

Department of Surgery Annual Report

July 1, 2006 – June 30, 2007

R.S. McLaughlin Professor and Chair

Dr. R.K. Reznick

Associate Chair and Vice-Chairs

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Dr. J.A. Bohnen – Vice-Chair, Education

Dr. R. Richard – Vice-Chair, Clinical

Dr. B. Alman – Vice-Chair, Research

Surgeons-in-Chief

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Dr. J.S. Wunder – Mount Sinai Hospital

Dr. L.C. Smith – St. Joseph's Health Centre

Dr. O.D. Rotstein – St. Michael's Hospital

Dr. R. Richards – Sunnybrook Health Sciences Centre

Dr. L. Tate – Toronto East General Hospital

Dr. B.R. Taylor – University Health Network

Dr. J.L. Semple – Women's College Hospital

University Division Chairs

Dr. M.J. Wiley – Anatomy

Dr. R.D. Weisel – Cardiac Surgery

Dr. Z. Cohen – General Surgery – Bernard and Ryna Langer Chair

Dr. J.T. Rutka – Leslie Dan Professor and Chair of Neurosurgery

Dr. B. Alman – A.J. Latner Professor and Chair of Orthopaedic Surgery

Dr. D.J. Anastakis – Plastic Surgery

Dr. S. Keshavjee – Thoracic Surgery

Dr. S. Herschorn – Martin Barkin Chair in Urological Research

Dr. T. Lindsay – Vascular Surgery

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REPORT FROM THE CHAIR

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



It is hard to believe that as I write this column for our annual report that I am coming to the end of a first term as Chair of this Department. These last five years have been an incredible odyssey. If you had asked me five years ago would I have been able to predict some of the seminal events of my time as Chair, the answer would have been surely no. So many things to be proud of! To paraphrase Collins, the success of any organization is all about getting the right people on the bus. In our case, it's about 10 buses! Our faculty is strong and getting stronger each year. We currently have approximately 220 full time faculty, 30 part time, 55 adjunct faculty, and 25 research scientists. In the last five years you have seen your department grow through the recruitment of 50 new surgeons and scientists. We have recently instituted a policy that will see all new recruits to our surgical faculty as the successful candidate in a formal search process. We have entered into 31 practice plans. Our postgraduate program now consists of eleven residencies that train in excess of 200 future surgeons. We have developed a comprehensive plan that coordinates the activities of a large fellowship program that now trains over 175 surgeons from 15 countries. We have extended benefits to our surgeons in terms of family health coverage, day care and critical illness insurance. We have in excess of 45 million dollars of external funding, beyond the aggressive benchmarks we set for ourselves in our last strategic plan. We have doubled the size of our skills lab, developed a new innovative curriculum for our medical students, and more vitally engaged our partially affiliated teaching hospitals in our Department. We are about to embark in a proof of principle study to model and test an innovative postgraduate curriculum. This is a great Department and it has been a privilege to serve as its Chair for the last five years.

Last year I announced the inception of two new programs to the Department, one offering day care for our faculty and another offering benefits to those who don't have them through other sources. I am pleased to report that both programs are off the ground, and many faculty have availed themselves of these benefits. We are now expanding the day care program to include a new facility closer to faculty who work at Sunnybrook. This past year we have introduced a new benefit to all full time faculty under age 57. Hopefully no one will have to use it, but in the event that a faculty member develops one of 22 critical illnesses, he or she will receive a lump sum benefit.

With the introduction of the new clinical faculty policy we have worked hard at insuring that all 31 of our practice plans are consistent with one of our three departmental templates. I am pleased to report, that this past year has seen the first wave of accountability reports which encouragingly show a transformation from previous financial management to one that is better structured to reward academic efforts. This 2 1/2 year challenge has proven extremely important. We are about to be the beneficiaries of additional alternate funding plan monies, 30% of which are earmarked towards teaching and research. It is your Chair's position, and one that is a starting point for dialogue, that the academic AFP monies become part of the redistribution pool that is modulated through annual academic performance appraisal. This recommendation has been discussed at our finance and senior executive committees and will now be brought to our 31 groups in the form of a business summit to be held this fall.

What I remember most of the last five years is the hundreds of hours of speaking with our faculty; often just catching up with business, frequently giving solicited or unsolicited advice, and occasionally peering deep into the meaning of academic life. I have been impressed that as one gets older, the relationship with our academic institution becomes increasingly important. Perhaps it's the idea of what kind of legacy we will leave, perhaps sentimentality, or perhaps just pride in one's academic accomplishments. What is clear is that for most of our surgeons, being a faculty member of this university is a source of great pride and accomplishment.

I remember, as we all do, the magnitude of SARS, as it rocked our city, paralyzed our medical world, and reminded us of the inadequacy of our medical knowledge. Humbling moments!

What has also been striking over the last five years is the sheer volume of work. D.R. Wilson, Bernie Langer and John Wedge warned me of the marathon that typifies a Chair's term. Well they were right, but I would suggest that a more apt analogy is that this job is a tsunami of work, with one finished wave of work being followed by another.

However, the feature that has been most powerful is the incredible talent within the Department. The surgical expertise is astounding. Images of Andrew Pierre performing a lung transplant, Loch McDonald clipping a cerebral aneurysm, Pippi Salle correcting a complex urogenital malformation, Mike McKee restoring function after a complex fracture, Rob Zeldin removing a lung, Vern Campbell doing a fem-tib bypass, Mark Peterson doing his first endovascular repair, Brent Graham re-implanting a severed digit, John Semple restoring form and function after cancer, Calvin Law doing a trisegmentectomy...these are the enduring images.

Finally, in reflection of our academic mission I am staggered by our faculty's dedication to teaching, their devotion to research and their strong desire to embrace the academic ideal. Indeed, as I look over the last five years we have had tremendous growth in our peer reviewed funding and, under Ben Alman's leadership, the ongoing success of our Surgeon Scientist Program. In fact, this past year we expanded this program to embrace a more eclectic approach to scholarship, with the creation of a new program called Scholarship in Surgery. As an inaugural experience, we have three surgical trainees actively pursuing their MBA, gaining skills they will hopefully bring back to the Department.

On a personal note, I would like to thank all in our Department for their support in my first term as Chair. I have received nothing but encouragement from you and nothing but support for new initiatives. I have certainly worked harder than ever before, but each moment is filled with important challenges and most importantly a deep respect I have learned for the caliber of individuals in this department.

UNDERGRADUATE EDUCATION

David Backstein
Director



The Department of Surgery Undergraduate Education Committee (UEC) spent the 2006-2007 academic year fortifying recent major changes to the undergraduate curriculum while implementing several new programs. In addition, the UEC monitored developments in the Mississauga campus and ensured that surgical interests were always kept in mind.

The “Crash Course in Surgery” week for phase I students completed its second year and has become an integral component of clerkship. Evaluations of the course were reviewed regularly and contributed to ongoing improvements. In addition to fulfilling many educational needs, the Crash Course week also serves as a central meeting point where improved orientation can occur and an entire rotation of students may be addressed in unison.

A phase II course module in “Palliative Care and Acute Pain Management” was approved by the UEC last fall and the course ran throughout the academic year. This program aims to fulfill a missing educational need and is unique among clerkship courses.

The UEC approved the appointment of Dr. Yaron Shargall as the new director of the Foundations of Medical Practice course. Dr. Shargall replaced Dr. Robert Mustard who has served with distinction in this position for many years.

This academic year the UEC guided the initiation of the new clerkship evaluation system called MedSIS. This system is a very powerful software package that allows improved detail and efficiency in the evaluation of both students and faculty supervisors. While MedSIS is certainly not without its faults, the implementation has gone remarkably smoothly thanks to the efforts of our faculty.

The UEC approved a modification of the standard post-rotation debriefing reports that Dr. Nicole Woods conducts. Dr. Woods now performs these reviews for year III and year IV per rotation. This results in 11 debriefing reports per year.

As Chair of the UEC, I would like to thank all members for their contributions and in particular the two student representatives, Tasnim Vira and Ron Somogyi.

POSTGRADUATE EDUCATION

John M.A. Bohnen
Vice-Chair, Education



The staff surgeons, residents and fellows of our 11 Royal College of Physicians and Surgeons (RCPSC) residency programs experienced a year rich with activity and accomplishment, culminating in full approval for all programs at Royal College accreditation, evolution of CanMEDS roles education, and program expansion. At the helm were the program directors Drs. Gail Darling (Thoracic Surgery); Bill Kraemer (Orthopaedic Surgery); Ron Kodama (Urology); Ted Gerstle (Paediatric General Surgery); David Latter (Cardiovascular Surgery); Ron Levine (Plastic Surgery); Tom Lindsay (Vascular Surgery); Lorne Rotstein (General Surgery); Marcus Burnstein (Colorectal Surgery); Carol Swallow (General Surgical Oncology); and Chris Wallace (Neurosurgery); and their hard-working assistants Lisa Spatafora, Dan Stojimirovic, Antonella Iannaccio, Shannon Hannah, Willa Hart, Shibu Thomas and Gayle Burke, Leah Gabriel, Jan McEvoy (General Surgery/General Surgical Oncology), Jane Hanes and Sandi Amaral.

Surgery entry level programs (Cardiac, General, Neuro, Orthopaedics, Plastics and Urology) filled all first year positions in July 2006 through the Canadian resident match. In all, 256 trainees participated in our 11 residency programs; 216 clinical and research fellows came from many countries to enrich us and achieve post-residency training and 39 elective residents came from other sites to experience Toronto programs. Residents finishing Core Surgery and those completing their training were highly successful once again in the RCPSC, POS and fellowship exams respectively. Twenty-six residents received research training within the Surgeon Scientist Program, led by Dr. Ben Alman, our Vice-Chair, Research. Many residents earned peer reviewed funding, published in high impact journals and won prizes at international research societies; some developed health administration expertise in our Scholarship in Surgery Program.

Each program director, their assistants and the residents themselves planned curricula; guided trainees personally; prepared them for exams and clinical practice; and organized social events. At the department level, the Surgical Skills Centre supported skills training for all resident years under the leadership of Director, Dr. Helen MacRae and Manager, Ms. Lisa Satterthwaite. Core Surgery residents (first two years) attended educational series to build practice foundations. Dr. Bob Mustard ran the highly rated Principles of Surgery (POS) Lectures and practice POS exam. Core Surgery residents attended two Resident Forum sessions to give feedback on their experiences, and participated in the annual Surgeon in Society Symposium, whose theme this year was resident wellness. At Career Night, program directors and residents helped advertise their specialities to medical students interested in Surgery; and at Orientation Day, first year residents met with education leaders. First and third year residents attended the Residents as Teachers workshop run by Drs. John Murnaghan and Nikki Woods. Dr. Jameel Ali led the department's Advanced Trauma Life Support Course for Core Surgery residents. Our Annual Fellow Barbecue was held in July - fellows, their families and supervisors socialized in an informal setting. Dr. David Latter, our Director of Clinical Fellowships, worked with fellowship leaders to improve the fellowship infrastructure and try to iron out some kinks in the application process – a work in progress.

The growing number of hospital, divisional and departmental teaching awards attests to the enormous efforts and successes of our faculty and resident teachers, and the increasing recognition that work receives. Among the key departmental awards, Dr. Ron Levine, Program Director of the Plastic Surgery Program, won the Tovee Award for sustained, outstanding contributions to postgraduate training and Dr. Allan Eckhaus, a budding plastic surgeon, won the D. R. Wilson Education Prize for outstanding teaching of medical students by a surgical resident. Congratulations Ron, Allan and Plastic Surgery!

The RCPSC accreditation team visited us in April 2007 to evaluate our programs against ever-higher standards. Each Program Director, assistant and numerous faculty spent months preparing materials and orchestrating agendas and demonstrations. The outcome of our performance (subject to final word from the RCPSC) - full approval for all Surgery programs – attests to the hard work and enthusiasm of the Program Directors and their assistants; faculty surgeons; residents; chairs and chiefs of the divisions and hospital departments; Chair Richard Reznick; and postgraduate Vice-Dean, Dr. Sarita Verma and her staff. The accreditation team identified very few weaknesses and many strengths, and praised the Program Directors and teachers for their commitment and excellence.

Besides teaching the cognitive and technical aspects of practice, our programs strived to achieve greater sophistication in the provision and evaluation of the humanistic “CanMEDS roles” such as collaborator, communicator and health professional. A successful pilot Humanism OSCE, run by Dr. Alexandra Easson and colleagues for General Surgery residents, used simulated patients and scenarios to teach and evaluate skills in handling difficult interpersonal situations. Other innovations such as training our first resident in a combined program in Surgery and Medical Imaging demonstrate that the change will continue to shape our programs.

Driven by societal need and education performance, our programs are expanding the numbers of residents they add each year, both Canadian and outside-trained. We are making a great impact on physician human resources and the health of Canadians.

Urology Program Director, Dr. Ron Kodama, stepped down after a decade of outstanding leadership; we welcome Dr. Rob Stewart as Ron's successor. I will step down as Postgraduate Director in 2007. I will miss the wonderful relationships with the hundreds of bright and dedicated residents who come through our programs, an amazing group of friends and colleagues! Let us all give a huge thanks for the exceptional work of our administrative support team of Tess Weber, Andrea Charlesworth and Jean DeFazio.

Benjamin Alman
Vice Chair



Our department continues its strong tradition of research excellence. There is a broad range of research activities in our department, including investigations in education, clinical epidemiology, applied engineering, and fundamental biology. In addition to clinicians engaged in the generation of new knowledge in these areas, there are close to forty non-clinician scientists appointed in our department. These individuals are working in the broad range of disciplines represented by the full scope of our departmental activities. The accomplishments of our non-clinician scientists are quite remarkable, as they account for a substantial proportion of our total research activities. This year, Andras Kapus was appointed as our Associate Vice-Chair Research, a new position to help better integrate our non-clinician scientists into our department. Andras has already instituted new initiatives towards this end, and I am sure in coming years we will see improved integration which will help to build new research initiatives within our department.

Our research productivity continues to grow at an astonishing rate. There have been hundreds of publications from our faculty members this past year, including some in the highest impact journals, such as *New England Journal of Medicine*, and *Nature* series journals. Our faculty has given research presentations throughout the globe and participated in over a hundred national and international research meetings. Our research growth is perhaps best illustrated by our phenomenal increase in research funding. Despite the increased competitiveness of research funding from the Canadian Institutes for Health Research, the department continues to receive increasing support from this agency, with close to \$9,000,000 in funding received this past academic year. Our total research funding has shown an even more impressive rate of growth, now exceeding \$45,000,000. This funding is not limited to one division or one hospital, but is distributed throughout the faculty, showing the strong integration of research throughout the entire department.

The Surgeon-Scientist Program continues to grow, with over forty residents participating this year. Over 90% of our Surgeon-Scientist Program participants were successful in receiving full or partial salary support from external granting agencies. Johnson & Johnson Medical Products continues to support the Surgeon-Scientist Program, providing funding to four trainees this year (Karen Cross, Gregory Hawryluk, Paul Kuzyk, Steve Singh). Because advances in medicine may come in a variety of forms from a variety of areas, it is important that we take advantage of the broad range of academic endeavors that could strengthen our department and surgery in general. The Scholarship in Surgery Program was initiated two years ago to provide graduate level training in non-traditional streams. Five residents are participating in the program this year, and these individuals will undoubtedly bring new areas of scholarship to our specialty.

The theme for our 33rd Gallie Day was trauma and critical care. There were talks by trainees in our Surgeon Scientist Program, as well as 50 poster presentations by a variety of trainees working with members of our faculty. The broad range of topics and types of trainees highlighted the diverse, yet high quality research being conducted in our department. Fred Brenneman organized and moderated an exciting symposium entitled “Advances in Trauma Management: Taking the Critical out of Critical Care.” Michael Fehlings, Joanne Banfield, Sandro Rizoli, and Avery Nathens discussed new advances in trauma research and management in Toronto, including trauma prevention, a systems approach to organizing trauma care, the use of new resuscitation techniques, and the development of new treatments to improve neural recovery in spinal cord injury. The exciting advances in these areas were complimented by the Gordon Murray Lecturer, Dr. Timothy Buchman, from Washington University in St. Louis, Missouri, who gave a fascinating lecture entitled: “Are There Fundamental Laws of Biology.” He discussed how we tend to view physiologic information about patients as isolated variables, yet it is clear that multiple physiologic variables interact in a coordinated fashion to allow for normal function. How these interactions relate to normal physiologic functions is something we usually do not consider. In his talk, Tim showed how seemingly unrelated biologic processes actually work together in a coordinated manner on a micro and macro scale. In the clinical realm, this is best illustrated in the care of critically ill trauma patients, where he presented data showing that coordinated activity of various physiologic systems (e.g., cardiac and pulmonary) is a better predictor of outcome than measurement of the function of individual systems.

