

# The Surgical Spotlight

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



EVENTS AND STORIES FROM SPRING-SUMMER 2011

## Gallie-Bateman & McMurrich Research Day 2011



Benjamin Alman with William Gallie in the background

The Department of Surgery staff, residents, postdoctoral fellows and students highlighted their extraordinary level of research productivity in all of our surgical specialties again at this year's Gallie Day. The theme was computers and robots in surgery. The day included a symposium entitled *"Making Surgeons Obsolete: Computers and Robotics in Surgery"* chaired by Benjamin Alman (A.J. Latner Professor, Vice Chair Research). Participants included James T. Rutka (Chair, Department of Surgery), who spoke inventively about *"Discovery, Invention and Innovation in Surgery"*; Ian McKillop (JW Graham Research Chair in Health Information Systems, Public Health Program and Executive Director, University Health Research Office of Research, University of Waterloo) described *"Fostering Innovation: Step One – Check the Water"*; and Christian Veillette (Assistant Professor, Orthopaedic Surgery, U of T) explained *"The Emerging Science of Collective Intelligence"*. They gave insightful talks into how to incorporate innovation into our academic surgical practices, and showed how computer technology can improve patient outcome - for example computer assisted collective intelligence can identify the best treatments for patients.

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Jim Rutka, David Latter and Sharon Latter

Inderbir S. Gill (Director, USC Institute of Urology, Professor and Chair, Catherine and Joseph Aresty Department of Urology, Associate Dean (Clinical Innovation), Keck School of Medicine, University of Southern California, Los Angeles, CA) gave the Gordon Murray Lecture entitled “*Minimally Invasive Surgery: Poster-child or Impostor?*”.

There were 10 platform presentations and 54 poster presentations from trainees working with our faculty members. The Gallie Bateman Awards (for Surgeon Scientist Program participants) and the McMurrich Awards (for any trainee working with a member of the

faculty of surgery) were judged for both platform presentations and poster presentations. The topics and trainees highlighted the diversity and high quality research being conducted in our department. A new poster judging system was introduced this year, and the trainees and judges felt this provided a more thorough evaluation of the quality of the work.

The Gallie Bateman Award for best work by a trainee in the Surgeon Scientist Program went to Adrienne Weeks’ oral presentation by - “ECT2 and RASAL2 mediate mesenchymal-amoeboid transition in human astrocytoma cells” (James T. Rutka, supervisor); 2nd prize to Eisar Al-Sukhni – “Diagnostic accuracy of MRI for assessment of T-category, nodal metastases, and circumferential resection margin involvement in patients with rectal cancer: A meta-analysis”, Laurent Milot, Mark Fruitman, Joseph Beyene, Charles Victor, Selina Schmocker, Robin McLeod [supervisor], Erin Kennedy; 3rd prize ties went to Barbara Haas: “Survival of the fittest: The hidden cost of undertriage of major trauma” (Avery B. Nathens, supervisor); Gregory W.J. Hawryluk: “Remyelination is the key mechanism underlying functional recovery from spinal cord injury following neural precursor cell transplantation” (Michael G. Fehlings, supervisor); Siba Haykal: “Evaluation of the extracellular matrix components following decellularization of tracheal allografts in airway transplantation” (Stefan O.P. Hofer, Thomas K. Waddell, supervisors)



Adrienne Weeks



Inderbir S. Gill



Sameer Agnihotri



Amparo Wolf with Ben Alman



Antonio Finelli and Bernard Langer



Michael D. Taylor and Andres Lozano

1st prize for the McMurrich Award (for research by a trainee not in the surgeon scientist program) was awarded to Amparo Wolf: “Hexokinase 2 is a key mediator of aerobic glycolysis and promotes tumor growth in human glioblastoma multiforme” (with Sameer Agnihotri, Johann Micallef, Joydeep Mukherjee, Nesrin Sabha, Rob Cairns, Cynthia Hawkins [Abhijit Guha, supervisor]). 2nd prize a 5 way tie (this is the first time this has happened) went to Sameer Agnihotri: “A GATA4 regulated tumour suppressor axis is disrupted in glioblastoma” (Supervisor: Abhijit Guha); Aaron Gajadhar: “In situ proximity ligation-based analysis reveals aberrant dimerization and activation of epidermal growth factor receptors prevalent in glioblastoma multiforme” (Abhijit Guha, supervisor); Vedant Arun: “A novel NF1-LRPPRC interaction reveals a role in RNA granules” (with Joseph C. Wiley, Harpreet Kaur [Abhijit Guha, supervisor]); Crystal A. Ruff: “Stem cell-based transplantation strategies for sub-cortical remyelination” (with Hui Ye, Liang Zhang [Michael G. Fehlings, supervisor]); and Nesrin Sabha: “The impact of mutations on progression-free and overall survival in human low and intermediate grade gliomas” (with Christiane Knobbe, Soha Alomar, Rob Cairns, Benca Cako, Andreas von Deimling, Tak Mak, Sidney Croul [Abhijit Guha, supervisor]). 3rd prize 4 way tie went to Meghan Crookshank: “Can an atlas-based algorithm quantify femoral shaft

fracture alignment based on a single, cone-beam ct image of the fractured leg?” (with Emil Schemitsch, Maarten Beek, Michel Hardisty [Cari Whyne, supervisor]); Elaine Mau: “SAMD9L – A novel gene mediating pathogenesis of human osteosarcoma in an in-vitro model” (with Qingxia Wei [Benjamin A. Alman, Jay S. Wunder, supervisors]); Stephen C. Mack: “Delineation of two molecularly and clinically distinct groups of posterior fossa ependymoma” (Michael D. Taylor, supervisor); Sean C. Skeldon: “Investigating the risk of bladder cancer among hereditary non-polyposis colorectal cancer



Tailba Alrasheed with a display of her paintings (mainly Arabic calligraphy with all its different styles)



Mitesh Badiwala receiving the Shafie Fazel Award from Nathalie Fazel and David Latter

(HNPPC) patients with confirmed mismatch repair (MMR) gene mutations” (with Peter Bostrom, Melyssa Aronson, Kara Semotiuk, Aaron Pollett, Bas van Rhijn, Steven Gallinger, Zane Cohen, Neil E. Fleshner, Michael A. Jewett, Sally Hanna, Cynthia Kuk, Theodoros H. Van Der Kwast, Andrew Evans, Bharati Bapat [Alexandre R Zlotta, supervisor]).

Faculty research awards went to Antonio (Tony) Finelli (Bernard Langer Surgeon Scientist Award, awarded to an outstanding graduate of the Surgeon Scientist Program in the Department, who shows the greatest promise for a career in academic surgery), Michael D. Taylor (George-Armstrong Peters Prize, awarded to a young investigator who has shown outstanding productivity during his initial period as an independent investigator as evidenced by research publications in peer reviewed journals, grants held, and students trained), Benjamin A. Alman (Charles Tator Surgeon Scientist Mentoring Award, to recognize individual supervising participants in the SSP who emulate Professor Tator’s qualities, namely excellence in research, commitment to SSP mentoring and dedication to promotion of Surgeon-Scientists) and Thomas Waddell (Lister Prize, awarded to an investigator who has shown outstanding and continuing productivity of international stature as evidenced by research publications, grants held, students trained and other evidence of stature of the work produced).

The first Shafie Fazel Award was presented to Mitesh Badiwala by Nathalie Fazel. Zane Cohen Clinical



Nancy Condo, Val Cabral, Sylvia Perry and James Rutka

Fellowship was awarded to Ed Hickey, cardiac surgery clinical fellow at Sick Kids Hospital. William (Bill) Kraemer received the Tovee Postgraduate Prize, and Frances Wright received the Tovee Undergraduate Prize. At the Gallie day dinner, we had an award accepted using Skype (another first) and had a wonderful display of our department member’s artwork again. The scope and breadth of the creative artistic efforts from our departmental members was quite amazing. Thanks to Darrell Ogilvie Harris for organizing the art show.

The 34 judges for the poster competition as well as the timers, who volunteered their time for this new poster judging process deserve special thanks. The competition could not be held without their help (Raghda Al Atia, Nancy Calabrese-Condo, John Corston, Amandeep Dhillon, Alina Gaspar, Ronak Ghanbari, Louisa Ho, Kim Huynh, Raymond Poon, Jason Rockel, Qingxia Wei). Thanks to the Research Committee member who reviewed and judged the oral presentations. Thanks to the Session hosts, George Christakis and Sandro Rizoli. The day could not have gone as well as it did without everyone’s participation and collaborative efforts, Thanks again this year to Andrea McCart for her organizing the poster sessions and Sylvia Perry for her help with the arrangements. A very special thanks goes to Val Cabral for her incredible dedication and hard work to organize the Surgeon Scientist Program, and the organization of Gallie Day.

*Val Cabral (with contributions from Ben Alman)*

## Surgery without Borders

INTEGRATED MEDICAL EDUCATION AT UOFT



James Rutka

I am honored to have taken over the responsibility of Chair of the Department of Surgery this year. I want to take a moment to again thank David Latter who served most capably as interim chair from May 1<sup>st</sup>, 2010 – March 31<sup>st</sup>, 2011. Under David's leadership, our Department not only grew in size, but thrived

in terms of all metrics applied to academic units such as ours. Interestingly, one of the most significant changes in medical education at the University of Toronto which arose during David's tenure and with which I needed to be brought up to speed quickly was Integrated Medical Education (IME).

By now, most of you have heard the term IME as a new initiative in the Faculty of Medicine at the University of Toronto. IME refers to the coordination of a sustainable framework for MD learners and residents into the expanding repertoire of University of Toronto community affiliate hospitals. The overarching goal of IME is to provide new professional standards for accreditation, education, and clinical care in urban, suburban and community settings. For many years, our medical students and residents have benefited from surgical rotations and experience in these community affiliate hospitals. IME is the initiative that will formalize the relationship between our learners and educators at these sites.

Over the past year, the Department Appointments Committee (DAC) has vetted dozens of applications for appointments in the Department of Surgery. The vast majority of these have been in the Adjunct Lecturer Surgeon-Teacher category. Some of the community affiliate hospitals where these appointments have been granted include: Humber River Regional Hospital, the Royal Victoria Hospital in Barrie, The Scarborough Hospital, Southlake Regional Health Centre, and Credit Valley Hospital. The application process for appointments in the Department of Surgery for surgeons at the

community affiliate hospitals is rigorous and includes a letter of interest from the candidate, a letter of support from the Surgeon-in-Chief at the hospital, submission of a current CV, demonstration of good standing in the College of Physicians and Surgeons of Ontario, and an interview with the Chair of DAC, Avery Nathens.

