

The Surgical Spotlight

ON ALUMNI, FACULTY, RESIDENTS, STUDENTS & FRIENDS OF THE DEPARTMENT OF SURGERY

EVENTS AND STORIES FROM WINTER 2012-2013



Rescue Mission to Brazil



Marcelo with his wife Tatiana and their daughter Raphaella.

In the last week of January, there was a fatal fire at a night club in Santa Maria, Brazil, a university town of 250,000 people. 230 people died at the scene and many were evacuated to Porto Alegre, the state capital, for treatment of asphyxia, inhalation injury and poisoning by cyanide released from combustion of the insulation. There was only one exit for the 7-800 participants at the disco club. Rescuers flew the injured to Porto Alegre, 300 Km away, where they were distributed to 5 hospitals.

UHN thoracic surgeon Marcelo Cypel, who had completed medical school and residency training in Porto Alegre learned that some of the victims were dying in ICUs because of severe respiratory distress syndrome. When his former surgery colleagues notified the Brazilian Minister of Health of Marcelo's work in lung failure, and he was asked to help (http://www.surgicalspotlight.ca/Article.aspx?ver=Spring-Summer_2012&f=RespiratoryTreatment). After receiving a telephone call from Minister Alexandre Padilha, Marcelo contacted intensivists at each hospital to assess the problem. Most felt reluctant to use extracorporeal membrane oxygenation (ECMO) because they had experienced such poor results with it previously.

Marcelo flew to Porto Alegre, went to each of the 5 hospitals, assessed all of the victims and called back to Toronto for ICU nurse Lina Karkanawi and perfusion manager Cyril Serrick to join him. In one lung failure patient with significant burns,

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they debrided the burns every 4 days, running the ECMO circuit off heparin during the operation. "At the same hospital, I was asked to see a patient with a head injury, and severe ARDS. He had poor oxygenation with blood saturation of 75% despite maximal ventilation. After 3 weeks of ECMO, he was decannulated and is recovering well. By the time I got to Sao Paulo airport for my connection flight to Porto Alegre, my cell phone started ringing - there was a death on ECMO. Clearly, they needed more help and equipment. At one hospital, which is a transplant centre, their previous ECMO experience led to 3 deaths, so they were reluctant to use the treatment. We brought experience into place and reassurance that good outcomes can be achieved if the indication is correct and the device is used at the right time. At the main centre in Porto Alegre, the first patient was on high pressure ventilation with single organ lung failure and a CO₂ of 110. We inserted the Avalon cannula for veno venous ECMO. I called Novalung and Maquet and those companies sent equipment and people to help. The first patient could not be bronchoscoped because of hypoxia. Once he was on ECMO, we were able to debride his airway bronchoscopically. After 4 days of ECMO and frequent debridement, he was able to be maintained on gentle ventilation and decannulated by day 5. The government support was excellent and assured that there was good integration between the hospitals."

Marcelo screened 50 patients. Only 3 needed ECMO, others were manageable on the ventilator or too badly burned to be subjected to anti-coagulation. Patients were prioritized on the basis of their primary lung injury with little or no body surface burns. One patient died at an ICU that resisted the institution of ECMO treatment. A young girl in another hospital required 12 days of ECMO. She was decannulated with remote guidance from Marcelo after he returned to Toronto.

"The main points to take away from this experience are:

ECMO is not an impossible or ineffective treatment, contrary to prior belief;

Use ECMO at the right time;

There were no complications related to ECMO itself in these 3 patients

The educational activities related to this mission were very important."

Representatives of all the hospitals were educated by Lina, Cyril and Marcelo. After he left Porto Alegre, Marcelo did daily Skype conferences in Portuguese with the help of Eddy Fan, an intensive care physician from

Toronto General Hospital. "There was a big expansion of knowledge in Brazil. They realized this can be done and patients can be saved with the right indication and strict management protocols we developed at UHN. That is our global impact. After we left Brazil, the teams there used this therapy in 2 additional patients with successful outcomes. We are doing the same for Ontario. ECMO using these techniques will become like dialysis in the future.

"The use of ECMO has increased dramatically in the past 2 years. The experience has demonstrated that the plateau pressure on the ventilator must be kept less than 25 cm to avoid injury. In the absence of ECMO, when patients become more desaturated, the usual practice is to increase the pressure, increase the FIO₂, and turn the patient prone-all increasing the injury. ECMO can speed recovery because it avoids injury to the lung, allows us to remove sedation, remove paralysis, put the diaphragm to work, and get the patient up and mobilized in some instances. We have 4 patients in the ICU on ECMO now, some of them are reading, doing physiotherapy and exercising on the treadmill. This practical educational demonstration of the possibility of rescue of severely injured patients directly conflicted with my Brazilian colleagues' prior experience - like ours here in the early 2000's and also during the H1N1 pandemic in 2006 and 2007, when ECMO often was unable to rescue patients with acute lung failure. In contrast, in the last 2 years, the same population had a survival of 80% at our center.

"In the future, we will do more workshops in Brazil. Toronto is well positioned to develop a program approach because of the organized aspect of surgical care in the university. Practice in this field is moving faster than the literature. There is only one randomized trial of ECMO with a significant improvement over standard ventilation, but there have been thousands of patients treated with ECMO in Europe and North America in the last few years. We performed 30 cases last year, 10 in the first 2 months of this year. At present, we have funding only for the use of ECMO in patients awaiting lung transplantation. However we are working to obtain funding to use ECMO as a bridge to recovery in patients with acute lung illness where most of the time the lungs will recover and transplant is not needed."

M.M.

A Move to Higher Ground



James Rutka

After more than 80 years of continuous occupancy on the third floor of the Banting Institute at 100 College Street West, on March 21st, 2013, the Department of Surgery moved its offices to the 5th and 6th floors of the Stewart Building, at 149 College Street West. Both the occupancy at the Banting,

and the move to the Stewart Building can be construed as historic at this time for the reasons I will outline below.

Many of you will remember that Sir Frederick Banting trained initially as a surgeon in the Department of Surgery before becoming totally immersed in the project to discover insulin - the lifesaving hormone from the endocrine pancreas used to treat diabetes. Following the discovery of insulin in May 1923 by Banting and Charles Best, the Province of Ontario passed the Banting and Best Medical Research Act providing annual funding to the Board of Governors at the University to establish the Banting and Best Research Fund. This enabled the creation of the Banting and Best Chair of Medical Research, of which Banting was the first holder and the first research professor in Canada (1). In 1928, the University agreed to provide space for both basic and applied research for the physicians at the Toronto General Hospital (TGH), and this space became the "Banting Institute" across the street from TGH.

The Banting Institute was opened on September 16th, 1930. At the time of its opening, the Banting Institute was large enough to house many Departments including Pathology and Bacteriology, Pathological Chemistry, Medicine, Obstetrics and Gynecology, Ophthalmology, Otolaryngology, and Surgery. Lord Moynihan of Leeds, President of the Royal College of Surgeons of England, gave the opening address, and unveiled a portrait of Joseph Lister that had been given to the College by two former house surgeons who worked with Lister, Dr's F Lem. Grasset, and Dr H. St. George Baldwin. In the same room as the portrait at the Banting Institute was a brick removed from Lister's Ward in the Old Glasgow Royal Infirmary, under which there was a suitable

inscription which reads "A brick from Lister's Ward in the Royal Infirmary, Glasgow, presented by Professor Irving H. Cameron". Professor Cameron was a distinguished Canadian surgeon on the Faculty of Medicine at the University of Toronto, and one of the founders and early editors of the *Canadian Journal of Medical Sciences*. Those of you who have spent time at the Banting in the Department of Surgery's 3rd floor offices will recall seeing both the portrait of Lister, and the brick inscribed by Professor Cameron.

The Department of Surgery at the Banting was confined to limited office space until the tenure of Donald R Wilson as Chair (1972-82). Dr Wilson created and developed the boardroom and the Chair's office that remained in place until 2013. Over the years, the Department of Surgery managed to acquire additional office space for the Postgraduate and Undergraduate Medical Education efforts, and for some of the Divisions including General Surgery, Orthopaedics, and Plastic and Reconstructive Surgery. But these offices were not contiguous, and were on different floors than the Chair's office.

I can distinctly remember meeting with Dr Bernard Langer, Chair of the Department of Surgery (1982-92), at the Banting when I was a resident in neurosurgery in the 1980's. I recall the dark wood paneling of the Chair's Office, and the heavyset furniture within, reminiscences of a bygone era in academic medicine and surgery. It was soon after I became Chair in 2011 that Dean Catharine Whiteside informed me that the Department of Surgery must leave the Banting Institute. But where? Interestingly, all the Chairs since Bernard Langer had been told the same thing about the requirement to leave the Banting Institute.

Thankfully, the Dean identified space for the Department of Surgery on the 5th and 6th Floors of the Stewart Building which was built in 1894 by John Beverley Robinson, former Mayor of Toronto and Lieutenant Governor of Ontario. An amateur boxer, John Robinson converted the initial building into the Toronto Athletic Club. From 1931 – 1957, the Stewart Building served as the Toronto Police Headquarters, and from 1979 – 1997, it became the second campus of the Ontario College of Art and Design. Currently, the Stewart Building is primarily occupied by the offices of the Rotman School of Management of the University of Toronto.



The Surgery staff in our lofty new location.

I hope all of you will come visit us in our new space. In the Stewart Building, we are situated all together in one large space which provides a degree of cohesiveness and camaraderie that was not possible at the Banting. In addition, you will be pleased to know, we have found a home for the magnificent portrait of Lister which has made the journey from the Banting Institute!

James T Rutka, MD, PhD
RS McLaughlin Chair

1. Shorter, N, Partnership for Excellence: *Medicine at the University of Toronto and Academic Hospitals*, In Press, 2013

The Bizarre Double Life of Dr. Halsted



from left to right: Kergin Lecturer Gerald Imber with historian Michael Bliss

The Kergin Lecture celebrates the memory of Frederick Gordon Kergin, a Rhodes scholar, and Chairman of the Department of Surgery from 1957-1966, who served as Dean of the Medical School, integrated all of the residencies at the University of Toronto, was President of the American Association for Thoracic Surgery and left us a legacy of excellence in surgical education.

Dr. Gerald Imber began his Kergin Lecture with a riveting clinical case –an operation for gall stones in April of 1882 on a 70 year old febrile jaundiced patient in extremis. The description concluded with a sentence characteristic of Imber’s writing style. “The patient recovered uneventfully and was symptom free for the remaining two years of her life. William Stewart Halsted had successfully performed the first known operation to remove gall stones and in the process had brought his mother back from the brink of death.”