The Gallie Bateman Award for best work by a trainee in the Surgeon Scientist Program went to Lynn A. Mikula (supervisor: Dr. S. Gallinger), with a tie for second place to Patrick S. Tawadros (supervisor: Dr. O.D. Rotstein) and George Zogopoulos (supervisor: Dr. S. Gallinger). There was a tie for first place for the McMurrich Award, given for the best fundamental science work by any level trainee working with a member of our department. This went to Phedias Diamandis (working with Peter Dirks) and Hong-Shuo Sun (working with Michael Tymianski). There were seven second prize winners: Hong Cui (working with Michael Tymianski), Louisa Ho (working with Benjamin Alman), William Johnson (working with Thomas Lindsay), Eli Kakiashvili (working with Katalin Szaszi), Colleen Wu (working with Jay Wunder & Benjamin Alman), Helan Xiao (working with Mingyao Liu), and Matthew Zulys (working with Andras Kapus). The Wyeth Award for best clinical epidemiology or education based research poster was awarded to Barbara Haas (working with Avery B. Nathens) and there were three second place awards given to Ulrich Guller (working with Natalie Coburn), Humberto Lara-Guerra (working with Thomas Waddell), and Mohammed Zamakhshary (working with Jacob Langer).

Faculty accomplishments in the past year were astonishing. There were too many awards and honors to list all of them, and most of the awards are listed in the activities of the individual hospitals and divisions. Some of the highlights from the past year include: Nancy Baxter, who received the Langer Surgeon Scientist Award (given to the most outstanding graduate of the Surgeon-Scientist Program); Vivek Rao, who received the George-Armstrong Peters Prize (awarded to a young investigator); John Marshall, who received the Charles Tator Surgeon Scientist Mentoring Award; and Michael Fehlings, who received the Lister Award (awarded for excellence in research by a senior investigator)

Departmental members received a large number of grants this year but, of note, 20% of the Heart and Stroke Foundation grants awarded this year went to our faculty members. This is an incredible accomplishment and illustrates the prominence of our research on the national scene. The Departmental Research Committee continued its strong work on expanding the breadth of research activities in the Department, establishing links to emerging research areas, improving the links with the non-clinician scientists in the Department, developing standardized evaluations for faculty, and reorganizing Gallie Day and research educational activities.

I want to give special thanks to Val Cabral for her co-ordination of all aspects of the Departmental research activities.

Research plays a prominent role in our department and we have made fantastic accomplishments in the past year. In the upcoming years, our research activities will continue to grow, with new avenues of investigation being developed, and improvements in our research infrastructure to increase the breadth and depth of our work, ultimately improving the outcome for our patients.

DIVISION OF ANATOMY

Michael J. Wiley
Chair



The academic programs in the Anatomy Division remain strong and the numbers of students registered in our courses continues to grow. Construction work has been completed to create more teaching laboratory space for the medical class and additional renovations are underway to accommodate a doubling in the number of Arts and Science students that the Division can accommodate. This year the Division registered 23 senior undergraduate science students in the ANA498YI Independent Research Project course. This course offers an opportunity for undergraduates to gain valuable research experience working in the laboratories of faculty in the Department of Surgery, and is excellent preparation for graduate studies.

New Faculty

Dr. Soheila Karimi-Abdolrezaee was cross-appointed to the Division of Anatomy where she collaborates in neuroscience research with Cindi Morshead and contributes to teaching neuroanatomy in the Brain and Behaviour course in the first year of the medical program. Dr. Karimi-Abdolrezaee's primary appointment is in the Division of Neurosurgery. With Bernie Liebgott's retirement, Dr. Reena Talwar has taken over teaching dental anatomy. Dr. Talwar received her Ph.D. from Baylor University and has previously held a faculty appointment at the University of Kentucky. Dr. Paulo Koeberle, who has joined the Division as an Assistant Professor in the tenure stream has succeeded in obtaining funding from the Canada Foundation for Innovation LOF/Ontario Research Fund, the Connaught Foundation, and the Glaucoma Research Society. Dr. Koeberle studies the molecular mechanisms of neuronal degeneration and regeneration after traumatic CNS injury and stroke.

Promotions

Dr. Anne Agur was promoted to the rank of Full Professor and Dr. Barbara Ballyk was promoted to Senior Lecturer.

Students

Ms. Soo Kim was awarded the Sandy Marks Student Poster Presentation Award and Mr. Mayoorenda Ravichandiran received the Ralph Ger Student Platform Presentation Award at the annual meeting of the American Association of Clinical Anatomists. Mr. Kajeandra Ravichandiran was awarded the James H. Richardson Fellowship in Anatomy and Ms. Soo Kim was awarded the first Harland-Smith research Fellowship in Anatomy. All are students of Anne Agur.

DIVISION OF CARDIAC SURGERY

Richard Weisel
Chair



Overview

The Division of Cardiac Surgery continues to respond to the opening of three community cardiac surgical units and the decrease in wait times for cardiac procedures. After extensive discussions with all institutions and physician stakeholders, a plan was presented to Drs. Barry Monahan and Alan Hudson who forwarded the proposal to the Ministry of Health. The plan described an integrated cardiac surgical group with coordinated delivery of care at all three adult hospitals. The plan will improve the access to specialty procedures in cardiac surgery and create a single AFP for the cardiac surgeons. The “virtual” integration of the services will facilitate the movement of surgeons and patients among the three institutions.

In addition, cardiac surgeons continue to develop their expertise in minimally invasive cardiac procedures. The Hospital for Sick Children developed a hybrid approach to many surgical repairs with both intravascular and intrathoracic procedures being accomplished simultaneously in a single operating suite with active collaboration of surgeons, cardiologists and radiologists. Each of the adult hospitals has also developed programs to provide intravascular repair of thoracic aortic pathology, and they have evaluated hybrid procedures such as the transapical (intraoperative) transcatheter insertion of an aortic valve. In addition, all hospitals have explored the use of hybrid procedures such as an internal thoracic artery bypass combined with stent implantation.

Research in cardiac surgery has been outstanding. Clinical research has been coordinated by Dr. Stephen Fremes at Sunnybrook and basic research has been located at UHN (regenerative medicine) and St. Michael’s Hospital (vascular biology). The Hospital for Sick Children attracted the leadership of the Congenital Heart Surgeon’s Database, and Dr. Eugene Blackstone (a world- renown clinical epidemiologist) was appointed to our Division. Drs. Chris Caldarone and John Coles have a productive basic research laboratory. The surgeons and affiliated scientists at all four hospitals have been able to attract outstanding peer-reviewed funding. In addition, CFI funding has dramatically expanded the facilities and equipment available for research. A recent NIH grant application for clinical research demonstrated the depth and breadth of the research efforts of the Division.

Dr. David Latter has developed an outstanding residency program in cardiac surgery and the creation of the University fellowship program has revealed the popularity and importance of the cardiac surgery fellowship to academic cardiac surgery. Each of the residents has attained a high degree of academic training and every graduating resident has found a position in academic cardiac surgery in Canada or the US. In summary, the Division has faced significant challenges with the decrease in volumes and elimination of the waiting lists for cardiac procedures. However, case numbers have stabilized and the surgeons have developed new minimally invasive procedures. The Division remains the most academically productive unit in the world. Our residency program has produced a generation of surgeon scientists and the older surgeons continue to innovate and spread the word. We have greater breadth and depth to our academic programs than any other cardiac surgical unit in the world. However, the specialty is changing and we will need to change the procedures we do and change the training we provide for our residents and fellows.

Grants and Fellowships

Between 2002 and 2006, the Division received a total of 16 grants from the Canadian Institutes of Health Research, the Heart and Stroke Foundation, the Canadian Diabetes Association and from industry.

In 2006-2007, we received \$14.4 million over five years for the Regenerative Medicine (REMEDI) Project from the Canadian Foundation for Innovation. Our team grant submission to the Canadian Institutes of Health Research was also successful and we were awarded \$2,182,550.00 over five years for our Cardiac Regeneration Project (CARE).

Nine Fellowships were awarded to the staff and residents by the Heart and Stroke Foundation, the Canadian Institutes of Health Research and the Physicians’ Services Incorporated (PSI) Foundation.

Visiting Professors

Over the past four years, we have had the following Visiting Professors:

1. Dr. Patrick McCarthy
2. Dr. David H. Adams
3. Professor Sir Magdi Yacoub
4. Dr. Marc Gillinov
5. Professor Philippe Menasche
6. Dr. Mehmet Oz
7. Dr. R. Scott Mitchell

In June 2007, Dr. Wolfram Zimmermann was invited on behalf of the Regenerative Medicine Program at the Toronto General Research Institute to present at the International Society of Tissue Engineering and Regenerative Medicine. Dr. Dennis Mangano gave the Bigelow Lecture in October 2007.

Resident Seminars

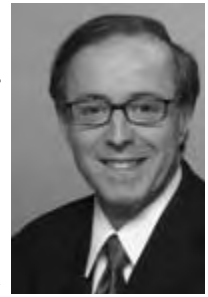
Over the past five years, the Residents' Seminars have been scheduled Friday mornings at the Toronto General Hospital and St. Michael's Hospital between 9:30 and 11:30 a.m. Faculty from all four sites have been scheduled to present during the first hour and the residents present their research during the second hour.

Coach House Seminars

Four Coach House Seminars are scheduled each academic year which are sponsored by industry and hosted by each of the four hospitals, one seminar per year, held at the Sunnybrook Estates.

DIVISION OF GENERAL SURGERY

Zane Cohen
Bernard and Ryna Langer Chair



Accomplishments

We had a very positive external review of our program in general surgery conducted by the Royal College of Physicians and Surgeons of Canada. In addition, our affiliated programs received full accreditation, namely: surgical oncology, colorectal surgery, and paediatric general surgery. The Royal College review also identified five areas of strength: 1) the outstanding quality of our learners, 2) the responsive and enthusiastic Program Director and Associate Program Director, 3) the enthusiastic dedicated faculty, 4) our strong Surgeon-Scientist Program, and 5) our excellent core program incorporating the canMEDS competencies.

Resident Training

As in previous years, resident issues have again been a continuing challenge and a central part of our discussions at the General Surgery Council meetings. Having no resident attrition within the general surgery program for a third year in a row represents a great success and reflects well on our residents and on our program.

The CaRMS match took place in February/March of 2007 and successfully attracted twelve of our highest ranked seventeen students from the CaRMS matching list. In addition, we participated in the CaRMS IMG Match, the IMG Through Clinical Clerkship, the IMG PGY2 Intake and the Practice-Ready IMG programs

Accepted into the CaRMS Regular Match starting July 1, 2007 were: Yaasin Abdulrehman of University of Manitoba; Eisar Al-Sukhni of University of Western Ontario; Kengo Asai of University of Toronto; Kalkidan Belay of University of Toronto; Danielle Bischof of University of Toronto; Ian Choy of McMaster University; Andrea Covelli of University of Western Ontario; Preeti Dhar of Queen's University; Aliyah Kanji of University of Toronto; Amanda Roberts of McMaster University; Bharat Sharma of Queen's University; Si Wai (Francis) Zih of McGill University. Into the CaRMS IMG Match: Joslin Cheverie of Saba University School of Medicine, US Office Gardner, MA, Netherlands Antilles; Justyna Wolinska International Medical School, Jagiellonian University Medical College, Krakow, Poland. Into IMG Through Clinical Clerkship Program: Syed Ali of Pakistan Sind Medical College (2003). Into IMG PGY II: Kaes Ali of Al-Nahrain College of Medicine, Baghdad, Iraq; Gustavo Azoubel of Universidade de Pernambuco, Recife, Brazil.

Practice Ready are Takeshi Takahashi of Mexico City and Fernando Campelo.

All but one of our general surgical residents completed the General Surgical Training Program for 2006-2007. The successful candidates were: Tracey Asano, Shima Kassirian, Sal Privitera, Ted Rapanos, Najib Safieddine, Nahy Sawires, Peter Stotland.

Congratulations go out to our graduating class.

New Faculty

Recruitment has continued actively in our division. Our newly recruited members in 2006-07 were: **Georges Azzie**, Hospital for Sick Children; **Nancy Baxter**, St. Michael's Hospital; **Natalie Coburn**, Sunnybrook Health Sciences Centre; **Teodor Grantcharov**, Michael's Hospital; **Erin Kennedy**, Princess Margaret Hospital, University Health Network; **Avery Nathens**, St. Michael's Hospital; **Allan Okrainec**, Toronto Western Hospital, University Health Network.

Promotions 2006-07

Assistant to Associate Professor: Claire Holloway, Robert Mustard, Sandro Rizoli, Lloyd Smith. **Assistant Professor:** Stan Feinberg

Faculty and Resident Grants and Awards/Accomplishments/Honours

Faculty Awards/Accomplishments/Honours

Nancy Baxter, awarded Government of Ontario Early Research Award given by the province to researchers who are within the first 5 years of an independent academic career; **Paul E. Bernick**, 2007 Recipient of Dr. John H. Fowler Excellence in Teaching Award; **John Bohnen**, William Horsey Post Graduate Teaching Award, St. Michael's Hospital, and Gulf Cooperation Council (GCC) Residency Program Director of the Year; **Steven Gallinger**, Frank Mills Award for Excellence in Teaching, Division of General Surgery, University Health Network, June 2006; **Teodor Grantcharov**, May 2006 Congress of the Association of Surgeons of Great Britain and Ireland (ASGBI), Edinburgh, UK - 6 of the best oral scientific presentations; September 2006 - 10th World Congress of Endoscopic Surgery, Berlin, Germany; EAES Technology Award session for the six best oral presentations; October 2006 - Honorary Medal of the Bulgarian Surgical Society; **Jacob C. Langer**, James IV Association of Surgeons Traveling Fellowship; Operation Herbie Doctor of the Year; GS

resident - Mohammed Zamakhshary won the Josie Walther Research Competition in 2006; Mohammed Amakhshary placed second in Gallie Day poster competition – Clinical Epidemiology/Education poster competition from Wyeth Canada in May 2007 – poster on optimal timing of inguinal hernia repair in infants: a population-based study, with J.C. Langer and Teresa To; **John C. Marshall**, elected President of the Surgical Infection Society, April 2007; **Ian McGilvray**, presented with the 2006 Allan Bruce Robertson Junior Investigator Award from the Clinical Research Society of Toronto at the Institute of Medical Science Scientific Day, May 2006; **Robin McLeod**, elected Treasurer SSAT; elected Vice-President ASA; **Avery Nathens**, awarded a Tier II Canada Research Chair; GS student Barbara Haas with Avery Nathens won 1st prize in Gallie Day Clinical Epidemiology/Education poster competition from Wyeth Canada in 2007 - Survival Advantage in Trauma Centers: Expeditious intervention or experience?; **Michael Reedijk**, new academic position January 2007 - Staff Scientist: Campbell Family Institute for Breast Cancer Research. Ontario Cancer Institute; Society of University Surgeons Foundation Junior Faculty Grant Award - Mechanisms of Notch activation and pharmacologic inhibition of Notch signaling in human breast cancer (\$30,000 USD - 2006-07); **Richard Reznick**, inaugural recipient of the President's Teaching Award, May 2006; **Sandro Rizoli**, Gold Medal in Surgery, Royal College of Physicians and Surgeons of Canada. 2006; Oct 2006 – Present, Provincial Chair, Advanced Trauma Life Support, American College of Surgeons; Oct 2006 – Present, State Chair for the Ontario Provincial Committee on Trauma (COT), American College of Surgeons (ACS); **Ori D. Rotstein**, reappointed to the position of Director of the Institute of Medical Sciences for a second 5 year term – July 2006; re-elected as the American College of Surgeons Governor for Ontario, to represent the Fellows in Ontario; **Katalin Szaszi**, appointed to IMS as an associate member in the fall of 2006; **David R. Urbach**, appointed to the Editorial Board of 'Surgical Innovation'; appointed to the Executive Committee of Surgical Outcomes Club.

Faculty Research Grants

Nancy Baxter, John Bohnen, Mark Cattral, Anna Gagliardi, Steven Gallinger, Robert Gryfe, Claire Holloway, Andras Kapus, Peter Kim, Jarley Koo, Calvin Law, Wey Liang Leong, Gergely Lukacs, John Marshall, Ian McGilvray, Carol-Anne Moulton, Avery Nathens, Michael Reedijk, Glenn Regehr, Sandro Rizoli, Ori Rotstein, Carol Swallow, Katalin Szaszi, David Urbach and Francis Wright were all recipients of research grants.