I personally have enjoyed speaking to many of the Department of Surgery applicants from the IME initiative. I have been very impressed with the established case volumes, mix, and expertise that exists in our community affiliate hospitals in areas such as bariatric surgery, minimally invasive surgery, thoracic surgery, plastics and reconstructive surgery to name just a few. As many of our residents will opt for surgical elective rotations in any one of a number of our community affiliate hospitals, I am pleased to report that these experiences continue to be highly sought after and regarded, thanks to the outstanding surgical teaching they receive on site. In addition, many of our resident and fellow graduates will be looking towards the community affiliate hospitals for employment opportunities upon completion of their training in surgery. Of course, our graduates will be keen to keep an affiliation with the University of Toronto through this IME initiative in the future.

In case some of you did not know, a new Academy of Medicine will be opening this fall where our MD learners will be receiving their education – The Mississauga Academy of Medicine (MAM). MAM is a new partnership between the University of Toronto and Trillium Health Centre and Credit Valley Hospital. A key faculty member at MAM for Surgery is Dr Norman Hill, who is the Vice President of Medical and Academic Affairs at Trillium. Norm is a FRCSC-trained General Surgeon with a certificate in Health Administration from the University of Toronto. We will be working closely with Norm as we initiate the educational programs in Surgery for medical students, residents and fellows.

It is timely for the Department of Surgery to be actively involved in the IME process. In fact, one can argue that perhaps this is long overdue. I know of many Departments of Surgery in countries around the world where formal linkages with their community affiliate hospitals has been practiced for decades. This is particu-

larly true in Japan where the Department of Surgery at a given University may have an affiliation with 30 or more hospitals across a broad, bordering region. This relationship leads to outstanding opportunities for cross-pollination with respect to surgical techniques, collaborations in education, advancement of research trials, and publications in high impact peer reviewed journals. I envision the possibility of expanding our reach with best practices and quality performance in surgery for various procedures across all divisions in our fully affiliated and community affiliate hospitals. The power of such collaborative research would be enormous.

In closing, I welcome our newly appointed faculty members from the IME initiative. For those of you who wish to know more about IME at the University of Toronto, you can visit the Faculty of Medicine website at: [http://www.facmed.utoronto.ca/programs/Integrated\\_Medical\\_Education.htm](http://www.facmed.utoronto.ca/programs/Integrated_Medical_Education.htm)

*James T Rutka, MD PhD, FRCSC  
RS McLaughlin Chair  
Department of Surgery*

## Improving care of bleeding patients through research at Sunnybrook

Bleeding is a common surgical problem and a challenge that every surgeon has to face. Bleeding is particular challenge in trauma where it remains the most common cause of preventable death. Bleeding can be classified as mechanical (e.g. a lacerated liver) or coagulopathic – when hemostasis is defective and the patient becomes incapable of clotting effectively. Recent evidence suggests that shock is the main cause of early coagulopathy following trauma and not loss and consumption of clotting elements as previously believed. The best management of mechanical bleeding continues to be surgery while coagulopathy is essentially treated by replacing clotting



Sandro Rizoli in the ROTEM Lab

elements with transfusion of blood product such as fresh plasma to replace clotting factors, platelets, and cryoprecipitate to replace fibrinogen.

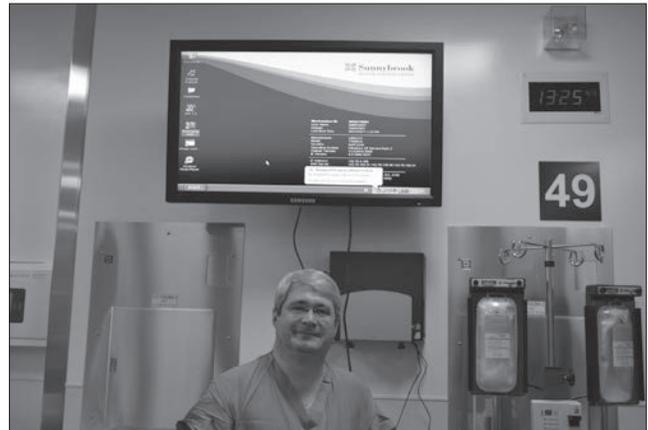
The challenge in trauma is to recognize when the patient is coagulopathic. The clinical recognition of coagulopathy tends to be late, usually when there is diffuse nonstop oozing from surgical incisions, tube sites, mucosa, etc. Frequently the clinical diagnosis of coagulopathy occurs a few minutes before cardiac arrest. It is impossible to diagnose excessive clot breakdown (hyperfibrinolysis) clinically, which may be more common than recognized. A recent study published in *Lancet* (1) suggests that anti-fibrinolytic drugs reduce mortality in trauma.

Coagulopathy is better diagnosed by coagulation lab tests such as INR, aPTT, platelet count and fibrinogen levels. Unfortunately these tests may not be helpful in the context of exsanguinating hemorrhage because they take too long to be available (often more than 1 hour); may be normal even when the patient is markedly coagulopathic and have no correlation with bleeding. Remember that INR was created to evaluate coumadin therapy, not exsanguinating surgical bleeding. The combination of high mortality and lab tests of limited usefulness have led many Trauma Centers in North America to adopt Damage Control Resuscitation (DCR) for the management of massively bleeding patients. In DCR, all bleeding patients are presumed coagulopathic and receive large transfusions of red cells, fresh plasma and platelets from the start of resuscitation, while completely ignoring the lab. The evidence supporting DCR is weak and while it may have saved many lives, the chaotic

and unguided transfusion of massive amounts of blood products may also have contributed to the poor outcome of others.

Thromboelastometry (TEM) is a coagulation assay used by some centers around the world for liver transplantation and cardiac surgery. TEM was recently proposed as a potentially ideal test for the diagnosis and management of coagulopathy in massive bleeding patients, particularly in trauma. The equipment consists of a pin (channel) that is immersed into a cup, containing a few drops of the patient's blood. As the liquid blood within the cup turns into a clot and subsequently undergoes lysis, the viscoelastic resistance over the pin changes and these changes are measured by a computer that generates a graphic representation. The graph generated and its measurements are very simple to interpret. TEM evaluates the whole coagulation process, from initiation to propagation to lysis. It measures how quickly the clot is formed (that is clotting factor dependent); the maximum strength of the clot (that depends on platelets and fibrinogen) and also measures clot breakdown or fibrinolysis. Another reason TEM is considered superior to standard coagulation lab tests is the fact it can guide transfusion (for example: patients with excessive fibrinolysis need antifibrinolytic drugs and not plasma transfusion). There are two different TEM devices commercially available, but the European model (ROTEM or rotational thromboelastometry) is more sophisticated and performs 4 different tests including specific ones for platelets and fibrinogen. A few places in the world are starting to explore the usefulness of ROTEM in trauma. In North America Sunnybrook is the first one.

The Sunnybrook Trauma Program led by Homer Tien is the largest in Canada and approximately 4% of our patients are admitted with massive bleeding. Some of these patients require so much blood during resuscitation that they put at risk the blood inventory for the city of Toronto. Massive bleeding is not only an area of major clinical interest at Sunnybrook but also its main focus of research. The motivation to acquire a ROTEM was the unique opportunity it offered to advance both trauma research and clinical care to a cutting-edge position. First we applied for a Special Authorization from



Rotem Trauma Room

Health Canada to use ROTEM clinically. Then the equipment was loaned by the manufacturer and installed with funds from the De Souza Research Chair. It has been proposed that the equipment be installed in the Trauma Resuscitation Room and used for point of care testing. Thanks to Elena Brnjac and the Sunnybrook Department of Clinical Pathology, we were able to place the equipment in the Hospital Lab where it will be done by trained technologists and according to the highest lab standards. In order to have the results immediately available for clinical decision-making, a large screen has been placed in the Trauma Room that is directly linked to the ROTEM in the lab. The screen will display the results in real time and can be used to diagnose coagulopathy and help in deciding which blood product to transfuse and how much. Another innovation is linking ROTEM to the Operating Rooms with similar real time display of the results. In the OR, the test will help surgeons and anesthesiologists resuscitate patients undergoing emergent surgery. We expect to be doing ROTEM tests in all trauma patients admitted to Sunnybrook starting July 28<sup>th</sup>.

The ROTEM project is a fascinating advance for trauma research at Sunnybrook. Over the last years, trauma surgeons Sandro Rizoli, Homer Tien, Lorraine Tremblay and transfusion specialists Jeannie Callum, Bartolomeu Nascimento, Marciano Reis have worked together in a growing number of clinical trials focused on traumatic coagulopathy and blood transfusion in trauma. Like before, the current ROTEM project will have a direct impact on patient care. The group is also conducting the first randomized controlled trial on DCR with funding from the Canadian Forces Health Services,

and recently created the Sunnybrook Code Omega, a protocol for the management of massive bleeding. Their collaboration also led to the Massive Transfusion Consensus Conference, an international meeting held at the Sheraton Hotel in Toronto June 9-11, 2011. This Conference attracted world renowned surgeons, anesthesiologists, hematologists and transfusion specialists. It resulted in consensus guidelines on massive transfusion, which will be published in *Critical Care* before the end of 2011.

Even today, the mortality of the coagulopathic bleeding trauma patients remains unacceptably high around 40%. Our expectation in being among the first to explore the role of ROTEM in trauma, is to be able to advance the research on the physiopathology of coagulopathy in trauma, improve our clinical ability to diagnose and treat coagulopathy, make better and more rational use of blood transfusions and reduce the enormous mortality and suffering of these patients.

*Sandro Rizoli*

*De Souza Trauma Research Chair*

*CIHR/NovoNordisk New Investigator Chief Region XII  
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#### References:

1. CRASH-2 collaborators, Roberts I, Shakur H, Afolabi A, Brohi K, Coats T, Dewan Y, Gando S, Guyatt G, Hunt BJ, Morales C, Perel P, Prieto-Merino D, Woolley T. - *The importance of early treatment with tranexamic acid in bleeding trauma patients: an exploratory analysis of the CRASH-2 randomised controlled trial.* Lancet. 2011 Mar 26; 377(9771):1096-101, 1101.e1-2

## Activating Brain Tumor Stem Cells During Intra-operative Chemotherapy



Sunit Das with his wife Pavani and their daughter Lakshmi

Recently appointed to the neurosurgery staff at St. Michael's Hospital, Sunit Das has a focused interest in malignant diseases of the brain, skull base and endoscopic neurosurgery. He will next add gamma knife radiosurgery to his skill set.

