al-Sabti, Jan Krygier. BOTTOM (L-R): Dr. Ray C.-J. Chiu, Dr. Lawrence Rosenberg, Dr. Joe Meakins, Dr. Anie Philip, Dorota Karabasz. ABSENT: Ranuka Negi, Wendy Parker, Jin-Tang Wang, Al-Maleek Jamal, Dr. Dominique Shum-Tim, Dr. Kevin Lachapelle, Dr. Hani Shennib, Dr. D. Bobyn.



DR. C.F. DOUGLAS ACKMAN

passed away peacefully on May 24th, 2002 in his 67th year at the Montreal General Hospital. He is survived by his wife Patricia (daughter of the late plastic surgeon Dr. J.W. Gerrie), his five children Wendy (Nick), Michael (Lisa), Bruce (Caroline), Connie and Jake, and eight grandchildren. Until Doug's death, there has been a Dr. Douglas Ackman at the Montreal General Hospital for 75 years since he is the son of the late Dr. Douglas Ackman, noted general surgeon.

Doug, as Associate Professor of Surgery at McGill, was always at the forefront in his profession and known as an innovator. Even

as a resident in Dr. H.F. Moseley's Accident Service, he developed a trolley so as to take photos and films during operations. In 1965, he was privileged to spend a year with Dr. Andrew Bruce in the Queen's Department of Urology. At the RVH, he had had the opportunity to see the



evolutionary Kolff artificial kidney. With Dr. Peter Morrin, the Chief of Nephrology at the Kingston General Hospital, he developed a prototype of this dialysis machine which became the Kingmed Artificial Kidney. He was a long-time member of the Med-Chi Society.

Aside from a busy urological practice, Doug found time to be the National Medical Director of the Canadian Ski Patrol at one time and he was one of the first to use computers both in his office and at home. He was an accomplished pilot and sailor, having sailed across the Atlantic in a small boat on a few occasions with his friend, Mr. Pierre Desjardins. As a family man, he has places of leisure in Shediak, New Brunswick, Lac Marois in the north of Montreal and a beautiful villa in Treasure Cay in Abaco, the Bahamas. In Lac Marois, he had a workshop that he entitled the "Doug House" where he was quite accomplished in woodworking. He will be sadly missed, but not forgotten.

EDM

DR. ROBERT (BOB) GORDON FRASER

died peacefully at his home in Birmingham, Alabama on April 12th. Former Chairman of Radiology at McGill, he moved to Birmingham in 1976. He was the co-author of the world renowned textbook "Fraser and Pare's Diagnosis of Disease of the Chest". He was Radiologist-in-Chief at the RVH from 1964 to 1975.

EDM

DR. DEREK GEORGE FRASER,

dear friend of Elizabeth Cuthill, died peacefully at home on May 2nd, 2002. George was a graduate of Lower Canada College and McGill and he practiced as a cardiologist at both St. Mary's Hospital and the Royal Victoria Hospital. As Captain and Medical Officer of the Black Watch Royal Highland Regiment of Canada, he had the honor of serving as physician to Her Majesty, Queen Elizabeth the Queen Mother, the Regiment's Colonel in Chief, during her visit in 1987.

EDM

DR. DAVID TA-WEI LIN

passed away peacefully at home on April 5th, 2002 in his 87th

year with his immediate family at his side. He was the beloved husband of Florence for 55 years, devoted father of Sandra and Michael, and proud and loving grandfather of Jordan David. David was a prominent general surgeon at the Royal Victoria Hospital and he was espe-

cially devoted to caring for many in the Chinese community. At one time, he was President of the Montreal Chinese Hospital. He was very honored to be named a Member of the Order of Canada.

EDM

DR. E. DOUGLAS MCSWEENEY

died on February 24th, 2002 at his home in Burlington, Vermont. He suffered from coronary artery disease and developed refractory left heart failure.

Following completion of his residency in General Surgery at the Montreal General Hospital in 1964, he returned to Burlington, Vermont where he practised General and Vascular Surgery until his retirement in 1994. He was a third generation surgeon in Burlington and was highly respected by all his patients. He served his city and state in many ways, including being a member of the state legislature. He was a member of the University of Vermont Department of Surgery. He maintained close liaisons with the McGill Department of Surgery. He was a Governor of the American College of Surgeons.

Doug is survived by his wife Marilyn, four children and eight adored grandchildren as well as his brother Monsignor John R. McSweeney of Burlington and seven sisters.

Doug was a unique individual whose devotion to patient care, his enthusiasm for teaching, his innovative mind, his wit and fun loving nature were legendary. He is fondly remembered by his M.G.H. colleagues.

David S. Mulder, M.D.