Resident Awards/Grants/Accomplishments/Honours

The Paddy Lewis Award for Excellence in Teaching by a Junior Resident went to **Jonathan Cardella**. **Peter Stotland** received the Paddy Lewis Award for Excellence in Teaching by a Senior Resident and the Canadian Association of General Surgery (CAGS)/Tyco Healthcare Resident Award for Teaching Excellence in September 2006. **Patrick Tawadros** received the Best Basic Science Paper Award at the Canadian Association of General Surgeons Annual Conference in Calgary for his presentation "Oxidant-induced mechanisms of macrophage activation"; the American College of Surgeons Wyeth Resident Research Scholarship for 2006–2008 for the project "Mechanisms of macrophage activation following oxidative stress"; 1st place at the Surgical Infection Society in April 2006 for his poster "The role of ceramide generation and P13 kinase activation in oxidant-induced macrophage priming." **Patrick Tawadros** received a Postgraduate Award: Joseph M. Family West Memorial Fund, University of Toronto; a Fellowship, McLaughlin Centre for Molecular Medicine; a Wyeth Resident Research Scholarship, American College of Surgeons.

Other awardees of grants or fellowships are: **Anand Govindarajan, SSP (Supervised by Anna Gagliardi and by Calvin Law)** from the National Colorectal Cancer Campaign, NCIC and the Canadian Cancer Society; **George Zogopoulos, SSP (Supervised by Steven Gallinger)** from the Society of University Surgeons (SUS), NCIC, **Tulin Cil (Supervised by Claire Holloway)** from the Canadian Breast Cancer Foundation; **Carl Brown (Supervised by Robin McLeod)** from PSIF; **Timothy Cheang, SSP (Supervised by Calvin Law)**, **Steven R. Lopushinsky, SSP (Supervised by David Urbach)** and **Ivan Diamond, SSP (Supervised by Paul Wales)** from CIHR.

This indeed, is a very impressive list of grant captures, awards, and recognition of our faculty.

Gallie Day Awards

Gallie Bateman Oral Presentations

Lynn A. Mikula garnered **1st Prize** for "High and low-frequency microsatellite instability and prognosis in colorectal cancer" (supervisor: Dr. S. Gallinger); **Patrick S. Tawadros** for "Oxidant-induced Akt phosphorylation in murine macrophages involves ceramide generation through the acid sphingomyelinase pathway (supervisor: Dr. O.D. Rotstein) and **George Zogopoulos** for "Germline DNA copy number variation frequencies in a large North American population" (supervisor: Dr. S. Gallinger) tied for the **2nd Prize**.

McMurrich Award – Poster Competition

Eli Kakiashvili, Katalin Szaszi: Role of Rho kinase-mediated myosin phosphorylation in the tumor necrosis factor-alpha induced disruption of kidney epithelial junctions, and **Matthew Zulus, Andras Kapus**: Adaptive responses in osmotic stress: Cytoskeleton remodeling, mitochondrial dynamics and their interplay also tied for **2nd Prize**.

Wyeth Award – Poster Competition

Tieing also for 2nd prize were Ulrich Guller, Nancy N. Baxter, Calvin H.L. Law, Alex Kiss, Jolie Ringash, Carol J. Swallow, Natalie G. Coburn for Adjuvant therapy for resected gastric cancer – rapid, yet incomplete adoption following the results of the intergroup 0116 trial; and Mohammed Zamakhshary, J. Guan, Teresa To, Jacob Langer for Optimal timing of inguinal hernia repair in infants: A population-based study.

Bernard Langer Surgeon-Scientist Award went to Nancy Baxter; the **Charles H. Tator Surgeon Scientist Mentoring Award** to John C. Marshall.

Events

The 46th Update Course for General Surgeons and Residents held from March 21st-23rd, 2007 had over 450 registrants, including speakers and exhibitors. Close to 550 people took part in the course. Approximately 80% of our faculty presented at this major CME event. The Guest Lecturer was Adrian Park from the University of Maryland in Baltimore; Homer Tien gave a special lecture; and Tom Todd chaired a symposium from the Canadian Medical Protective Association.

The Update in General Surgery Oncology in the fall of 2006 at the Granite Club drew excellent registration and the course was highly evaluated. For both of these courses, I particularly thank Carol Swallow, Andrea McCart and Andy Smith and those who participated in supervising the poster sessions.

This past year Jaime Escallon got involved once again in organizing the review course for residents from around Canada. Held in the early Spring of 2007 in conjunction with McMaster University, General Surgery residents from all over Canada attended.

Our major academic event for General Surgeons was the Annual Assembly of General Surgeons and Residents on June 7, 2007 at the Granite Club, with Dr. Larry Gentilello as the E.B. Tovee Lecturer.

Some new initiatives out of the Bernard and Ryna Langer Chair Fund for 2006-07, that I mentioned during the Annual Assembly of 2006, came to fruition in the form of three one-thousand dollar teaching awards to recognize outstanding resident teachers over a two-year period. These awards went to Cagla Eskicioglu, Neil Orzech and Sundeep Rai. The Surgeon-Scientist tuition and residents' presentations also obtained fundings.

At the Annual Assembly, Lynn Mikula and Alexandra Mihailovic shared the Best Podium Presentation award. Jensen Tan and Patrick Tawadros were joint recipients of the Best Poster Presentation.

The retreat held on September 29, 2006 at the Vaughan Estates was another important event that set the tone for the entire academic year. It paved the way for very animated discussions regarding our curriculum, the application process for new residents, the potential for increasing efficiency and using an evidence-based approach to standardize certain aspects of our general surgical practice and administration. Below are details of three initiatives undertaken.

Initiatives

First was a modification in the resident selection process which was discussed at length by the Post-Graduate Education Committee of the General Surgery Division. Ivan Diamond presented an outline of the changes at our Annual Assembly.

The changes made to the application process included: a standardized written application created with a structured personal statement in an attempt to obtain more useful pertinent information; limiting the number of documents/reference letters that could be submitted in order to enhance the efficiency further for file reviewers; changing the scoring system so that candidates were rated on a number of domains, each of which was weighted to form a final score; restructuring the interview process by having a structured blinded interview with new questions and with a variety of formats, and unstructured and unblinded interview. Both the written application and the interview process received very good feedback, with many positive comments on the process and the friendliness of the program.

The Surgical Skills Laboratory underwent a major renovation, doubling its space during this past academic year. Helen MacRae formed and chaired a committee, composed of Najma Ahmed, Alice Wei, Teodor Grantcharov, Alan Okrainec, Lorne Rotstein, Jaime Escallon, and Georges Azzie, which will undertake new initiatives such as continuing basic skills course over the summer, continuing with the departmental core curriculum, and trying to add a proficiency based component.

The PGY2s will have anatomy sessions in August, a Fundamentals of Laparoscopic Surgery course potentially leading to certification and will use the colonoscopy simulator prior to the GI rotation in order to demonstrate proficiency. The PGY3-4 level will have a two-year cycle of teaching which will be primarily cadaver/animal based, a Lap/Colon/Cadaver course, a Laparoscopic Ventral Hernia course, a Laparoscopic Foregut course, a Head and Neck Dissection course and an Atom course.

The formation of the Best Practice in General Surgery Committee is another new and important initiative. This committee, chaired by Robin McLeod, aims to develop standardized evidence-based practices in the adult academic teaching hospitals. The committee members are: Darlene Fenech, Anna Gagliardi, Avery Nathens, Marg McKenzie (who is the Coordinator), and Stephanie Ferguson (Administrative Assistant). The goals of this committee are to standardize practices for residents and for faculty, where possible, by using a collaborative, inclusive, best-evidence, multiple iterative strategies for implementation, evaluative component and research component for each of the initiatives involved. An attempt will be made initially to look in this way at the prevention of surgical site infection, thromboembolic disease, wound closure techniques and bowel preparation.

We will also attempt to standardize the Resident Handbook and the operating room reports. A workshop will be held in November to finalize guidelines and discuss implementation of this very important initiative.

The General Surgical Division at the University of Toronto remains outstanding in breadth and depth. I wish to thank all of the members for their cooperation and collaboration during this past academic year.

DIVISION OF NEUROSURGERY

James T. Rutka
Leslie Dan Professor and Chair



Resident Achievements

Royal College Examinations:

Fellows of the Royal College of Surgeons of Canada (FRCSC): Dr. Amro Al-Habib, Dr. Steven McCluskey, and Dr. Sheila Singh.

Resident Research Awards (International/National):

Several residents received externally funded fellowships and awards during the year:

Ratan Bhardwaj received an AANS Synthes Award.

Frank Farhadi received Research Fellowships Awards from the American College of Surgeons and the Neurosurgery Research and Education Foundation of the AANS

Greg Hawryluk received an AO North America Resident Trauma Research Grant. He will serve as Neurosurgery Resident representative to the Canadian Federation of Neurological Sciences

Betty Kim received an NSERC Research Fellowship Award

Paul Kongkham received research fellowship awards from the National Cancer Institute of Canada and the Neurosurgery Research and Education Foundation of the AANS. He also received a Terry Fox Foundation Clinical Research Fellowship Award

Karim Mukhida was the recipient of the KG McKenzie First Prize Award for best Basic Science Research Paper

Scellig Stone is the recipient of a Michael J. Fox Foundation research fellowship.

Cian O'Kelly was the recipient of the KG McKenzie First Prize Award for best Clinical Research Paper.

Sarah Woodrow received the 2007 AANS Young Neurosurgeons Committee Public Service Citation.

Resident Research Awards (University of Toronto):

Amro Al-Habib was the runner up for the Horsey Prize at the Botterell Lectureship.

Gregory Hawryluk received a 2-year Medical Scientist Training Fellowship from the McLaughlin Centre for Molecular Medicine. He was awarded a NeuroRenew/MBF Bioscience Graduate Student Scholarship

Adrian Laxton was awarded first place in the Alan Wu poster competition at IMS Day

Charles Matouk won the 2nd place Morley prize at the Keith Lectureship.

Karim Mukhida won the 1st place Morley prize at the Keith Lectureship.

Cian O'Kelly received the Claire Bombardier Award in Clinical Epidemiology for the Most Promising Student.

Demitre Serletis was the recipient of the Alan Hudson Teaching Award.

Scellig Stone won the 1st place Horsey Prize at the Botterell Lectureship.

Sarah Woodrow received the 2007 Warren Ho Memorial Scholarship.

Faculty Achievements

Honours and Awards

Karen Davis was appointed as Head of the new research division of Brain, Imaging and Behaviour - Systems Neuroscience, Toronto Western Research Institute. She has also had her CIHR grant renewed.

Peter Dirks is the recipient of an NCIC Grant Award.

Michael Fehlings has accepted the invitation to serve on the 2007 Scientific Advisory Committee for the 2007 Annual Meeting of the Tissue Engineering and Regenerative Medicine International Society (TERMIS); he was awarded a 2-year grant from the Physicians' Services Incorporated Foundation; he has been awarded Fellowship status in the American College of Surgeons (FACS); he has been appointed a Scientist in the McEwen Center for Regenerative Medicine; he was awarded a grant by the Craig H. Neilsen Foundation; he received a Canada Foundation for Innovation (CFI) grant; he received a CFI grant totaling \$7.2 M; he is the recipient of a \$30 million grant from the National Spinal Cord Injury Network; he received a grant from the Ontario Neurotrauma Foundation; he is on the Expert Panel that is developing for Spine Surgery in the Province of Ontario; he has been invited to sit on the Canadian Institutes of Health Research (CIHR) Team Grants A Scientific Review Panel; he is the Lister Prize winner in the Department of Surgery; he has been named Chairman of the AO Spine International Clinical Research Committee; he was awarded a 5-year grant from the Canadian Institutes of Health Research.

Fred Gentili has been made an honorary member of the Italian Neurosurgical Society.

Ab Guha received funding for two years from the Cancer Research Society; he received an NCIC Grant Award; he is the recipient of the Desi News - Grants Community Achievers Award; he received a two year grant from the Cancer Research Society; he received a one year grant from the Childhood Tumor Foundation; he has been elected President of The Society for Neuro-Oncology; he received a US Army DOD/NCI Concept Award; he was the recipient of an operating grant from the CIHR; he received a grant from the National Brain Tumor Foundation; he received a grant from Schering-Plough Virtual National Bank.

Robin Humphreys has been named Chair of the Grants Advisory Committee of the SickKids Foundation.

David Houlden has been appointed to the Editorial Board of the Journal of Clinical Monitoring and Computing.

Soheila Karimi received a Young Investigator Research Grant Award from the AO Spine North America (AOSNA); she is the recipient of a Dean's Fund Grant from the University of Toronto.

Abhaya Kulkarni was awarded the Roscoe Reid Graham Scholarship from the Department of Surgery.

Andres Lozano has been appointed Chair, Archives Committee, Movement Disorder Society - 2007-2008; he has been appointed as the Fellowship Director for the Division of Neurosurgery in the Department of Surgery; he was named the 2006 Inventor of the year, University Health Network; he has been designated a "highly cited" scientific author by Thompson's Scientific.

Loch Macdonald was appointed Adjunct Scientist in the Research Institute at The Hospital for Sick Children.

Eric Massicotte was the recipient of the Alan Hudson Teaching Award.

Nicolas Phan was awarded a McLaughlin Centre for Molecular Medicine Medical Scientist Training Fellowship for two years.

Julian Spears received a three year Heart and Stroke Foundation Phase I Clinician Scientist Award.

Charles Tator received a CFI grant totaling \$7.2 M; he has served as Chair of the Canadian Brain and Nerve Health Coalition (CBANHC).

Michael Taylor received a four year grant from the CIHR; he was appointed to the Awards Committee of the Society for Neuro-Oncology; he received the CRANN Award from the University of Toronto; he received an NCIC Grant Award for his project; he received a Clinician-Scientist Phase II Award from CIHR; he is the recipient of a research grant from the American Brain Tumor Association; he was appointed to the Peer Review Panel J (Pathology and Tumor Markers) at the National Cancer Institute of Canada.

Bill Tucker has been elected to the position of President, Canadian Medical Protective Association.

U of T Neurosurgery Lectureships

Dr. Ziya Gokaslan, Department of Neurosurgery, John Hopkins University Medical Center, Botterell Lectureship

Dr. Andrew Kaye, Department of Neurosurgery, University of Melbourne, Keith Lectureship

Dr. Rick Abbott, Department of Neurosurgery, Montefiore Medical Center, Hendrick Lectureship

Dr. Sean Grady, Department of Neurosurgery, University of Pennsylvania, Marshall Lectureship

Dr. Jonathan Finlay, Head of Pediatric Neuro-Oncology at the Children's Hospital, Los Angeles

Dr. Mark Bernstein, Professor of Neurosurgery, University of Toronto, Guest Speaker, City Wide Rounds, Sick Kids Hospital City-Wide Rounds

Dr. Geoffrey Manley, Department of Neurosurgery, UCSF, Sunnybrook and Women's College Health Sciences Centre

Dr. David Jimenez, Department of Neurosurgery, University of Texas Health Science Center, The Hospital of Sick Children

Dr. Anil Nanda, Department of Neurosurgery, University of Louisiana, Toronto Western Hospital

Dr. Geoffrey Manley, Department of Neurosurgery, UCSF, Health Science Centre

Courses Offered at the Surgical Skills Centre

Spine Course, June 11 – 13, 2007, Course Leader: Dr. Eric Massicotte.

Retirement

Dr. David Rowed

New Faculty Appointments

Dr. Loch Macdonald, Division Head, St. Michael's Hospital

Publications by neurosurgery faculty and residents: 144

Visiting Professorships by U of T Faculty: 145

DIVISION OF ORTHOPAEDIC SURGERY

Ben Alman
A.J. Latner Professor and Chair



The 2006-2007 academic year marked a time of growth for the Division of Orthopaedics. We had a record number of new appointments and faculty promotions.