Sunit attended medical school at Northwestern University and then completed a neurosurgery residency there under Hunt Batjer, one of the great neurosurgical experts on vascular malformation. Batjer trained under the iconic Canadian neurosurgeon Charles Drake. Hunt is a Dallas Texan who creates an exceptionally calm atmosphere in the operating room. Hunt referred Sunit to his friend Jim Rutka during Sunit's second year of neurosurgery residency. Jim has been a mentor ever since, writing supporting letters for every grant application, arranging for him to give talks and serve on committees to foster his career.

Sunit completed a PhD at NIH, focused on synaptic maturation and neural stem cell biology. "It was a fantastic place to learn, working with mentor Xuan Cheng and surrounded by spectacular scholars."

In his laboratory in the MaRS building, Sunit he is working with glioma and glioblastoma stem cells. His focus is on signaling in the cell cycle, looking at signaling families at the EMT (epithelial mesenchyma transition). This is a pathway

that has been actively and productively explored in breast cancer. The EMT interface maintains stem cells in a quiescent stage, but it is disrupted in gliomas and glioblastomas. The second pathway that he is studying is endothelial cell-signaling via prostacyclins. The prostacyclins maintain two niches in the brain where stem cells reside - in the subventricular area and the subgranulosa zone. Other signals push these cells toward differentiation, while vascular endothelial prostacyclins maintain them in equilibrium.

Sunit came to Toronto in order to combine clinical work with scientific work at a level that enables a surgeon scientist to keep his skills together. He will link clinical trials to laboratory investigations - for example, an RTOG (Radiation Therapy Oncology Group) trial working with 5 ALA, a compound that fluoresces when metabolically active cells break down. Resistance to chemotherapy is associated with stem cells. He hopes to be able to drive cells away from the stem cell phenotype to increase their sensitivity to chemotherapy and attack them with adjuvant treatment at the time of surgery. He will model his laboratory - based clinical work on the Brain Tumor Unit at the Hospital for Sick Children.

Sunit was born in Dhaka, Bangladesh, moved to New York city as an infant and subsequently moved to Detroit. He grew up as an immigrant Indian-American and as a scholar - athlete. He entered the honours program in English literature at the University of Michigan Ann Arbor and became interested in the life of the mind. He then studied political philosophy in graduate school at Harvard under Cornell West. He became interested in the philosophy of Locke, Wittgenstein and Heidegger. He considered pursuing philosophy or neuroscience and fortunately chose the latter. One of his surgical mentors was Mark Telemanti, a gifted surgical oncologist and highly praised and beloved clinician.

Sunit's family includes his wife Pavani, a medical school classmate at Northwestern, and their two year old daughter Lakshmi. Pavani is a specialist in infectious disease, working at North York General and consulting for the Ontario Agency for Health Promotion. His dad is a pediatrician and his maternal grandfather was a military physician. Sunit runs and bikes and his wife skis. Sunit is currently reading the Anatomy of Influence by Harold Bloom, the dean of American literary critics and one of Sunit's former teachers.

*M.M.*

## 10 Questions for Jim Rutka



James Rutka in the lab

**Q1: What do you think Dean Whiteside meant when she told us you will take the Surgery Department to the next level?**

The Department of Surgery is in great shape. We are probably ranked in the top 20 in the world based on my scan of other Departments, and my strong hope and belief is that we will be able to move up within the top 5 over the next 5 years. The criteria by which Departments are judged include grant capture, publications, faculty presentations, innovations, patents, and the training programs. For the latter reason, funding and support of the Surgeon Scientist Program (SSP) will remain as one of my top priorities. The SSP continues to attract the most talented residents to the Department. The pendulum swings periodically, more towards clinical training and education at one time, and towards research at other times. Another one of our goals will be to recruit the very

best faculty investigators. While we have an outstanding Department using the traditional metrics, we also have a great opportunity to improve our performance and ranking by continuing to publish high impact papers and demonstrating a higher percentage of grant capture amongst faculty. The leading Departments in the world whom we should emulate and surpass are UCSF, Duke, Johns Hopkins, University of Michigan, and Harvard.

**Q2: Is there a Rutka philosophy or approach that you will bring to the department?**

My approach as Chair of the Division of Neurosurgery was to place a personal touch on the program, getting to know all the residents, fellows, and faculty. While the Department of Surgery is a larger enterprise, by a factor of 10 compared to neurosurgery, I will try to do the same. I also strongly believe in striving for excellence at all levels – patient care, education, surgical technique, and research. And I would never ask a faculty member, resident or fellow to do anything I would not do myself. So I lead by example, and hold myself to the same standards I set for members of the Department.

**Q3: How did a microvascular fellowship at the University of Nagoya and a postdoctoral fellowship in immunology at Juntendo University in Tokyo go? Did you speak Japanese when you were there?**

Yes. I did an intense 7 month Berlitz course in Toronto at first. I highly recommend this type of crash course as it mandates your speaking Japanese right from the outset, sometimes fumbling and making mistakes, but gaining confidence in your abilities to converse in a very short time frame. I also took Japanese lessons when we lived in Japan. To this day, I still practice my Japanese with my Japanese research fellows in the lab. I can still remember renting a car in Tokyo years ago, and performing the entire transaction in Japanese, before we drove to the ancestral Shinto and Buddhist shrines on the Romantic Road to Nikko. I also spoke Japanese with my colleagues on the neurosurgical services in Tokyo and Nagoya. My surgical mentor Dr. Sugita in Nagoya kindly emphasized that I would like to speak Japanese when I was there, even though many of the surgeons and residents were interested in practicing their English.

**Q4: Do you have a priority list for the department to work on in terms undergrad, postgrad, international, academic surgery and clinical surgery?**

My first priority will be to engage the faculty in a strategic planning session so that we can set the blue print for change and advancement of our goals over the next 5 years. This will be conducted in the early fall of 2011. We will also be preparing for the ACGME accreditation of the medical school in 2012. There is still some work to do regarding the manner in which we instruct medical students about surgery. Following that, we will work on preparing the postgraduate program for Royal College accreditation in 2013. This will give us a chance to strengthen all of our divisions. International surgery and global health will build on the strengths of the fellowships like the Bethune fellowship fostered by Andrew Howard and dedicated recently by Adrienne Clarkson. We will also work on increasing our fundraising capabilities within the Department with the help of Martin Barkin, Chair of the Surgical Alumni committee, and Darina Landa, our newly appointed Departmental Advancement Officer.

**Q5: In the postgrad sector, do you see changes related to the imbalance David Latter recently described between graduating surgeons and opportunities to enter practice - the “well trained- no job” problem?**

Ron Levine, our Director of the Postgraduate Program has heard this issue about “no jobs” for graduating residents across all specialties. Ron considers this to be one of our major challenges in the Department, and I agree with him. To help solve this issue, we will need to work at several levels but especially at the Provincial level in conjunction with the Ministry of Health to determine the true workforce constraints in the system. I have great empathy for the residents who are confronting this change in the practice of surgery. We will focus on new models for job opportunities in the Department in our strategic planning session this fall. The mentoring and practice transition approach for senior surgeons that David Latter wrote about should be helpful, as will programs to prepare surgeons for the version of their lives that follows retirement.

**As a follow up question: Can you comment on the recent developments in postgrad education, such as the Competency Based Curriculum and the introduction of Nurse Practitioners and Physician Assistants?**

The use of the Competency Based Curriculum (CBC) and the more widespread use of nurse practitioners (NPs) and the newly graduated physician assistants (PAs) will be helpful in reducing excessive service work performed by residents. I am intrigued with the possibilities of using the PA programs' graduates and surgical hospitalists to fill the gaps with alternatives to surgical residents. The current PAIRO contract is up for review and renegotiation at this time. I am hoping that the current resident work week will be maintained in the next iteration of the contract, as I think our residents are receiving excellent instruction in surgery, and a balanced approach to lifestyle across all divisions. I sincerely hope we do not veer towards a European model of 48 hrs of practice per week, as I have seen firsthand how that model has reduced the experience of residents/registrar in that system.

**Q6: Will the department retool surgeons who are currently in practice, but trying to catch up with evolving new techniques and technologies?**

Retooling for minimal access surgery, image guided interventional radiology, robotic surgery and neuronavigation all need to be developed. Terry Axelrod will help lead this effort as our Director of Continuing Medical Education (CME). We plan to offer numerous CME courses throughout the year which surgeons can take advantage of to hone their skills in these recently emerging areas. This form of CME will also help to raise funds for the Department.

**Q7: Is the proposal to add an option of private care a threat to our department?**

It could be advantageous if it comes. Last year, as President of the American Association of Neurological Surgeons, I worked through the implications of the Patient Protection and Care Act (PPACA) of the Obama administration with my neurosurgical colleagues in the US. There is a lot of trepidation about how PPACA will be implemented, at least amongst the neurosurgeons and other surgical subspecialists. At that time, I became keenly aware of the value of the Canadian system, despite some of its limitations, as I listened to the concerns of my American colleagues.

**Q8: What are you most proud of?**

My family. Mari, my wife of 31 years is in her third term as a school board member in North York. Daniel is a film and web producer in Los Angeles, after graduating from McGill with a degree in jazz and history. Hana is a graduate of the National Ballet School in Toronto and dances in London, England at the Central Ballet Academy. And Marissa is a film student at the Tisch School of Film Studies at New York University.

**Q9: Can you tell us a little about what you do outside of surgical life?**

For me, the most important and cherished activity is family time. I also continue to enjoy playing the piano. I trained at Toronto's Royal Conservatory of music years ago, and on occasion have performed in public in recent times. I am an outdoors enthusiast. This summer, Mari and I will go on a canoe trip deep into the interior of Killarney Provincial Park. We have been doing this for years, and our children have joined us for many of these expeditions. I am still active in athletics, playing hockey with full equipment, squash, cycling, and rollerblading.

