UNIVERSITY OF TORONTO

THE surgical spotlight

ON ALUMNI, FACULTY, RESIDENTS & FRIENDS
OF THE DEPARTMENT OF SURGERY SPRING 2007

Lee Errett Receives the Norman Bethune Prize From the Chinese Medical Association

Dr. Norman Bethune performing surgery in an unused Buddhist temple in central Hopei, China, Spring 1939. Source: Library and Archives Canada/Credit: National Film Board/Canadian Government Motion Picture Bureau/PA-114795

Norman Bethune, born in Gravenhurst, Ontario in 1890 and a graduate of the University of Toronto medical school, was a "restless, reckless, driven, energetic, enthusiastic and widely-sung hero" of thoracic surgery. He was a gifted muralist, poet and romantic adventurer, who tried to cure tuberculosis using surgical treatment and radical reform of the social conditions responsible for its spread. Lloyd McLean, formerly Chair of Surgery at McGill, describes him vividly, including his scandalizing decision to join the Communist Party in Montreal, his development of the first mobile blood transfusions service during volunteer service in the Spanish Civil War, and his heroic contributions in China. Here is a quote from that description and a picture of Bethune operating in an unused Buddhist temple in 1939.

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"During his 19 months in China, Bethune taught the Chinese skills and gave them hope. He performed near miracles by taking peasant boys and young workers and making doctors and nurses out of them. He treated patients individually but instituted public health measures that transformed the lives of everyone. He won the admiration of the Chinese by accepting their customs, sleeping in their homes, donating his own blood to their wounded, and suffering hardships equally with them.

Bethune had found his mission in life. For the first time he believed he was working together with the people in a united effort. With feverish devotion Bethune started a medical school (The Barefoot Doctors), wrote a basic medical text with emphasis on treating the trauma of warfare, operated around the clock for long stretches, and created a model hospital but emphasized treatment close to the front lines. He devised a model operating unit consisting of Bethune, two Chinese doctors, an interpreter who he had trained as an anesthetist, a cook, and two orderlies. Their equipment included a collapsible operating table designed by Bethune, surgical instruments, antiseptics, 25 wooden splints, sterile gauze, and medicine, all carried on three mules. He became commander of all Chinese Communist medical forces, part of an army of 200,000 with 25,000 wounded in 1,000 battles during Bethune's tenure. Near the end he was 49 years of age and looked 65. Bethune died from streptococcal septicemia after operating on a combat casualty with an infected head wound. His team carried his body for 4 days along icy mountain paths to a place of relative safety. On January 5, 1940, 10,000 people silently shuffled by the frail gaunt corpse. Among Chinese only the name Mao Tse-Tung was more familiar than Pai-Ch'iu-En (White One Sent)".[1]

Following Mao Tse-tung's "In Memory of Norman Bethune", which all Chinese were instructed to read, Bethune became a national hero in China and the reference standard for Canadian altruism.

Like Norman Bethune, Lee Errett served on the surgical faculty at McGill. Inspired by his mentor, cardiac surgeon Tony Dobell, Lee has brought advanced cardiac surgical techniques and training to Cuba, Trinidad, Egypt and China. "I knew I wasn't going to contribute significantly through laboratory science, but I decided to try to make my contribution through training." In addition to operating in Cuba and training Cuban fellows at St. Michael's Hospital, he has set up a training program there with an Intensive Care Unit.

Lee Errett

Through Envision Global Charity, which he founded, he has sent over $4 million in medical supplies to Cuba. Of twenty dialysis machines that were functional but post-warranty, five were used for parts and fifteen are still in use four years later. Lee has traveled to China five times, visiting various centres and setting up residencies similar to the cardiac surgery residency at the University of Toronto. He is writing a textbook of cardiac surgery in Chinese with his Chinese colleagues. Based on his Cuban experience, he has started sending discarded equipment, including surgical instruments and a cardio-pulmonary bypass machine. His foundation takes outdated equipment, such as x-ray view boxes from hospitals in London, Sudbury and Hamilton and sends them on to needy institutions in China. Four employees of the charity coordinate this work and distribute $8-10 million worth of gifts per year to less fortunate countries.

Dr. Tian Qi Lui, a former Terrence Donnelly fellow at St. Michael's Hospital, has the responsibility for receiving and distributing the equipment shipped to China through the Envision Global Charity Foundation. He is now Professor of Surgery at Xian Dong University. Terry received an honourary Doctor of Laws Degree during Lee Errett's most recent trip. Lee's vision is "to level the field by helping institutions in China to a higher standard than they would achieve on their own. If they see that it can be done, it changes everything. They realize that they can do it, like a surgeon who sees a complex operation performed has a very different understanding and expectation of his ability to perform it." Lee keeps simplifying operations so

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Mandatory Search: A Prescription for Excellence


Richard Reznick

Our Department continues to grow. Bigger and better each year! In fact, since becoming Chair of Surgery, I have had the privilege of participating in the recruitment of 19 women and 54 men to our nine Divisions. Each and every one of these new faculty members has enriched the Department and brought a constellation of clinical and academic strengths to an already strong faculty. We are now 250 strong, including 215 full time faculty and 35 part time faculty.

At the last Senior Advisory Committee we affirmed a new policy in the Department. Going forward, all new recruits to Surgery will be products of a mandatory search process. This new approach, which will be unique among Canadian departments of surgery, will no doubt engender some controversy. In the next few paragraphs I will outline some of the perceived strengths of this new policy and as well review elements of the plan that could have potentially deleterious side effects, side effects for which we will need to be proactive to mitigate. Importantly, this approach is not unique; mandatory searches are required for recruitment to some surgical departments in the world, to most basic science departments, and to most research institutes.

HOW WILL THIS HELP?

So why consider this move at this time when we believe the Department is strong and we have been successful at attracting excellent faculty to the Department. I guess the most obvious answer, and one that I hope is not trite in its simplicity, is that we deserve it! Each faculty position is precious. This is increasingly true as we continue in an era when operating room time and other hospital resources become rate-limiting steps to unrestrained growth. I would argue, that if by virtue of a search process, only one recruit each year was altered in a positive way, then the concept has merit. In addition to the simple notion that widening the field might yield better talent, there are a number of allied benefits. First, a search process sets into motion a clear definition of the kind of individual that is needed in a specific division. If done in concert with a long-range divisional plan, this will ultimately increase the chances that we can collectively reach our strategic vision. Second, a search committee will formally gather around one table all the appropriate stakeholders so that, from the inception of the process, a joint decision can be made about an individual. This will ensure buy-in from all involved and mandate that all of the resources needed for a particular recruit are in place even before an individual is identified. We have had no end of examples wherein surgeons have been recruited to a division only to find that vital issues such as a research institute appointment or specific equipment needs were problematic after-thoughts. Opening the playing field widely will lessen the chance that we become overly parochial and insular. Our ability to attract surgeons from Europe and the United States has augmented greatly in the last few years. This has been facilitated by a more or less evening out of the financial playing field coupled with dramatically easier routes to licensure and certification. Bringing in new ideas, new ways of doing things, new technical approaches, new cultures, will only serve to enrich this Department as it realistically strives to be amongst the very best departments in the world. If this is our goal, we must have a global recruitment ground. Too often we have availed ourselves of "recruitment by convenience". We have worked with a particular clinical fellow, there has been educational and social investment in him or her, there appears to be a "natural fit", and we simply make it work. Finally, the successful candidate will be empowered by being "products of a formal search". They will be empowered through a knowledge that they have emerged as the best candidate from amongst many. They will be empowered in that their recruitment was a product of a collective effort. They will be empowered because the expectations of the appointment will have been delineated in detail and tabled in open forum.