Imber described Halsted as an innovator in surgery and surgical education. He invented local anesthesia for surgical treatment, successful repair of inguinal hernia, radical mastectomy, and surgical training as we currently know it. He was a pioneer of sterile technique. All of these contributions were made during 33 years of addiction to cocaine and morphine.

The story Imber told¹ at University Rounds began with a picture of New York City in 1852, the year of Halsted’s birth. “The city was not pretty. Manure and sewage in the streets. Tuberculosis rampant. 50% of children died before the age of 5. The Halsted family moved uptown to 14th Street, where they lived next to Thomas Edison, who lit his house 24 hours a day to advertise his invention of the incandescent bulb. Halsted was initially home – schooled, then entered boarding school at Andover, Massachusetts from which he escaped and was recaptured twice. At Yale, where he walked with a George W. Bush swagger, he played shortstop on the baseball team and was captain of the football team. He graduated near the bottom of his class, having never borrowed a book from Yale Library. In his 4th year, he discovered Gray’s Anatomy and Dalton’s Physiology text, which he memorized, and then decided on a career in medicine.

He entered the Physicians and Surgeons Medical School at Columbia, a few blocks from his home. There were no laboratories, poor lectures and jeering students. The best educational pathway was via the 'quizzes', given by individual practitioners on a private tuition bases.

"Halsted bought extra cadavers, and became expert enough in anatomy to teach his fellow students. He served as an assistant to Dalton who was his laboratory mentor, and then interned at Bellevue hospital, the first choice of the best students in the city. During those years 50 operations were performed per year, mostly for treatment of fractures and drainage of abscesses. Surgeons wore dirty operating coats and there were no efforts at aseptic technique. Frank Hamilton, the surgeon-hero of the Battle of Bull Run, rode to New York Hospital on his white horse and went directly to the operating room to perform surgery.

"Halsted finished in the top 10% of his class, then took a job at the New York Hospital on 16th Street. There he developed many innovations including charting the pulse, temperature and respiratory rate of patients. He completed a 2-year tour in Europe, where he worked with Billroth, Esmark, and other surgical leaders. In 1880, he returned to New York, where he joined the staff of six hospitals including Roosevelt, New York Hospital, Bellevue and others. He became an extremely busy surgeon, invented aeration of the blood as a treatment for carbon-monoxide poisoning, a common problem in those days, related to the engine exhaust of ferry boats in the New York area. He may have transfused his own blood into his sister for treatment of puerperal hemorrhage.

"In 1884, the distinguished Viennese neurologist Sigmund Freud described the use of cocaine as a local anesthetic. Freud used it in the eye for trachoma. Halsted tried cocaine, injecting at many sites to see the blocking effect on various nerves, using his own body for the experiments, and administered it to his quiz groups, many of whom became addicted and some of whom died. He performed 1,000 operations under local cocaine. When he became addicted, his friend and colleague William Welch, later Dean at Johns Hopkins, took him on a sailing trip to the Windward Islands, titrating his cocaine use in an attempt to wean him from the drug. Halsted broke into the locker, stole the cocaine, returned to New York and was subsequently sent to the Butler Hospital in Providence for treatment. He spent 7



The Four Doctors by John Singer Sargent, 1906. From left, Welch, Halsted (standing), Osler, and Kelly

months at that institution where his cocaine addiction was 'cured' by the substitution of morphine addiction.

"Welch eventually invited Halsted to Hopkins where he studied anatomy with Franklin Mall. They described the arcades of the mesentery and Halsted invented a technique to make intestinal anastomosis safe, by emphasizing the strength of the submucosa. He lectured at various medical schools. On the way to Harvard, he stopped at the Butler Hospital in Providence, to once again be cured of cocaine addiction. Halsted and Welch were subsequently joined at Hopkins by William Osler and Howard Kelly, a gifted gynecologic surgeon. These four leaders were portrayed by John Singer Sargent.

"The surgeons began to follow the precepts of Joseph Lister. Halsted emphasized clean nails, clean clothes, and well laundered white duck uniforms. Eventually, he ordered rubber gloves from the Goodyear Tire and Rubber company for his scrub nurse and future wife, Carolyn Hampton, who had developed dermatitis from the antiseptic use of carbolic acid. In 1889, Halsted developed an anatomical operation for inguinal hernia, which until that time had been uniformly resistant to repair. He published

12 cases with no recurrence. Bassini, unknown to Halsted, had developed a similar operation and Halsted always gave credit to Bassini for his contribution. Halsted next worked on breast tumours, which had a 50% local recurrence rate. Halsted devised the radical mastectomy, lowering the local recurrence rate to 6%. He was a meticulous surgeon, slow by the standards of the day, which expected 'slash and dash' operations derived from the military surgeons of the civil war like Frank Hamilton. During the war, surgeons kept the sutures in their mouths, so that they were immediately available for mass ligation. Halsted devised the Halsted hemostat, gentle handling of tissues and changed surgery for ever.

"Halsted decided to train resident surgeons and hire surgical professors as full-time employees of the medical school. He progressively drifted from his extremely busy surgical schedule, tending to drop out during cases only to return reinvigorated later in the day. He once admitted to Osler that he was taking 195 mg of morphine per day. He was able to titrate himself with the 4 PM break, so that he came back refreshed.

"Halsted developed surgical specialties through his trainees. Hugh Young was designated to develop urology and Harvey Cushing, who brought an X-ray machine with him from Massachusetts General Hospital when he was hired in 1896, was encouraged to develop neurosurgery. Cushing remained with Halsted for 14 years as resident and assistant.

"Johns Hopkins developed its medical school to a 4 year program, with a dog surgery laboratory rotation in the 3rd year. Halsted rarely showed up for these exercises. Cushing taught them meticulously, requiring that dogs be treated the same as human patients, with charts, sterile technique and vigilant follow-up care. Cushing introduced the repair of inguinal hernia under local cocaine anesthesia. Halsted was not allowed to use cocaine in patients because of his prior addiction. He drifted in and out of the clinics, asked about scheduling patients already two weeks post-op. Cushing fathered neurosurgery, eventually leaving Hopkins for the Peter Bent Brigham Hospital. Hoyer, one of Halsted's trainees, developed chest surgery for the Hopkins Hospital. He became a noted chest surgeon after leaving Hopkins for Cincinnati, and then Cornell, where he was chief of surgery for twenty years." Halsted spent 2 months each year, living with his wife in Hampton, then travelling

for 4 months in Europe, visiting various surgeons. It is suspected that he used cocaine during these sojourns and then came back to work on morphine. At 70, Halsted developed acute cholecystitis and common duct stones, followed by gastrointestinal hemorrhage. He died following surgery by his residents."

Imber's excellent biography "Genius on the Edge: The Bizarre Double Life of Dr. William Stewart Halsted" was distributed by our Department to the overflow audience attending Imber's Kergin lecture. It is a fascinating story, brilliantly told.

M.M.

¹ I have reported the lecture here from my notes. Quotation marks are used to convey a sense of participation to the reader. They should not be taken as evidence of an accurate record of what was said.

Dr. GERALD IMBER is a well – known plastic surgeon and authority on cosmetic surgery, and directs a private clinic in Manhattan. He is assistant clinical professor of surgery at Weill-Cornell School of Medicine, and staff at the New York – Presbyterian Hospital, where he served his residency, and learned a great deal of Dr. Halsted.

© from the publisher's note in *Genius on the Edge: The Bizarre Double Life of Dr. William Stewart Halsted*

SURGICAL ETHICS COURSE

The University of Toronto, Department of Surgery will present a one day Surgical Ethics Course at the Rim Rock Hotel in Banff, Alberta on May 29, 2013, immediately preceding the Canadian Bioethics Society annual meeting. The course will focus on surgical innovation, life sustaining treatment, and recent developments in organ donation.

For information on registration contact martin.mckneally@utoronto.ca.

Hepatobiliary and Transplant Fellows Reunion Honours Dr. Bernard Langer



Dr. Bernard Langer and Faculty with Alumni of the Toronto HPB & Transplant Fellowships

On October 26, 2012 a reunion of alumni of the hepatobiliary (HPB) and Transplant Fellowships honoured Dr. Bernard Langer for his mentorship and contributions to their careers. Forty-nine former Fellows from Europe, Australia, Saudi Arabia, South America, the USA and most provinces of Canada were joined by current and former faculty to celebrate Dr. Langer's international impact on HPB & Transplant Surgery.

The tribute included an all-day symposium entitled "The Future of HPB & Transplant Surgery". Former Fellows presented their academic accomplishments and speculated on the future. In keeping with the educational objectives of the Fellowships, the afternoon Session on Education and Fellowship training generated some spirited debate on evolving Fellowship educational models.

In his welcoming remarks, Paul Greig noted "Among his notable accomplishments, Dr. Langer has been recognized by the UHN for his "Global Impact". His growing legacy of over 65 Fellows practicing HPB & Transplant Surgery throughout the world is tangible evidence of Dr. Langer's truly remarkable global influence. We thank you, BL, for your vision in establishing the Fellowship, your high standards and clinical excellence in HPB & Transplant Surgery that is carried on in your Fellows, and your mentorship that extends beyond clinical Surgery. With this reunion of your Fellows

and Colleagues we strive to demonstrate your Fellows' profound appreciation for your contribution to their academic success."

Department Chair Jim Rutka expressed the pride and gratitude of the Department: "Dr. Langer's reputation continues to permeate and influence the practice of HPB surgery in Toronto, around the country, and throughout the world. The scientific program is modelled on Dr. Langer's approach to academic surgery with an emphasis on basic science, clinical research, regionalization of care, and surgical leadership. I am delighted that you chose to attend this first reunion of Toronto Fellows honouring Dr. Langer. No doubt, it will be the first of many more to come in the future. I wish all of you a successful and productive meeting, and a wonderful time reminiscing over the many good times you enjoyed in Toronto with Dr. Langer."

General Surgery Chair Andrew Smith commented: "I am delighted to join you in celebrating Dr. Langer's impact on Hepatobiliary & Transplant surgery and on General Surgery as a whole. Bernie has had a massive impact on training and mentoring a generation of hepatobiliary and transplant surgeons around the world. Additionally, his vision for training surgeon scientists has amplified his impact on academic surgeons who, in turn, have advanced the quality of care around the world. Dr. Langer is to be saluted as well for his vision, persistence and impact in driving changes in policy that have improved the healthcare system. On a personal level, I am proud to serve as the Bernard & Ryna Langer Chair for the Division of General Surgery at the University of Toronto and heartily welcome you all back to the U of T to celebrate this terrific event."