**Q10: Does the date of November 18, 1978 have any special significance for you?**

That's the day we beat the University of British Columbia at Varsity Stadium to win the Vanier Cup College Bowl Championship. In fact, I still have a piece of the goal posts as there used to be a tradition of tearing the goal posts down after the game in those days. We won 16 - 3. I was the quarterback for Queens. Both teams had strong defenses. We had one long drive - a quarterback draw, followed by two pass plays. When we finally punted to their five yard line, they fumbled, we recovered, and made the crucial game winning touchdown. There is a saying about old quarterbacks: that "Old quarterbacks never die, they just fade back and pass away". I must say, there were many life lessons to be learned from playing football including drive, second effort, teamwork, and believing in yourself. All these lessons have been enormously helpful in my own surgical practice and career.

*M. M.*

## Robert Stone Lecture RETHINKING RESIDENCY TRAINING



Shaf Keshavjee, Bob Stone and Lee Swanstrom

Lee Swanstrom, Professor of Surgery at Oregon Health Sciences University and Director of the Minimally Invasive Surgery program, presented the Robert Stone lecture “Rethinking Residency Training. Perspectives gained from the Minimally Invasive Surgery Revolution” at Toronto Western Hospital on Friday, May 13<sup>th</sup> 2011.

“The laparoscopic revolution began in the late 1980s when Erich Muhe in Germany did the first laparoscopic cholecystectomy. He performed 38 operations with one death. He was reviled by his colleagues, lost his privileges, was jailed and his wife left him, illustrating the dangers of being the first. Eddie Joe Reddick brought the technique of laparoscopic cholecystectomy back from France and developed weekend courses for general surgeons in North America. He charged \$3,000 for each surgeon to come and watch him perform the operation. He was able to retire after five years, then bought a music publishing company. Eventually, he lost all of his money and went back to work. He was a better surgeon than he was a businessman.”

The standard approach to surgical residency training is the Halsted apprenticeship model. Over a period of 5 to 8 years, surgeons gradually take on increasing responsibility. They are punished for their mistakes by withholding progressive opportunities to operate as part of this training paradigm. Under the old system, training was long and the pace of surgical evolution was slow. For example, it took 25 years of operating to achieve the first survivor of esophagectomy.

Of all the radical revisions introduced by laparoscopic surgery, weekend courses were the dominant new feature. These introduced industry participation and marketing as well as a short duration of training. Laparoscopic cholecystectomy training had to be rapidly introduced, so that all 20,000 general surgeons in the United States could quickly learn the technique. This stimulated innovation, the rapid development of new instruments, and rapid introduction of new techniques into practice. Surgeons who performed laparoscopic surgery could control their own practice. Hospitals advertised the skills of their laparoscopic surgeons to increase their market share. By 2005, not only cholecystectomy, but nearly every operation in the surgical armamentarium had been done using minimally invasive surgical techniques.

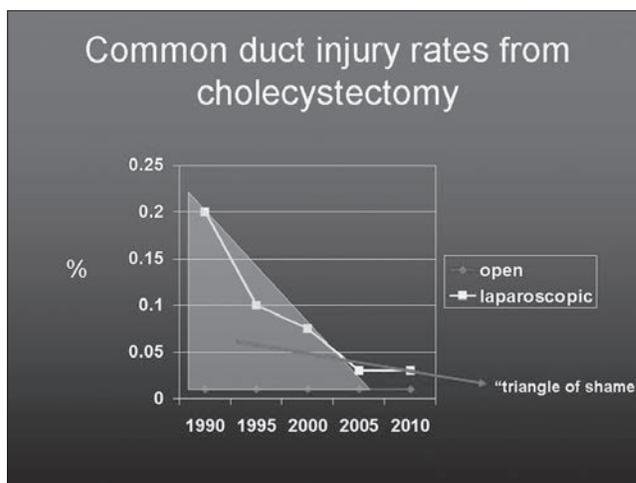


Fig. 1 The Triangle of shame

As it turned out, weekend courses were a mixed blessing, because training for a weekend left the participants with no muscle memory and no way for their teachers to measure their competency. Common duct injuries were common in the early learning phase of laparoscopic cholecystectomy, occurring in 0.3% of cases - ten times the rate of injury in open procedures. This period Lee refers to as ‘the triangle of shame’. Laparoscopic surgery proved to be bad for residency training, as teachers were slow to pass their techniques on. It drove up costs and introduced conflicts of interest with industry that verged on the unethical.

It is now unacceptable to subject patients to such learning curves. It stresses the surgeon, the operating room staff, the healthcare system, and the patients.



Bob Stone, Steve Gallinger and Hugh Scully

With the publication of the IOM's "To Err is Human" mandatory improvement in learning new surgical techniques was required. Current negative influences on the development of laparoscopic surgery include its cost and restrictions from the IRB. The reaction to this pushback has been the development of centers of excellence, where high volume is equated with expertise. The catch 22 of this linkage is that it is difficult to get these high volumes unless you practice in a center of excellence.

One possible solution to the problem is the NICE Program (National Institute for Clinical Excellence) introduced in the United Kingdom. The NHS, based on a NICE evidence review, has decided not to pay for open colectomy after 2014. In order to ensure that surgeons become proficient at laparoscopic colectomy, the government funds regional training centers and pays for surgeons to attend courses. The government also hired 15 travelling expert surgeons to certify the competence of those trained at the centres. They visit the surgeons in the operating room, and proctor their performance. The American College of Surgeons has also initiated a program of regional training centers for surgery, but without the mandate, funding or government backing of the British system. We also have few measures of competency. At this time, the American Board of Surgery requires applicants to have FLS Certification (Fundamentals of Laparoscopic Surgery) and there will soon be a similar program for flexible endoscopy (FES). This is timely as the American Gastroenterological Association and other medical societies have taken a position that "surgeons are poor practitioners of gastrointestinal endoscopy and we shouldn't be responsible for their training". The burden

of adequate training and now guaranteeing to the public that their surgeon is competent clearly rests on the shoulders of the surgical community.

Short courses don't work well for residents, and the reduction in workweek hours has led to a situation where "training is overreaching and underachieving in general surgery". The number of advanced laparoscopic surgical cases seen in most residencies is usually low. For this reason, minimally invasive surgery fellowships are needed, plus the use of virtual reality and internet programs.

Will the system tolerate training as we knew it? How will we accomplish the "10,000 hours of deliberate practice?" demonstrated by Ericsson to be necessary for expert performance. Lee proposes that we change our thinking about residency training. "We should start at the other end of the spectrum, introducing residents to laparoscopic surgery at the beginning, rather than open techniques. Over time, they can progress to performing open operations in the 4<sup>th</sup> and 5<sup>th</sup> year." Lee also proposes that we proctor those who attend short courses, design ways to measure their competence and train them toward expertise. During the question period the appropriateness of screening applicants for three dimensional spatial sense was raised. Dimitri Anastakis pointed out that studies completed here and published in the Lancet show that it is not necessary to exclude applicants whose three dimensional sense is less developed. They can eventually be trained to perform at a competent level. Hugh Scully asked if we are training enough general surgeons to manage highway crash victims. Lee felt that the direction that this is going is toward training trauma surgeons and acute care surgeons, and the use of trauma centres. Dimitri Anastakis asked how to pay for the \$110,000 simulators needed for training. Lee answered that the US Congress has been asked to address this as it should be the responsibility of society. Shaf Keshavjee suggested that industry should pay for the simulator in order to prepare surgeons to use their \$2.3 million devices later on in their careers. Chris Feindel raised the question of the effect of limited work hours. "We no longer train the general surgeon as a universal genius capable of every operation. The answer seems to be in specialization. "

*M.M with notes from Lee Swanstrom*

## Blocking Angiogenesis and Gamma Knife Surgery

Neurosurgeon Gelareh Zadeh's focus is on neuro-oncology, both in her clinical and research work. Working together as a team with Fred Gentili at Toronto Western Hospital, she continues to build her skull base practice through Fred's excellent mentorship and collaboration. Endoscopic neurosurgery was historically focused in the region of the sella turcica. However, the transnasal endoscopic approach now includes a much wider range of operations. Anterior and middle skull base pathologies can now be accessed through the expanded endonasal approach.

Gelareh works with Mount Sinai Head & Neck surgeon Allen Vascan in the operating room at Toronto Western Hospital where they are building a skull base program. Gelareh's second clinical focus in neuro-oncology is the treatment of brain metastases. She runs a brain metastases clinic with Mark Bernstein and the radiation oncologists at Princess Margaret Hospital. "The treatment of this challenging patient population is evolving rapidly as systemic therapy improves overall survival and alters tumor biology. In the past, brain metastases were treated with whole brain radiotherapy, but stereotactic radiosurgery enables us to tailor individual treatments that improve overall quality of life and prolong functional independent status." There are two gamma knife machines, one at Princess Margaret, used for malignant lesions and one at Toronto Western used for other brain pathologies

Gelareh was born in Iran, raised in England and came to Canada at age 17. As she and her family arrived in Winnipeg on Boxing Day, her mother, a nuclear chemist was intended to work in the nuclear industry in Manitoba. The family stayed in Winnipeg for 10 years, where Gelareh attended medical school and began her neurosurgery residency. She came to the University of Toronto to pursue a PhD with Ab Guha. Her PhD focused on molecular pathways that regulate tumor angiogenesis. "It was a great 4-5 years of scholarly work at the Hospital for Sick Children. Ab Guha has been an



Gelareh Zadeh with her husband Randall Strank and their daughter Ayla

excellent supervisor and mentor for me." Following her laboratory work, Gelareh continued her neurosurgery residency education at the University of Toronto for the next three years. She was very busy clinically and is grateful to her many mentors, particularly to Chris Wallace for his remarkable mentoring in operating room technique. She performed over 500 operations during her senior year before the current work hour restrictions were in place.

Her PhD work was focused on blocking angiogenesis in a xenograft glioblastoma multiforme model. Vascular endothelial growth factor is the main network builder of angiogenesis. Angiopoietin then matures the basic vascular infrastructure in order to develop the finer vascular radicals. This step requires destabilizing preformed vessels to allow new branching. This process is active in embryogenesis and is recapitulated in tumors. She worked on a competitive inhibitor injected intratumourally to block the Tie-2 receptor. The tyrosine - kinase inhibitor that she developed was a unique contribution. Gelareh worked with Andras Nagy of the Lunenfeld

Institute during her angiogenesis research. She finished her laboratory and clinical training in 2006, then went to London, England to the Grey Institute to study radiobiology. It was a stimulating year featuring training in clinical trials of radiotherapy. She also set up a brain metastases clinic there, and got unwanted media attention when she performed the first same day outpatient brain surgery in the UK, a technique that she had learned from its originator Mark Bernstein.