PRIMUM NON NOCERE

We have all grown clinically because of our adherence to two time-tested mantras: "If it's not broke, don't fix it", and "above all – do no harm". And indeed, we have to be mindful that there are some serious issues we need to consider in adopting this new policy. I have written to all of you for comments and I have received many responses, some positive and some negative. Several thoughtful surgeons have opined that this policy might disadvantage our own trainees. It could, by definition serve to delay commitments we might otherwise make to talented residents and fellows we work with. And it is argued that our residents, for whom we set a very high bar for appointment, might become disillusioned with a process that had "built-in" delays and no guarantees. I would argue that this concern could be addressed through proactive planning and early recruitment. I do not think there is anything wrong with deciding that one needs to fill a certain position in the future and inviting one of our trainees as a candidate to the search, even if that trainee shows promise that has yet to be validated by proven accomplishments. Indeed, individuals for whom we have first hand knowledge will have a justifiable built in advantage in any search process. Further, the formal graduate level training we offer our residents, as part of the surgeon scientist and scholarship in surgery programs, gives them a real academic advantage. We have also been warned that there is an expense to each search process. Simply put, bringing the very best talent to our Department is worth any money we will spend on the processes of advertisement, interviews and in some cases immigration. We have also been advised to be mindful that search processes can be time consuming. We might counter that this is often time well spent, and furthermore, there is no reason that our search processes can't be "surgical" in their speed. As I scan the Department over the last two years, we have had no less than five individuals recruited to Toronto from other countries. To be sure, we would not have found or attracted them without a search process.

HOW WILL IT WORK?

When someone is being recruited to be a new member of a division, the process will be lead by a Hospital Division Head. In cases where a divisional head is being recruited, the process will be led by the Surgeon-in-Chief. The search committee will be advisory to the Division Head who will then make a recommendation to the Surgeon-in-Chief, CEO of a hospital, the University Division Chair and the Department Chair. The SAC encourages a search committee that has broad representation from the division members from the specific hospital. In addition a search committee should include representation from the hospital leadership, university leadership, other health professional groups, students, and academic sectors such as research or education.

"YOU HAVE GOT TO GET THE BEST PEOPLE ON THE BUS"

I can't tell you how many smart individuals I have spoken to who have commented that the most important element of any leadership role is to follow Collin's missive.[1] Who we get on our surgical bus will make all the difference. To be sure, we are products of our past. But to be secure in a great future, we need to be passionate about recruitment. So many have argued the most important thing we do in any leadership role is to recruit our future colleagues. Let me be clear… we have an amazing array of talent and the outstanding surgeons we have recruited in the last five years have served to enrich our Department. Our new policy of mandatory search will serve only to improve on that track record and facilitate our mission of being the envy of academic surgical departments throughout the world.

1. Collins, J. http://www.jimcollins.com/lab/firstWho/p2.html Good to Great; accessed April, 8, 2007

Richard K. Reznick
R.S. McLaughlin Professor and Chair

Lee Errett Receives Prize from the Chinese Medical Association
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Terry Donnelly at St. Mike's

that they can be done in the local settings where he operates. He does more beating heart surgery in China than in Toronto. He brought a Soren mini-pump as a backup for off-pump surgery. It has been duplicated multiple times in China. Lee makes one or two trips of two to three weeks duration per year. On his first visit to China there were 50 people in a large single operating room and a video camera projecting the operation into a filled classroom nearby. Returning this year, he found four operating rooms with four cardiac operations underway using standard techniques. Trainees are starving for knowledge, as opposed to those in the developed world, who are interested in obtaining additional knowledge and skill. Patients, who pay out of pocket for care, bring money, bedding and food. There are twenty-five million patients in China who need valve operations and many millions who need coronary bypass among the total population of 1.3 billion. Very few of the 800 million people in rural China will have access to any cardiac surgery. The messages to surgeon readers of this article are: "send instruments, go there yourself, the rewards are priceless, your impact will surprise you. You can change a hospital simply by being there and you will learn more from them than they will learn from you."

M.M.

[1]Lloyd D. MacLean and Martin Entin. Norman Bethune and Edward Archibald: Sung and Unsung Heroes. *Annals of Thoracic Surgery.* 200;70:1751.

Trauma as a Component of Critical Care

Bernard enjoys running marathons, an activity he hopes to do more of soon.

As a general surgery resident in London, **Bernard Lawless** heard complaints about government bureaucracy, but had no comprehension of what the government was up to. While pursuing his Master Degree in the Department of Health Policy, Management and Evaluation at the University of Toronto, he shadowed Jason Grier, then Director of Policy with the Ministry of Health, for his practicum. This experience gave him some exposure to how a government bureaucracy works. He was on call for trauma at St. Michael's Hospital 4-5 days per month during grad school.

Bernard went to Vancouver for a Trauma Fellowship then came back to London for a Critical Care Fellowship. He did six months of research on penetrating injuries with Dr. Najma Ahmed at St. Mike's. He also worked for six months in Cape Town at *Groote Schuur* ("Big Barn") a hospital built on an old farm. Cape Town was a rich political and social experience as well as an intense exposure to penetrating injuries. He worked as senior registrar with Dr. Andrew Nichols in a Trauma Department with its own dedicated OR, ward and CT scanner, comparable to the current dedicated services at St. Mike's and Sunnybrook. Since trauma became a priority program at St. Mike's last fall, Avery Nathens, Najma Ahmed, Bob Mustard, John Marshall, Talat Chughtai and Bernard each attend on the trauma service on a weekly rotation basis.

Bernard's recruitment by the MOH came through his exposure to the Minister's Office during the time he spent there while doing his Master Degree. Assistant Deputy Minister Hugh McLeod asked Bernard to take a full time position as the Provincial Lead for Critical

Care and Trauma; Bernard said that he could commit 50% of his time to the ministry position leaving him the remainder of his time to devote to his clinical work. Twelve staff members within the Critical Care Secretariat make it possible for Bernard to know that things are being well managed when he's otherwise occupied with clinical duties or in the OR. Since SARS, there has been a strong push to improve Critical Care via the Critical Care Advisory Panel. There are seven initiatives underway, supported by funding from the MOH. The Provincial Critical Care Strategy received significant grounding and support from other clinical leaders such as the late Bill Sibbald and Tom Stewart. Bernard attributes the success of the strategy to his predecessors, the enthusiasm of front line health care workers, and the support of the MOH. Much of the work is underpinned by his staff, including manager Robert McKay who heads the Critical Care Secretariat and reports to Bernard. Bernard reports directly to Hugh McLeod. He found there was a steep learning curve at first, but had learned a lot of management skills, eg. when to consult and when to take initiative, from his trauma team experience. He learned project management and evaluation skills from his time at HPME and teamwork from his residency experience in the OR and the ICU – all informal learning. Clearly defined Critical Care and Trauma responsibilities enable him to balance his schedule at the MOH.