Lorne Rotstein, the head Division of General Surgery at UHN welcomed the alumni: "I am delighted to welcome the HPB and Transplant Fellows back to Toronto for this reunion honouring our mentor, Dr. Bernard Langer. Many of the UHN faculty surgeons throughout the surgical specialties trained under Dr. Langer, and his influence on the practice of surgery in Canada today is immeasurable. The Division of General Surgery at UHN is home to the largest and most successful HPB & Transplant Programs in the country, and one of the largest programs in North America. Our Fellowships are widely recognized and highly sought-after. We are incredibly proud of the global impact of our Fellows and Dr. Langer's contribution to HPB and Transplant Surgery on the international stage."



Bernie and Ryna Langer at the Toronto Reunion of HPB & Transplant Fellows

The day was concluded with a reception and black-tie dinner at the Sheraton Centre. Bernie was joined by his wife Ryna and their children Jack, Pearl, David, and Michael and their spouses. Following a toast to Ryna by Bryce Taylor and a toast to Bernie by Steve Strasberg, Dr. Langer was presented with an oil painting by Dr. John Palmer.

The entire reunion was characterized by a tremendous spirit of camaraderie amongst the Fellows, and their mentors. The profound impact of Dr. Langer on the fellows in attendance was clearly visible in this reunion of Toronto Alumni, many of whom have become international leaders in HPB and Transplant Surgery.



Dr. Langer receives an oil painting by Dr. John Palmer from Dr. Paul Greig (right)

*Paul Greig,
Director, Liver Transplant and Hepatobiliary
Pancreatic Clinical Fellowship Program*

Scientific Persistence in the Tradition of Lister

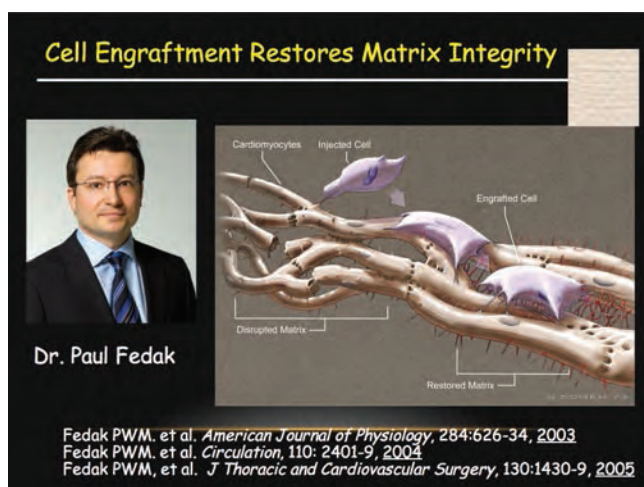


Ren-Ke Li

Lister Prize winner Ren-Ke Li received his medical degree from Harbin Medical University, and his Master's and PhD degrees in Clinical Biochemistry from the University of Toronto. He is currently Canadian Research Chair in cardiac regeneration. His Lister Prize Lecture was entitled *Cardiac Regeneration*.

In his award presentation Ren-Ke first expressed deep appreciation for the niche that this Department of Surgery provided for him as a researcher. He joined the Department of Surgery 20 years ago at Toronto General Hospital and embarked on a research career focused on cardiac regeneration. He divided his research report into three parts. **Cell transplantation for cardiac repair** was built on the hypothesis that healthy muscle cells injected into damaged cardiac tissue might improve function. Using a left anterior descending artery ligation model in rats, he showed that cardiac function could be improved by implanted cells. Paul Fedak, whose picture was the first of the several residents in his slides, found that the graft restores matrix integrity to the heart.

With Dr. TianBiao Liu, he demonstrated that there was improved heart cell survival related to the angiogenesis that was induced. Based on this work and other supporting information, Philippe Menasché, our 2012 Gallie Day lecturer, injected skeletal muscle cells from



patients into their revascularized hearts to improve function. A randomized controlled trial confirmed that this treatment was not effective in humans.

The second phase of the research involved the use of **stem cells for cardiac regeneration**. Shinji Tomita, a post-doctoral student in Ren-Ke's lab, found that bone marrow stem cells can improve function in infarcted rat hearts. He also used endothelial progenitors imported from Germany to revascularize the ischemic porcine heart of a preclinical study model. Though preclinical improvement was demonstrated, clinical improvement did not follow. Ren-Ke analyzed this carefully and realized that the age of the cells might be the critical factor. The animals in laboratory studies were young, but human patients with infarcts are not. In a 4 by 4 analysis, he then compared old cells and young cells in old and young recipients. Young recipients gave the best results, so it was clear that the environment was a key factor- the niche into which the cells were injected. When undifferentiated stem cells were used, rejection was delayed until they differentiated, but eventually they too were rejected.

Since exogenous stem cells could not repair and regenerate injured heart tissue, Ren-Ke's research group initiated a third phase of research, **Cardiac Rejuvenation**. Shafie Fazel, during his highly productive PhD studies, replaced the bone marrow of older mice with young marrow. The young marrow cells migrated to the heart, so that they could not only create a stem cell niche even in older recipients, but enhance heart repair after infarction. Ren-Ke next performed a subtraction experiment, radiating the bone marrow but not the heart after bone marrow transplantation. The young bone marrow cells in old recipients restored heart function, proving that

the young stem cells in heart are required to rejuvenate the aged heart. From cardiac repair to cardiac regeneration to cardiac rejuvenation, Ren-Ke has dedicated his research to restoration of cardiac function. He believes that "Bone marrow cells are the key. They will rejuvenate the stroma of recipients."

This thoughtful and methodical series of studies was appropriately associated through this award with the name and work of Joseph Lister (1827-1912), a remarkably scholarly and persistent student of surgical infection and antisepsis.

M.M.

STUDENTS' CORNER

SURGERY STUDENT REPRESENTATIVE SANGITA SEQUEIRA

Sangita is a 3rd year medical student, currently on emergency room rotation at Sunnybrook. She was born



Sangita Sequeira

in Kerala, India and grew up in Abu Dhabi and the United Kingdom. Her father is a radiologist, and her mother a psychologist. After highschool in British Columbia, she attended UBC "a beautiful costal campus with a close sense of community". She developed an interest in medicine during her Human Physiology course in the 2nd

year and eventually came to the University of Toronto for "the big city, big school, and big challenges".

She was helped to meet the challenges of the 1st year by the Medlinks system, in which students are paired up with a student one year behind and one above. This program was started by two students; it has persisted as a very successful social network. It runs within the academies as a more personal version of the academy model, connecting people across the years.

Sangita serves as the Surgery course representative for the clerkship, acting as a liaison between the members of the class and the Surgery Course Director, George

Christakis. She represents the student perspective on issues and problems that arise in the course, serving their interests through e-mail and small group sessions. She participated as a second year student in the SEAD program (Surgery Exploration and Discovery Program) with her classmate Nada Gawad (http://www.surgicalspotlight.ca/Article.aspx?ver=Winter_2011&f=Main). Sangita was responsible for the Paediatric Surgery section, facilitating the contact of students with surgeons. She also has been active in research with Drs. Joan Lipa and Laura Snell in breast reconstruction. She does qualitative research, interviewing patients about what information they want and need to make their decision about immediate reconstruction.

Sangita has been a mentor throughout her school years, tutoring students through highschool and university. She enjoys the experience of seeing the growth and development of those she mentors. She has a keen appreciation of active kinetic 'doing' and looking at the results at one's work. This attracted her early to surgery and has also attracted her to dance, a cherished avocation. She danced in the annual Daffydil productions in 1st and 2nd year and recently wistfully attended as a 3rd year student. She also draws portraits and was encouraged to look at the drawings of the surgeons who routinely illustrated their charts, especially Harvey Cushing. Sangita is enthusiastic about fitness and is currently training for the "tough mudder", a 16 Km military marathon over an obstacle course.

M.M.

EDITOR, FENCER, AND MUSICIAN BAILEY DYCK

Bailey became interested in surgery at age 16 when she was treated surgically for injuries to her shoulder.

She graduated from McMaster University in Biology and Psychology, then completed a PhD in Neuroscience, focusing on the role of the synapsin II protein in schizophrenia. She had performed preliminary research in this area as an undergraduate, under the supervision of Ram Mishra. She was offered a laboratory position which led her to pursue a PhD in the neuro-psychopharmacology lab. Neurosurgeon Sheila Singh was on her compre-



Bailey Dyck at the end of the 2011
Ride to Conquer Cancer

hensive exam committee. She learned the scientific method during her PhD and "enjoyed getting to ask the questions, set objectives, see the results, and work with a stimulating laboratory team."

She was a varsity fencer and an active participant in volunteer activities in her undergraduate years. She learned electrophysiology and stereotaxic surgery as a teaching assistant during her PhD studies, and was first author of seven research publications.

As a medical student, Bailey has been active as a musician in Daffydil, and as an editor. She co-edited the General Surgery section for the Essentials of Clinical Examination Handbook and was co-Editor-in-Chief of the University of Toronto Medical Journal (UTMJ) for the 2011-2012 academic year. She found working on the UTMJ both stimulating and fun, working with John Bohnen, "a great teacher and mentor". She served as a student member of the 2012 Admissions Committee for the Faculty of Medicine and was a co-founder of a University of Toronto Medical School Injury Prevention Interest Group (IPIG), an advocacy organization to promote bicycle safety for children in low socio-economic status neighborhoods in the GTA. She is a tutor in the Art and Science of Medicine class. She will next take on another editing challenge as Production Manager of the Toronto Notes.

Bailey has had a stimulating surgical rotation at Sunnybrook. She is interested in entering either General or Orthopaedic Surgery. She will be the first member of her family to complete an MD as well as a PhD.

M.M.

Focusing on New Treatments with Ultrasound



Todd Mainprize

Todd Mainprize is focusing on clinical research in neuro-oncology. He works with Kullervo Hynynen, a physicist who has developed a technique of putting ultrasound through the bone - brain barrier, using the skull as a lens to focus the modality on intracranial lesions.