Eight new recruits were welcomed to the division. Rajiv Gandhi and Christian Veillette started at the Toronto Western (UHN.) Rajiv will focus his clinical practice on arthroplasty, and develop an academic program in clinical epidemiology. He is currently enrolled in clinical epidemiology training at Harvard. Christian is well known to many of us as he trained in Toronto, and has returned following an upper extremity fellowship at the Mayo Clinic. Christian is particularly interested in information technology and will develop this as his academic interest. Sunnybrook welcomed Veronica Wadey and Markku Nousiainen, who will both develop practices focused on arthroplasty. Veronica has a long standing research interest in education, and has already developed a comprehensive musculoskeletal educational curriculum. Markku also is developing an academic program in education, and has a particular interest in fellowship training. Together they will be able to form a strong education research program at Sunnybrook. Two recruits joined Mount Sinai Hospital. Oleg Safir will develop an arthroplasty practice, and an education based research program. He has already received grant funding for his research work, so is on to a strong start. Ben Dehesi has joined the musculoskeletal oncology group, and is training in a graduate program in fundamental oncologic biology. John Theodoropoulos is our first joint recruit between the new Women's Hospital and Mount Sinai. He will develop an arthroscopy based practice, and is also training in tissue engineering research. The Hospital for Sick Children welcomed Reinhard Zeller, as the head of the orthopaedic spine program at Sick Kids. He relocated from one of the most prestigious spinal surgery practices in Europe, and has already brought a number of innovative spinal deformity techniques to Toronto. These eight new faculty members will undoubtedly enrich our clinical, educational, and research expertise.

One of our divisional goals is to integrate fundamental research into the orthopaedic division. To this end, we welcomed two new cross appointees to add to our research capabilities. Rita Kandel has a primary appointment in Laboratory Medicine and Pathobiology and runs a successful research program in tissue engineering of cartilage. She is also part of a large multidisciplinary group tackling cartilage regeneration. Larry White, whose primary appointment is in Diagnostic Imaging, has a long standing interest in novel imaging technologies, and is actively working to develop techniques to diagnose early cartilage disease. Both of these individuals will be working along with clinicians from our division on new multidisciplinary research directions. The participation of these individuals, along with several non-clinician scientists appointed in our division at our annual retreat is a first step towards achieving this goal.

In addition to the record number of recruits, we also had a record number of promotions. Hans Kreder and Jay Wunder were promoted to the rank of Professor. John Murnaghan and Cari Whyne were promoted to the rank of Associate Professor. Cari received a promotion with distinction. Danny Whelan, Amr ElMaraghy, and William Kraemer were promoted to the rank of Assistant Professor.

The division continues to excel in publications and presentations, and faculty members had over 250 publications or presentations this academic year. Our staff members received numerous awards and honours this year. There are too many to list here but a comprehensive record is included in this annual report. Research funding remains steady, but given the current realities of CIHR funding, our divisional members are continuing to seek alternative funding sources. Trainees supervised by our faculty received two awards at the department's Gallie Day. Louisa Ho (working with Benjamin Alman) and Colleen Wu (working with Jay Wunder) each received a McMurrich Award for basic science research.

Our Kennedy Visiting Professor was William Rennie, from the University of Manitoba. He spent several days with the faculty and residents, and gave a fascinating glimpse into new advances in hand and upper extremity surgery and changes in the orthopaedic educational and practice environment. Graduating residents presented their research work to him during the main Kennedy Day activities. The R.I. Harris Postgraduate Award was presented to Hossein Mehdian for the best graduating resident as voted by the faculty. The best resident presentations at Kennedy Day, as judged by our Visiting Professor, were given to Mark Chiu. This year we presented the inaugural James Waddell award for the best PGY4 resident, and this was awarded to Venessa Stas. Peter Ferguson received the Divisional Award for Best Teacher as voted by the residents. In addition to the divisional awards, Anthony Marchie, PGY3, won the Sopman Humanitarian Award given by the Toronto Western Hospital.

This year marked the start of the Toronto Central LHIN's single standardized referral, intake and assessment process for hip and knee replacements. This process has dramatically improved our capacity to provide the highest quality arthroplasty care in a timely manner. Many of our faculty members are using this as a model to improve access for patients with other types of orthopaedic problems, and it is likely that several similar initiatives will be developed over the coming years.

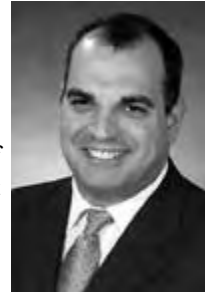
We had many visiting lecturers to Toronto this year, having instituted using the University-wide orthopaedic rounds as a forum for such visitors. The upcoming academic year we will have at least one visiting lecturer each month. In addition the American Orthopaedic Foot and Ankle Society summer meeting was held in Toronto, with our foot and ankle surgeons acting as local hosts.

Bill Kraemer (Toronto East General) is continuing his stellar job as our Program Director. All of our graduating residents passed their Royal College examination, and we were able to recruit our top ranked candidates for the residency program, having successfully matched 10 of our 11 highest ranked candidates to our program. We continue to have excellent fellowship programs, and there are more clinical fellows training in the division than residents. Albert Yee (Sunnybrook) has been appointed as the division's Director for Fellowship Education. He has already implemented a number of new initiatives to streamline the various fellowship programs, and improve integration of the fellows into the University community. Bill Cole (Sick Kids, and Cari Whyne (Sunnybrook) are co-chairing our Research Committee and are developing a program for a new integrated clinical and research year for the residency.

The University of Toronto's Division of Orthopaedic Surgery is continuing in its long history of excellence in clinical care, teaching, and research. In upcoming years, the division will be working towards increasing participation in research activities by its faculty and trainees, improved integration of clinical care across the city, and in the development of novel improved educational approaches to clinical training.

DIVISION OF PLASTIC SURGERY

Dimitri Anastakis
Chair



The Division of Plastic Surgery has seen a great deal of activity and academic success the past year. As one of the largest Divisions of Plastic and Reconstructive Surgery in North America, we continue to make significant contributions to and lead in the areas of plastic surgery research, education and clinical practice.

Promotions

Congratulations go to Dr. Joan Lipa for her promotion to Associate Professor and Dr. Laura Tate for her promotion to Assistant Professor.

Awards

Dr. Ronald Zuker was elected an honorary fellow of the Royal College of Surgeons of Edinburgh, Scotland. Dr. Ronald Levine received this year's Bruce Tovee Award for excellence in postgraduate education. Dr. Linda Dvali received the Wightman-Berris Academy Individual Teaching Excellence Award. The recipients of this year's Divisional awards included Dr. James Mahoney who received the W.K Lindsay Research Award and Dr. Joan Lipa who received the Arnis Freiberg Teaching Award.

At this year's Visiting Professor the award for Best Clinical Paper went to Dr. Douglas McKay for his paper entitled "Are Chest Compressions Safe for Patients with Sternal Plates? Investigation Using a Human Cadaveric Model" and the Mentor Best Science Paper Award went to Dr. Daniel Martin for his paper entitled "Modifying Diabetic Wound Healing by Topical Application of Genetically Modified, VEGF-Releasing Fibroblasts." Karen Cross was the recipient of the 2006-PSI Resident Research Award for her research entitled "Clinical Utilization of Near Infrared Spectroscopy Devices for Burn Depth Assessment." Dr. Allan Eckhaus received this year's D.R. Wilson Award for excellence in undergraduate teaching.

Accomplishments

Dr. Howard Clarke and Dr. Joan Lipa were appointed as Members of the Royal College of Physicians and Surgeons of Canada Examination Board in Plastic Surgery. Dr. Peter Neligan was appointed as Editor-in-Chief of the Journal of Reconstructive Microsurgery. Dr. Brent Graham was appointed as Deputy Editor of Methodology and Biostatistics for the American edition of the Journal of Bone and Joint Surgery (JBJS). Dr. Dimitri Anastakis was voted a new member of the Sunderland Society – a society dedicated to the advancement of peripheral nerve surgery.

2007 Hoyle Campbell Visiting Professor

This year's Hoyle Campbell Visiting Professor was Dr. John Persing from Yale University. Dr. Persing had a very busy itinerary including a session at the Surgical Skills Centre where he demonstrated his technique of blepharoplasty and osteotomies for coronal synostosis on a skull-model. Dr. Persing also met with the Division's Curriculum Committee to discuss future directions of plastic surgery residency training.

Continuing Medical Education

The 37th Annual University of Toronto Symposium on Aesthetic Plastic Surgery was held at the Sutton Place Hotel on May 4-5, 2007. The symposium was a great success with over 275 attendees. The 7th Annual Toronto Breast Surgery Symposium was held on May 3, 2007. Dr. Dennis Hurwitz was the Royal College of Physicians and Surgeons of Canada Lecturer. Dr. James Grotting from Alabama was the Michael Drever Annual Lecturer. The Inaugural Craniofacial Symposium was held on November 2-3, 2006. The live surgery sessions were held at the Hospital for Sick Children, while the didactic sessions took place at the Westin Harbour Castle Hotel. The Symposium was extremely well-received.

Royal College Review

Our residency program received full accreditation from the Royal College of Physicians and Surgeons of Canada.

Strategic Planning Session

On April 25, 2007, the Division held a strategic planning session with excellent faculty participation. The strategic plan defines a unified vision for the future of plastic and reconstructive surgery at the University and has set major goals and priorities for the next three years.

Training Program

Three residents graduated from the Program this year. They are: Drs. Allan Eckhaus, Douglas McKay and Zuhair Al-Fardan.



Clinical Accomplishments

The Division of Thoracic Surgery continues to have the largest clinical activity of any thoracic program in Canada. We continue to serve as the primary tertiary referral centre for most of Ontario and a quaternary referral centre for Canada. The Toronto Lung Transplant Program continues to be an international leader in clinical activity and outcomes, having performed over 100 lung transplants in a year. The first artificial lung (Novalung) bridge to lung transplant in North America was performed in Toronto this year. The End Stage Lung Diseases Program, a multi-disciplinary endeavor with the Respiriology Division, continues to grow with integrated and innovative approaches to diseases such as emphysema, pulmonary fibrosis and pulmonary hypertension. The Foregut Program focuses on clinical and academic endeavors related to diseases of the esophagus and proximal stomach. The Thoracic Service has continued to expand activity and expertise in early diagnosis, staging and treatment of early thoracic malignancies, and has continued to advance minimally invasive surgery for the management of both benign and malignant thoracic conditions.

Teaching and Research

The University of Toronto continues to be the largest and most comprehensive training program in the country for thoracic surgery, providing residency training within the Royal College Program and fellowship training to numerous surgeons from all over the world, under the coordination of Dr. Gail Darling, Program Director. The *FG Pearson Award for Best Resident/Fellow Teacher* was awarded to Dr. Stefan Fischer. The *RJ Ginsberg Award for Best Postgraduate Teacher* was awarded to Dr. Gail Darling. The *GE Darling Award for Excellence in Undergraduate Teaching* was awarded to Dr. Andrew Pierre. The 3rd *Annual Pearson Day* was a tremendous success – highlighting the breadth of clinical and basic science research activity in the division. The trainee award for *Best Clinical Paper* was awarded to Dr. Stefan Fischer on the topic “Results of surgery after induction chemoradiation therapy for superior sulcos tumour” (Supervisor – Darling). The award for *Best Basic Science Paper* was awarded to Dr. Marcelo Cypel (Supervisor – Keshavjee.)

The Latner Thoracic Surgery Research Laboratories continue to be very successful with grant capture and publications. This year saw landmark progress in the expansion and development of the Latner Thoracic Surgery Research Laboratories in the MaRS Toronto Medical Discovery Tower. The principal investigators: Keshavjee, Liu, Waddell, de Perrot and Hwang (Pathology) now have unparalleled state of the art research facilities. The investigators work in areas of lung injury and repair, tissue regeneration, lung transplantation and thoracic oncology. Drs. Keshavjee, Liu and Waddell each maintain highly ranked CIHR operating grants, for their respective research projects. Drs. Marc de Perrot and David Hwang (Pathology) have continued to add significant strength and activity in the group with grant capture and research productivity. Our laboratory program continues to provide an exciting and productive research training environment for graduate students and residents in the Surgeon-Scientist Program (MSc, PhD) and for numerous postgraduate fellows from all over the world.

Our Clinical Research Program also continues to be very productive. Members of our group are heavily involved in clinical trials in lung cancer, benign and malignant esophageal disease, and lung transplantation; with our division members being principal or co-principal investigators on a number of national and international multicentre trials.

Recruitment, Promotion and Honours

We have rebuilt the Division with strong recruits and increased cross division academic and service initiatives between the three University hospital divisions, namely: Toronto General, St. Joseph’s and Toronto East General Hospitals.

Additional Information

The Visiting Professors to the Division of Thoracic Surgery for 2006-07 academic year were as follows:

Dr. Kazuhiro Yasufuku - March 29, 2007

Dr. Robert McKenna - May 18, 2007

Dr. Hiroyasu Yokomise - June 11, 2007

Dr. Griff Pearson - June 8, 2007

DIVISION OF UROLOGY

Sender Herschorn
Martin Barkin Chair in Urological Research



Academic Promotion

Drs. Neil Fleshner and Joao Pippi-Salle were promoted to Professor.

Royal College Review

The external review took place on April 18, 2007. The division obtained full approval with no concerns identified.

Sick Kids

The Campbell-Walsh chapter on Reflux and Megaureter written by **Drs. Tony Khoury and Darius Bagli** was published.

Dr. Darius Bagli received funding for his project entitled "Epigenetic changes in uroepitulum following e.coli infection: New keys to understanding urinary tract infection susceptibility from the Hospital for Sick Children - Research Institute". He was also the invited keynote speaker at the Pan-Arab Continence Society Annual Meeting, Manama, Bahrain in November.

Dr. Walid Farhat continued his work in tissue engineering and with K. Derwin were funded by the Cleveland Clinic Foundation (Biomedical Research and Technology Transfer Program-part of Ohio's Third Frontier Initiative) for their project entitled Biologically Enhanced Fascia Lata Graft for Soft Tissue Repair. Dr. Farhat was also a guest speaker at conferences in Banff; Beirut, Lebanon; Cairo, Egypt; and Nashville, Tennessee.

Dr. Tony Khoury continued as site chief at Sick Kids. He also continued his peer reviewed research and was invited to lecture in Cape Town, South Africa, Brugge Belgium, and at Columbia University in New York City.

Dr. Joao Pippi-Salle was an invited speaker, surgeon, and visiting professor in many locations around the world. These included Madrid, Spain, Cape Town, South Africa, New Dehli, India, the University of Arkansas, Little Rock, Arkansas, Rio de Janeiro, Brazil, Parma, Italy, Bologna, Italy, Marrakesh, Morocco, Casablanca, Morocco, and the University of British Columbia, Vancouver. He also continued as Director of Continuing Professional Development for the Department of Surgery. He chaired the 2nd Annual Urology Symposium which was on hypospadias this year.

Dr. Armando Lorenzo continued his work in clinical epidemiology and minimally invasive pediatric surgery.

MSH

Dr. Keith Jarvi, site chief at MSH, continued the Male Infertility Program and as Director of the **The Murray Koffler Urologic Wellness Centre (MKUWC)**. Dr. Jarvi again organized the Annual Robson Research Day Resident and Fellow scientific presentation contest. He was an invited speaker in Ottawa, Kingston, and at the University of Rochester, Rochester, New York. He received funding for his project entitled: Use of seminal fluid protein patterns as biomarkers for diseases in the male reproductive tract: Prediction of spermatogenesis in men with azoospermia, from Physicians Services Incorporated. His co-investigators are **K. Lo, E. Diamandis, and B. Mullen**. He was also part of a CIHR grant on the genetics of male infertility.

Dr. Kirk Lo continued his basic infertility research in stem cells. He presented at the plenary session at the AUA annual meeting in Anaheim CA, and chaired an educational forum at the CUA annual meeting in Quebec City.

Dr. Alexandre Zlotta started as a uro-oncologist in the Divisions at MSH and PMH. He continued his position as Associate Editor of European Urology, one of the premier international journals in urology. On January 18th he was awarded a PhD with the official title of "Docteur en Sciences Medicales" by the Free University of Brussels, Belgium. His theses were "BCG immunotherapy for superficial bladder cancer: Further insights into its mechanism of action", and "Place du PSA et des parametres volumetriques dans la detection du cancer de prostate." He received a funding award from the Canadian Prostate Cancer Research Foundation for his project entitled: "Prevalence and age distribution of prostate carcinoma and its precursor lesions in African, Asian and Caucasian men in autopsy specimens: A prospective comparative international study." Co-investigators are **Neil Fleshner, Keith Jarvi, Theo Van der Kwast, and Tony Finelli**. International collaboration is with Italy, Spain, Russia, Japan, and Congo. He also received a non peer-reviewed research grant from Sanofi-Aventis for prostate cancer research. He was visiting professor at the University of Tokyo, Tokyo, Japan, and invited speaker at the South African Congress of Urology, European Residents Program, Prague, Czech Republic, and at meetings in Paris, France, Berlin, Germany, and Nijmegen, Netherlands. He was the member for urology at the Prevention Initiative of the NCIC meeting in Vancouver, BC.