Critical Care is hot now, but Bernard wants to ensure the current support for Critical Care will continue into the future, regardless of changes in political landscape. He has been in the job just over a year and so far there have been many successes. These include the implementation of Critical Care Response Teams in 30 hospitals, plus 4 site pilots. These have been very well-received and have reduced the number of respiratory and cardiac arrests. They have improved recruitment of nurses to the ICU. They have also sent 40 ICU coaching teams to different hospitals in the past year, which have been well-received. Bernard identifies three main factors in their success: (1) SARS -- the critical incident that made Critical Care a focus; (2) a groundswell of support from staff; (3) significant and careful investment in resources from the MOH.

M.M.

Progress on Wait Times

Alan Hudson

Patients waiting for cataract surgery are now guaranteed by law that they will be treated within the 182 day period recommended by the Ministry of Health. Institutions that fail to meet this standard will be charged by the MOH with the cost of moving delayed patients for more timely care within their LHIN. As a financial incentive, the cost of moving and providing care will be paid by the institution that failed to provide the service. The Kensington Clinic, described in the Summer 2006 issue of the Spotlight (http://www.surg.med.utoronto.ca/newsletter/summer06.pdf) will serve as the backup facility if the problem cannot be solved within the waiting patient's LHIN. The clinic, according to a recent International External Review, is now looked at as "a model for cataract care in North America".

The median (50% of patients are treated before this) wait time for cataract surgery is currently 60 days. The 90% wait time is 159 days. 90% is a more rigorous criterion that is socially and politically significant because it answers the question "what has been done to get almost all of us the service we need in a reasonable time?" The guarantee will push the boundary to 100%, and the efficiencies introduced should be durable. The economic impact will be challenging to calculate, but significant. As Wait Time Lead Alan Hudson says, "Thousands of people who couldn't drive or read are now able to. They can contribute to society instead of requiring its support." According to Alan the credit for taking us in under 2 years from no system to this guarantee should go to Professor Phil Hooper, Lead of the Ophthalmology

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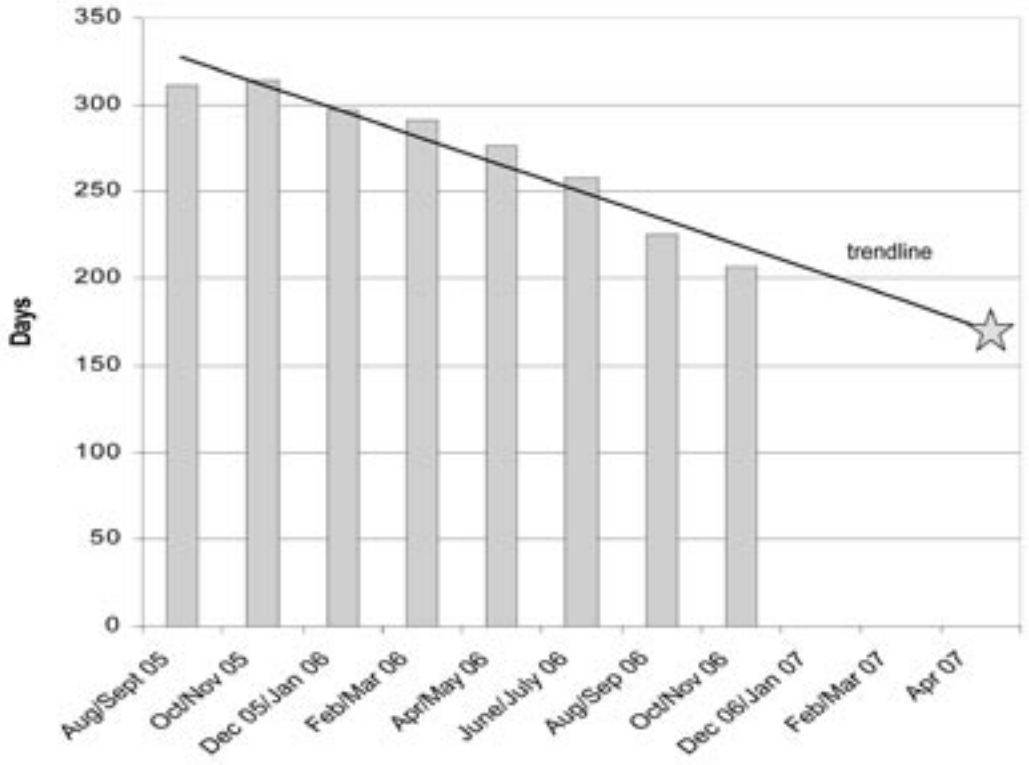
Progress to Date

Provincial Trend 90th Percentile Analysis - Oct/Nov '06 Wait Times Data

	Baseline (Aug/ Sept '05)	Current (Oct/ Nov '06)	Access Target** (Days)	% Completed Within Target**	Current vs. Baseline	
					Net change	% change
Cancer surgery	81 days	78 days	84	91% *	-3	-3.7
Angiography	56	26	-	-	-30	-53.6
Angioplasty	28	20	-	-	-8	-28.6
Bypass surgery	49	47	182	100% *	-2	-4.1
Cataract surgery	311	209	182	87%	-102	-32.8
Hip replacement	351	278	182	78%	-73	-20.8
Knee replacement	440	357	182	66%	-83	-18.9
MRI	120	113	28	43%	-7	-5.8
CT	81	70	28	71%	-11	-13.6

**Priority Level 4 Target

90% of Cataract Surgeries Completed Within



Expert Advisory Panel, and Chair of the Department of Ophthalmology at the University of Western Ontario in London.

The cataract surgery story is the clearest and most promising. Because the interventions and the needed infrastructural changes are more complex, progress in hip and knee replacement has been slower. Given the magnitude of the challenge, the results are no less significant. Hip and knee replacement wait times have been reduced by 28.2% and 27%, despite the expansion of demand induced by the effectiveness and convenience of treatment. Coronary angiography waiting has been reduced by 57.1%, while bypass surgery and cancer surgery have been stable at 100% and 91% within targeted time to completion. MRI and CT scanning, "still a big problem" at 113 and 70 days, have shortened a modest 6% and 14% respectively as demand has expanded.

Critics have complained of the impact of the program on non-prioritized procedures, and the reporting of data from within its own bureaucracy. Recent reports by CIHI and ICES both indicate that there has been no reduction in the number of procedures performed in the non-prioritized areas. The latter objection has been neutralized by the appointment of a Blue Ribbon External Validation Council, whose members review and sign off on all reports. Council Chair Michael Decter, former Chair of the Canadian Institute for Health Information says that "the council is ensuring that the wait time data are accurate." What will be the impact on healthcare overall from these unequivocally improved management and investment initiatives in five prioritized areas? I suspect it will be positive, significant and lasting, thanks to the transparency and formality of agreements between Ontarians and their healthcare institutions developed through Alan Hudson's vigorous leadership.

M.M.

How Ischemia Helps the Heart

Andrew Redington

The beneficial effect of short bursts of sub-lethal local ischemia is well-established for many tissues. Bursts of one to five minutes protect from substantially longer periods of ischemia. The reduction in injury is approximately 40-70%. Because short bursts of ischemia might have some harmful effects there has been very limited clinical application of this interesting physiological phenomenon. The first preconditioning experiment using remote ischemia was conducted by Karin Przyklenk who showed that preconditioning the territory perfused by the circumflex coronary artery protects another region -- the myocardium dependent on the left anterior descending. The coronary effluent of preconditioned hearts protects virgin hearts from subsequent ischemia. Subsequent studies in rodents showed that mesenteric and renal ischemic conditioning also protected the heart.