There are two trials currently recruiting patients. One is for ablation, using ultrasound to abolish tumors or treat motor disorders causing tremor. This will be the second centre in the world to undertake these studies. The second trial will work on opening the blood - brain barrier accurately in short and limited areas for drug delivery: drugs for psychiatric or for chemo-therapeutic treatment. Both of these studies are now funded and waiting entry of their first patients. The blood- brain barrier puncture seals in 12 hours. There are extensive animal trials to prove the principle, most of them carried out at Sunnybrook and at Brigham and Women's Hospital, where Kullervo practiced before he came to Toronto. Because of publicity of the potential benefits of this modality, there are many calls from patients requesting entry into treatment. The Foundation that funds these studies- The Focused Ultrasound Foundation - was started by novelist John Grisham.

The treatment is delivered from a helmet with 1024 arrays to focus the treatment. There are two such helmets purchased through grants: one for high and one for low intensity ultrasound. If the treatment proves effective, it will have applications, for example, metastases in bone and liver. There are currently high intensity ultrasound ablation programs, such as those described in Dr. Choti's Palmer Lecture in the summer issue ([http://www.surgicalspotlight.ca/Article.aspx?ver=Spring-](http://www.surgicalspotlight.ca/Article.aspx?ver=Spring-Summer_2012&f=PalmerHepatic)

[Summer_2012&f=PalmerHepatic](http://www.surgicalspotlight.ca/Article.aspx?ver=Spring-Summer_2012&f=PalmerHepatic)). The blood brain barrier penetration protocol can be used for primary tumors in the brain, such as glioblastoma, as well as for brain metastases. It will allow penetration of drugs, such as Taxol, which is effective against glioblastoma in vitro, but is unable to penetrate the blood-brain barrier in the absence of a disrupting force, such as ultrasound. Glioblastomas migrate along the white matter of the brain, 93% of them recur within 2 centimeters of the primary lesion, despite apparently complete excision. The blood-brain barrier penetration protocol may allow access of drugs for non-oncologic condition, such as Parkinson's disease, Alzheimer's disease and psychiatric conditions. Todd is working on the proof of principle phase, penetrating the blood -brain barrier prior to surgical therapy, adding the drug and then sampling the tumor and surrounding tissue at the time of surgery.

"Talking to patients about these preliminary trials has been easy, as patients understand the uncertainty and novelty of the treatment when it is explained to them honestly." The instruments used in this research cost several millions of dollars. The accounting for the cost of neurosurgical treatment was described in an earlier article about Michael Tymianski and his colleagues at Toronto Western. The technique is being applied in a preliminary form at Sunnybrook.

"The limitation of this treatment is the intense heat generated by the energy form. The skull absorbs much energy despite a 17 degree water cap. Energy sufficient to cause ablation can only be focused centrally, not near to the scalp or skull. It is thus not useful for meningiomas or for metastases which generally occur along the gray-white barrier. Those somewhat rare tumors of appropriate size that occur in basal ganglia are appropriate for the protocol.

"In general, ultrasound is benign when it is used diffusely, but coordinated at 1 point, it can raise the tissue temperature to 55 degrees, causing coagulation. Penetration of the blood brain barrier requires far less energy. For example, around 1% of the energy used in the ablation studies produces bubbles in the capillaries. They expand under ultrasound activation, disrupt the intracellular junctions, and allow drugs to cross the barrier. Oscillation of the bubbles does not take a great deal of energy and the bubble does the surgery".

Todd and Kullervo are currently working with lipo-

somes, which can be ruptured by ultrasound to facilitate the spread of drugs such as Doxorubicin in a focal area. One of the problems with the protocol is that the lesions must be of a prescribed size -2.5 centimeters or less. This is not usually possible with recurrent glioblastomas.

Todd joined the Neurosurgery residency in 1996, spent several years in Jim Rutka's laboratory and joined the faculty at Sunnybrook in the Neurosurgery division in 2008. There are six surgeons in the Division. He is married to Susan, a pharmacist and informatics specialist. They live in Leaside with their children, Graham 7, Thomas 4 and Victoria 2.

M.M.

RESIDENTS' CORNER

DEVELOPING EVLP TO REPAIR DONOR ORGANS

Jonathan Yeung will start thoracic surgery residency in July of 2013. He has completed 4 years of clinical general surgery, and 4 years of surgical science, leading to a PhD in Shaf Keshavjee's lab.

"It was serendipitous for me to work on the Ex - Vivo Lung Perfusion (EVLP) program. As a junior resident, Michael Johnston and Yaron Shargall redirected my interest to thoracic surgery. During a thoracic surgery elective, Shaf asked me to take a look at the ex vivo studies and ultimately gave me the ex vivo perfusion project for my thesis problem. I have been lucky to be part of the leading edge of that translational research. I got to see it move from studies in pigs to being the standard of care for human patients. Now people come from around the world to learn it.

"Clinical Donation after Cardiac Death (DCD) took off when I was in the lab. One of the reasons the lungs are ideal for DCD is that they can be ventilated during retrieval. Giving oxygen directly makes them more resilient during the time spent in a cardiac-arrested donor. The major theoretical advantage of DCD is that it avoids the cytokine and adrenergic storm of brain death. The disadvantage is that there is no good way to evaluate the



Jonathan Yeung in Big Sur, California

lungs immediately prior to organ retrieval due to the lack of circulation. Placing the lungs on the EVLP circuit after they are retrieved provides a solution to this problem. While on the EVLP circuit, lung function can be assessed prior to making a final decision to implant them into a recipient. We found that evaluation based on PO₂ isn't entirely adequate due to the use of an acellular perfusate and so we defined physiologic evaluation parameters for use during EVLP. Even more importantly, we showed that EVLP could be paired with repair strategies such as gene therapy to improve the function of injured donor lungs. The take-away from this is that donation can be expanded because we can check all donor lungs, even those initially judged to be 'too injured to utilize'. Those deemed 'still too injured' can be treated using specific ex vivo therapies tailored to those injuries."

Jonathan grew up in Calgary, where his father, a Hong Kong native, is a Professor of Plant Biology. As a math and science student, Jonathan initially chose to study biochemistry and did research with the Alberta Heritage Program on streptavidin-biotin interactions. His role

models have been Michael Johnston, Yaron Shargall, and Shaf Keshavjee. He was encouraged by Ori Rotstein to get into research. His wife, Andrea Wan, is an interventional paediatric cardiologist. The latest book he read was *The Art of Racing in the Rain* by Garth Stein.

M.M.

Vascular Symposium at Trillium Hospital



The 2nd Vascular Updates Symposium at Trillium Hospital

The 2nd Vascular Updates Symposium at Trillium Hospital was held at the end of January. This is the second year of this event organized by the Vascular Group of Mississauga under the coordination of Christiane Werneck. The program provided Primary Care Physicians and other Allied Health Professionals with an engaging and unique opportunity to discuss innovations and treatments of important diseases in Vascular Medicine. This year's program included endovascular treatment of deep venous thrombosis, updates on medical management of atherosclerosis, surgical and endovascular treatment options for thoracic and complex aortic aneurysms, guidelines for vascular investigation and the latest updates on the provincial policy for treatment of varicose veins.

The event was CME accredited by the University of Toronto. It was a great success, with more than 170 attendees and very positive feedback. This important initiative from the Division of Vascular Surgery at Trillium Health Partners strengthens the integration of the site with the Department of Surgery at UofT and advances its vision to disseminate knowledge and excellence of care in vascular disease.

*Christiane Werneck,
Trillium Hospital*

Promotions in the Department of Surgery

LECTURER TO ASSISTANT PROFESSOR

Richard Jenkinson (SHSC, O/S)
Fuad Moussa (SHSC, C/S)
John Theodoropoulos (MSH, O/S)
Thomas Willett, PhD (MSH, O/S)

ASSISTANT PROFESSOR TO ASSOCIATE PROFESSOR

Greg Borschel (HSC, PR/S)
Clement Hamani (UHN, N/S)
Allan Okrainec (UHN, G/S)
Alice Wei (UHN, G/S)
Kazuhiro Yasufuku (UHN, T/S)

ASSOCIATE PROFESSOR TO FULL PROFESSOR

Stefan Hofer (UHN, PR/S)
Marc Jeschke (SHSC, PR/S)
Cindi Morshead (Anatomy)
Robert Nam (SHSC U/S)
Michael Taylor (HSC, N/S)

Bending the Healthcare Cost Curve



Martin McKneally

Massey College Grand Rounds, an excellent annual symposium on healthcare issues, focused this year on "Sustaining Our Healthcare System: Challenges and Leadership". Policy analysts Michael Rachlis and Will Falk emphasized corrections that have modified the misleading "straight line projections of relentlessly rising costs leading

to bankruptcy of the healthcare system". Telehealth is an important example. This conference was broadcast inexpensively to the Northern Ontario Medical School and included the participation of its Dean, Roger Strasser. Important developments in telemedicine have added value and reduced costs. When psychiatric consultations are conducted by telepresence, there is an immediate and highly efficient sorting out of diagnosis and management issues. Eliminating delay to the initial specialist consultation saves costs and eliminates frustrating impediments to efficient care. Similarly, video consultation on dermatology problems has been extremely effective, enabling highly accurate diagnosis of non-melanomatous diseases, and facilitating rapid referral for melanomas. Using telepresence, Toronto pathologists now provide diagnostic evaluations across borders. This effective and economical approach can prevent tragic errors like those recently reported in breast cancer diagnosis.

Wendy Levinson, Chair of Medicine at the University of Toronto, described and analyzed the overuse of diagnostic imaging, antibiotics and other expensive interventions. Working with Don Berwick - former director of American Medicare, Wendy has taken a leadership role in the "Choosing Wisely" project underway in the United States and now coming to Canada (http://www.deptmedicine.utoronto.ca/Medineews/medi_news-letter/April_2013/Chair_s_Article.htm). This program emphasizes education of patients and encouragement of doctors to avoid reflexly checking off or ordering the full

spectrum of diagnostic laboratory tests. Complying with misdirected anxious requests from patients for a CT, MRI, or a course of antibiotics on the basis of incomplete information is a remediable cause of inappropriate expense that can be reduced by education.

An encouraging example of innovation with global impact is illustrated in our lead article about thoracic surgeon Marcelo Cypel and his colleagues. Using recently developed double lumen cannulas that deliver blood from the atrium to the extracorporeal perfusion system and return it to the heart, Marcelo was able to demonstrate the effectiveness of extracorporeal membrane oxygenation to colleagues in Brazil. He flew to Porto Alegre, where he had received his undergraduate and general surgical training, to bring the technology developed so well here in Toronto to help rescue victims of a tragic nightclub fire that killed many young people. He was able to continue telepresence oversight of this operation after returning to Toronto, working with personnel on site to manage the perfusion and weaning of victims of inhalation injury. He has conducted seminars locally and globally to diffuse the knowledge of this important technology.