SUNNYBROOK

Dr. Lesley Carr continued her work as an investigator in an NIH grant to evaluate the efficacy of amitriptyline for the treatment of painful bladder syndrome, and in an industry grant for the use of muscle stem cells in stress urinary incontinence. Dr. Carr was in charge of journal seminars for urology residents.

Dr. Sender Herschorn was named as the first Chairholder of the Martin Barkin Chair in Urological Research. This is a university chair that will be held by the division chair. He continued his clinical research in urinary incontinence, neurogenic bladder overactivity, and erectile dysfunction. He was an invited speaker and lecturer at the University of Western Ontario; London, Ontario; Dalhousie University, Halifax, Nova Scotia; Christchurch, New Zealand; Berlin, Germany; Anaheim, California; and Sudbury, Ontario. The chapter he authored on Vaginal Reconstructive Surgery in the new Campbell-Walsh textbook of Urology was published. He also won W.T. Aikins Faculty Teaching Award for Excellence in Undergraduate Teaching: for individual teaching performance (small group). He also directed the 14th Annual U of T Urology Update.

Dr. Laurence Klotz, site chief at Sunnybrook, continued his research in uro-oncology and his many leadership appointments including Editor-in-Chief of the new Canadian Urological Association Journal. He continued as Chair of the Canadian Urology Research Consortium the World Uro Oncology Federation, (WUOF), an organization of 12 national and regional uro oncology societies around the world. He continued his many peer-reviewed research projects as well as initiated new work in prostate cancer treatment and prevention. He was guest speaker and visiting professor in Anaheim, California; Chicago, IL; Santo Domingo, Dominican Republic; University of South Florida, Sarasota, Florida; Syracuse University, Syracuse, New York; Baylor University, Dallas, Texas. He was invited guest speaker by the Urological Societies of Quebec, Japan, Mexico, Australia and New Zealand. He won the 2006 Richard Lafferty Excellence in Writing Award from the Ontario Society of Medical Technologists. He was also elected as a member of the American Association of Genitourinary Surgeons.

Dr. Ron Kodama completed 10 years as Program Director for the Division and was honoured by his current and former students at a dinner at the Urology Fair in February. He again organized the 4th Annual Resident Basic Science Course in February. He again organized the Surgical Skills Lab sessions on TURP and TURBT. He also directed the annual Urology Fair 2007. He also won the Division of Urology Postgraduate Clinical Teaching Award.

Dr. Robert Nam continued his research in the genetics of prostate cancer. He was an invited speaker at the SIU GU Oncology conference in Cape Town, South Africa, and at an educational forum at the CUA in Quebec City. He continued his work on his peer-reviewed projects from NCIC and received new research awards from CIHR for his project entitled: Individual risk assessment for prostate cancer using risk factors, tumour markers and new biomarkers, (with S. Narod) and from the NCIC for “Cross-Canada assessment of a new nomogram prediction tool for prostate cancer screening” with co-investigators from across Canada. He received the Division of Urology Faculty Postgraduate Surgical Teaching Award and the Peter’s Boyd Academy Clinical Teaching Supervision Award.

Dr. Sharon Sharir continued her work in studying outcomes in women’s and men’s experiences with radical cystectomy for bladder cancer. Dr. Sharir ended her stay at Sunnybrook and went into practice at Humber Hospital.

Dr. Vasundara Venkateswaran continued her basic research in the peer-reviewed prostate cancer project on a transgenic mouse prostate cancer prevention model. She also received new CIHR and PCRFC awards as PI for prostate cancer research. She is also a co-investigator on two grants: one from the NCIC (with Dr. Michael Pollak, McGill) and the other from CPCRI (Dr. Bharati Bapat, MSH). She also supervises a PhD student and clinical fellow in her lab.

UHN - TGH and PMH

Dr. Neil Fleshner, site chief at the UHN, was appointed Professor. He continued his clinical and basic research in prostate cancer with many major peer-reviewed grants from CIHR, NCIC and CPRF. New grants were from the Ontario Institute for Cancer Research for “Identification and characterization of genetic alterations at the stromal-epithelial interface in prostate cancer,” (with T. Brown, S. Done, L. Jurisica, G. Lockwood, J. Sweet), and from the Canadian Prostate Cancer Research Foundation for “Impact of combination antioxidants on MRI markers of cell proliferation and hypoxia among men on active surveillance with early state prostate cancer,” (with M. Haider and V. Venkateswaran) and for “Antioxidants and MRI in prostate cancer (with M. Haider). He was also co-investigator on a new grant from CIHR. He was invited speaker at meetings in Hawaii, Boca Raton, FL, Orlando, FL, Cape Town, South Africa, and Quebec City.

Dr. Michael Jewett continued his clinical and research work in many peer-reviewed funded projects in Uro-Oncology. He received the CUA/CUOG Bayer Kidney Cancer Fellowship award for Analysis of VHL gene mutation in sporadic renal cell carcinoma, (with B. Gallie, M. Ohh, and A. Evans) was co-PI with G. Fernie on an Ontario Research Commercialization Program (ORCP) 'BioDiscover' Stage I Business and Development Project entitled Advanced articulating patient support system for image guided therapeutics (with C. Menard, A. Finelli, and W. Kucharchyk). He was an invited speaker and/or visiting professor in Aspen, Colorado; the Scott Department of Urology, Baylor College of Medicine, Houston, Texas; Victoria, British Columbia; Kelowna, British Columbia; London, Ontario; Amsterdam, Netherlands; the Urological Society of South Africa, Cape Town, South Africa; Interlaken, Switzerland; Riyadh, Saudi Arabia; British Association of Urological Surgeons Annual Meeting, Glasgow, Scotland; the CUA Annual Meeting, Quebec City, Quebec; McMaster University in Hamilton, Ontario. He also won the Division of Urology AW Bruce Undergraduate Teaching award.

Dr. Michael Robinette continued as the major individual contributing to the Multi-Organ Transplant Program at the UHN, specifically in kidney transplants.

Dr. John Trachtenberg continued his active research into novel therapies for prostate cancer with grants from CIHR, NCIC, NIH, CPRF and industry. New awards included a project funded by CIHR entitled: NIR imaging and photodynamic therapy of prostate cancer using aptamer-directed lipoprotein nanoplatfrom. (PI: G. Zheng, with B. Wilson). He was invited speaker at the EAU Meeting in Berlin, Germany and the VTP Symposium in Paris, France. His presentation entitled "Whole mount histological registration and validation of hierarchical clustering for segmentation of tumor and normal prostate using multi-parametric" won the Bronze Award at the MRI ISMRM Meeting. The Surgeons' Lounge at the Toronto General Hospital was named in honour of Dr. Trachtenberg.

Dr. Tony Finelli continued his work in advancing laparoscopic urologic procedures. New grants as PI were from Bayer Inc. for "Preoperative administration of sorafenib in patients with metastatic renal cell carcinoma undergoing cytoreductive nephrectomy" (with J. Knox A. Evans, N. Fleshner, M. Jewett, T. Kim), from Pfizer for "A phase II, single arm, prospective study of neoadjuvant sutent for patients with renal cell carcinoma" (with A. Knox, A. Evans, N. Fleshner, M. Haider, M. Jewett), and from Merck for "A phase III, randomized, double-blind, placebo controlled trial of PROSCAR in men with initial negative prostate biopsies" (with N. Fleshner, M. Jewett, A. Toi, J. Trachtenberg, A. Zlotta). He was a visiting speaker in Cleveland, OH; Cancun, Mexico; Baylor College of Medicine, Dallas, TX; and moderated a session at the EAU Meeting in Berlin, Germany.

UHN – TWH

Dr. Magdy Hassouna continued his basic and clinical work in neurourology and neuromodulation. He chaired a session on neuromodulation at the SUFU meeting in San Diego, CA.

Dr. Sidney Radomski, continued his role as the Urology Co-ordinator in the Surgical Skills Lab. He conducted hands on sessions for the residents in various minimally topics during the year. He continued his work in peer-review and industry funded grants in incontinence, overactive bladder and erectile dysfunction.

St. Michael's Hospital

Dr. John Honey, site chief at St. Michael's, continued his work as Director of Endourology and the Stone Treatment Centre at SMH. He continued his clinical research studies in lithotripsy. He was Course Director at a hands-on course at the American Urological Association (AUA) Meeting in Anaheim, CA. He won a best poster award at the Canadian Urological Association Meeting in Quebec City and 3 best poster awards at the AUA Meeting in Anaheim, CA. He was invited faculty at the 1st International Urolithiasis Research Symposium in Indianapolis and Visiting Professor at the University of Ottawa.

Dr. Kenneth Pace continued his work in clinical epidemiology and stone disease and minimally invasive surgery. Dr. Pace directed the 2nd Annual Advanced Laparoscopic Urology Course in advance of Urology Update 2006. He continued his work as Chair of the IT committee for the CUA. He was appointed as the Fellowship Coordinator for the division of urology, and is the OSCE coordinator for the Phase 2 clinical clerkship surgery examination. He was an invited speaker in Indianapolis, and at an Educational Forum at the CUA meeting in Quebec City.

Dr. Robert Stewart continued as the principal urologist in the kidney transplantation program. He organized the weekly Urology Resident Postgraduate Seminars and continued as Director of Undergraduate Surgery Education at SMH.

Academic Events and Awards

The **Annual Charles J. Robson Research Day** was held on April 12th. The Visiting Professor was Dr. Eric Klein, Professor of Surgery, Cleveland Clinic Lerner College of Medicine, Head, Section of Urologic Oncology, Glickman Urological Institute Cleveland Clinic, Cleveland, OH. There were over 25 presentations. Resident winners were Rohan Shahani in the Clinical and Basic categories. Fellow winners were Sree Appu and Ahmed Haddad in similar categories. Other winners were Cengiz Yildiz in basic and Stephanie Tam in clinical.

The Patrick Harty Award for Excellence in Patient Care was awarded to Dr. Jason Lee.

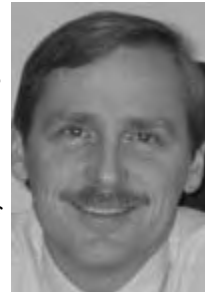
Drs. Tim Davies and Michael Piannezza passed their Royal College Examinations.

Visiting Professors

Guests this year included Arie Beldegrun, UCLA; Peter Albertsen, University of Connecticut; Anthony Atala, Wake Forest University; John Denstedt, University of Western Ontario; Gary Lemack, Margaret Pearle, Claus Roehrborn, University of Texas Southwestern Medical Centre Dallas; John Mahoney, University of Ottawa; J. Curtis Nickel, Queen's University; David Crawford, University of Colorado; Sandip Vasavada, Cleveland Clinic; Howard Snyder, University of Pennsylvania; Warren Snodgrass, Texas Tech University; Aivar Bracka, West Midlands, UK; and Paul Merguerian, Dartmouth Medical School.

DIVISION OF VASCULAR SURGERY

Thomas Lindsay
Chair



Introduction

This academic year has been the first full year since the reorganization of vascular surgical services in the University of Toronto teaching hospitals. During this year there was a striking increase in the number of regional referrals through the CriteCall network to the two centers of excellence to provide vascular surgical care at St. Michael's Hospital and University Health Network. The alternate funding agreement has been in place for eighteen months and this has stabilized the work force. New city-wide monthly academic vascular rounds began in September 2007 and continued throughout the year. The regional centers have increased utilization of endovascular aneurysm repair for thoracic, abdominal and iliac cases. New branched iliac grafts have been used and extension to fenestrated and branched endovascular cases is underway. The combined Division of Cardiac and Vascular Surgery at Sunnybrook has been performing endovascular repairs and are seeking Ministry of Health funding for this activity. In addition, a new recruit is expected to start at Sunnybrook in October 2007. Recruitment is also underway at Toronto General Hospital and St. Michael's Hospital. It is expected that a new recruit will be added at each site during 2007-08.

Administration

Dr. Johnston was appointed President of the Society for Vascular Surgery at the June 2007 SVS meeting. Also, Dr. Johnston continues as R. Fraser Elliott Chair in Vascular Surgery and completed his terms as the Editor-in-Chief of VascularWeb, and Editor of a new vascular newspaper called the Vascular Specialist. Dr. Lindsay completed his term as President of the Canadian Society for Vascular Surgery at the October 2006 meeting in Calgary, Alberta with an address on Ruptured Aortic Aneurysms. During this past year the CSVS undertook a position statement on screening for abdominal aortic aneurysms which was published in the Journal of Vascular Surgery. In addition, new driving guidelines on driving with abdominal aneurysms were developed by the CSVS executive. Dr. Lindsay continues as a member of the Vascular Surgery Examination Board at the Royal College of Physicians and Surgeons. Dr. Rubin continues as the Chairman and CEO for the Mount Sinai Hospital/University Health Network Academic Medical Organization and the University Health Network Mount Sinai Hospital Health Practitioners Funding Group. He has also been an active member of the AHSC AFP Task Force charged with developing a framework for governance structures and guidelines for funding allocations for the Academic Health Science Center Alternative Funding Plan that was part of the OMA contract in 2004. He was also Chair of the working group of the Task Force that developed a definition of a full time equivalent for academic physicians, and was a member of the AHSC AFP template drafting committee. Dr. Ameli and Dr. Rubin continued their roles as Head of the Division of Vascular Surgery at St. Michael's Hospital and University Health Network, respectively. Dr. Tanner continues as the Head of the Section of Vascular Surgery at the Ontario Medical Association and as a member of the Physician Services Committee, which is the interface between the OMA and the MOHLTC for ongoing contractual issues. In addition, Dr. Tanner continues as the Co-Chair of the Hospital-On-Call Coverage program for the province of Ontario. Dr. Daryl Kucey is the President-elect of the Canadian Society for Vascular Surgery. Dr. Rubin continues as a member of the Research and Education Committee of the Society for Vascular Surgery, and has been appointed as a member of the Audit Committee. Dr. Lindsay remains appointed to the Editorial Boards of the Journal of Vascular Surgery and the Annals of Vascular Surgery.

Graduates

Dr. April Boyd successfully passed her Royal College Certificate of Special Competence in Vascular Surgery and began academic practice at the University of Manitoba in Winnipeg. Dr. Andrew Dueck completed his fellowship training and is pursuing additional training at the Arizona Heart Institute prior to returning to the University of Toronto.

Education

The Division's Residency Training Committee, led by Dr. Lindsay, produced a significant document reviewing the Royal College training program in preparation for the Royal College review. The program was successfully reviewed by the Royal College of Physicians and Surgeons in April 2007. Plans are being made to incorporate formal certification of Vascular trainees in Vascular lab investigations. Training in interventional techniques continues with Dr. Ron Colapinto at the Toronto Vascular Institute.

Dr. Vern Campbell has been appointed as the resident and fellow training coordinator at St. Michael's Hospital effective October 1, 2006. Dr Oreopoulos has been appointed coordinator of the vascular surgical resident seminar series.

Research

Dr. Rubin was awarded a new 4-year CHIR grant in June 2007 to support his basic research into mechanisms of ventricular remodeling after myocardial infarction. Dr. Lindsay was awarded a new PSI grant to continue his studies on complement activation in ruptured abdominal aortic aneurysm in both humans and in an animal model. Dr. Johnston continues to collaborate with Professor Richard Cobbold (Biomedical Engineering) in Doppler ultrasound and in hemodynamics studies continues as his major research endeavor. Dr. Lossing and David Courtman are continuing their Heart and Stroke funded research examining the AAA matrix and its function. Dr. Lossing continues his research into the familial connection of aortic aneurysm.

Awards

At the Joint Vascular meeting in June meeting in Baltimore, Dr. Andrew Dueck was awarded the Alex Chao MD, Young Investigator Award at the Society for Vascular Ultrasound (SVU) for his paper and presentation 'Fishing for BASS: Surveying Primary Physicians in the Barriers to Aortic Screening Study'. Dr. Wooster was awarded the 2007 Physician Presenters Award from the SVU for his presentation, 'Use of a Structured Interpretation Report Audit in Vascular Ultrasound Quality Initiatives.'

External Visits and Visitors

Dr. Rubin presented work on cardiac eicosanoid metabolism at the NIH sponsored Vascular Surgery Research Initiatives Conference in Bethesda in March 2007. Drs. Lindsay and Wooster, presented at the Winnipeg Vascular Surgery course in April 2007. Dr. Wooster presented on the applications of Duplex ultrasound at the VITO meeting in Toronto in April 2007 and as an invited guest at the University of Rochester Vascular Course in May 2007. Dr. Lindsay was the invited guest at the University of Ottawa's Department of Surgery Collins Day. In addition to assisting with judging of the resident research presentations, two formal presentations were delivered. Dr. Lindsay was also an invited speaker at the 11th International Symposium on Critical Issues in Endovascular Stent-Grafting in Groningen, The Netherlands in May 2007.