In order to develop stereotactic neurosurgery, Gelareh turned to the Samantha Dickson Brain Tumor Trust for financial support. The Trust provided five million pounds to advance brain tumor research and clinical program development. Matched funds were provided by the National Hospital Foundation to make possible the clinical program in brain tumor care. Professors Fish and Hanna at University College London were instrumental in helping Gelareh secure these funds.

“I missed the academic environment of Toronto Western Hospital and so I returned to work with my clinical and laboratory colleagues. Working in an established environment that supports and fosters research, and collaboration with likeminded clinician scientists is even more important than the funding for research.” Gelareh has a CIHR Surgeon Scientist Award, which is a competitive clinician scientist award offered to approximately ten people throughout the country every year. She learned to value Canadian healthcare while she was in London and saw how two tiers healthcare hurts the public sector, as there is an inevitable drift of practitioners toward private care. She returned in 2008 and has been in her present position for the past three years. The laboratory is going well and her clinical work is very satisfying. Ab Guha and James Rutka have continued their support and mentorship, helping her establish herself as an independent researcher. She has also had an outstanding scientific mentorship and collaboration with Richard Hill, PhD at Princess Margaret Hospital.

Gelareh and Randall Strank have a three year old daughter Ayla. Her mother Fariba has recently retired from nuclear medicine at Health Sciences in Winnipeg to help look after Ayla. The family lives in High Park. Both parents and Ayla are learning the piano together, with Ayla slightly ahead of her mother and father.

*M.M.*

## Norman Bethune International Surgical Fellowship



James Orbinski, Maryse Bouchard, Right Honourable Adrienne Clarkson

On May 4th, 2011, Massey College hosted a gala reception celebrating the inaugural Norman Bethune International Surgical Fellowship.

Inspired by the selfless international work of Dr. Bethune – the fellowship funds a surgical trainee for one year to benefit patients facing challenges in countries of great need.

The Right Honourable Adrienne Clarkson, former Governor General of Canada, spoke of the legacy of Norman Bethune and her inspiration to partner with the University of Toronto in establishing this important fellowship. James Orbinski, Chair in Global Health at the Dalla Lana School of Public Health, discussed the prevalence of trauma in developing countries and the impact of medical support.

The highlight of the evening was a presentation by Maryse Bouchard, fourth year orthopaedic surgery resident and inaugural fellowship recipient, who spoke about her powerful research into the problem of lack of access to essential orthopaedic medical devices in Uganda.

Norman Bethune trained to become a doctor at the University of Toronto and graduated in 1916, at the same time as Frederick Banting. This fellowship honours the importance and stature of Dr. Bethune and his con-

tributions to the University, the City of Toronto and to improved healthcare internationally.

Adrienne Clarkson's recent book *Extraordinary Canadians – Norman Bethune* gives a stirring account of his heroic surgical work in Montreal, Toronto, Spain and China.

A special thank you to those who attended and have generously supported this project.

For more information about the Norman Bethune International Surgical Fellowship, please contact Darina Landa at darina.landa@utoronto.ca or 416-978-4296.

*Darina Landa*

## Palmer Lecture

### ADVANCES IN PARATHYROID SURGERY



John Palmer

John Angus Palmer was a faculty member of the Department of Surgery at University of Toronto and the Division of General Surgery at the Toronto General Hospital. He practiced as a Surgical Oncologist until his untimely demise in 1984. He had a broad range of interests including Endocrine Surgery and

Gastrointestinal Malignancy. He was a master surgeon, an astounding technician, a thoughtful and sage clinician and a gifted teacher. A lectureship was established in 1985 by his friends, family, former students, patients, and medical colleagues as a tribute to his life and memory.

Gerard Doherty, Professor of Surgery and Head, Section of Endocrine Surgery at University of Michigan, delivered this year's John Palmer Memorial Lecture on Friday April 1<sup>st</sup>, 2001. Dr Doherty reviewed the history of discovery of disease of the parathyroid glands and provided an overview of current treatment options as well as chal-

lenges. He then discussed the fascinating topic of tissue engineering, and the potential use of stem cells to grow parathyroid glands in vitro. The parathyroid cells grown in his laboratory are responsive to calcium levels and produce functioning parathyroid hormone in response to hypocalcemia. He reviewed the progress

made in research in this area in his own and other laboratories and described how it will be possible, in the near future, to produce functional, transplantable human syngeneic parathyroid tissue to replace function in those unfortunate individuals who have lost their own glands due to disease or surgery. Hypoparathyroidism is an uncommon but devastating disability which at present can only be managed, with difficulty, by large doses of Calcium and Vitamin D, leaving the sufferer with wild fluctuations in serum calcium levels and severe symptoms including possible tetany.

After the lecture, Gerard Doherty met with individual faculty members and conducted a spirited endocrine oncology tumour board with residents from the General Surgery and ENT programs, the highlight of his visit. John Palmer would have been proud.

We would like to thank Gerard Doherty for taking the time from his busy schedule to visit here and bring us up to date on his exciting work.

*Lorne Rotstein*



Gerard Doherty



Lorne Rotstein

## Pearson – Ginsburg Chair of Thoracic Surgery Tom Waddell



Tom with his wife Lisa and their children Alexandra, Harrison and Nathaniel

Recently appointed to the Pearson - Ginsburg Chair of the Thoracic Surgery Division of the Department of Surgery Tom Waddell is keenly aware of the contributions of those two historic thoracic surgery leaders. Both have been his mentors. Griff Pearson launched the careers of a large segment of the current leaders of Academic Thoracic Surgery, among them Shaf Keshavjee, Alec Patterson, and Joel Cooper. These and others trained in Toronto are leaders in the specialty in Canada, the United States, and around the world.

Describing the Division, Tom says: “Shaf Keshavjee has put together a productive and happy team of Canadian and International thoracic surgeons, including Mark De Perrot from Switzerland and Kazu Yasufuku from Japan. There is a large contingent of international fellows and scientists within the division. These surgeons are active in their national surgical societies, bringing greater recognition and outreach to the division all around the world”.

Lung transplantation, the signature activity of the thoracic division is at a peak of world pre-eminence. The perfusion and gene therapy of damaged lungs conducted outside the body, developed by Shaf and his colleagues

has increased the supply of these exceptionally fragile organs for transplantation. “This technology is being adapted by Markus Selzner for resuscitation of the liver and it could become a great source for donor hearts. Currently, grade 4 ventricles identified on echo prior to harvest are discarded, though they generally have no structural damage. They are temporarily disabled by catecholamines released by brain injury. Similarly, hearts from deceased donors may come back with extracorporeal resuscitation. The work has captured the imagination of the transplant community through Shaf’s perseverance and work as a spokesman, and it is now capturing the imagination of the biotech world”.

A team system approach that has been possible in the Thoracic Division “because it is small enough and cohesive enough to accomplish that goal” will be more widely adopted. For example, because referring doctors want rapid access for their patients with thoracic disease, the division has set up a Rapid Access Management Program (RAMP) that facilitates referrals without reducing the traditional patient - centered approach. Doctors like the team approach, with all of the surgeons managing the patients and performing the procedures with equal skill and without idiosyncratic management approaches. “This system developed from the lung transplantation program. We can all take over a case at any point, knowing the rest of the team does it the same way we do.” Bob Ginsberg started this synthesis when he fused the Princess Margaret, Mount Sinai Thoracic Surgery Division with the Toronto General unit. Shaf has carried this forward into oncology and critical care as well as transplantation.” The division is increasingly active in critical care, using extracorporeal lung support to bridge patients to transplantation. Our work with the Novalung pumpless oxygenator involving cannulation of the pulmonary artery and left atrium, using the hypertrophied right ventricle as the driving pump is a great example of a team success. Seven patients have been treated with this unique technique in Toronto and a similar number in Hannover.

“The thoracic division has been blessed with the resources of a committed hospital, a well developed laboratory program, the Toronto General Research Institute, the Toronto General and Western Foundation and private

contributors such as the Latner family, the R. Fraser Elliot Foundation, the Thomson family, the Menkes family, the Kress family, the McEwen family. The success of the research program was originally built on peer reviewed grants and then has greatly expanded through foundation and private contributions.” For example, Tom, Shaf, Ming Yao all have CIHR and numerous other peer-reviewed grants. This conveys to the philanthropic community, the quality of the ongoing work they support.”

In his own lab, Tom is using stem cell biology as the basis of his research, including studying malignancies and lung regeneration, e.g. growing lung tissues experimentally from progenitor cells. He is working with embryonic stem cells and induced pluripotent stem cells to generate airways and lungs, and bone marrow cells that home to the lung to help regenerate damaged lung tissue.

“The cancer research program including the thoracic division is headed by pathologist Ming Tsao, and Kazu Yasufuku plays a key role. Kazu is doing interesting work on endobronchial diagnosis of lung cancer. He has recruited a large contingent of fellows to his excellent laboratory program. Ming Yao Liu works with Shaf on lung injury and recovery. Mark de Perrot works with respirologist John Granton on pulmonary hypertension. Over time, our vision is that the thoracic unit will continue to integrate and evolve in the way that the Munk Cardiac Centre has grown into an internationally renowned multidisciplinary cardiology, imaging and surgery group.”

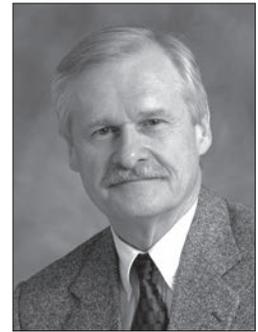
Tom’s wife Lisa continues her career as an architect, though her projects are reduced during this period of very active family life. 11 year old daughter Alexandra is a skier, 8 year old son Harrison is a multi-sport athlete, and two year old son Nathaniel keep the family busy - two days a week of skiing, two nights of soccer, and three nights of hockey. Tom has coached Harrison’s hockey team this year, and missed only two of his daughter’s ski races.