Cardiac surgeon David Adams, our Harland Smith lecturer, showed how well video technology facilitates teaching surgical reconstruction of the mitral valve at Mount Sinai Hospital in New York. His intracardiac video illustrations of the precise coaptation of the mitral leaflets after careful anatomical restoration proved how effectively these techniques can be taught. Much of the development of this important technology of cardiac surgery had to be learned earlier by peeking over the shoulders of experts, such as Adams, Tirone David, and Alain Carpentier. Adams lecture demonstrated how important and valuable the Division of Anatomy is to the Department of Surgery.

The Surgical Ethics intensive course in Banff will be attended by many surgeons from across the country, including trainees from our own program, who will serve as course facilitators. Currently, George Ibrahim, Josh Mayich, Mark Camp, and Jennifer Guillemaud have been actively preparing themselves to serve as teachers and scholars in this field. Karen Devon has

recently returned from the MacLean Center at the University of Chicago to broaden the scope of our Surgical Ethics Program. She has a focused current interest in ethical issues that arise through medical and surgical participation in social networks. At the Banff intensive course, we will report on the enabling innovation policy that has helped to speed adoption of surgical and medical innovations since it was introduced nearly a decade ago in many of our university hospitals. The understanding that surgical innovations are part of quality improvement rather than research has been a significant advance.

We will also report on an interesting project that has been underway for the past 2 years, recording pre-operative conversations about life sustaining treatments in patients who will undergo operations that carry significant risk. Vivek Rao is the Toronto Principal Investigator of this project, conducted in collaboration with surgeons at Harvard and the University of Wisconsin. We are finding that surgeons regularly bring up important complications and their treatments in order to be sure that patients understand and accept this aspect of their care. Remarkably, patients tend to derail these conversations by asking questions of a technical or social nature: “But will I have staples or sutures?” or “Will my husband be able to sleep in the room?”. As this research continues, we may find a way to help patients and doctors choose wisely among life sustaining technologies. Because of their unique position and decision – making skill, surgeons are well positioned to help bend this section of healthcare cost curve.

Finally, I want to underline the correct date for the Banff intensive Surgical Ethics course. I misinformed readers in the last issue, saying it would be conducted on May 28th. The correct date is May 29, to be followed by the Canadian Bioethics Society meeting on May 31st – June 2nd.

M.M.

NEW STAFF



Joao Rezende Neto with his wife, Luciene and their 2 daughters Laura (8) and Manuela (3)

The Division of General Surgery and St. Michael's Hospital is pleased to welcome **Joao de Rezende Neto** to the Department of Surgery. Joao received his medical degree from the Federal University of Minas Gerais, Belo Horizonte, Brazil in 1990, where he also completed General Surgery Residency in 1994. In 1995, he moved to Boston for a Fellowship in Trauma and Critical Care at Boston City Hospital – Boston University. After returning to Brazil in 1998, he worked as a staff trauma and acute care surgeon in one of the busiest trauma centers in the country, and was appointed Associate Professor of Surgery. Joao has been honored with a number of teaching awards throughout his academic career. In 2000, he moved to Denver for a Research Fellowship in Trauma as part of his PhD, completed in 2003. In 2009, he came to the University of Toronto for a one year Research Fellowship in Trauma Surgery.

Joao joins the Division of General Surgery at St Michael's Hospital as a Surgeon-Investigator, and Associate Professor of Surgery at the University of Toronto. He will focus his research interests on Traumatic Hemorrhagic Shock and the Inflammatory Response to Injury. His clinical practice will be focused on Trauma and Acute Care Surgery and he will also participate in teaching at the undergraduate and post-graduate levels.

Accompanying Joao in his move to Toronto are his wife, Luciene and their 2 daughters Laura (8) and Manuela (3).

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



Bartolomeu Nascimento

Bartolomeu Nascimento has joined the Division of General Surgery at Sunnybrook Health Sciences Centre (SHSC) as an Assistant Professor at the University of Toronto. Barto completed his medical degree and general surgery training in Brazil, and began working as a trauma and acute care surgeon in 2001. Barto then came to Canada in 2004, and did

a Research fellowship in Trauma and General Surgery at SHSC. He then completed a clinical fellowship in Adult Critical Care Medicine and Transfusion Medicine. In 2008, he enrolled in the Clinician Investigator Program at the University of Toronto and graduated in 2010. During this time he worked in Critical Care Medicine as part of the Sunnybrook Rapid Response Team (2010-2011), and concurrently worked towards his Master's Degree in Clinical Epidemiology at the University of Toronto. He successfully completed and defended his thesis in the fall of 2011. Barto has 39 publications (35 in the past 5 years) to his credit.

At Sunnybrook, Barto's clinical practice will focus on acute trauma resuscitation, and acute care of the trauma patient post-injury and resuscitation. Barto's research interests will include resuscitation and coagulopathy in critically injured patients, and quality improvement in trauma care. In his spare time, Barto enjoys snowboarding with his son, Victor.

*Homer Tien,
Sunnybrook Health Sciences Centre*

Anne O'Neill has joined the Division of Plastic and Reconstructive Surgery (PRS) at UHN as an Assistant Professor at the University of Toronto. Anne received her medical degree from the National University of Ireland, Galway, graduating with honours in 1999. She commenced training in PRS in 2002 and entered the Higher Surgical Training Program in 2006. Concurrently, she studied towards her Masters in Medical Sciences and then PhD at the National University of Galway, while conducting research at the Massachusetts General Hospital and Harvard Medical School in Boston where she was a research fellow. This year, she completed the second Master of Science Degree in Translational Medicine at the University of Edinburgh. During 2011-2012, she was a clinical fellow in Microsurgery at the Department of Plastic Surgery at the University Health Network. She has presented her research at many international conferences and published a number of scientific papers.

She will be working as a Surgeon-Investigator on breast and sarcoma reconstructive surgery outcomes as well as composite tissue allotransplantation.

*Stefan Hofer,
Wharton Chair in Reconstructive Plastic Surgery*



Anne O'Neill



Ivan Radovanovic

The Division of Neurosurgery in the Sprott Department of Surgery at University Health Network is pleased to announce the recruitment of **Ivan Radovanovic**. Ivan obtained his medical degree from the University of Geneva (1998) and a PhD from the University of Zurich

(2003) in Switzerland. He completed neurosurgery training at the Geneva University Hospitals under Professor

Nicolas de Tribolet (2008), followed by sub-specialization in neuro-oncology/skull base surgery (2009) and cerebrovascular surgery (2010) at the Toronto Western Hospital. After fellowship training, Ivan returned to Geneva to join the neurosurgical faculty at the Geneva University Hospitals (2010-2012).

In parallel to his clinical practice, Ivan has an active research interest in brain tumor and cerebral arteriovenous malformations biology. At the Toronto Western Hospital, Ivan will dedicate his practice to cerebrovascular and skull base surgery with a particular interest in minimally invasive microsurgical and endoscopic techniques. As a surgeon-scientist, his laboratory research will focus on developmental signaling pathways in brain tumor stem cells and cerebral arteriovenous malformations.

Dr. Radovanovic's office is located at Toronto Western Hospital, West Wing 4-433, Tel: 416-603-5800 ext 6207 and email: ivan.radovanovic@uhn.ca

*Michael Tymianski,
Head, Division of Neurosurgery, University Health
Network*



Victor Yang

We are very pleased to have recruited **Victor Yang** as our newest Faculty member at Sunnybrook Hospital as of February 2013. Victor earned a Master's degree in Electrical & Computer Engineering at the University of Toronto in 1998 and completed the MD-PhD (Medical Biophysics) program at

the University of Toronto in 2006, for which he was awarded a Governor General's Gold Medal for highest academic standing at the University in Sciences and Engineering. He then entered the Neurosurgery residency program at the University of Toronto, while continuing his engineering focus at Ryerson University, where he managed a productive laboratory focusing on ultrasound imaging, endovascular Doppler optical coherence tomography and medical devices design. In 2007, he

was appointed as an Assistant Professor of Electrical & Computer Engineering at Ryerson, where he was awarded a Tier 2 Canada Research Chair in Bioengineering and Biophotonics. Victor completed neurosurgical residency training in June 2012 with an in-folded clinical fellowship at St. Michael's Hospital. He became a Fellow of the Royal College of Physicians and Surgeons of Canada in 2012, and completed the European Examination in Neurosurgery. In 2013, he was recruited to the Division of Neurosurgery at Sunnybrook Hospital. He is currently an Associate Professor of Electrical & Computer Engineering at the University of Toronto and at Ryerson University. His interests lie in high-resolution neurosurgical navigation, multimodality intraoperative imaging guidance, endovascular imaging and minimally invasive therapeutics for carotid disease, and ischemic and hemorrhagic stroke. Dr. Yang is married to Jenny and they have a 6-year-old daughter, Yvette.

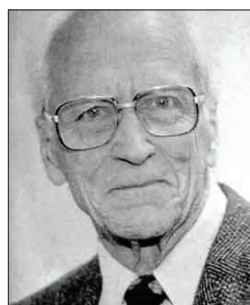
*Andres Lozano,
Chair, Division of Neurosurgery*

ANNOUNCEMENTS

IN MEMORIAM- DAVID MACINTOSH

Toronto Orthopedic Surgeon

6 June 1914- 12 Jan 2013



Dr. David L. MacIntosh

David MacIntosh passed away on January 12th, 2013. Dr. MacIntosh was a member of our faculty for many years, and a pioneer in the diagnosis and treatment of ACL injuries in the 1950s. He began working at a clinic in Hart House for injured athletes which is now the MacIntosh Sports Medicine

Clinic in the Faculty of Kinesiology and Physical Education on campus. Dr. MacIntosh was born in 1914 in Nova Scotia, trained in Halifax and Toronto, and served in the Navy in world war two. He retired from practice in 1984.

James Rutka

TIMOTHY DANIELS APPOINTED TERM CHAIR IN FOOT & ANKLE RESEARCH AT ST. MICHAEL'S HOSPITAL



Timothy Daniels

I am pleased to announce that Timothy Daniels has been appointed as the Term Chair in Foot & Ankle Research at St. Michael's Hospital. As a result of donations from grateful patients St. Michael's Hospital was able to establish this Term Chair in conjunction with the University of Toronto.