SURGICAL ALUMNI ASSOCIATION

Charles H. Tator
President



In 2006-2007, the Surgical Alumni Association continued its mission of interacting with alumni of the Department of Surgery to encourage them to help us maintain our excellent programs in surgical research training. These programs include the renowned Surgeon Scientist Program which is now about 25 years old, and the newly created Scholarship in Surgery Program. Both programs require financial support from surgical alumni to allow the Department to continue its mission of providing additional training and education in research over and above the traditional training of surgical residents as specialists. Through our research training programs, the Department of Surgery at the University of Toronto is at the forefront of fulfilling our university's role as Canada's research university. I am pleased to report that in 2006-07, we were able to provide financial support to several trainees in both programs.

One of the ways that the Surgical Alumni Association performs its role is through targeted fundraising among current surgical faculty and all alumni, including past faculty and alumni continuing to practice or retired in other centres. I am pleased to report that the Surgical Alumni Association's 2006-2007 campaign raised considerable support for our department's research training programs. Virtually 100% of the funds collected were used to benefit the Surgeon Scientist and Scholarship in Surgery Programs.

As in previous years, we have also worked along with the fundraising initiatives of some of the surgical divisions that were conducting focused campaigns, especially for specialty chairs and other projects that are so vital for enhancing academic activities in surgery. Over the years, the Surgical Alumni Association has assisted with the establishment of several endowed academic chairs in many divisions.

During the year, Nancy Collett joined the Department as the development officer, and thank you to Nancy for her new ideas and efforts to enhance the activities of the Association.

We continue to encourage all faculty and alumni to donate annually to the Surgical Alumni Association for support of our department-wide programs such as the Surgeon Scientist and Scholarship in Surgery Programs. Because of your donations, these programs have continued to have sufficient resources to support surgical residents from all divisions who make the commitment to a formal period of training in research during resident training in the Gallie Course. Because of your generosity, the Surgical Scientist Fellowship endowment continues to grow each year and represents an important source of support for Surgeon Scientist Program trainees. Our goal is to be able to continue to offer these programs to every trainee in surgery who commits to the additional time and effort to enhance his/her academic training. Thank you to the Divisional Chairs who helped us to communicate with alumni in their specialties. The Chairs have always played a special role in the annual campaign.

For the 2006-2007 campaign, we continued to advocate for an annual contribution of \$1,000 to the Surgical Alumni Association from every current clinical faculty member in the Department and from every alumnus practicing or retired anywhere in the world. We thank everyone who committed to this concept. The 2006-2007 campaign was especially important because of the opportunity for leveraging the donations through matching programs initiated by the university and the provincial government.

On behalf of the Surgical Alumni Association, we thank the alumni and faculty of the Department of Surgery for their support of this association in the past year. On a personal note, I wish continuing success for the Surgical Alumni Association under its new leadership (to be announced). Thank you for your cooperation. It has been a pleasure and privilege serving you as President for the past seven years.

Andy Smith

Head, University of Toronto Surgical Oncology Umbrella Committee



Surgical oncology activity continues to thrive throughout the Department. University of Toronto surgical oncologists continue to play important leadership roles in developing and implementing provincial cancer standards in conjunction with Cancer Care Ontario. Sites such as breast, thoracic, hepatobiliary, gastric, colorectal and prostate cancer have recently been areas of focus. In addition, U of T surgeons work in leadership roles to globally steer provincial quality improvement (Robin McLeod), research (David Urbach), and key strategic fiscal issues (Jonathan Irish).

Surgical oncology training programs have excelled and continue to populate the burgeoning numbers of cancer programs in new cancer centres around Ontario and around the world. A highlight this year was the successful review of surgical oncology training programs during the faculty-wide accreditation process. The continued maturation of the surgical oncology programs and their leadership position within Canada was noted. Creative efforts to blend general surgical oncology training with, for example, hepatobiliary fellowship training and minimally invasive surgery training are presently underway. In addition to training surgeons from around the world, University of Toronto surgical oncology trainees have been increasingly availed of training opportunities in foreign countries as a part of their specialty training in Toronto.

Academic productivity for surgical oncologists remains high with substantial representation at such meetings as the Society of Surgical Oncology and the American Urological Association. University of Toronto research constitutes a substantial proportion of the work presented at the Canadian Society of Surgical Oncology. Surgical oncology involvement in international collaborative trials organizations (NCIC, ACOSOG, NSABP) has been reinvigorated. Further to this, Nancy Baxter sits on the NCIC Gastrointestinal Disease site executive committee and has been appointed Rectal Group Co-Chair. Laurie Klotz has successfully initiated a large international randomized trial comparing active surveillance to radical intervention (the START trial), involving cooperative groups in Canada, the US, the UK, and Australia.

Importantly, the evolution of surgical oncology at the U of T has been paralleled by unprecedented collaboration throughout the department in postgraduate education, research and clinical endeavour. This is especially evident as the LHIN era unfolds in Toronto. For example, Sherif Hanna and Jonathan Irish have worked diligently to steer the course for quality improvement, surgical oncology specialty funding and infrastructure for surgical oncology in their roles leading the Toronto Central LHIN Cancer Program.

CONTINUING PROFESSIONAL DEVELOPMENT

Joao L. Pippi Salle
Director



Continuing Professional Development is an area of great interest in the department. In assuming the role of Director, Continuing Medical Education from my distinguished predecessor Sender Herschorn who successfully completed a five-year term, our plan is to continue stimulating activities sponsored by our department. Having contacted and interviewed most University Division Chairs, they have helped us to clarify the divisions' role in continuing education by learning that each division throughout the year holds educational seminars/rounds and hosts visiting professors who give lectures on a variety of topics. Also, nearly all divisions hold their own annual event. For example: General Surgery hosted their 27th Annual Assembly of General Surgeons and Residents; Orthopaedic Surgery hosted Kennedy Day; Urology Surgery hosted their Annual Urology Update -- to name a few.

Most divisions also held courses this year run by UofT, Faculty of Medicine, Continuing Education & Faculty Development Department. Of note are: Update in General Surgery which held its 47th Annual Course for Practicing Surgeons; The Aesthetic Plastic Surgery Symposium which has been held for 37 years, the Toronto Thoracic Surgery Refresher Course for 33 years, the Upper Extremity Update for 23 years (designed for orthopaedic surgery, plastic surgery and general surgery surgeons or trainees), and the Toronto Thoracic Surgery Refresher Course for 33 years. All events were well attended.

In order to comply with guidelines for accreditation of the Royal College of Physicians and Surgeons of Canada, members of the department began to record their CPD activities. Details of the program can be obtained from the following website: www.mainport.org/default.asp#. For example: Fellows are required to earn 400 credits during 5 years of practice by participating in educational activities of their choice, submitting their CPD hours from the previous year by January 31st deadline. Each year a random sample of 3% of fellows will be audited in order to validate their self-reports of participation in educational activities.

Actions aiming to increase activities sponsored by the department are going to be implemented shortly. In addition, a Continuing Medical Education Committee has been created with the intention of further defining our educational mission.

The department continues to sponsor a large number of CPD courses and, due to the skill and motivations of its members, this should increase; complying with the increased demand of the surgical society. The continuing educational activities have achieved excellent evaluations, bringing a positive impact on an individual's annual performance review and in academic promotion.

Title	Course Director(s)	Number participants
Urology Update 2006	Sender Herschorn	243
23rd Annual Upper Extremity Update	Robin Richards	179
37th Annual Canadian Society Aesthetic Plastic Surgery	Thomas Bell	171
Update in Surgical Oncology 2006	Andrew Smith	163
7th Annual Toronto Breast Surgery Symposium	Mitchell Brown	140
Craniofacial Symposium	Oleh Antonyshyn / Christopher Forrest	97
Canadian Radiosurgery Society (CARS) Meeting	Michael Schwartz	46
Advanced Urological Reconstructive Laparoscopy	Kenneth Pace	9
Update in General Surgery 2007 – 47th Annual course for Practicing Surgeons	Zane Cohen	442
Kennedy Visiting Professor 2006	Benjamin Alman	110
Vascular Imaging 2007	Douglas Wooster	-
Surgical Leadership Day: Getting Things Done	Martin McKneally	23
International Surgery – Bethune Round Table	Andrew Howard	70
What Difference Does Communication Make! Department of Surgery Faculty Education Retreat	Ori Rotstein	32
27th Annual Assembly of General Surgeons and Residents	Carol Swallow	123
33rd Annual Toronto Thoracic Surgery Refresher Course 2007	Shaf Keshavjee / Marc de Perrot	173
Ralph T. Manktelow Education Symposium	Brent Graham	150

HOSPITAL FOR SICK CHILDREN

Heads of Divisions

Dr. G. Van Arsdell – Cardiac Surgery
Dr. J. Langer – General Surgery
Dr. J. Drake – Neurosurgery
Dr. B. Alman – Orthopaedic Surgery
Dr. C. Forrest – Plastic Surgery
Dr. A. Khoury – Urology

James G. Wright
Surgeon-in-Chief



The Department of Surgery at SickKids has six divisions: Cardiovascular Surgery, General Surgery, Orthopaedic Surgery, Neurosurgery, Plastic Surgery and Urology. These divisions are engaged in teaching at all levels, basic and clinical research, and the care of children with complex conditions from Ontario, Canada and worldwide.

The Department of Surgery has had a highly successful year. First, SickKids is leading a national wait time pilot project. Prime Minister Stephen Harper came to SickKids in January 2007 to announce \$2.6M funding to measure wait times for children's surgery in six clinical areas at the 16 paediatric academic Health Sciences Centres across Canada.

Second, Premier Dalton McGuinty and Minister of Health and Long-Term Care George Smitherman came to SickKids in May 2007 to announce the addition of children's surgery to the Provincial Wait Time strategy with \$5.5M in 2006-07 to perform additional paediatric surgeries.

Third, SickKids successfully completed an AFP renegotiation including funding for a taskforce to develop appropriate acuity measure for complex paediatric care.

Fourth, SickKids has established a Learning Institute that will play a major role in improving the educational experience for all learners at SickKids and beyond.

New Staff

Dr. Osman Al-Radi joined the Division of Cardiovascular Surgery as an Associate staff in April 2007. Osman, a graduate of the University of Toronto Residency Program with a Masters degree in clinical epidemiology will have a research focus on the clinical epidemiology of neonatal heart conditions.

Dr. Georges Azzie joined the Division of General Surgery in August 2006. Georges, a graduate of the University of Toronto Training Program, was Program Director in Albuquerque, New Mexico and returns to Toronto as Associate Surgeon-in-Chief for Education with a focus on education and international surgery.

Dr. Priscilla Chiu joined the Division of General Surgery as a Surgeon-Scientist. Priscilla, a graduate of the University of Toronto Residency Program, will continue her longstanding research focus on T-cell.

Dr. Sharifa Himidan joined the Division of Paediatric General Surgery in 2006. Sharifa, who works both at North York General Hospital and SickKids, has a clinical interest in complex disorders of the newborn.

Dr. Armando Lorenzo, a native Panamanian, joined the Division of Urology in 2006. Armando's research focus will be in clinical epidemiology.

Dr. Reinhard Zeller came from Paris, France to SickKids in October 2006. Reinhard who is an engineer with a primary focus on surgery of the spine, will co-lead the Spine Program Unit with Dr. James Drake.

Appointments and Promotions

Dr. Benjamin Alman was appointed the A.J. Latner Chair of Orthopaedic Surgery at the University of Toronto in July 2006.

Drs. Chris Caldarone, Abhaya Kulkarni, Unni Narayanan, and Joao Luis Pippi Salle successfully completed their "three year review."

Dr. Christopher Forrest was promoted to Full Professor.

Dr. Andrew Howard was appointed Director of International Surgery.

Dr. Pippi Salle assumed his role as Director of CME, Department of Surgery, University of Toronto.

Drs. Glen Van Arsdell and Joao Luis Pippi Salle were promoted to full Professor.

Dr. Ron Zuker was made Honorary Fellow of the Royal College of Surgeons of Edinburgh.



Division of Cardiac Surgery

The Division was a major contributor to the Third Annual SickKids Symposium on Contemporary Questions in Congenital Heart Disease. This year's topic was "The Left Heart." A team from the Division operated and taught in Chengdu, China this past November and was invited as international lecturer at meeting sites that included China, Japan, the UK and the US.

Dr. Chris Caldarone was a significant participant in a \$6 million USD multi-site Leduq Foundation grant that is looking at ischaemic preconditioning. Dr. John Coles received a Heart and Stroke grant to further his work in Integrin-linked kinase. Dr. Glen Van Arsdell received a Heart and Stroke grant looking at the effects of single ventricle Stage I palliative strategies on neurologic outcomes.

The group had multiple peer-reviewed presentations at national and international meetings as well as publications in specialty journals highlighted by Dr. Cole's publication in Circulation.

Division of Neurosurgery

Dr. Peter Dirks was re-appointed as a Scientist in the Research Institute at SickKids and published two high impact papers in Nature and Nature Chemical Biology. Dr. James Drake received the Donald D. Matson Award of the American Association of Neurological Surgeons. Dr. James Rutka, as University Chair, Division of Neurosurgery, successfully completed the Royal College Review of the Neurosurgery Program and received the Knight of the Order of the Smile. Dr. Michael Taylor received the Elsie W. Crann Award for Young Investigators from the University of Toronto. The Division delivered 45 invited lectures worldwide.

Division of Urology

Dr. Darius Bagli won first prize for a paediatric urologic paper at the American Urologic Association. Dr. Tony Khoury has been appointed Associate Editor for the fifth edition of Clinical Paediatric Urology. This is the first time a non-American has been selected as an editor. Dr. Khoury was awarded, for the second time, the A.W. Bruce Faculty Undergraduate Teaching Award. The Division participated and organized several innovative CME events. The Division delivered 65 invited lectures worldwide.

Division of General Surgery

Dr. Ted Gerstle, as Program Director, successfully completed the Royal College Review of the Paediatric General Surgery Residency Program. Dr. Peter Kim received the Walter McKenzie Travel Award of the Royal College. Dr. Jack Langer won the James IV Traveling School Award and Operation Herbie Doctor of the Year Award. Members of the Division delivered 11 invited lectures worldwide.

Division of Orthopaedic Surgery

Dr. Alman, as University Division Chair, successfully completed the Royal College Review of Orthopaedic Residency Training Program. Dr. Alman received the Lister Award given to senior investigators for outstanding research activity in the Department of Surgery. Dr. Andrew Howard received the APA Injury Control Special Interest Group Young Investigator Award. Dr. Unni Narayanan received the Angela Kuo Award: Outstanding Young Investigator of the Pediatric Orthopaedic Society of North America. The Division delivered 42 invited lectures worldwide.

Division of Plastic Surgery

The first Advanced Craniomaxillofacial Surgery Symposium featuring live surgery co-chaired and organized by Dr. Chris Forrest was held in November. Drs. Ron Zuker and David Fisher participated in several Operation Smile missions around the world offering state of the art surgical reconstruction for cleft lip and palate. A \$3M Irene Prior Endowment for Craniofacial Disorders was established by Drs. John Phillips and Chris Forrest. Dr. Howard Clarke was invited to the Karolinska Institute, Sweden as the opponent for a PhD defense. Members of the division delivered 24 invited lectures world-wide.

Education

The hospital continues to have an active education program, training 262 fellows and residents originating from 39 countries worldwide.

Research

Of 32 surgeons, 18 have funded research programs. The Department is engaged in a wide variety of clinical and basic research supervising many fellows and graduate students.

DIVISION OF CARDIAC SURGERY

Dr. C. Caldarone – Associate Professor

Dr. J.G. Coles – Professor

Dr. G.S. Van Arsdell – Associate Professor (Division Head)

Dr. W.G. Williams – Professor

Dr. C. Wittnich – Professor

Publications

Al-Radi OO, Harrell Jr FE, Caldarone CA, McCrindle BW, Jacobs JP, Williams MG, Van Arsdell GS, Williams WG: Case complexity scores in congenital heart surgery: A comparity study of the Aristotle Basic Complexity score and the Risk Adjusment in Congenital Heart Surgery (RACHS-1) system. *Journal of Thoracic and Cardiovascular Surgery*: April 2007: 133(4): pp 865-875.

Alsoufi B, Bennetts J, Verma S, Caldarone CA: New Developments in the treatment of hypoplastic left heart syndrome. *Pediatrics*: January 2007: 119: pp 109-117.