*M.M.*

## Excerpts from Bryce Taylor’s “Effective Medical Leadership”

*“I’ve always had a problem with the oft-used concept “managing people”, as I think a better way of stating the intent might be “managing situations with collaboration and respect”. That said, independent professionals do present unusual challenges in the hospital work environment.”*

*Bryce Taylor*



Bryce Taylor

### *Managing Medical Professionals*

The well-celebrated video advertisement conjured up by Electronic Data Systems (a business and technology services industry, founded by Ross Perot in 1962) and showing images of horsemen herding cats in a wild west setting (<http://theinspirationroom.com/daily/2005/cat-herders-herding-cats/> as in: in a wild west setting (see <http://theinspirationroom.com/daily/2005/cat-herders-herding-cats/>) may come to mind when the concept of managing medical professionals is considered. The presumed lack of control and the antiquated insufficient resources to do the job may be apt in some groups of individuals. However, with regard to the advertisement mentioned, we should remember that cats are wayward and perhaps adventuresome, but relatively harmless.

In the case of medical professionals, the image of a pride of larger cats or a sloth of bears may be more appropriate: these animals may be attracted by pleasures such as raw meat or honey, but the chance of angry retaliation is always present and threatens the zookeeper at all times. Rather than using this predatory image, I prefer to think of my surgical colleagues in a way expressed in one of my yearly ‘state of the union’ addresses, using a flock of migrating birds as a backdrop. These particular geese each had different appearances from one another because their wings were in various distinct configurations. As I said then, ‘This stylized image captures in my mind

our surgical family at UHN . Its members all have the capacity to fly, and indeed soar above most others, and in their make-up and behaviour they are free-spirited, independent, and, as you can see, certainly exalt in being different from one another. But at the same time they fly in formation, knowing that by sticking together and acknowledging the power of team in sometimes unpredictable conditions, their performance, and the recognition of that performance, is the best it can be.'

Individuality and personal achievements are supported and encouraged but only in the context of being part of a team that must play by a set of well-described rules.

One of the major features of the professional behaviour of physicians and surgeons is that there is invariably a sense of entitlement. This feeling is pervasive and, on the surgical side, was given even greater impetus by a recent pseudoscientific, published article from Barcelona. From a recent report in the British Medical Journal, researchers at the University of Barcelona found, in a small study, that male surgeons are more attractive to women than are other doctors. The researchers pointed out (and I kid you not) that 'surgeons spend a lot of time in operating rooms which are cleaner, cooler and have a higher oxygen content than the average medical ward where physicians spend most of their time, which could help surgeons keep their looks.'<sup>24</sup>

Is there any wonder how over decades a sense of entitlement, especially on the part of surgeons, might evolve?

### *Professionalism*

The old definition of professionals in days gone by was in direct relation to what they were paid for their services; for example, an amateur athlete received compensation only for expenses, and a professional made his or her living from the activity. That sports analogy, of course, has been blown up long ago in both amateur and professional domains, and a much more detailed look at professionalism has occupied especially the medical profession in recent years. Being a professional in the twenty-first century implies the following:

Becoming an expert in a specialized field

Acquiring knowledge and skills that are used to serve patients

Improving those tools on an ongoing basis, as knowledge in the field expands

Having academic qualifications that satisfy standards of the certifying and licensing bodies that are ultimately responsible for the quality of care offered to patients

Evidencing a high quality of work in a specific area

Working to a high standard of integrity and ethical behaviour in the service of patients

The appropriate behaviours expected of us as professionals include the following:

Respect for all individuals with whom we come in contact, including patients, family members, colleagues, and other health care workers

A personal appearance befitting our privilege of caring for patients

Reliability and punctuality in our daily activities

Effective communication with others

Respect of confidentiality with regard to both patient and administrative issues

Honesty, integrity, and empathy in our actions with everyone in the organization

Acceptance of responsibility for our activities in our various roles, including the official transference of that responsibility to others when we are absent

Knowledge of our own limitations, and the ability to seek help as required with decision making, whether patient or management related.

It will be your responsibility as a medical leader to first and foremost be a role model for others in your own personal consistent demonstration of the elements of professionalism. Your patient management must embody all the dimensions of patient-centered care, and your comportment and behaviour must reflect the principles cited above as well as the values held by your organization. Your tougher job will be to uphold those principles if they appear to be violated by your friends and colleagues.

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## “Leopards and Ghosts in the Temple”



Martin McKneally

“Leopards break into the temple and drink to the dregs what is in the sacrificial pitchers; this is repeated over and over again; finally it can be calendared in advance, and it becomes part of the ceremony.” (Franz Kafka)

With this vivid image, bio-ethicist and UofT Law Professor Trudo Lemmens characterized the current state of engagement of industry in academic science. Trudo and Frank Cunningham from the UofT Centre for Ethics recently organized an intriguing workshop at the Law School on the Ethics of Ghostwriting. This widely used technique for marketing surgical devices and pharmaceuticals was described in detail. Talented writers prepare manuscripts designed to help market commercial medical products. These papers are offered to prominent clinicians, who serve as guest writers, sometimes called host writers, lending their name and reputation to the marketing plan after review and token editing. Honoraria, advisory board salaries and research support are often used to enhance interest in these transactions. While still widely prevalent, guest writing is regarded as fraud in some jurisdictions. To deal with this problem, some journals’ policy on accepted manuscripts is to require the names of all contributors, some of whom might otherwise remain in the shadows as unacknowledged but well-paid ghosts. In response to such policies, I anticipate that there will be more transparent use of commercial medical writers as acknowledged authors and contributors.

I recently helped adjudicate a controversial decision on the publication of an article about the kallikrein inhibitor Ecallantide, a recombinant peptide in the same class as Aprotinin. Aprotinin had been widely used to reduce surgical bleeding until it was withdrawn because of treatment related complications and deaths. The Ecallantide trial was stopped because the drug was also associated with unacceptable mortality. Importantly, the study also demonstrated a beneficial effect on postoperative blood loss in the comparison group of patients treated with Tranexamic

Acid, a fibrinolysis inhibitor made by Pharmacia-Upjohn.

There was understandable concern about publication, because of the extent of involvement of industry in the trial itself, and in the production of the manuscript. Cubist Pharmaceuticals, the manufacturer of Ecallantide, funded the study and editorial assistance from PharmaWrite, a commercial medical communications company. In addition, the first author is a company employee and stockholder in Cubist, and eight of the nine authors disclosed financial ties to the company. The data were monitored by Global Research Services, a commercial contract research organization (CRO), and analyzed by InVent Clinical, another independent CRO. Nevertheless, three careful reviewers, the associate editor, and the editor-in-chief were impressed by the value of the clinical contribution.

Should journals publish papers so extensively linked to commercial companies? While the *intuitive* initial response might be negative, analysis at the *rational* and *reflective* levels leads to a different conclusion. Rationally, we should not exclude any class of authors categorically on the basis of their affiliation – anymore than we would exclude a manuscript from a particular hospital, university or organization. No policy, precedent or principle precluded acceptance.

A reflective decision about publication should be based on values. The salient values that guide editorial decisions are: scientific merit, including freedom from bias; interest to readers; and usefulness to the profession. The article in question was judged to be scientifically sound, interesting, and useful. So, what were the ethical issues that disturbed the editorial board?

1. *Commercialization of science.* This is a concern, but prevention is inappropriate and unrealistic. Collaboration with industry has a long history, and is now widespread and highly productive. Industry supports virtually all pharmaceutical research, and most of the research on medical and surgical devices. When this collaboration is functioning optimally, the core values of science (such as accuracy, authenticity, logic, and truthfulness) are not compromised by commercial interest in profit.

2. *Commercial bias in scientific trials and reports.* When problems arise at the margins of data management, such as decisions about exclusions, time boundaries on sampling, and interpretation of adverse events, “the profit motive [risks] compromising standards of scientific truthfulness to a greater degree than in traditional academic science.”

Authors and their institutions bear the principal responsibility for the integrity of their work, including its conduct and preparation for publication. Journals lack the resources to police the publication component of this vast enterprise, though reviewers and editors are advised to be alert against commercial messaging. Safeguards imposed externally include government mandated registration of all clinical trials, publication of protocols, and for some journals, obligatory access for reviewers to the full data. These measures create options to monitor, verify, and strengthen the oversight of research. The integrity of scientific publications is still largely dependent on trust in the reliability of all who contribute to the development of scientific progress. When egregious misrepresentation or fraud is discovered, the consequences are public disgrace and loss of reputation, as in the notorious cases of John Darsee and Hwang Woo-suk. Fines and other legal sanctions ensue if there is intent to defraud and evidence of harm. Commercial firms may suffer financial consequences from reputational loss, but the stakes are so high with blockbuster drugs and devices that even million dollar settlements and fines are not always a sufficient deterrent.

3. *Commercial editorial assistance in the preparation of the manuscript.* This merits discussion, as there are over 182 medical publication companies writing scientific articles for various clients. At the UofT workshop on the ethics of ghostwriting, experienced ghost writers told about the development, by the International Society of Medical Publications Professionals, of guidelines and a certifying examination aimed at establishing an aura of professionalism in this expanding field. Some critics view this as strategic marketing, but harmonizing these activities with the values of the science community could make a welcome contribution to clarity that these writers bring to the scientific literature. Alastair Matheson, a scholarly free-lance consultant and writer, told us that a good medical communications team requires substantial technical and academic expertise, including scientists, statisticians, commercial analysts, publication planners, trial designers, professional writers, and journal specialists who know the stylistic and format preferences of particular journals, editors and reviewers. It will not surprise readers to learn that professionally prepared articles have a rate of acceptance that is four times higher than the usual submitted manuscript.

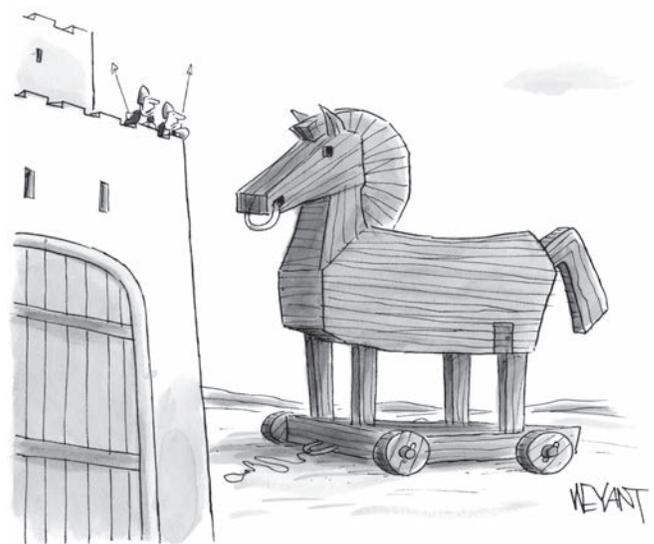
The Ecallantide paper turned out to be an exemplary model of commercially sponsored clinical science. I spoke

to one of the authors who helped design the trial. I learned that all authors had contributed significantly to the study and to the report. Contributions from the commercial medical communications company were minor and acknowledged. The manuscript was not written by ghost authors. The findings are distinctly unfavorable to the manufacturer of Ecallantide, and the report of a beneficial effect of Tranexamic Acid favors a competitor. Often, a negative study like this would be buried by a commercial sponsor. The commendable decision to submit the study for peer review certainly earned my respect and endorsement of publication.