Timothy is Associate Professor of Surgery at the University of Toronto and Division Head of Orthopedic Surgery at St. Michael's Hospital. He is an internationally renowned expert in the management of surgical problems of the Foot and Ankle, as evidenced by his scholarly publications in the field, his leadership position in learned Societies and his highly specialized clinical care of complex foot and ankle problems. Surgical disease of the foot and ankle can be a lifelong debilitating problem. This Chair will be used to support the outstanding research in foot and ankle surgery performed by Dr. Daniels with the expectation that this can be rapidly translated to the clinical setting and improve patient outcome.

Please join me in congratulating Dr. Daniels as he commences this very important appointment.

*Douglas Sinclair,
Executive Vice President and Chief Medical Officer,
St. Michael's Hospital*

RESEARCH, RESEARCH, RESEARCH...

I am very pleased to announce that the Division of Plastic and Reconstructive Surgery shone brightly at the 28th Annual Hoyle Campbell Annual Research Day on Friday February 22, 2013. This was an exceptional year of high quality research and engaging eloquent presentations by our fantastic group of residents. I will repeat it again, I felt proud to be a member of our division and was buoyed by the high level of work that is taking place by our members. The gamut of research ranged from high level tissue engineering and molecular science, the importance of surgical checklists, computer-assisted modeling and the impact that hand held devices are having on our day to day practice.

Although all papers were of the highest caliber, I would like to extend congratulations to the following outstanding individuals who were the recipients of this year's awards:

Mentor Canada, Johnson and Johnson Medical Companies Prize for Best Clinical Paper Award, 2013 was awarded to two residents:

Heather Baltzer

Title: *"The Use of MRI to Predict Residual Nipple Fibroglandular Tissue Following Prophylactic Nipple Sparing Mastectomy"*

Authors: Baltzer H, Alonzo O, Metcalfe K, Narod S, Warner E, Yaffe M and Semple J.

Supervisor: John Semple

Olivia Ho

Title: *"Comparing the Use of 3-D Photography and Computed Tomography in Assessing Craniosynostosis"*

Authors: Ho O, Saber N, Stephens D, Clausen A, Forrest C, Phillips J.

Supervisor: John Phillips

Best Basic Science Award, Division of Plastic and Reconstructive Surgery, University of Toronto 2013 was awarded to **Siba Haykal**

Title: *"Advances in Tracheal Reconstruction"*

Authors: Haykal S, Hofer SOP, Waddell TK

Supervisors: Stefan Hofer and Thomas Waddell

Best Clinical Paper Award, Division of Plastic and Reconstructive Surgery, University of Toronto 2013 was awarded to **Jennica Platt**

Title: *"It Matters Where You Live: Regional Variation in Rates of Immediate Breast Reconstruction in Ontario"*

Authors: Platt J, Zhong T, Easson AE, Fernandes K, Moineddin R, Baxter N.

Supervisors: Nancy Baxter and Toni Zhong

All of the presenters had received recognition awards for their high caliber of research.

The division was exceptionally fortunate to have Mike Neumeister as this year's Hoyle Campbell Tau Omicron Visiting Professor. Mike is the Chair of the Department of Surgery at Southern Illinois University and the Past President of the Plastic Surgery Foundation and the American Society for Reconstructive Microsurgery. He gave a superb lecture entitled "Innovation and Perseverance in Burn Reconstruction" after spending a busy 2 days with the residents and surviving the WhirlyBall event at the eZone the evening prior. In recognition of his efforts, Dr. Neumeister was given the job as the new Head Coach of the Toronto Maple Leafs...



Newest Member of the Toronto Maple Leafs:
Mike Neumeister with Plastic Surgery PGY4
Matthew McRae



Dr. Greg Borschel – Associate Research Director

Thank-you to all the residents and their supervisors who made a tremendous effort in demonstrating the talents of the division in the best light. Thank-you to the staff who supported the event by taking the day to attend and encourage the residents.

Huge thanks to Drs. Joel Fish and Greg Borschel for organizing the event and of course, to Kathy who made sure everything ran like clockwork. The research profile of our division is continuing to grow at all levels. Well done, everyone!

Christopher R. Forrest, Interim Chair, Division of Plastic and Reconstructive Surgery



Dr. Joel Fish – Research Director

NEWSWORTHY ITEMS

Toronto Video Atlas of Liver, Pancreas and Transplant Surgery

Paul Grieg and colleagues have recently established a comprehensive video atlas on liver, pancreas, and transplant surgery. The videos on this site include liver transplant, pancreaticoduodenectomy, and liver resection. This is an excellent educational offering to all residents, fellows and faculty in general surgery. I encourage all of you to go to the website below to see the contents of this atlas first hand.

<http://pie.med.utoronto.ca/TVASurg/index.htm>

Revolutionary Scalpel-free Surgery

In a Canadian first, Sunnybrook and UHN brain scientists led by Kullervo Hynynen and Andrew Lozano have pioneered the use of MRI-guided focused ultrasound to successfully treat patients who suffer from debilitating tremors in their arms and hands.

Breakfast with the Chair



first year students with Drs. Rutka, Christakis and Kodama

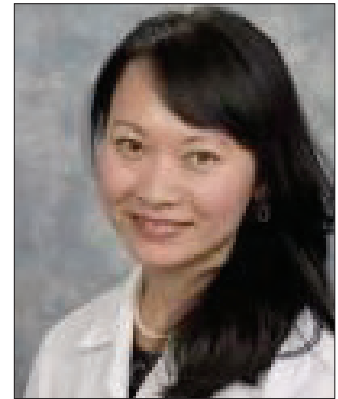
For several months, we have been hosting a special “Breakfast with the Chair” seminar for first year medical students to provide additional exposure to them regarding career paths in surgery. Shown here in this photo are first year students with Drs. Rutka, Christakis and Kodama.

Accreditation of the Surgical Skills Centre (SSC)

Accreditation of the SSC by the American College of Surgeons Program for Accreditation of Education Institutes as a level I Comprehensive Education Institute has been received for a term of 3 years. Congratulations to Lisa Satterthwaite, Oleg Safir and the SSC team on this remarkable accomplishment!

Grand Challenges Challenges Grant: Women for Women by IPRAS

I wanted to bring to your attention that Toni Zhong has been involved for some time now with a humanitarian organization called Women for Women by IPRAS. This organization has provided burn reconstruction to women suffering from burn deformities in many parts of the developing world. To complement this work, she recently submitted a grant to “Grand Challenges Canada” proposing to develop an Actionable-Patient Reported Outcome to accompany their next humanitarian mission to rural Bangladesh.



Toni Zhong

One component of the grant was a video that she created which is now on YouTube and is currently available for public voting. The more votes this video receives, the higher the chance the grant will be funded.

I encourage all of you to click on the below link and vote for Tony Zhong's video.

<http://applications.grandchallenges.ca/en/viewVideo/28735E6AA6EA3EBDD509D155>

Thank you in advance for your support of this important initiative.

*Christopher R. Forrest,
Interim Chair, Division of Plastic and Reconstructive Surgery*

IN THE MEDIA

Michael Schwartz, Division Head of Neurosurgery at Sunnybrook Hospital, collaborator Andres Lozano and PGY4 resident Nir Lipsman have been featured by CTV News for their work on focused ultrasound for the treatment of essential tremor. The story and video can be accessed here: [Revolutionary Treatment Uses Ultrasound to Stop Tremors](#).

Charles Tator, Founder of ThinkFirst Canada, Michael Clarfield, former Head Team Physician of the Toronto Maple Leafs (1989-2004), and mdBriefCase Inc., were commended by the National Hockey League Players Association (NHLPA) for the development of a Continuing Education Program for Family Physicians entitled "*Sports-Related Concussions: When Medicine and Sport Meet Head On*". The NHLPA officially endorsed the interactive CME program, which will aid front-line physicians in the recognition and management of patients with concussion. <http://www.newswire.ca/en/story/1105721/nhlpa-endorses-concussion-continuing-education-program-for-family-physicians-when-medicine-and-sport-meet-head-on>

Andres Lozano's work on deep brain stimulation was featured by TEDxCaltech. The presentation entitled "*Adjusting Dials on Circuits in the Human Brain*" can be viewed at: <http://tedxcaltech.caltech.edu/content/andres-lozano>

Andres Lozano, Nir Lipman and Michael Schwartz's work on deep brain stimulation for anorexia treatment was featured by The Globe and Mail. The video and story entitled "*How ground-breaking surgery offers hope for anorexia treatment*" can be viewed at:

<http://www.theglobeandmail.com/life/health-and-fitness/health-navigator/how-a-ground-breaking-surgery-offers-hope-for-anorexia-treatment/article9374142/>

Taufik Valiante's work on surgical treatment of epilepsy was featured in the Global News Toronto's television feature "*Inside Epilepsy*". The video and story can be viewed at:

<http://globalnews.ca/news/406047/inside-epilepsy-patients-turn-to-brain-surgery-for-treatment/>

Shaf Keshavjee was featured in The Toronto Star on Wednesday, March 13, 2013 for his innovations in transforming how lung transplants are done.

Andres Lozano was highlighted in the U of T News for his exciting new innovations with deep brain stimulation for severe cases of anorexia patients.



Celebration of 90 Years of Neurosurgery at the University of Toronto

A 3-Day Anniversary & Scientific Event

Over 40 invited speakers featured in a scientific program which covers advances in pediatric, functional, oncology, spine and cerebrovascular neurosurgery.

October 6-8, 2013

TELUS Centre for Performance and Learning
273 Bloor Street West
Toronto, Canada

Keynote Speakers

Dr. Mitch Berger, University of California, San Francisco
Dr. Max Findlay, University of Alberta
Dr. John Kestle, University of British Columbia
Dr. Douglas Kondziolka, New York University
Dr. Christopher Shaffrey, University of Virginia
Dr. Robert Spetzler, Barrow Neurological Institute



Division of Neurosurgery
 UNIVERSITY OF TORONTO

Local Organizing Committee

Dr. Andres Lozano (Chair)
Dr. Mark Bernstein
Dr. James Drake
Dr. Michael Fehlings
Dr. Loch Macdonald
Dr. Todd Mainprize
Dr. Julian Spears
Dr. Michael Tymianski

AWARDS/HONOURS/ACHIEVEMENTS

Barbara (Dee) Ballyk (Anatomy) was won the 2013 Excellence in Undergraduate Teaching in Life Sciences award.

Gopal Bhatnagar (CardSurg) has received the Queen's Golden Jubilee Medal for Outstanding work in the community.