Alsoufi B, Karamlou T, Asaki M, Badiwala MV, Ching CC, Dipchand A, McCrindle BW, Coles JG, Caldarone CA, Williams WG, Van Arsdell GS: Surgical repair of multiple muscular ventricular septal defects: The role of re-endocardialization strategy. *Journal of Thoracic and Cardiovascular Surgery*: November 2006: 132 (5): pp 1072-1080.

Alsoufi B, Karamlou T, Bradley T, Williams WG, Van Arsdell GS, Coles JG, Smallhorn J, Nii M, Guerra V, Caldarone CA: Short and midterm results of aortic valve cusp extension in the treatment of children with congenital aortic valve disease. *Annals of Thoracic Surgery*: October 2006: 82(4): pp 1292-1299.

Alsoufi B, Karamlou T, McCrindle BW, Caldarone CA: Management options in neonates and infants with critical left ventricular outflow tract obstruction. *European Journal of Cardiothoracic Surgery*: June 2007: 31(6): pp 1013-1021.

Alsoufi B, Williams WG, Hua Z, Cai S, Karamlou T, Chan CC, Coles JG, Van Arsdell GS, Caldarone C: Surgical outcomes in the treatment of patients with Tetralogy of Fallot and absent pulmonary valve. *European Journal of Cardiothoracic Surgery*: March 2007: 31(3): pp 354-359.

BarZiv SM, McCrindle BW, West LJ, Edgell D, Coles JG, Van Arsdell GS, Bohn D, Perez R, Campbell A, Dipchand AI: Outcomes of pediatric patients bridged to heart transplantation from extracorporeal membrane oxygenation support. *American Society for Artificial Internal Organs (ASAIO) Journal*: January 2007: 53(1): pp 97-102.

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Hannigan GE, Coles GJ, Dedhar S: Integrin linked kinase at the heart of cardiac contractility, repair and disease. *Circulation Research*: May 2007: 100 (10): pp 1408-1414.

Karamlou T, Gurofsky R, Al Sukhni E, Coles JG, Williams WG, Caldarone CA, Van Arsdell GS, McCrindle BW: Factors associated with mortality and reoperation in 377 children with total anomalous pulmonary venous connection. *Circulation*: March 2007: 115(12): pp 1591-1598.

Li J, Zhang G, McCrindle BW, Holtby H, Humpl T, Cai S, Caldarone CA, Redington AN, Van Arsdell GS: Profiles of hemodynamics and oxygen transport derived using continuous measured oxygen consumption following the norwood procedure. *Journal of Thoracic and Cardiovascular Surgery*: February 2007: 133(2): pp 441-448.

Li J, Zhang G, Holtby H, Humpl T, Caldarone C, Van Arsdell GS: Adverse effects of dopamine on systemic hemodynamic status and oxygen transport in neonates after the Norwood procedure. *Journal of the American College of Cardiology*: November 2006: 48(9): pp 1859-1864.

Lu H, Fedak P, Dai X, Du C, Zhou Y, Henkelman M, Mongroo PS, Lau A, Yamabi H, Hinek A, Husain M, Hannigan G, Coles GJ: Integrin linked kinase (ILK) expression is elevated in human cardiac hypertrophy and induces hypertrophy in transgenic mice. *Circulation*: November 2006: 114(21): pp 2271-2279.

Pihkala J, Yazaki S, Mehta R, Lee KJ, Chaturvedi R, McCrindle BW, Van Arsdell GS, Benson LN: Feasibility and clinical impact of transcatheter closure of interarterial communications after a fenestrated Fontan procedure: Medium-term outcomes. *Catheter Cardiovascular Intervention*: June 2007: 69(7): pp 1007-1014.

Roman KS, Nii M, MacGowan CK, Barrea C, Coles JG, Smallhorn JF: The impact of patch augmentation of left atrioventricular valve dynamics in patients with atrioventricular septal defects. Early and midterm follow-up. *Journal of Thoracic and Cardiovascular Surgery*: November 2006: 19 (11): pp 1382-1392.

Walsh MA, Lee KJ, Chaturvedi R, Van Arsdell FS, Benson LN: Radiofrequency perforation of the right ventricular outflow tract as a palliative strategy for pulmonary atresia with ventricular septal defect. *Catheter Cardiovascular Intervention*: June 2007: 69(7): pp 1015-1020.

Wittnich C, Askin N, Belanger MP: Marine mammal biology, anatomy and conservation - Laboratory notes 2nd edition, ISBN# 978-0-9735138-4-4: (Belanger MP, ed.) Oceanographic Environmental Research Society, Toronto, 2007: pp 94.

Wittnich C, Askin N, Belanger, MacNeill A: Marine mammal biology, anatomy and conservation - Educational lectures 2nd edition, ISBN# 978-0-9735138-3-7: (Belanger MP, ed.) Oceanographic Environmental Research Society, Toronto: 2007: pp 105.

Wittnich C, Belanger MP, Bandali K: Newborn hearts are at greater 'metabolic risk' during global ischemia - Advantages of continuous coronary washout. *Canadian Journal of Cardiology*: March 2007: 23: pp 195-200.

Wittnich C, Belanger MP, Bandali KS: Are there ventricle specific postnatal maturational differences in porcine myocardial B-adrenoceptors? *Canadian Journal of Physiology and Pharmacology*: August 2006: 84(8-9): pp 859-965.

Yamabi H, Lu H, Dai X, Lu Y, Hannigan G, Coles JG: Overexpression of integrin-linked kinase induces cardiac stem cell expansion. *Journal of Thoracic and Cardiovascular Surgery*: December 2006: 132 (6): pp 1272-1279.

Invited Visits to Other Hospitals/Universities

Caldarone C: 2007 International Symposium on the Hybrid Approach to Congenital Heart Disease, Columbus, OH, June 2007. (1) Current concepts and paradigms for hybrid management in Toronto, (2) Reverse BT shunt and oxygen consumption, (3) Transcatheter fontan completion: Lessons learned for surgeons and interventionalists.

Caldarone C: American Academy of Pediatrics, Atlanta, GA, October 2006. Does center volume influence survival after repair of congenital heart disease?

Caldarone C: 87th Annual Meeting of the American Association for Thoracic Surgery, Washington, DC, May 2007. One or two ventricles in critical aortic stenosis? The disproportionate impact of pursuing biventricular repair in borderline cases.

Caldarone C: International Symposium on the Hybrid Approach to Congenital Heart Disease, Columbus, OH, June 2007.

Caldarone C: Society of Critical Care, San Francisco, CA, January 2007. Safety of ketorolac in children after cardiac surgery.

Caldarone C: Society of Critical Care, Orlando, FL, February 2007. Safety of ketorolac for analgesia in children after cardiac surgery.

Coles JG: Judge, Hospital for Sick Children (HSC) Perioperative Services Research Competition, Toronto, ON, May 2007.

Coles JG: Ogilvy Renault LLP Sick Kids Leader/United Way Campaign, Toronto, ON, October 2006. Current status cardiac surgery in children.

Coles JG: International Medical News Group, Elsevier, New York, NY, January 2007. Partial anomalous pulmonary venous connection: Hospital for Sick Children experience, 2007 STS Meeting Bulletin.

Van Arsdell GS: 17th Annual Course on Adult Congenital Heart Disease, The Children's Hospital of Philadelphia, Pennsylvania, PA, June 2007. (1) Cardiac Arrhythmia Surgery. (Moderator), (2) Aortic root replacement in ACHD, (3) Session 1: Case discussions, (4) What we hope to learn today.

Wittnich C: Keynote Speaker, Annual Leadership Conference, Ontario Veterinary College, Guelph, ON, September 2006.

Wittnich C: Canadian Veterinary Medical Association, Ottawa, ON, February 2007. Animals in disasters - Are we ready. Canadian Veterinary Reserve, its role and lessons learned from other disasters.

Wittnich C: University of Guelph, Guelph, ON, April 2007. How is animal welfare addressed within Canada's emergency response plan.

Research and Investigations

Senior Investigator's Name Appears in Italics

A training program in cardiovascular research: Molecules to humans, heart failure to prevention (TACTICS). *Liu P*, 31 co-applicants including *Wittnich C*: *Canadian Institutes of Health Research*. (\$855,000 2002 - 2007.)

A transatlantic network to define the mechanisms, mediators and clinical applications of remote ischemic preconditioning. *Redington AR*, *Caldarone CA*: *Leducq Foundation*. (\$6,523,095 2006 - 2011.)

Analysis of the mechanisms of altered systemic and cerebral oxygen transport in children with hypoplastic left heart syndrome undergoing stage I palliation. *Van Arsdell GS*, *Redington A*, *Li J*: *Heart and Stroke Foundation*. (\$235,000 2006 - 2009.)

Assessment of heavy metal toxins in Canadian marine mammals. *Wittnich C*: *Oceanic Environmental Research Study (OERS) Seed Grant*. (\$15,000 2005 - 2008.)

Impact of gender on myocardial pathology and ischemia/reperfusion (renewal). *Wittnich C*: *Heart and Stroke Foundation of Ontario*. (\$249,000 2004 - 2008.)

Individualized heparin and protamine management in infants undergoing cardiopulmonary bypass for cardiac surgery reduces bleeding and blood transfusion requirements. *Gruenwald C*, *Holtby H*, *McCordle B*, *Van Arsdell G*: *Heart and Stroke Foundation of Canada*. (\$108,000 2006 - 2007.)

Integrin-linked kinase (ILK) improves adaptive remodeling in dilated cardiac failure. *Coles JG*, *Hannigan G*: *Heart and Stroke Foundation*. (\$171,070 2005 - 2007.)

Late functional status and health-related quality of life in a cohort of survivors with pulmonary atresia intact ventricular septum from the Congenital Heart Surgeons Society Study. *McCordle BW*, *Caldarone CA*: *The Children's Heart Foundation*. (\$86,308 2007 - 2009.)

Oxygen stress in newborn hearts (renewal). *Wittnich C*: *Heart and Stroke Foundation of Ontario*. (\$387,069 2002 - 2007.)

The regulation of cellular signaling in cardiac progenitor cells. *Coles JG*, *Hannigan G*: *Heart and Stroke Foundation*. (\$153,599 2006 - 2008.)

Honours Received

Wittnich C: Chair, John Charles Polanyi Prizes Selection Committee, Ontario Council on Graduate Studies. September 2006.

DIVISION OF GENERAL SURGERY

Dr. G. Azzie – Assistant Professor

Dr. P.L. Chiu – Assistant Professor

Dr. S. Ein – Associate Professor

Dr. A.H. Fecteau – Assistant Professor

Dr. J.T. Gerstle – Assistant Professor

Dr. D. Grant – Professor

Dr. P.C.W. Kim – Associate Professor

Dr. J.C. Langer – Professor (Division Head)

Dr. G.L. Lukacs – Associate Professor

Dr. P. Wales – Assistant Professor

Publications

Aspelund G, Langer JC: Current management of hypertrophic pyloric stenosis. *Seminars in Pediatric Surgery*: February 2007: 16: pp 27-33.

Bache KG, Stuffers S, Malerod L, Lechardeur D, Raiborg C, Brech A, Stenmark H, Lukacs GL: The ESCRT-III subunit hVps24 is required for degradation but not silencing of the epidermal growth factor receptor. *Molecular Biology of the Cell*: July 2006: 17: pp 2513-2523.

Bailey KA, Wales PW, Gerstle JT: Laparoscopic versus open reduction of intussusception in children: A single institution comparative experience. *Journal of Pediatric Surgery*: May 2007: 42 (5): pp 845-848.

Barriere H, Lukacs GL: CFTR processing. In: *Cystic Fibrosis: Progress in Respiratory Research*: (Bolliger CT, ed.) Karger AG, Basel: 2006: pp 21-28.

Barriere H, Nemes C, Lechardeur D, Kahn-Mohammad M, Fruh K, Lukacs GL: The molecular basis of ubiquitin-dependent internalization of membrane proteins in mammalian cells. *Traffic*: July 2006: 7: pp 282-297.

Beasley SW, Maoate K, Blakelock R, Azzie G: The value and effect on clinical outcomes of paediatric surgical support to smaller centres. *ANZ Journal of Surgery*: May 2007: 77: pp Suppl:A74.

Bernasconi A, Yoo S-J, Golding F, Ryan G, Langer JC, Jaeggi ET: Etiology and outcome of prenatally detected paracardial cystic lesions. *Ultrasound in Obstetrics and Gynecology*: April 2007: 29: pp 388-394.

Cheng W, Jacobs WB, Zhang J, Moro A, Park J, Mills AA, Kim PCW: Delta N p63 gamma plays an anti-apoptotic role in ventral bladder development. *Developmental Biology*: December 2006: 133(23): pp 4783-4792.

Cheng W, Manson DE, Forte V, Ein S, LaLusky I, Papsin BC, Hechter S, Kim PCW: The role of conservative management in congenital tracheal stenosis: An evidence-based long-term follow-up study. *Journal of Pediatric Surgery*: July 2006: 41(7): pp 1203-1207.

Dasgupta R, Wales PW, Zucker RM, Fisher DM, Langer JC: The use of surgis for abdominal wall reconstruction in the separation of omphalopagus conjoined twins. *Pediatric Surgery International*: April 2007.

de Silva NT, Young JA, Wales PW: Understanding neonatal bowel obstruction: Building knowledge to advance practice. *Neonatal Network*: September 2006: 25 (5): pp 303-318.

Diamond IR, Casadiego G, Traubici J, Langer JC, Wales PW: The contrast enema for the diagnosis of Hirschsprung's disease: Predictors of a false positive results. *Journal of Pediatric Surgery*: May 2007: 42 (5): pp 792-795.

Diamond IR, Mah K, Kim PCW, Bohn D, Gerstle JT, Wales PW: Predicting the need for fundoplication in patients with congenital diaphragmatic hernia. *Journal of Pediatric Surgery*: June 2007: 42 (6): pp 1066-1070.

Dutta S, Price VE, Blanchette V, Langer JC: A laparoscopic approach to partial splenectomy in children with hereditary spherocytosis. *Surgical Endoscopy*: November 2006: 20: pp 1719-1724.

Fallat ME, Ciniano DA, Fecteau AH: Ethics and the pediatric surgeon. *Journal of Pediatric Surgery*: January 2007: 42: pp 129-136.

Fecteau AH: The 38th Annual Meeting of the Canadian Association of Pediatric Surgeons. *Journal of Pediatric Surgery*: May 2007: 42(5): pp 904.