The question remains – is this a Trojan horse, designed to establish a level of trust in commercial publication that will facilitate the acceptance of subsequent studies of less merit or integrity? Time and experience will answer. Like the ancient city of Troy, our scientific journals cannot remain permanently behind a defensive wall, but should be cautious, alert, and circumspect as we open the gates.

Acknowledgements: I am grateful to Trudo Lemmens, Alastair Matheson, Eleanor and Miles Shore, and a cottage full of McKneallys for helpful comments that improved earlier versions of this column. I have no relevant financial relationships to disclose.

*M.M.*



*"How do we know it's not full of consultants?"*

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## NEW STAFF



Laura Snell

**Laura Snell** has recently joined the Division of Plastic and Reconstructive Surgery at Sunnybrook Health Sciences Centre. Her main clinical interest is in the reconstruction of oncologic ablative defects, particularly breast reconstruction. Her clinical goal is to establish a leading breast reconstruction program

at Sunnybrook. She is also interested in the surgical treatment of patients diagnosed with melanoma.

Laura is a graduate of the Plastic Surgery Residency Program at the University of Toronto. She became a Fellow of the Royal College of Physicians and Surgeons of Canada in 2008. At the conclusion of her residency program, she was awarded the prestigious Ross Tilley Scholarship for plastic and reconstructive surgery by the Canadian Society of Plastic Surgeons in 2008.

Following residency, Laura pursued a two year long Microvascular and Reconstructive Surgery Fellowship at Memorial Sloan Kettering Cancer Center in New York City. During this fellowship, she also completed a Masters of Science in Biostatistics at Columbia University.

Laura is the Journal Club Coordinator in the Division of Plastic Surgery at the University of Toronto. Her research interests include the evaluation and management of patient expectations following breast reconstruction, and how better patient education can subsequently improve postoperative satisfaction. She is also interested in patient perceptions of donor site morbidity following breast reconstruction.

*Dimitri Anastakis*

*Chair, Division of Plastic and Reconstructive Surgery*

We are pleased to announce that **Christine Novak** has recently been recruited and appointed as an Associate Professor with the Division of Plastic & Reconstructive Surgery, Department of Surgery, as a Scientist at the Toronto Rehabilitation Institute and a Research



Christine Novak

Associate at the University Health Network in the Hand Program (Toronto Western Hospital) and the Wharton Head & Neck Centre. She holds a Bachelor of Science (Honours Kinesiology) from the University of Waterloo. She has expertise in peripheral nerve research and will focus on clinical outcomes and assessment of patients with musculoskeletal disorders, particularly nerve injury and nerve compression

Christine also holds a Bachelor of Science in Physical Therapy and a Master of Science degree from the University of Toronto. In 2010, she completed her PhD at the Institute of Medical Science at the University of Toronto; the title of her dissertation was *Biomedical and Psychosocial Factors Associated with Pain and Disability after Peripheral Nerve Injury*.

Christine is a member of a number of professional organizations including the American Association for Hand Surgery (Affiliate Member), American Society for Surgery of the Hand (Affiliate member), American Society for Peripheral Nerve and Canadian Physiotherapy Association. She has served on the Board of Directors of the American Association for Hand Surgery and is presently a Council member of the American Society for Peripheral Nerve. She is an Associate Editor for the Journal of Hand Surgery, HAND and Physiotherapy Canada and an invited reviewer for the Archives of Physical Medicine & Rehabilitation, Journal of Thoracic and Cardiovascular Surgery, and Plastic & Reconstructive Surgery.

Her research focus has been in the area of clinical outcomes and assessment of patients with musculoskeletal disorders, particularly nerve injury and nerve compression. She has numerous peer reviewed publications and book chapters published in this specialty and has presented at many national and international meetings. As a physiotherapist, her clinical practice has focused on the management of patients with upper extremity nerve related pathologies.

*Stefan Hofer & Dimitri Anastakis*



Joan Lipa

The Division of Plastic and Reconstructive Surgery at Sunnybrook Health Sciences Centre is pleased to announce the opening of **Joan Lipa's** practice in Oncologic Reconstruction. Although new to Sunnybrook and the Odette Cancer Program, she brings ten years of experience and expertise in the area of post-mastectomy breast cancer reconstruction and microvascular surgery.

Joan graduated from The University of Western Ontario in 1992, and completed a Comprehensive Surgery Internship at The Toronto Hospital – General Division, followed by her Plastic Surgery Residency Training at the University of Toronto. During this time, she completed the Surgeon-Scientist Program to obtain her M.Sc. degree through the Institute of Medical Science at the U of T School of Graduate Studies. She then went on to The University of Texas M.D. Anderson Cancer Center in Houston, TX to complete her fellowship in Microvascular Surgery and Oncologic Reconstruction.

In 2001, Joan started her practice at University Health Network focusing on the care of breast cancer patients and cancer patients requiring complex reconstructions. She was a member of the Department of Surgical Oncology and the Division of Plastic Surgery and was promoted to Associate Professor at the University of Toronto.

In 2008 she was recruited to the University of California, Los Angeles (UCLA) Division of Plastic Surgery where she broadened her scope of reconstructive procedures that can be offered to patients.

Joan Lipa has returned to Toronto and is partnering with Laura Snell to develop the Breast Reconstruction and Oncologic Reconstructive Service and Research Group at Sunnybrook. They are able to offer immediate reconstruction at Sunnybrook through a coordinated effort with Surgical Oncologists at the Odette Cancer Program. Their combined office is located within the Division of Plastic & Reconstructive Surgery on M1 Room 519A and Joan can be reached at Tel: 416-480-6069, Fax 416-480-5795. Her assistant, Franca Vasco can be reached via email at: Franca.Vasco@sunnybrook.ca

*Paul Binhammer*  
*Head, Division of Plastic & Reconstructive Surgery*

## ANNOUNCEMENTS

On behalf of the Division of Plastic and Reconstructive Surgery, we would like to once again thank all of our guests for attending the Graduation Gala dinner held on Saturday, June 18th, 2011 at One King West Hotel. John Taylor gave an enlightening speech on the career of E. Fulton Risdon, whose family members were in attendance as well. It was wonderful to see many of our own alumni that evening, celebrating not only our current graduating residents, but also helping us commemorate 90 years of Plastic Surgery in Toronto.

Highlights of the Gala Dinner for 2011 with photos and slideshow can be found on our website at: <http://uoftplasticsurgery.ca/main.php?p=1494&cs=5>

Congratulations to all of our graduating residents and award winners:

### GRADUATING RESIDENTS

Amer Alkudmani  
Mary-Helen Mahoney  
Karen Wong

We thank all those who attended this year's event and look forward to next year's Graduation Gala.

Sincerely,

*Dimitri Anastakis*  
*Chairman*

*Mitch Brown*  
*Program*  
*Director*

*Joel Fish*  
*Research*  
*Director*

Dear Colleagues,

Please join me in welcoming Laura Snell as the Division's new Journal Club Coordinator. Laura will assume this important education role effective July 1<sup>st</sup> 2011. I would like to thank Laura for agreeing to take on this important leadership position.

I would like to echo Mitchell Brown's thanks given at Saturday's Graduation Dinner, and once again thank Melinda Musgrave for her leadership as Journal Club Coordinator over the past five years. Melinda has done an exceptional job in transforming our Journal Club and also in helping to secure external funding for this academic activity.

On behalf of the entire faculty, I would like to thank both Laura and Melinda for their leadership and commitment to education in the Division of Plastic and Reconstructive Surgery.

*D. J. Anastakis  
Chair, Division of Plastic and  
Reconstructive Surgery*

## AWARDS

**Subodh Verma** (CardSurg) was a co-recipient of the Dean A.L. Chute Award (The Silver Shovel) award, honoring his demonstrated excellence in overall teaching in the second, third and fourth years of the undergraduate medical program.

**Mitesh Badiwala** (CardSurg) received the Shafie S. Fazel Outstanding Resident Award.

**Ed Hickey** (CardSurg) received the Zane Cohen Clinical Fellowship Achievement Award, which honours the clinical fellows for their significant accomplishments.

**Teodor Grantcharov** (GenSurg) was awarded the Education Development Funds for his proposal on the *Design and Validation of a Surgical Skills Assessment Tool for Laproscopic Roux-en-Y Gastric Bypass*.

**Frances Wright** (GenSurg) received the 2011 Tovee Award - Undergraduate category.

**Jaime Escallon** (GenSurg) has been awarded a 2010-11 Wightman-Berris Academy Individual Teaching Award in the Undergraduate category

**Homer Tien** (GenSurg) was awarded the Marvin Tile Award for outstanding contributions to the Department of Surgery at Sunnybrook.

**John de Almeida** (H&NSurg) received the Resident Teacher of the Year Award at the 20th Annual Percy Ireland Academic Day on May 6, 2011.

**Nikolaus Wolter** (H&NSurg) is the recipient of the Best Paper Award at the 20th Annual Percy Ireland Academic Day, in the category of Work Undertaken by PGY 2 Residents during Clinical Rotation for "*Investigation of the Effect of the Acoustic Reflex on Contralateral Cochleotopic Frequency Specific Suppression of DPOAEs by Surgical Division of the Middle Ear Muscles*" (mentors - Adrian James and Robert Harrison).

**Thileeban Kandasamy** (H&NSurg) is the recipient of the Best Paper award at the 20th Annual Percy Ireland Academic Day in the category of Work Undertaken by PGY 3 Residents during Clinical Rotation for: "*Presbycusis and VEGF -An Update of Molecular Changes in the Aging Mouse Cochlea*" (mentor: Vincent Lin).