This fascinating physiological phenomenon is inhibited by ganglionic blockers. So it is mediated by both neural and a humoral mechanisms. Remote ischemia to the leg caused a 50% decrease in infarct size in pigs subjected to occlusion of the left anterior descending coronary artery. The neuronal component of this phenomenon was established by a Chinese team of investigators who were able to abolish the effect by cutting the femoral nerve. Perhaps brain ischemia prior to death may precondition the heart and other transplanted organs reducing the ischemic stress of harvesting and transportation to the donor.

The humoral component of remote preconditioning persists in a dialysate of plasma or in the effluent of a millipore cell-free chamber. Redington et al. reported that a brief period of blood pressure cuff inflation on the arm was associated with reduced troponin levels, better lung function and less requirement for inotropes in children undergoing surgery for congenital heart

defects. (Randomized Controlled Trial of the Effects of Remote Ischemic Preconditioning on Children Undergoing Cardiac Surgery. *Journal of the American College of Cardiology*. 2006;47(11):2277-2282.)

The Leducq Foundation, a French charitable institution, has awarded $6.7 million to the Canadian contingent of the Transatlantic Networks in Cardiac Care. This new grant supports studies of ischemic preconditioning in cardiac surgery, a fertile area for research. The lead investigator in Canada is Andrew Redington, Chief of Cardiology at the Hospital for Sick Children. Along with Andrew, co-investigators Chris Caldarone (Surgery), John Callahan (Paediatrics and Biochemistry), Brian McCrindle (Paediatrics, HPME), and Greg Wilson (Laboratory Medicine and Surgery) will analyze the mechanisms and mediators, while their collaborators from Denmark and the UK explore the clinical applications of remote ischemic preconditioning.

Chris Caldarone

The scientific background story is one of unplanned errors and serendipity. Several years ago, in a laboratory study of myocardial infarction, hearts were excised and perfused in an artificial circulation system called the Langendorf Apparatus. The investigators found that the infarctions were moderate to severe in most of the animals, but there were some in which the size of the injury to the heart was very small. To their surprise, those preparations had been set up by the students. On analysis, it became clear that inexpert attempts at cannulating the vessels in the rats caused intermittent ischemia before getting the system working. Contrary to expectations, these short episodes of ischemia protected the heart in some unexplained way. The investigators concluded there must be something that developed locally in the ischemic muscle. Blood drawn from the arms of volunteers below an inflated blood pressure cuff had a clear protective effect. In one experiment blood drawn by mistake from the wrong (non-ischemic) arm was found to contain the same protective substance. From two serendipitous errors, the phenomenon of remote ischemic protection was discovered.

Langendorf Apparatus

Perconditioning can elicit the same benefits as preconditioning, i.e. a short ischemic interval at a distant site reduces injury even during the injury. It appears that this beneficial effect actually takes place during the reperfusion. The DANAMI (DANish Trial in Acute Myocardial Infarction) trialists in Denmark are now studying ischemic conditioning in their well-organized public health system. Patients in transport to the hospital for treatment of myocardial infarction are randomly assigned to remote ischemic interventions to look for infarct reduction. Why not precondition our patients before surgery, particularly surgery in older patients in whom there is a significant risk of myocardial infarction or stroke? Andrew is very interested in collaborating with surgeons in all disciplines to test the hyopothesis that preconditioning will protect older patients from perioperative heart attacks and strokes.

Perhaps surgeons should encourage stair climbing, yoga, and tai chi to help patients on the preoperative waiting list develop the yet undefined protective factors that are under intense investigation by scientists in Toronto and around the world. How much ischemia, how often, what duration, at what intervals, are all unanswered questions that are currently under active investigation.

Surgeons who are interested in participating should contact Andrew at andrew.redington@sickkids.ca.

M.M.

"All Surgery Should Be Done Through Minimal Access Incisions"

KERGIN LECTURE

John Bohnen, Peter Funch-Jensen, Richard Reznick and Teodor Grantcharov *(left to right)*

The spirit of Frederick Kergin, the fourth Chairman of the University Department of Surgery was invoked by Richard Reznick as he started Grand Rounds. "Fearless Fred" as he was known, was a maximally invasive general and thoracic surgeon. Following a Kergin tradition, Richard pulled a red silk handkerchief (kindly provided by Bob Salter) out of his sleeve to signal the beginning of Grand Rounds.

Peter Funch-Jensen, our Kergin Lecturer presented a provocative thesis -- that all surgery should be performed through minimal access incisions. He described the biphasic activation and suppression of the immune response initiated by trauma, exercise, infection or surgery, emphasizing that the immunosuppressive component is proportional to the size of the operation. Focusing on the wound, he described the problems of sepsis, dihiscence, cosmesis and incisional hernia, noting that the latter complication occurs in 40% of open bariatric surgery. The Minimal Access Surgery Program he leads at the University of Aarhus in Denmark focuses on six elements of (a) complete information to the patient to bring about cooperation and understanding; (b) preoperative optimization of the physical and medical status; (c) pain control to decrease the stress response; (d) sympathetic blockade to decrease postoperative ileus; (e) early mobilization; (f) challenging traditions that may be outdated -- such as the use of the nasogastric tube.

The Aarhus group emphasizes evaluation. Peter reminded us of the criticism of our specialty by Major Greenwood and by Richard Horton in the *Lancet* (Surgical Research or Comic Opera: Questions, but Few Answers. Apr. 13, 1996;347(9007):984-985.) In Horton's Review, only 7% of surgical articles are about randomized trials. 46% are case studies and 18% are reports of experiments. Peter emphasized that randomized trials are much easier for physicians than surgeons. Medical trials are generally comparisons of two drugs "not invented by the doctor, but supplied by a pharmaceutical company that organizes the trial". In contrast, surgeons craft their own treatments and have a much more personal responsibility for them. He reviewed the Aarhus experience with colorectal surgery (Bardram L.; Funch-Jensen P.; Kehlet H. Rapid rehabilitation in elderly patients after laparoscopic colonic resection. *British Journal of Surgery*, November 2000;11:1540-1545.) performed laparoscopically under T7 epidural anaesthesia for sympathetic blockade. 100% of patients were fed a normal diet immediately postoperatively. Resumption of bowel function was immediate in 75% and within 48 hours in 100%. Lymph node counts and pathological analysis of margins is comparable to open surgery, but the long-term oncologic consequences are not yet proven. The Aarhus experience with laparoscopic antireflux surgery is equally interesting. 16 of 18 patients whose operations were carried out in the morning were sent home on the day of surgery. The scheduling routine now at the clinic is to perform antireflux operations as the first morning case, followed by cholecystectomies to maximize same day discharge.

Among 24 patients who were treated by endoscopic stenting of gastric outlet obstruction, one patient died from a perforation and six required a repeat endoscopic procedure for reobstruction. The group is now exploring the use of stents to decompress the gall bladder in acute cholecystitis. During a spirited discussion, Carol Swallow asked about the risk of surgeons losing the ability to do open operations if there is too much emphasis on endoscopic procedures. Richard Reznick suggested that this was a sound reason to keep geezer surgeons around now that mandatory retirement has been revoked. The photo shows John Bohnen, Peter, Richard Reznick and Teodor Grantcharov, an Aarhus trained gastrointestinal surgeon who has recently joined our faculty at St. Michael's Hospital.