Gideon Cohen (CardSurg) has been appointed as Division Head of Cardiac Surgery at Sunnybrook Health Sciences Centre effective March 10, 2013.

Ren-Ke Li (CardSurg) has had his CRC Tier 1 Award renewed.

Fuad Moussa (CardSurg) has assumed the role of Director of Undergraduate Surgical Education at Sunnybrook Health Sciences Centre, starting February 1st. Fuad will use his enthusiasm and vision to ensure students have an outstanding and memorable learning experience on their rotations

Subodh Verma (CardSurg) has been named the recipient of the 2013 Royal College of Physicians and Surgeons of Canada Gold Medal Award in Surgery. This award is given annually to one surgeon in Canada across all surgical disciplines who has demonstrated excellence as an academic surgeon and whose work has made a significant impact and resulted in a paradigm shift. Specifically, Subodh was recognized for spearheading his research team to their recent success at identifying a novel role for the breast cancer genes BRCA1 and BRCA2 in the realm of cardiology and metabolism.

Subodh has also recently been invited by the University of Ottawa Heart Institute Foundation to be its 2013 visiting lecturer for the Anand and Saroj Aggarwal South Asian Heart Health Endowed Lectureship. This invitation recognizes Subodh's continuous clinical and research efforts to decipher the basis of why the South Asian ethnicity is an independent cardiovascular risk

factor and how to appropriately risk stratify South Asian patients.

Subodh is also co-chair of the annual St Michael's Heart Valve Symposium (established 2013), Toronto Acute Coronary Syndrome Summit (established 2012) and the State of the Heart Symposium (established in 2010).

Carin Wittnich (CardSurg) received the Excellence in Undergraduate Teaching in the Life Sciences Award.

Najma Ahmed (GenSurg) received approval of Trauma General Surgery as an area of focused competence (AFC-diploma).

Marcus Burnstein (GenSurg) is the 2011-2012 recipient of the Colin Woolf Award for Excellence in Teaching, recognizing the breadth and depth of his exceptional teaching in the continuing education and professional development sphere.

Sandra de Montbrun (GenSurg) is the recipient of the 2013 SSAT (Society for Surgery of the Alimentary Tract) Career Development Award for Clinical/Outcomes/Education Research, for her proposal, "Developing objective structured assessments of technical skill, and establishing technical competence through standard setting".

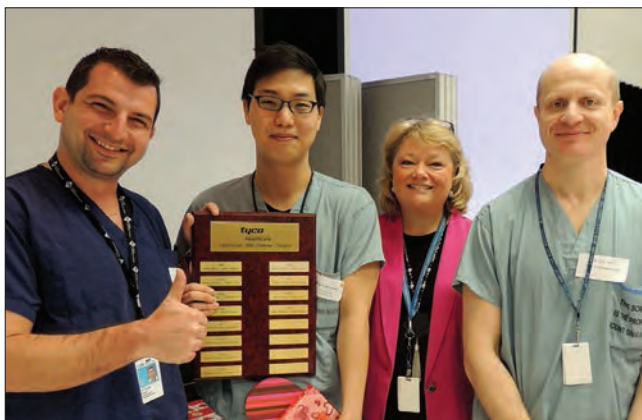
Anand Ghanekar (GenSurg) and co-PI **John Dick** were awarded a 2-year grant from the Cancer Research Society for their project entitled "Identification and Characterization of Tumor-Initiating Cells in Primary Human Hepatocellular Carcinoma."

Paul Greig (GenSurg) received the 2013 PGME Award for Teaching Performance, Mentorship and Advocacy, in recognition of his outstanding contributions to teaching medical residents and fellows; and develop, organize and administer training programs; develop innovative approaches to teaching, research and evaluation.

Carol Anne Moulton (General Surgery) received the 2013 PAIRO Excellence in Clinical Teaching Award. The award enables residents to honour clinical teachers who have excelled in their role.

Allan Okrainec (GenSurg) received a grant from CE Research and Development.

The team “**Done in 60 Seconds**” (GenSurg), composed of **James Jung** and **Andras Fecso**, won the Annual Laparoscopic Skills Competition at the Surgical Skills Centre SC 2013 competition.



Laparoscopic skills competition winning team- from left to right- Andras Fecso, James Jung, Surgical Skills Centre Manager Lisa Satterthwaite, D.H. Gales Director Surgical Skills Centre Oleg Safir

PGY4 residents **David Cadotte** and **Nir Lipsman** (NeurSurg) have been awarded the Canadian Neurological Society’s 2013 K.G.McKenzie Prizes in Clinical Neuroscience Research, the most prestigious resident awards in our discipline in Canada. The Prizes were given for David’s work entitled “*Visualizing plasticity in the Injured Human Spinal Cord with fMRI*” (supervisor: Dr. Michael Fehlings) and for Nir’s work entitled “*Phase I trial of deep brain stimulation of the subcallosal cingulum for treatment-refractory anorexia nervosa*” (supervisor: Dr. Andres Lozano). Toronto Neurosurgery swept this year’s McKenzie Prize competition and has won 20 of the 33 McKenzie Prizes (60.6%) awarded since 2000.

Michael Fehlings (NeurSurg) is the Lead Investigator on a 3-year grant from the Ontario Neurotrauma Foundation entitled, “Time is Spine: Streamlining the pre-hospital transport of patients with acute traumatic spinal cord injury in Ontario”.

Michael was honoured with the Cervical Spine Research Society (CSRS) Presidential Medallion for outstanding

leadership and contributions to cervical spine research. The presentation took place at the 40th Annual meeting in Chicago after serving his term as President. Michael is the only Canadian surgeon to have served in this role for the CSRS.

The Society of Neurological Surgeons will present Professor **Michael Fehlings** with the 2013 Winn Award for his work in the field of spinal cord injury and repair. The award is the highest honour for academic neurosurgeons in North America based on research and academic productivity.

Michael also received the 2012 Jonas Salk Award for Scientific Achievements. Given by March of Dimes Canada, this award honours a scientist whose work improves quality of life for people with disabilities or prevents, alleviates or eliminates a physical disability.

Michael Fehlings was also presented with the Queen Elizabeth II Diamond Jubilee Medal by Prime Minister Stephen Harper. Nominated by the Honourable Steven Fletcher, Minister of State (Transport), Dr. Fehlings was recognized for his exemplary work and research advancements in the field of spinal neurosurgery. As a clinician, researcher and educator, Dr. Fehlings has made considerable impact in several areas related to spinal cord injury and disease, and childhood neurodevelopmental disorders.



From left to right: The Honourable Steven Fletcher; Dr. Michael Fehlings, his wife Dr. Darcy Fehlings and Prime Minister Stephen Harper attend the award ceremony in the PMO’s office. (Photo: Office of the Prime Minister)

Charles Tator and **Michael Fehlings** (NeurSurg) were awarded the Reeve-Irvine Research Medal, which honours individuals, who have made highly meritorious scientific contributions in the area of spinal cord repair, and whose research has stood the test of time and scrutiny.

Howard Ginsberg (Co-I), **Victor Yang** (Co-I) and **Michael Kolios** (Lead PI) (NeurSurg) were awarded a \$1,906,364 grant from the Canada Foundation for Innovation (CFI) for their project entitled “Laboratory for ultrafast ultrasound and optical methods used to probe cell and tissue structure and function”.

Howard Ginsberg and Richard Cobbold (Co-PIs) were awarded a \$50,000 grant from the Ontario Centres of Excellence Market Readiness program for the project entitled “PedicProbe: an Ultrasonic Navigation Probe for Spinal Fusion Surgery”.

Mojgan Hodaie (NeurSurg) and collaborators **Karen Davis** and **Paul O’Connor** received a 3-year grant from the Multiple Sclerosis Society of Canada for their project entitled “Neuroimaging correlates of pain in multiple sclerosis”.

Mojgan was also appointed as a member of the Foundation for Education in Neurological Surgery (FIENS) Executive Board.

Spyridon Karadimas (NeurSurg) won the 1st Place Basic Science Paper Award as selected by the Cervical Spine Research Society for his work entitled “The sodium channel/glutamate blocker riluzole is complementary to decompression in a preclinical experimental model of cervical spondylotic myelopathy (CSM): Implications for translational clinical application”.

Abhaya Kulkarni (NeurSurg) was inducted into the Society for Neurological Surgeons.

Andres Lozano (NeurSurg) received the 2012 Herbert Olivecrona Award and Medal at a ceremony on December 7 in Stockholm, in recognition of important contributions to the field of functional neurosurgery. Each year since 1976, the Department of Neuroscience, Karolinska Institute and the Department of Neurosurgery, Karolinska University Hospital have

honoured a neurosurgeon with The Olivecrona Award in recognition of outstanding contributions to the neurosurgical field, based on development of surgical techniques, pedagogical skills or scientific contributions.

Nir Lipsman and his colleagues have published 2 outstanding papers this past month. Both are world firsts. In a paper in *The Lancet*, Nir reports on the first use of deep brain stimulation to treat chronic anorexia nervosa and in *Lancet Neurology*, he reports the first use of transcranial focused ultrasound as a “non-invasive” means of making focal thalamic lesions to treat tremor.

Mohammed Shamji (NeurSurg) was awarded a 1-year AO Spine North America Young Investigator Research Grant for his project entitled “Pathomechanisms in the Development of Pain Hypersensitivity in Disc Herniation Radiculopathy”.

Charles Tator (lead PI) and **Molly Shoichet** (co-PI) (NeurSurg) were awarded a 3-year \$125,000 grant from the Ontario China Research and Innovation Fund for their project entitled “Human Neural Stem Cell Transplanted by Biomimetic Multiple-Channel Conduit for Spinal Cord Regeneration”

Charles also received a 1-year \$75,000 grant from AbbVie for his project entitled “Testing of AbbVie Antibodies in a Clinically Relevant Model of Spinal Cord Injury”.

Michael Tymianski (NeurSurg) is the recipient of the 2012 Paul Morley Mentorship Award from the Canadian Stroke Network in recognition of his exceptional contributions to the next generation of stroke researchers. Michael has successfully trained, motivated and supported both clinical fellows as a neurosurgeon in the Department of Surgery and research trainees at the Krembil Neuroscience Centre. He was presented the award during the Canadian Stroke Network annual general meeting at the 2012 Canadian Stroke Congress in Calgary. He also gave a Ramon J. Hnatyshyn Lecture at the 2012 Canadian Stroke Congress, titled “From molecular mechanisms to multi-center clinical trials: Translation of a PSD95 inhibitor for the treatment of acute ischemic stroke”.