**Eitan Prisman** (H&NSurg) is the recipient of the Best Paper Award- Work Undertaken by PGY 4 Residents during Clinical Rotation category, presented at the 20th Annual Percy Ireland Academic Day for "*The Utility of Preoperative Mandibular Plating for Mandibular Reconstruction*." (mentors Jonathan Irish, Harley Chan and Michael Daly )

**Alex Osborn** (H&NSurg) is the recipient of the Best Paper in Work Undertaken by Post-Residency Clinical Fellows category at the 20th Annual Percy Ireland Academic Day for “A Mechanical Valve-Based System of Endotracheal Tube Cuff Pressure Modulation for the Reduction of Subglottic Injury” (mentor Vito Forte).

**Daniel D.E. Wong** (H&NSurg) is the recipient of the Best Paper award in Work Undertaken by Post-Residency Research Fellows/Graduate Degree Program category at the 20th Annual Percy Ireland Academic Day for “*Binaural Processing is Abnormal in Children Receiving Bilateral Cochlea Implants Sequentially*” (mentor Karen Gordon).

**David Pothier** (H&NSurg) is the recipient of Best Overall Presented Paper award at the 20th Annual Percy Ireland Academic Day for “*A Low-Cost Scalable Vestibular Prosthesis that Uses Auditory Biofeedback for Bilateral Vestibular Loss*” (mentor John Rutka).

**Antoine Eskander** (H&NSurg) is the recipient of Chapnik, Freeman and Friedberg Clinician Scientist Program Award at the 20th Annual Percy Ireland Academic Day, which is awarded to a resident/fellow or junior faculty in the Department of Otolaryngology - Head and Neck Surgery enrolled in a Master of Science or Master's in Education or PhD degree at the University of Toronto.

**Lukas Kus** (H&NSurg) received the Judy Chauvin Otolaryngology Resident Award at the 20th Annual Percy Ireland Academic Day for his demonstration of an enthusiastic interest in the initiation of a serious otolaryngology-related research project.

**Charles Tator** (NeurSurg) received the American Spinal Injury Association (ASIA) Lifetime Achievement Award 2011 for his significant contribution and dedication to the field of spinal cord injury care.

**Michael Taylor** (NeurSurg) was awarded the George Armstrong-Peters Prize offered to a young investigator who has shown outstanding productivity during his/her initial period as an independent investigator as evidenced by research publications in peer reviewed journals, grants held, and students trained.

**Mojgan Hodaie** (NeurSurg) has been awarded a 2010-11 Wightman-Berris Academy Individual Teaching Award in the Postgraduate category.

**James Rutka** (NeurSurg) was elected to Fellowship in the Canadian Academy of Health Sciences (CAHS).

**James Rutka** also received a research grant for his work entitled “*The Role of Dysregulated HGF/c-Met pathway Signalling in Medulloblastoma Dissemination*” from the Brain Tumour Foundation of Canada.

**Soha Alomar** (NeurSurg) won the ISRS Congress best poster award for “*Electrophysiological assessment of tremor response after Gamma Knife thalamotomy in patients with medically intractable essential tremor*” presented at the International Society of Radiosurgery, Paris, France, 2011.

**Michael Tymianski** (NeurSurg) received an ORF grant from the Ministry of Research and Innovation for 5 years for TRPM7 Inhibitors for the treatment of stroke and myocardial ischemia.

**Michael Fehlings** (NeurSurg) was awarded a one-year, renewable grant from the Wings for Life Spinal Cord Research Foundation for his project entitled “*Investigation of human piggyBac induced pluripotent stem cells for repair and regeneration of the injured cervical spinal cord*”.

**Adrienne Weeks** (NeurSurg) received 1st place for the Gallie-Bateman Prize in the competition for her work entitled “*ECT2 and RASAL2 mediate mesenchymal-amoeboid transition in human astrocytoma cells*”.

**Bill Kraemer** (OrthoSurg) was the recipient of the 2011 Tovee Award - Postgraduate category.

**David Backstein** (OrthoSurg) was a co-recipient of the Dean A.L. Chute Award (The Silver Shovel), honoring his demonstrated excellence in overall teaching in the second, third and fourth years of the undergraduate medical program.

**Ben Alman** (OrthoSurg) received the Charles Tator Surgeon Scientist Mentoring Award which recognizes individuals supervising participants in the SSP who emulate Professor Tator's qualities, namely excellence in Research, commitment to SSP mentoring and dedication to promotion of Surgeon-Scientists.

**Ralph Manktelow** (PlasSurg) was the recipient of the Canadian Society of Plastic Surgeons (CSPS) Lifetime Achievement Award at the Society's Annual Business meeting, which was held in Halifax in June 2010. There have been only three other Canadians honoured in the 25-year history of this award.

Ralph was also honoured by the International Federation of Societies for Surgery of the Hand (IFSSH) at their international Congress in Seoul in November 2010. He was named a Pioneer of Hand Surgery, joining an illustrious list of such Pioneers named since 1986 by the Society. This is the highest international recognition available to a hand surgeon.

**Dimitri Anastakis** (PlasSurg) was awarded a 2010-11 Wightman-Berris Academy Individual Teaching Award in the Postgraduate category.

**Melinda Musgrave** (PlasSurg) recently received the Donald J. Currie Undergraduate Teaching award from St. Michael's Hospital in recognition for her dedication to teaching, commitment and passion about undergraduate medical education.

**Taiba Al-Rasheed** (PlasSurg) received the D.R. Wilson award for teaching which is annually given to a surgical resident who is rated by undergraduate students as being an outstanding teacher.

Taiba was also awarded The Educational Foundation of the CSPS 2011 funding towards the Operation Rainbow mission to India from March 2 -12, 2011.

**Siba Haykal** (PlasSurg) has recently received a three year Vanier Scholarship, which will support her PhD work on "*Tracheal Allograft Transplantation*". The Vanier CGS Program aims to attract and retain world class doctoral students who have demonstrated a high level of scholarly achievement.

Siba has also recently successfully defended her experimental work to date in a transfer examination to the PhD Postgraduate Program at the Institute of Medical Science. She works under the supervision of Stefan Hofer and Tom Waddell.

**Toni Zhong** (PlasSurg) received the William K. Lindsay Faculty Research Mentor Award 2011.

Toni was also awarded with one of two Outstanding Paper Presentations by the American Society for Reconstructive Microsurgery (ASRM), at the 2011 Annual Meeting in Cancun, Mexico for the project entitled "*Perioperative Fluid Considerations to Minimize Early Postoperative Complications in Free Flap Breast Reconstruction*".

**Kyle Wanzel** (PlasSurg) received the Arnis Freiberg Faculty Teaching Excellence Award.

**Jennica Platt** (PlasSurg) received the John Edward De Toro Award, 2011

Jennica has also received acceptance to the Clinical Investigators Program along with one year of funding from the Ministry of Health.

**Kian Karimi** (PlasSurg) is the recipient of Kris Conrad Award in Facial Plastic Surgery at the 20th Annual Percy Ireland Academic Day for demonstrating outstanding skills in facial plastic surgery.

**Kristen Davidge** (PlasSurg), along with J. Semple and M. Brown, was awarded a \$13,500 grant from Women's College Hospital for her work, "*Quality of Recovery in Women Undergoing Autogenous Breast Reconstruction in an Ambulatory Setting*".

**Greg Hawryluk** (PlasSurg) received 3rd place for the Gallie-Bateman Prize for his work entitled "*Remyelination is the key mechanism underlying functional recovery from spinal cord injury following neural precursor cell transplantation*".

**Dee Ballyk** (Surg) in the Division of Anatomy was awarded the *W.T. Aikins Faculty Teaching Award Individual Teaching Performance (Large Group)* award.

**Michael Wiley** (Surg) in the Division of Anatomy, was the receiver of the *Harry Whittaker Memorial – Excellence in Teaching* award.

**Nicole N. Woods** (Surg) is the recipient of the Education Development Fund for The Integration of Basic Science with Clinical Knowledge in Undergraduate Teaching for her proposal on *The Integration of Basic Science with Clinical Knowledge in Undergraduate Teaching*.

**Tom Waddell** (ThorSurg) was the recipient of the Lister Prize 2011, awarded to an investigator who has shown outstanding and continuing productivity of international stature as evidenced by research publications, grants held, students trained and other evidence of stature of the work produced

**Michael Jewett** (UrolSurg) is the recipient of two awards at the American Urological Association Annual Scientific Meeting 2011 - the American Urological Association Distinguished Contribution Award for his outstanding contribution to the science and treatment of urological malignancies and the Society of Urologic Oncology Medal provided to an individual for specific achievement and contributions in the field of urologic oncology.

**Tony Finelli** (UrolSurg) was awarded the 2011 Bernard Langer Surgeon-Scientist Award, presented to an outstanding graduate of the Surgeon Scientist Program in the Department, who shows the greatest promise for a career in academic surgery.



## PROMOTIONS & APPOINTMENTS

**Barry Rubin** (VascSurg) was appointed Medical Director, Peter Munk Cardiac Centre

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*The following surgeons have been promoted to the rank of Associate Professor, upon the recommendation of the Decanal Promotions Committee, effective July 1, 2011.*

**Georges AZZIE** (GenSurg, HSC)  
**Anna GAGLIARDI** (GenSurg, UHN)  
**Teodor GRANTCHAROV** (GenSurg, SMH)  
**Michael REEDIJK** (GenSurg, PMH)  
**Peter FERGUSON** (OrthoSurg, MSH)  
**Unni Narayanan** (OrthoSurg, HSC)  
**Mojgan HODAIE** (NeurSurgery, UHN)  
**Andrew PIERRE** (ThorSurg, UHN)  
**Robert ZELDIN** (ThorSurg, TEGH)  
**Lesley CARR** (UrolSurg, SHSC)  
**Anthony FINELLI** (UrolSurg, PMH)  
**Kirk LO** (UrolSurg, MSH)  
**Vasundara VENKATESWARAN** (UrolSurg, SHSC)

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*The following surgeons have been promoted to the rank of Professor, upon the recommendation of the Decanal Promotions Committee, effective July 1, 2011.*

**Andrew SMITH** (GenSurg, SHSC)  
**David URBACH** (GenSurg, UHN)  
**James EUBANKS** (NeurSurg, UHN)  
**Dimitri ANASTAKIS** (PlasSurg, UHN)  
**Oleh ANTONYSHYN** (PlasSurg, SHSC)  
**Ronald KODAMA** (UrolSurg, SHSC)

The Deadline for the next Surgery Newsletter is October 14, 2011. All members of the Department are invited to submit items, articles, pictures, ideas or announcements.

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***e-mail: [alina.gaspar@utoronto.ca](mailto:alina.gaspar@utoronto.ca)***

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

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