M.M.

Scientists in Surgery

Approximately 15% of our surgical faculty are individuals who are non-MDs and work as full time scientists. These individuals are significant contributors to the research effort of our Department. This section will endeavour to profile excellence in research among the scientists in our Department.

Reginald Gorczynski

Reginald Gorczynski obtained his Bachelor of Science at Oxford University in Biochemistry in 1969. He subsequently completed a PhD in immunology under Robert Phillips at the Princess Margaret Hospital and post-doctoral training under A. Mitchison in London, UK. He returned to the University of Toronto and Princess Margaret in 1974 joining the Department of Medical Biophysics and Immunology. In 1986, he became a senior scientist at the Toronto General Hospital in the Department of Surgery and Immunology and the Multi Organ Transplant Program.

Reg has won numerous awards in his career including the Stapleton Scholarship at Oxford University (1966-69), the Commonwealth Scholarship at the University of Toronto (1969-72) and an Imperial Cancer Research Fellowship Award (1974-76). He has published over 300 peer-reviewed publications on topics ranging from aging of the immune system through identification of novel regulatory molecules and their receptors to mechanisms of bone disease. He has trained or participated in the training of over 100 MSc, PhD and post-doctoral students and is a member of the American Association of Immunologists, Federation of Clinical Immunology Societies (FOCIS) and the Canadian Society of Immunology, and Course Director in Clinical Immunology for St. George's University School of Medicine. He also serves as a reviewer for the National Institutes of Health on the Aids and Immunology Grants Panel, the Canadian Red Cross Society Ad Hoc Review Committee, the Alberta Heritage Clinical Research and Fellowship Committee and the Canadian Institute of Health Research Immunology Committee. He was one of the founding scientists of the Biotechnology Start-up Company, Trillium Therapeutics Inc. and his work on CD200 and CD200 receptors has formed one of the platform technologies for the success of this company leading to a partnership with Genentech Inc.

Reg has had a long commitment to understanding the mechanisms of long term graft acceptance (tolerance) and has played a major role in the identification of mechanisms leading to maintenance of tolerance to foreign antigens. He was the first to show that infusion of alloantigens into the portal venous circulation decreased rejection of skin and renal grafts and showed that this acquired tolerance depended on 2 cell populations, a hepatic macrophage and/or dendritic cell population and a population of T cell receptor positive (TCR+) cells. He showed that the mechanism of "prope tolerance" with reduction in rejection was associated with a switch in the immune response from a Th1 to Th2 cytokine response. He identified the novel gene encoding the murine homolog of rat (OX-2), a molecule expressed on dendritic cells in portal venous immunized rodents and found that antibody to OX-2 decreased mouse renal allograft survival following portal venous immunization.

He went on to produce a fusion protein linking the extracellular domain of OX-2 to mouse Fc and showed that infusion of soluble OX-2 fusion protein (CD200) extended allo and xenograft survival; inhibited type 1 cytokine production in allo-stimulated cells in vitro and inhibited antibody production in vivo to nominal antigens.

He has now identified the receptors for CD200 and shown that these receptors are important in tolerance induction. He has generated animals with homologous gene deletion of CD200 as well as transgenic animals over expressing CD200 and carried out pivotal studies on their effects in models of tolerance and autoimmunity. He is now generating a series of transgenic animals with over expression of the CD200 receptor family and these are being studied for diseases including rheumatoid arthritis, bone disease and cancer.

Throughout his long, distinguished career Reg has demonstrated the pivotal characteristics of an outstanding research scientist and has contributed to training of many surgical scientists at the University of Toronto. He is an essential member of the scientific community here in Toronto and has been critical to the success of the Department of Surgery's mandate of research excellence.

Gary Levy
Director, Multi Organ Transplant Program
Toronto General Hospital

NEW STAFF

The Department of Surgery warmly welcomes the following individuals who have joined our Department.

Heather Carnahan

Heather Carnahan completed her PhD at the University of Waterloo, and a two year NSERC Postdoctoral Fellowship in Psychology at the University of Western Ontario. Her first faculty appointment was in the Department of Physical Therapy at the University of Western Ontario. This was followed by 13 years as a faculty member at the Kinesiology Department, University of Waterloo, where she served as Chair of Graduate Studies and established an international reputation in the field of motor control and learning.

Heather is currently a Professor in the Department of Surgery. She is cross-appointed as a Professor in the Department of Occupational Science and Occupational Therapy and as a Scientist at the Toronto Rehabilitation Institute and the Wilson Centre. Her basic research interest involves the role of sensory inputs such as touch and vision in the performance of skilled hand movements. Her clinical research applies current motor control and learning theory to the acquisition of technical clinical skills in both surgery and rehabilitation.

Glenn Regehr
Professor, Department of Surgery/Research

Soheila Karimi received her PhD Degree in Developmental Neurobiology from the University of Saskatchewan, Department of Anatomy and Cell Biology in 2001. Her doctoral work focused on gene expression and regulation of growth associated proteins during development of the central nervous system. During postdoctoral training in spinal cord injury at the Toronto Western Research Institute, Division of Cell and Molecular Biology, she explored the cell therapeutic application of neural stem cells for myelin repair and restoration of axonal function after spinal cord injury and myelin disorders. Her recent work on adult neural stem cells broke new ground by showing that these cells can be used therapeutically to repopulate the injured spinal cord and successfully remediate injured axons and improve recovery of function. Furthermore, her research has shown that the timing of neural stem cell application after spinal cord injury is critical to its success.

Soheila Karimi

She is now an Assistant Professor in the Department of Surgery, Divisions of Neurosurgery and Anatomy, and a member of the Spine and Spinal Cord Injury Program at the Toronto Western Hospital. Soheila's research interest is the repair and regeneration of the central nervous system. As a neuroscientist, she is interested in conducting translational research with a potential for clinical applications for treatment of spinal cord injury and other neurological disorders. She is currently seeking and developing therapeutic interventions that facilitate cell transplantation strategies for the repair of chronic spinal cord injury.

Soheila has received several honours and awards for her research, including two Postdoctoral Fellowships from the Canadian Institutes of Health Research (CIHR) and Ontario Neurotrauma Foundation. She was also the recent recipient of the Synthes Spine Research Award, a Cervical Spine Research Society Award and the University Health Network (UHN) Research Excellence Award in Regenerative Medicine.

Soheila is a devoted wife and mother who enjoys spending time with her family. She is married to her long time life and work partner, Dr. Eftekhar Eftekharpour, who is also a neuroscientist in the Spine Program at the Krembil Neuroscience Centre and Toronto Western Research Institute. They have two sons, Amir and Ar.