Gelareh Zadeh (NeruSurg) along with co-PI Michael Siu from York University Proteomics received a CCSRI Innovation Grant for \$185,000.00 over 2 years for their project titled “Prognostic pathway-centric signatures in glioblastoma multiforme”.

Marku Nousiainen (OrthoSurg) received the 2013 PGME Award for Excellence in Development/Innovation in recognition of his leadership and organization skills, course/curriculum and evaluation tools development and restructuring of teaching/evaluation component

Dimitri Anastakis (PlasSurg) has been appointed as President of the Association for Surgical Education. Other members from the University of Toronto serving on the Board of Directors are Carol Anne Moulton (General Surgery), Chair of the Program Committee, and Lisa Satterthwaite (Surgical Skills Centre), Chair of the Nurses in Surgical Education Committee.

Heather Baltzer (PlasSurg) was a recipient of the Mentor Canada, Johnson and Johnson Medical Companies Prize for Best Clinical Paper Award, 2013 for her work entitled “*The Use of MRI to Predict Residual Nipple Fibroglandular Tissue Following Prophylactic Nipple Sparing Mastectomy*”. (Authors: Baltzer H, Alonzo O, Metcalfe K, Narod S, Warner E, Yaffe M and Semple J. Supervisor: John Semple).

David M. Fisher (PlasSurg) was inducted into the membership of the American Association of Plastic Surgery at the 92nd Annual Meeting in New Orleans.

Siba Haykal (PlasSurg) was awarded the Best Basic Science Award, Division of Plastic and Reconstructive Surgery, University of Toronto 2013 for “*Advances in Tracheal Reconstruction*” (Authors: Haykal S, Hofer SOP, Waddell TK; Supervisors: Stefan Hofer and Thomas Waddell)

Olivia Ho (PlasSurg) was a recipient of the Mentor Canada, Johnson and Johnson Medical Companies Prize for Best Clinical Paper Award, 2013 for her work entitled: “*Comparing the Use of 3-D Photography and Computed Tomography in Assessing Craniosynostosis*”. (Authors: Ho O, Saber N, Stephens D, Clausen A, Forrest C, Phillips J. Supervisor: John Phillips).

Ron Levine (PlasSurg) is the winner of the 2013 Mickle Award. This award recognizes an individual who has provided many years of service to medicine and medical education. In addition, a plaque in his honour will be mounted on the PGME boardroom wall.

Jennica Platt (PlasSurg) recently received a PSI Resident Research Foundation Grant for the Breast Reconstruction Decision Workshop Pilot RCT.

Jennica also received the Best Clinical Paper Award, *Division of Plastic and Reconstructive Surgery, University of Toronto 2013* for her work: “*It Matters Where You Live: Regional Variation in Rates of Immediate Breast Reconstruction in Ontario*”. Authors: Platt J, Zhong T, Easson AE, Fernandes K, Moineddin R, Baxter N. Supervisors: Dr. Nancy Baxter and Dr. Toni Zhong

Andras Kapus (Scientist, Department of Surgery) received a 2013 NSERC Discovery Grant for his work on cytoskeleton-mitochondrion interactions during cellular stress.

Mingyao Lau (Scientist, Department of Surgery) is one of the recipients of the Queen’s Diamond Jubilee Medal by the Government of Ontario for recognition of his research and contributions to cardiovascular diseases. His research focuses on mechanisms and molecular therapies for lung injury during and after lung transplantation.



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The **Surgical Skills Centre** team (Surgery) was selected to receive the 2013 ASE Award for Excellence in Innovation for the Toronto Orthopaedic Boot Camp (TOBC) project. This award is given annually to a group of individuals who have demonstrated exemplary performance in surgical education with the intent to recognize novel ideas and/or methods for improving teaching and learning.

Marcelo Cypel (ThorSurg) received a Canada Research Chair (Tier 2) in Lung Transplantation from Government of Canada from 2012-2017.

Marcelo has also received an Astellas – Multi-Organ Transplant Investigator Initiated Grant for 2013.

Shaf Keshavjee (ThorSurg) has been appointed to the Order of Ontario, the Province's highest honour, in recognition of his pioneering contributions to the field of lung transplantation. His advances in organ preservation and repair have significantly increased the number of donor lungs used to save lives with lung transplantation. Shaf also received the Queens Diamond Jubilee Medal, in recognition of his outstanding leadership in CF research and lung transplantation.

Shaf Keshavjee also received funding for his CHRP grant.

Kazuhiro Yasufuku (ThorSurg)'s study on minimally invasive biopsies of mediastinal lymph nodes is on the list of top downloaded papers in the leading Cardiothoracic Journals in the world (Yasufuku K, et al. The Journal of Thoracic and Cardiovascular Surgery, 142(6):1393-1400, 2011).

Neil Fleshner (UrolSurg) and colleagues received a new Canadian Cancer Society Research Institute (CCSRI) Impact Grant for his research on "Randomized double blind trial of metformin in reducing progression among men on expectant management for low risk prostate cancer: the MAST (Metformin Active Surveillance Trial) study.

Magdy Hassouna (UrolSurg) is the PI in a 2 year peer-reviewed grant from PSIF "Estimation of Bladder Volume from Sacral Nerve Root recordings" (Collaborators: J. Zariffe and M. Popovic).

Rajiv Singal (UrolSurg) won the Prostate Cancer Canada's Mark Dailey Local Hero Award. He is the head of the urology division at Toronto East General Hospital and is conducting clinical research studies.

John Trachtenberg (UrolSurg) has been awarded the Queen's Diamond Jubilee Medal in recognition of his work to improve care and raise prostate cancer awareness in Canada.

2013 CIHR OPERATING GRANT RECIPIENTS

I am pleased to report to you the results of the most recent CIHR Operating Grants Competition and how well our faculty did. Our faculty members received more than \$10 Million in support for grants spanning 3-5 years. Please help me congratulate our many faculty members listed below who were successful at the CIHR grants panels this cycle.

Johane P. Allard, Elena M. Comelli, Gregory B. Gloor, Timothy D. Jackson, Wen-Yi W. Lou, Allan Okrainec. Role of intestinal microbiota in non-alcoholic fatty liver disease pre and post bariatric surgery. 3.5 years; \$522,167.

Benjamin A. Alman, Diane Nam. Molecular mechanisms in fracture and wound healing. 5 years; \$930,804.

Laurent Briollais, Michelle Cotterchio, Steven Gallinger, Roger C. Green, Jeffrey S. Hoch, John R. McLaughlin, Patrick S. Parfrey. Development, application and evaluation of multistate models for risk estimation and screening interventions in Lynch Syndrome families and familial colorectal cancer type X families. 3 years; \$273,334.

Eleftherios P. Diamandis, Andrei P. Drabovich, Keith A. Jarvi. Integrated approach to discover prostate cancer biomarkers in seminal plasma. 3 years; \$417,240.

James H. Eubanks, Liang Zhang. The role of histone deacetylase 6 complexes in Rett Syndrome pathophysiology. 3 years; \$390,116.

Geoffrey R. Fernie. Phase2: Investigations into usability and safety of scooters in challenging winter environments. 3 years; \$362,685.

Boris Hinz. Mechanisms and potential of mesenchymal stromal cell-to-myofibroblast activation in skin dermis regeneration. 5 years; \$741,000.

Boris Hinz. Stress regulation of heart fibrosis through integrin-mediated activation of TGF-beta. 5 years; \$646,000.

Sevan Hopyan. The ectodermal basis of early limb bud morphogenesis and malformation. 5 years; \$687,100.

Kelly A. Metcalfe, Andrea F. Eisen, Steven A. Narod, Mohammad Reza Akbari, Kathy M. Chun, Tulin Cil, Alexander J. Kiss, David R. McCready, Linda McGillis Hall, Frances C. Wright. Rapid genetic testing for BRCA1 and BRCA2 in newly diagnosed breast cancer patients. 5 years; \$1,221,467.

Cindi M. Morshead, Dale R. Corbett, Molly S. Shoichet. Promoting cognitive recovery using endogenous neural stem cell activation and rehabilitation following stroke. 5 years; \$992,394.

Cindi M. Morshead. The isolation and characterization of a novel population of neural stem cells in the adult brain. 5 years; \$569,444.

Barry Rubin, Clint Robbins. Microsomal prostaglandin E2 synthase-1 in Ly6Clo monocytes regulates left ventricular remodeling after myocardial infarction. 4 years; \$470,784.

Michael D. Taylor. SNCAIP: A novel oncogene restricted to Group 4 medulloblastoma. 5 years; \$847,063.

Cari M. Whyne, Albert J. Yee, Thomas Willett. Implications of pathologic changes to bone material properties on the skeletal stability of the metastatic spine. 5 years; \$720,465.

Graham A. Wright, Andrew D. Dueck, Bradley H. Strauss. MR-guided revascularization of occlusive peripheral arterial disease. 5 years; \$562,215.

James Rutka

Letters from Our Readers

Dr. Rutka:
Beautiful & Brilliant Surgery logo!!

Michel Kliot MD
UCSF Neurosurgery

Dear Martin,

I would like to congratulate you on The Surgical Spotlight which I always enjoy reading for its interesting articles and as a wonderful reminder of my time at the TGH.

I read with great interest the Article by James Rutka.

I was rather disturbed to see that many of the wasteful and unpleasant activities of the business world have entered the professional and academic atmosphere of the Department of Surgery. I still believe that image and reputation are based on professionalism of a department, particularly the Alumni that are produced and the quality of surgical practice that is performed. I was upset to see time, resources and money being wasted creating a new image and logo. I would be horrified to think that any intelligent person could be taken in by the fatuous symbolism of some suture material. In this age where resources are so difficult to create, it is hard to imagine that anyone is likely to be fooled by a new label.

I hope these comments are not too offensive, but unfortunately even in Australia this wasteful behaviour is only too common.

Kind regards,
Bruce Davis

RESPONSE FROM THE EDITOR:

Dear Bruce,

It is great to receive e-mails from our readers. I wish we got more of them to keep us on course.

I agree that science, including surgical science, is becoming more commercialized. I have a different opinion from yours on logos. I think they are graphic symbols of values, not commercial trademarks. Our new logo symbolizes the high value our department assigns to science, symbolized by the cross linked helices, and to technical surgery, symbolized by the double - armed suture.

Thanks for the feedback,
Martin

The Deadline for the next Surgery Newsletter is June 17, 2013. All members and friends of the Department are invited to submit items, articles, pictures, ideas or announcements.

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

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