Michael Fehlings
Division of Neurosurgery
UHN – Toronto Western Hospital

R. Loch Macdonald

It is a tremendous honour to welcome **Loch Macdonald** to St. Michael's Hospital as the new Head of the Division of Neurosurgery and the inaugural Keenan Endowed Chair in Surgery. Loch graduated from the Faculty of Medicine at the University of British Columbia in 1985. After completing a Rotating Internship at St. Michael's Hospital in Toronto, he entered the Neurosurgical Training Program at the University of Toronto. He was awarded a Fellowship in Neurosurgery from the Royal College of Surgeons of Canada in 1992. During his residency, he set aside time to do full time research as part of the UofT Surgeon Scientist Training Program and was awarded a PhD in Experimental Surgery from the University of Alberta, under the supervision of Dr. Bryce Weir, investigating cerebral vasospasm after subarachnoid hemorrhage. He joined the Faculty of the Department of Surgery (Neurosurgery) at the University of Chicago Medical Center in 1993 and quickly ascended through the academic ranks to the level of Professor in the Departments of Surgery and Radiation and Cellular Oncology. He holds funding from the US National Institutes of Health, sits on the Editorial Boards of *Neurosurgery* and *Stroke*, and has published over 150 manuscripts and book chapters.

This past January, Loch returned to Toronto with his wife Sheilah and their teenage children, Iain, Robyn and Erin to take his new position. His clinical expertise is in the areas of cerebrovascular surgery, as well as surgery for brain and spinal cord tumours. His laboratory investigates mechanisms and pathophysiology of cerebral vasospasm after subarachnoid hemorrhage.

We welcome Loch and his family back to Toronto and look forward to his contributions to St. Michael's Hospital and the University of Toronto.

Ori D. Rotstein
Surgeon-in-Chief, St. Michael's Hospital

Carol-anne Moulton

Carol-anne Moulton completed her Medical Degree and general surgery training at the University of Melbourne. After becoming a Fellow in General Surgery of the Royal Australian College of Surgeons she completed a Laparoscopic Upper Gastrointestinal Fellowship. Carol-anne then undertook additional training in Hepato-pancreatico-biliary Surgery and Surgical Education at the University of Toronto. She was awarded a Masters in Education in Surgical Education and is now a PhD candidate in Medical Education at the Institute of Medical Science. She has a staff appointment in the Division of General Surgery, University Health Network, with a strong clinical interest in surgery of the liver, pancreas, and biliary tree, incorporating use of laparoscopy where appropriate.

Although still very early in her career, Carol-anne has a significant number of publications, has presented at more than twenty international meetings and is the PI on grants awarded from the Medical Council of Canada, PSI, American College of Surgeons, RCSPC, Dean's Excellence Fund for Medical Education, and The Ontario Ministry of Health.

Carol-anne has also somehow found time to devote to her spouse and to nurturing three children.

Lorne Rotstein
Hospital Division Head, General Surgery
University Health Network

Alexandre Zlotta

Alexandre Zlotta completed his medical education, urology training and his PhD Degree at the University of Brussels, Belgium. He spent two years of basic research in Immunology at the renowned Pasteur Institute in 1995-1997. In 2000, he received the CRYSTAL MATULA Award as the Best Young European Academic Urologist. This award is equivalent to the Gold Cystoscope in North America. He has been the Director of Uro-Oncology at Mount Sinai Hospital and Associate Staff at Princess Margaret Hospital, University Health Network since September 2006. Alexandre is also a Professor of Surgery at the University of Toronto and a Professor of Uro-Oncology at the European School of Urology. As well, he serves as the Associate Editor of the Journal *European Urology*.

Keith Jarvi
Hospital Division Head, Urology Surgery
Mount Sinai Hospital

"This is what happens when ethical standards are set artificially high."

Leadership in International Neurosurgery

Our department has the unusual honour of having two international leaders.

James Rutka

Jim Rutka served as Secretary of the American Association of Neurological Surgeons during its spring meeting in Washington D.C. Jim is Chair of Neurological Surgery at the University of Toronto and Chief of Neurosurgery at the Hospital for Sick Children. A description of his many accomplishments is on pages 7 and 8 of the Fall 2004 issue of the Surgical Spotlight. (http://www.surg.med.utoronto.ca/newsletter/newsletterFall04.pdf)

Doug Kondziolka

Doug Kondziolka, a graduate of the University of Toronto Neurosurgery Training Program, will serve as the President of the Congress of Neurological Surgeons when it meets this fall in San Diego. Doug is remembered by his teachers for his tremendous drive, innovation, enthusiasm and conscientiousness. He is Professor and Vice Chair of Neurological Surgery and Professor of Radiation Oncology at the University of Pittsburgh, and a world leader in stereotactic radiosurgery.

M.M.

Waiting for Elective Surgery


Martin McKneally

When Dan Reid, a gifted cardiothoracic surgeon and avid mountain climber, moved to the San Francisco Bay area, he was startled to learn that cardiologists expected him to perform elective coronary bypass immediately following cardiac catheterization, or on the following day. At that time, California had over 300 cardiac surgical centres and virtually no waiting lists. In New York State, where I had the privilege of participating in Dan's training, there were 30 centres for a comparable population. Waiting for elective surgery was a reluctantly accepted element of medical practice. Like Canada, New York State restrained cost through a policy of limiting facilities for expensive health care interventions. The waiting period provided patients an interval for optimizing their physical, psychological and social preparation for a major life event. There were advantages for caregivers as well; we could set and adjust the elective operation schedule, and organize prioritized slots for urgent and emergent cases. In California, Dan felt that patients were being rushed to surgery by excessive emphasis on rapid interventions.

More recently, FBI agent Gerry Wilson from the United States asked me to explain to a gathering of agents what surgeons are taught about their ethical obligation to deal honestly with patients who have been terrified into thinking they need urgent or emergent surgical care. They were investigating the case of the notorious cardiologist Chae Moon in northern California, who found "widow-makers" by intracoronary ultrasound in most of the patients he catheterized, even when their angiograms were normal. Naive surgeons and hospital administrators were seduced by these apparent psychological emergencies, and by a dramatic financial conflict of interest. They came to be investigated as the highest billing team on the books of the US Medicare Insurance Program. Patients were regularly told that they could not go home safely without surgical intervention -- even on normal coronary arteries. (http://www.washingtonpost.com/wp-dyn/content/article/2005/07/24/AR2005072400969_pf.html) This anecdotal trip down the *via negativa* is not intended to justify excessive waiting, but it illustrates the dangers of supply-induced demand, when capacity exceeds the need for expensive insured medical services.

I took advantage of the waiting time for thoracic surgical patients in New York by coaching them to get into optimal condition for surgery. Stair-climbing, dieting and working to improve their physical condition made them feel like active members of the surgical team, rather than passive participants. In view of the work on remote ischemic preconditioning of Andrew Redington, Chris Caldarone and others (reported elsewhere in this newsletter), their stair-climbing may have had even more protective effects than we realized at the time.

The waiting list project described on page 6 is a remarkable intervention, introducing effective management into the haphazard, dispersed non-system that comprises much of contemporary medical care in Ontario and elsewhere. When public pressure, translated through the political process, was focused through expert advisory panels, waiting lists were discovered to be inaccurate, inaccessible in individual doctor's offices, and entirely unknown by institutional CEOs and board members. The current work in progress of the advisory panels can be accessed at www.ontariowaittimes.com.

Putting people like Valerie Zellermeyer to work on surgical process (http://www.surg.med.utoronto.ca/newsletter/Winter07.pdf) reminds me of the highly effective nurse who managed the emergency room where I spent many moonlight hours during residency. She hired only surgical and paediatric residents and kept us moving at a fast pace. Institutional inertia and resources were never a problem. As the mistress of the CEO, she was able to make unchallenged infrastructural changes in real time as the need was identified. By constantly circling the ER bays she kept us aware that progress and increasing patient satisfaction would be expected at each succeeding observation. It was an exhilarating experience. I sensed some of that same exhilaration recently as I talked to members of the wait time initiative.

There are certainly abundant and vexing problems associated with waiting. Clinical secretaries, frustrated by

the inefficiencies and shortages inherent in controlling costs by limiting healthcare personnel and facilities, protect their doctors from overloaded and burnt-out circuits by acting as unwelcoming gatekeepers.

Valid complaints of pain, impaired mobility, inability to read or drive interfere significantly with the lives of waiting patients and their families. Bed-blocker patients, trapped in acute care hospitals by the lack of long term care facilities, present an enormous challenge to the Community Care Advisory Committees, whose unsung and difficult work is being spear-headed by insightful leaders like Frank Wagner. The psychological urgency of untreated cancer haunts patients waiting for treatment. Many waiting patients and families, misconstruing the biology of cancer, fear that it's like a fire in the kitchen that will spread to children's bedrooms. The indolent course of some tumours and the increasing effectiveness of treatment require more public education to help palliate this source of suffering.

The wait times initiative is a significant investment of $614 million that reduces the stress for caregivers as well as patients in an inefficient system. Important work is being done in collaboration with the waiting times task forces by the priority setting research group at the Joint Centre for Bioethics, initiated by Peter Singer and headed by Doug Martin. Access to their contributions is available at http://www.utoronto.ca/cpsrn/html/home.html

Martin McKneally
Editor

CORRESPONDENCE

Letters to the Editor are welcomed to keep the community informed of opinions, events and the activities of our surgeons, friends and alumni. Please send us birth and marriage announcements with photographs, as well as any other family news you would like to share with the Department of Surgery community.

HONOURS/AWARDS/ ACCOMPLISHMENTS

Congratulations to our colleagues in Surgery who were promoted this year, effective July 1, 2007.

Promoted to the rank of Professor:
Anne Agur - Anatomy
Neil Fleshner - UrolSurg
Hans Kreder - OrthSurg
Thomas Lindsay - VascSurg
Joao Pippi Salle - UrolSurg
Barry Rubin - VascSurg
Michael Tymianski - NeurSurg
Glen Van Arsdell - CardSurg
Jay Wunder - OrthSurg

Promoted to the rank of Associate Professor:
Claire Holloway - GenSurg
Joan Lipa - PlasSurg
John Murnaghan - OrthSurg
Robert Mustard - GenSurg
Sandro Rizoli - GenSurg
Lloyd Smith - GenSurg
Cari Whyne - OrthSurg

Promoted to the rank of Assistant Professor:
Amr ElMaraghy - OrthSurg
Stan Feinberg - GenSurg
William Kraemer - OrthSurg
Laura Tate - PlasSurg

Michael Fehlings (NeurSurg) is on the Expert Panel that is developing for Spine Surgery in the Province of Ontario. This expert panel will make recommendations through Alan Hudson to the Ministry of Health Long Term Committee.

Michael has also been invited to sit on the Canadian Institutes of Health Research (CIHR) Team Grants – A Scientific Review Panel.

Sender Herschorn (UrolSurg) is the winner of the 2007 W.T. Aiken's Award for individual teaching from the Faculty of Medicine, our faculty's highest teaching award.

Andres Lozano (NeurSurg) has been designated a "highly cited" scientific author by *Thompson's Scientific*. Over the last 10 years, ending December 2006, Andres ranks 5th worldwide among 23,117 authors across the field of Parkinson's Disease. His 58 papers in this field have been cited 3,714 times, an average of 64 citations per paper.

John Marshall (GenSurg) assumed the Presidency of the Surgical Infection Society.

Michael McKee (OrthSurg) PI with collaborators **C. Veillette**, L. Wild, **E. Schemitsch**, **J. Hall**, and the Canadian Orthopaedic Trauma Society, received the Neer Award for outstanding research in the field of Shoulder and Elbow Surgery from the American Shoulder and Elbow Surgeons in San Diego for paper titled: "A Multicenter Prospective Randomized Controlled Trial of Open Reduction and Internal Fixation Versus Total Elbow Arthroplasty for Displaced Intra-articular Distal Humeral Fractures in Elderly Patients".

Michael, PI with collaborators **C. Veillette**, L. Wild, **E. Schemitsch**, **J. Hall**, and the Canadian Orthopaedic Trauma Society have also received the Bovill Award for Outstanding Scientific Paper at the Orthopaedic Trauma Association Annual Meeting, for paper titled: "A Multicenter Prospective Randomized Controlled Trial of Open Reduction and Internal Fixation Versus Total Elbow Arthroplasty for Displaced Intra-articular Distal Humeral Fractures in Elderly Patients". This is the fourth time in the past five years that Michael has won the Bovill Award.

Vivek Rao (CardSurg) has been named to Canada's annual Top 40 Under 40 list a National Program that honours Canadians who have achieved significant success before reaching the age of 40. Run by the Caldwell Partners, it is published in *The Globe and Mail* each spring. Vivek, a leading authority on transplantation and artificial heart technology, played a leading role in establishing HeartMate, an Artificial Heart Program for surgically implanting a ventricular assist device in patients with end-stage heart disease. Today, the HeartMate Program at Toronto General Hospital is widely recognized for its excellence in mechanical circulatory support. Vivek receives patient referrals from all over Canada.

Glenn Regehr (Surg/Research) has been selected as the 2007 John P. Hubbard Award recipient. This prestigious international award recognizes individuals who have made significant contributions to the pursuit of excellence in the field of evaluation in medicine as well as to the assessment of professional competency and educational program development at any level along the continuum of medical education and delivery of health care.

Ori Rotstein (GenSurg) has been selected as the recipient of the 2007 IMS Course Lecturer Award, for this annual contribution to MSC1040H "Physiologic Basis of Disease", directed by Drs T. Todd and M. Cattral. The award recognizes sustained contributions of more than three years to excellence in lectures in an IMS graduate course.

Emil Schemitsch (OrthSurg) PI with collaborators R. Walker, **M. McKee** and **J. Waddell** had the top Basic Science Poster of the Orthopaedic Trauma Association Annual Meeting entitled: "Ideal Tibial Intramedullary Nail Insertion Point Varies with Tibial Rotation".

Michael Taylor (NeurSurg) received the CRANN Award from the University of Toronto for his work on "High Resolution Genotyping of Paediatric Medulloblastoma".

Michael has also been awarded an ACIHR Clinician Scientist Award – Phase 2, for project: "Characterization of Amplified Oncogenes in Pediatric Ependymoma".

William Tucker (NeurSurg) has been elected President of the Canadian Medical Protective Association, effective August 2007.

Mike Wiley (Anatomy) has been named the recipient of the Faculty of Medicine's Harry Whittaker Memorial Teaching Award for the second straight year. This award is a student-nominated honour, decided upon annually by the first year class. It is awarded to a teacher who gave encouragement and displayed genuine concern for student well-being and, through personal commitment to quality teaching, provided practical and clear insights in the basic sciences during the first year of the undergraduate medical program.

Ratan Bhardwaj (NeurSurg Resident) received an AANS Synthes Award for his research on: "Brain and Craniofacial Injury".

Greg Hawryluk (NeurSurg Resident) was awarded a NeuroRenew / MBF Bioscience Graduate Student Scholarship.

Alexandra Mihailovic (GenSurg Resident) is the 2007 winner of 1st Prize at the Annual Resident Trauma Papers Competition held by the American College of Surgeons Committee on Trauma in Denver Colorado for paper titled: "The Burden of Pediatric Trauma in the Developing World: Quantifying the Problem and Translating Research into a Sustainable Solution". This is a tremendous achievement and a highly prestigious award as Alex's paper was selected from among other papers submitted from Eastern Canada [Region XII of the COT] and represented Eastern Canada in the competition involving papers from residents throughout Canada, USA and internationally.

Karim Mukhida (NeurSurg Resident) was the recipient of the KG McKenzie First Prize Award for best Basic Science Research Paper, 2007.

Cian O'Kelly (NeurSurg Resident) was the recipient of the KG McKenzie First Prize Award for best Clinical Research Paper, 2007.

Sarah Woodrow (NeurSurg Resident) received the 2007 AANS Young Neurosurgeons Committee Public Service Citation.

GRANTS / FELLOWSHIPS

Natalie Coburn (GenSurg) has received a Dean's Fund New Staff Grant ($10,000) for project: "Quality of Gastric Cancer Care in Ontario: a Population-based Cohort".

Karen Davis (Research) has received a CIHR Open Operating Grant ($638,225) for project: "Studies of Pain Perception".

Peter Dirks (NeurSurg) has received a Canadian Cancer Society Research Grant ($564,000) for study titled: "Understanding Human Brain Tumorigenesis: Focus on Cancer Stem Cells".

Peter is also the recipient of an NCIC Grant Award for his work on: "Understanding Human Brain Tumorigenesis: Focus on Cancer Stem Cells".

Michael Fehlings (NeurSurg) and colleague Armin Curt (Vancouver) Co-Directors of SCI-TRN have been awarded a Federal Government $30 million grant (over 5 years) to create a National Spinal Cord Injury Network (SCI-TRN) to do translational clinical research. The grant will be administered through the Rick Hansen Foundation. This represents a wonderful opportunity for the University of Toronto and UHN to leverage excellence in spinal cord injury research at a national and international level.

Geoffrey Fernie (Research) has received a CIHR Grant ($120,000) titled: "Advanced Hand Hygiene System to Reduce Hospital-acquired Infections".

Reginald Gorczynski (Research) has received a Heart & Stroke Foundation of Canada Operating Grant ($271,200) titled: "Regulation of Transplant Rejection and Inflammation in CD200tg and CD200R KO Mice".

Magdy Hassouna (UrolSurg) has received a one year Ontario Neurotrauma Foundation (Coloplast) Grant for study titled: "A Randomized, Prospective Parallel Group Study to Investigate the Frequency of Urinary Tract Infections Comparing Hydrophilic-coated Catheters with Uncoated Catheters for Intermittent Catheterization".

Keith Jarvi (UrolSurg) has received a Physician's Services Incorporated Foundation Grant ($145,500) for project: "Use of Seminal Fluid Protein Patterns as Biomarkers for Diseases in the Male Reproductive Tract: Prediction of Spermatogenesis in Men with Azoospermia".

Thomas Lindsay (VasSurg) has been awarded a Physician's Services Incorporated Foundation Grant ($161,000) for project titled: "Complement Activation Following Ruptured Abdominal Aortic Aneurysm: Combining Human Observation with Animal Experimentation to Establish a Framework for Human Therapy".

Avery Nathens (GenSurg) received a Physician's Services Incorporated Foundation Grant ($24,000) for project: "The Effects of Stress on Clinical Performance in Simulated Trauma Scenarios".

Cho Pang (PlasSurg) is the recipient of a CIHR Open Operating Grant ($456,545) for project titled: "Angiogenic Cytokine Gene Therapy for Optimal Augmentation of Skin Flap Viability: Efficacy and Mechanism".

Michael Schwartz (NeurSurg) was Course Director for the Canadian Radiosurgery Society (CaRS) Meeting, Niagara-on-the-Lake, November 17-18, 2006.

Michael Taylor (NeurSurg) has received a Canadian Cancer Society Research Grant ($600,442) for study titled: "Mutation of Neuronal Differentiation Genes in Medulloblastoma".

Michael has also received an NCIC Grant Award for this project on: "Mutation of Neuronal Differentiation Genes in Medulloblastoma and is the recipient of a Research Grant from the American Brain Tumour Association for this work: "Moleular Prediators of Outcome in Infant Medullablastoma".

Glen Van Arsdell (CardSurg) received a Heart & Stroke Foundation of Canada Operating Grant ($118,000) for project: "The Influence of Postoperative Systemic Oxygen Transport on Neurologic Outcomes in Infants Undergoing the No".

Thomas Waddell (ThorSurg) has received a Heart & Stroke Foundation of Canada Operating Grant ($268,617) for project: "The Role of Galectin-3 in Xenograft Rejection".

Richard Weisel (CardSurg) has been successful in receiving:
- a CIHR – Team Grant - Regenerative Medicine and Nanomedicine ($2,182,550) for project titled: "The Cardiac Regeneration Project: Quantitative Cell Tracking and Response for Cardiac Regenerative Approaches (CARE Project)".
- a Heart & Stroke Foundation of Canada Operating Grant ($220,806) for project: "Cardiac Regeneration: Improving the Response to Injury".
- a CFI, New Initiatives Fund ($7,200,000) for project titled: "The Regenerative Medicine Project (The REMEDI Project)".

Frank Farhadi (NeurSurg Resident) received Research Fellowships Awards from the American College of Surgeons and the Neurosurgery Research and Education Foundation of the AANS.

Gregory Hawryluk (NeurSurg Resident) has received an AO North America Resident Trauma Research Grant.

Betty Kim (NeurSurg Resident) received an NSERC Research Fellowship Award for her research in the laboratory of Dr. Warren Chan on: "Nanotechnology".

Paul Kongkham (NeurSurg Resident) received a 3 year Terry Fox Foundation Clinical Research Fellowship Award to begin July 2007 for his research work on: "The Epigenetics of Human Medulloblastoma".

Paul has also received Research Fellowship Awards from the National Cancer Institute of Canada and the Neurosurgery Research and Education Foundation of the AANS for his work on: "SPINT2 as a Novel Tumour Suppressor Gene in Medulloblastoma".

Subodh Verma (CardSurg Resident) has received a Heart & Stroke Foundation of Canada Operating Grant ($312,174) for project: "ACE2: Novel Regulator of Endothelial Function and Atherosclerosis".

ANNOUNCEMENT

The Centre for Faculty Development is pleased to announce registration schedule is now posted online at the following URL address: http://www.cfd.med.utoronto.ca/programs/workshops.html.

For questions/comments please contact: Hailey Garcia-Gonzalez at: garciah@smh.toronto.on.ca at: 416-864-6060 Ext. 3524.

The deadline for the Summer 2007 Surgery Newsletter is June 30, 2007.
All members of the Department are invited to submit news items, articles, pictures, ideas or announcements. You may reach us by:

voice mail: **416-978-8177, fax: 416-978-3928 or**
e-mail: **jean.defazio@utoronto.ca**.

Please provide your name and telephone number so that we may contact you if we have any questions.

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