- Haggie PM, Kim JK, Lukacs GL, Verkman AS:** Dramatic immobilization of quantum-dot labeled CFTR in the plasma membrane by the C-terminus PDZ interactions. *Molecular Biology of the Cell*: July 2006: 17: pp 4937-4945.
- Ho CS, Kachura JR, Gallinger S, Grant D, Greig P, McGilvray I, Knox J, Sherman M, Wong F, Wong D:** Percutaneous ethanol injection of unresectable medium-to-large-sized hepatomas using a multipronged needle: Efficacy and safety. *Journal of Cardiovascular and Interventional Radiology*: January 2007: 2: pp n/a.
- Kim PC, Walker M, Beduz MA, Fetal Alert Network:** The Fetal Alert Network: An innovative program of access to care, surveillance, and education for birth defects in Ontario. *Journal of Obstetrics and Gynaecology*: December 2006: 28(12): pp 1099-1102.
- Lai P, Nguyen LH, Kim PC, Campisi P:** An unusual case of biphasic stridor in an infant: Sduprasternal bronchogenic cyst. *Journal of Pediatric Surgery*: September 2006: 149(3): pp 424.
- Langer JC, Caty M, de la Torre-Mondragon L, Georgeson K, Haddad M, Hutson J, Levitt M, Pena A:** International Pediatric Endosurgery Group colorectal panel. *Laparoscopic and Advanced Surgical Techniques*: February 2007: 17: pp 77-100.
- Leachardeur D, Lukacs GL:** Nucleocytoplasmic transport of plasmid DNA: A perilous journey from the cytoplasm to the nucleus. *Human Gene Therapy*: July 2006: 17: pp 882-889.
- Liu H, Zhang L, Cybulsky M, Gorczynski R, Crookshank J, Manuel J, Grant D, Levy G:** Identification of the receptor for FGL2 and implications for susceptibility to mouse hepatitis virus (MHV-3) induced fulminant hepatitis. *Advances in Experimental Medicine and Biology*: November 2006: 581: pp 421-425.
- Maegawa GH, Chitayat D, Blaser S, Whyte H, Thomas M, Kim P, Kim J, Taylor G, McNamara PJ:** Duodenal and biliary atresia associated with facial, thyroid and auditory apparatus abnormalities: A new mandibulofacial dysostosis syndrome? *Clinical Dysmorphology*: October 2006: 15(4): pp 191-196.
- Maithel SK, Khalili K, Dixon E, Guindi M, Gallery MP, Cattral MS, Taylor BR, Gallinger S, Greig PD, Grant DR, Vollmer MC Jr:** Impact of regional lymph node evaluation in staging patients with perimpullary tumors. *Annals of Surgical Oncology*: January 2007: 14 (1): pp 202-210.
- McCuskey SA, Karkouti K, Wijesundera DN, Kakizawa K, Ghannam M, Hamdy A, Grant D, Levy G:** Derivation of a risk index for the prediction of massive blood transfusion in liver transplantation. *Liver Transplantation*: November 2006: 12: pp 1584-1593.
- Molinari M, Kachura JR, Dixon E, Rajan DK, Hayeems EB, Asch MR, Benjamin MS, Sherman M, Gallinger S, Burnett B, Feld R, Chen E, Greig PD, Grant DR, Knox JJ:** Transarterial chemoembolisation for advanced hepatocellular carcinoma: Results from a North American cancer centre. *Clinical Oncology (Royal College of Radiology)*: November 2006: 18(9): pp 684-692.
- Muise AM, Turner D, Wine E, Kim P, Marcon M, Ling SC:** Biliary atresia associated with choledochal cyst: Implications for classification. *Clinical Gastroenterology and Hepatology*: November 2006: 4(11): pp 1411-1414.
- Nasr A, Avitzur Y, Ng VL, de Silva NT, Wales PW:** The use of hyperbilirubinemia (>100 mmol/L) as an indicator of irreversible liver disease in infants with short bowel syndrome. *Journal of Pediatric Surgery*: February 2007: 42 (2): pp 359-362.
- Nasr A, Langer JC:** Evolution of the technique in the transanal pull-through for Hirschsprung disease: Effect on outcome. *Journal of Pediatric Surgery*: January 2007: 42: pp 36-39.
- Nasr A, Mikrogianakis A, McDowall D, Wales PW:** External validation and modification of a pediatric trauma triage tool. *The Journal of Trauma-Injury Infection and Critical Care*: March 2007: 62(3): pp 606-609.
- Perger L, Azzie G, Watch L, Weinsheimer R:** Two cases of thoracoscopic resection of esophageal duplication in children. *Journal of Laparoscopic and Advanced Surgical Techniques*: August 2006: 16(4): pp 418-421.
- Sahajpal A, Vollmer Jr CM, Dixon E, Chan EK, Wei A, Cattral MS, Taylor BR, Drant D, Greig PD, Gallinger S:** Chemotherapy for colorectal cancer prior to liver resection for colorectal cancer hepatic metastases does not adversely affect peri-operative outcomes. *Journal of Surgical Oncology*: January 2007: 1:95: pp 22-27.
- Shah N, Gerstle TG, Stuart M, Winter C, Pappo A:** Use of sentinel lymph node biopsy and high-dose interferon in pediatric patients with high-risk melanoma: The Hospital For Sick Children experience. *Journal of Pediatric Hematology Oncology*: August 2006: 28: pp 496-500.
- Shah SA, Cattral MS, McGilvray ID, Adcock LD, Gallagher G, Smith R, Lilly, LB, Girgrah N, Greig PD, Levy GA, Grant DR:** Selective use of older adults in right lobe living donor liver transplantation. *American Journal of Transplantation*: January 2007: 7: pp 142-150.
- Shah SA, Cleary SP, Wei AC, Yang I, Taylor BR, Hemming AW, Langer B, Grant, DR, Greig PD, Gallinger S:** Recurrence after liver resection for hepatocellular carcinoma: Risk factors, treatment, and outcomes. *Surgery*: November 2006: 141: pp 330-339.

Shah SA, Grant DR, McGilvray ID, Greig PD, Selzner M, Lilly LB, Girgrah N, Levy GA, Cattral MS: Biliary strictures in 130 consecutive right lobe living donor liver transplant recipients: Results of a western centre. *American Journal of Transplantation*: January 2007: 7: pp 161-167.

Shah SA, Levy GA, Greig PD, Smith R, McGilvray ID, Lilly LB, Girgrah N, Cattral MS, Grant DR: Reduced mortality with right-lobe living donor compared to deceased-donor liver transplantation when analyzed from the time of listing. *American Journal of Transplantation*: April 2007: 7: pp 998-1002.

Shah SA, Tan JCC, McGilvray ID, Cattral MS, Levy GA, Greig PD, Grant DR: Does microvascular invasion affect outcomes after liver transplantation for HCC? A histopathological analysis of 155 consecutive explants. *Journal of Gastrointestinal Surgery*: April 2007: 11: pp 464-471.

Shah SA, Wei AC, Cleary SP, Yang I, McGilvray ID, Gallinger S, Grant DR, Greig PD: Prognosis and results after resection of very large (≥ 10 cm) hepatocellular carcinoma. *Journal of Gastrointestinal Surgery*: May 2007: 11: pp 589-595.

Shemie SD, Baker AJ, Knoll G, Wall W, Rocker G, Howes D, Davidson J, Pagliarello J, Chambers-Evans J, Cockfields S, Farrell C, Glannon W, Gourlay W, Grant D, Langevin S, Wheelock B, Young K, Dossetor J: National recommendations for donation after cardiocirculatory death in Canada. *Canadian Medical Association Journal*: October 2006: 10: pp 175.

Somme S, To T, Langer JC: Effects of sub-specialty training on outcomes after pediatric appendectomy. *Journal of Pediatric Surgery*: January 2007: 42: pp 221-226.

Tao T, Lan J, Lukacs GL, Hache R, Kaplan F: Importing 13 regulates nuclear import of the glucocorticoid receptor and suppresses interleukin-8 levels in airway epithelial cells. *American Journal of Respiratory Cell and Molecular Biology*: July 2006: 35: pp 668-680.

Turner D, Schreiber R, Grant D: Hemolytic uremic syndrome after pediatric liver transplantation. *Journal of Pediatric Gastroenterology and Nutrition*: July 2006: 1: pp 109-112.

Verkman A, Lukacs GL, Galiotta LJV: CFTR chloride channel drug discovery - Inhibitors as anti-diarrheals and activators for therapy of cystic fibrosis. *Current Pharmaceutical Design*: July 2006: 12: pp 2235-2247.

Wales PW, de Silva NT: Neonatal surgery: General surgical conditions. In: *The Hospital for Sick Children Neonatology Handbook*: (Kirpalani H, Moore A, Perlman M, eds.) B.C. Decker, Hamilton, ON: 2007: pp 256-272.

Williams RG, Silverman R, Schwind C, Fortune JB, Sutyak J, Horvath KD, Van Eaton EG, Azzie G, Potts 3rd JR, Boehler M, Dunnington GL: Surgeon information transfer and communication: Factors affecting quality and efficiency of inpatient care. *Annals of Surgery*: February 2007: 245(2): pp 159-169.

Wright L, Ross K, Abbey S, Levy G, Grant D: Living anonymous liver donation: Case report and ethical justification. *American Journal of Transplantation*: April 2007: 7: pp 1032-1035.

Invited Visits to Other Hospitals/Universities

Fecteau AH: American Transplant Congress, San Francisco, CA, May 2007. Invited Chair - Pediatric Liver Transplant Session.

Langer JC: City-Wide Paediatrics Rounds, Toronto, ON, January 2007. Groin pains: Everything you wanted to know about inguinal hernias.

Langer JC: Neonatology Rounds, Wellington Children's Hospital, Wellington, New Zealand, February 2007. Controversies in the management of necrotizing enterocolitis.

Langer JC: Neonatology Teaching Rounds, Royal Women's Hospital, Melbourne, Australia, February 2007. Controversies in the management of necrotizing enterocolitis.

Langer JC: Paediatric Surgery Grand Rounds, Royal Women's Hospital, Melbourne, Australia, February 2007. New concepts in the management of Hirschsprung's disease.

Langer JC: Paediatric Surgery Rounds, Royal Children's Hospital, Brisbane, Australia, February 2007. Controversies in the management of necrotizing enterocolitis, surgical management of inflammatory bowel disease in children.

Langer JC: Paediatric Surgery Rounds, Wellington Children's Hospital, Wellington, New Zealand, February 2007. Paediatric minimal access surgery.

Langer JC: Paediatric Surgery Teaching Rounds, Starship Children's Hospital, Auckland, New Zealand, February 2007. Hirschsprung's disease and abdominal wall defects, the failed fundoplication, effects of subspecialty training and volume on outcomes of "bread and butter" pediatric surgical procedures.

Langer JC: Teaching Rounds, Christchurch Hospital, Christchurch, New Zealand, February 2007. The use of population-based data to answer questions in paediatric surgery.

Langer JC: City-Wide Minimally Invasive Surgery Rounds, Toronto, ON, March 2007. Minimal access surgery in children: An update.

Langer JC: 7th Annual Paediatric Surgical Seminar, University of Adelaide, Adelaide, Australia, March 2007. Controversies in minimal access surgery, the failed fundoplication, an update on inflammatory bowel disease, controversies in management of neonatal NEC, abdominal wall defects, current concepts in the management of Hirschsprung's disease.

Langer JC: Canadian Association of Paediatric Surgeons, Calgary, AB, September 2006. Hirschsprung's disease: Neonatal to adolescence to adulthood.

Langer JC: American College of Surgeons, Manitoba Chapter, Winnipeg, MB, November 2006. Minimal access surgery in pediatrics, hurdles vs guardrails: Introducing innovative procedures.

Research and Investigations

Senior Investigator's Name Appears in Italics

A Multi-Center Group to Study Acute Liver Failure in Children. (A per/patient-based study. On-going). *Ng V, Fecteau A: National Institute of Health.* (\$86,000 2003 - 2006.)

Canadian Perinatal Surgery Network (CAPSNET): Establishing best perinatal practices for gastrocheisis and congenital diaphragmatic hernia using a Canadian dataset. *Kim P, Skarsgard E, Bouchard S, Laberge J-M, McMillan DD, Yanchar NL, Lee SK, Von Dadelsen P: Canadian Institutes of Health Research.* (\$214,080 2004 - 2008.)

Correction of defective delta F508-CFTR processing in cystic fibrosis. *Lukacs G: National Institute of Health (USA).* (\$717,500 2006 - 2011.)

Cystic fibrosis in research and translation core centre. *Verkman A, Lukacs G: National Institute of Health (USA).* (\$400,000 2005 - 2010.)

Development of a model of surgical short bowel syndrome utilising the neonatal piglet. *Turner J, Ball R, Wales PW, Pencharz PP, Van Aerde J, Casey L, Nation N: Stollery Children's Hospital Foundation Research.* (\$29,223 2007 - 2008.)

Domain folding and assembly of CFTR. *Lukacs G: Canadian Cystic Fibrosis Foundation.* (\$108,000 2007 - 2010.)

Establishment of Centre for Image-Guided Innovation and Therapeutic Intervention (CIGITI). *Kim P: Canadian Foundation for Innovation.* (\$25,000,000 2006 - 2010.)

Functional outcomes after pediatric liver transplantation. *Ng VL, Fecteau AH: National Institute of Health.* (\$125,000 2005 - 2010.)

Image guided GJ-tube vs. laparoscopic nissen fundoplication with gastrostomy in neurologically impaired children with gastroesophageal reflux: A study examining health related quality of life. *Langer JC, Mahant S, Nicholas D, Connolly B, Friedman J, Wales PW, Ungar W, Pastor A: Ontario Federation of Cerebral Palsy.* (\$29,097 2007 - 2009.)

Pain in child health research training consortium. *Langer JC, McGrath PJ, et al (PIs); Feldman B, Taddio A, Baruchel S, Brown S, Koren G: Canadian Institutes of Health Research.* (\$1,800,000 2002 - 2008.)

Pediatric Acute Liver Failure (PALF) registry with accompanying NAC Study (A Double-Blinded Randomized Control Trial of N-acetylcysteine for Pediatric Acute Liver Failure Not Due To Acetaminophen). *Ng VL, Fecteau AH: National Institute of Health.* (\$54,000 2005 - 2010.)

Role of fg12 in transplantation and cardiac development. *Grant D, Levy G: Heart and Stroke Foundation of Canada* (\$227,750 2005 - 2008.)

Structure defects of CF mutations with impaired trafficking. *Lukacs G: Canadian Cystic Fibrosis Foundation.* (\$255,000 2004 - 2007.)

The effect of intestinal continuity on circulating levels of Glucagon-Like Peptide - 2 (GLP-2) in children. *Wales PW, Drucker DJ: University of Toronto, Faculty of Medicine, Dean's Fund.* (\$9,983 2004 - 2009.)

The Fetal Alert Network: Establishment of a population-based antenatal database for pregnancies affected by anomalies. *Kim P: Ministry of Health and Long Term Care, Ontario.* (\$1,100,000 2006 - 2007.)

The functional role of ubiquitin in the quality of plasma membrane proteins in health and diseases. *Lukacs G: Canadian Institutes of Health Research.* (\$492,528 2005 - 2009.)

The mechanism of cystic fibrosis mutations associated with endosomal recycling defect of CFTR. *Lukacs G: Canadian Institutes of Health Research.* (\$650,000 2004 - 2009.)

Honours Received

Langer JC: James IV Traveling Fellowship 2007. December 2006.

Langer JC: Operation Herbie "Doctor of the Year." December 2006.

Wales P: Canada's Top 40 Under 40, Nominee. November 2006.

DIVISION OF NEUROSURGERY

Dr. M. Dennis – Professor

Dr. P.B. Dirks – Associate Professor

Dr. J.M. Drake – Professor (Division Head)

Dr. A.V. Kulkarni – Assistant Professor

Dr. J.T. Rutka – Professor

Dr. M.D. Taylor – Assistant Professor

Publications

Clarke MF, Dick JE, Dirks PB, Eaves CJ, Jamieson CH, Jones DL, Visvader J, Weissman IL, Wahl GM: Cancer stem cells - Perspectives on current status and future directions: American Association for Cancer Research (AACR) workshop on cancer stem cells. *Cancer Research*: October 2006: 66: pp 9339-9344.

Dennis M, Jewell D, Drake J, Misakyan T, Spiegler B, Hetherington R, Gentili F, Barnes M: Prospective, declarative, and nondeclarative memory in young adults with spina bifida. *Journal of the International Neuropsychological Society*: February 2007: 13: pp 312-323.

Diamandis P, Wildenhain J, Clarke ID, Bellows DS, Sacher A, Graham J, Ling EK, Ward RJ, Jamieson LG, Tyers M, Dirks PB: Chemical genetics reveals a complex functional ground state of neural stem cells. *Nature Chemical Biology*: May 2007: 3: pp 268-273.

Dirks P: Brain tumor stem cells: The undercurrents of human brain cancer and their relationship to neural stem cells. *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences*: June 2007: 363.

Dirks PB: Brain tumours and stem cells. *Nature*: December 2006: 444: pp 687-688.

Drake JM: Endoscopic third ventriculostomy in pediatric patients: The Canadian experience. *Neurosurgery*: May 2007: 60(5): pp 881-886.

Drake J, Chumas P, Kestle J, Pierre-Kahn A, Vinchon M, Brown J, Pollack I, Arai H: Late rapid deterioration after endoscopic third ventriculostomy: Additional cases and review of the literature. *Journal of Neurosurgery: Pediatrics*: August 2006: 105(2).

Forooghian F, Chew HF, Muni RH, Adamus G, Drake JM, Buncic JR: Paraneoplastic optic disc oedema and retinal periphlebitis associated with pineal germinoma. *British Journal of Ophthalmology*: May 2007: pp 1-2.

Ginsberg HJ, Drake JM, Peterson TM, Cobbald RSC: Recanalization of obstructed cerebrospinal fluid ventricular catheters using ultrasonic cavitation. *Neurosurgery*: October 2006: 59-4 Suppl2: pp 403-412.

Gupta N, Rutka JT: Brain tumours. In: *Pediatric Neurosurgery*: (Frim DM, Gupta N, eds.) *Vademecum Landes Bioscience*, Georgetown, Texas, 2006: pp 95-109.

Jea A, Al-Otibi M, Bonnard A, Drake JM: Laparoscopy-assisted ventriculoperitoneal shunt surgery in children: A series of 11 cases. *Journal of Neurosurgery: Pediatrics*: June 2007: 106(6): pp 421-425.

Kamaly ID, Shams N, Taylor MD: Genetics of choroid plexus tumors. *Neurosurgical Focus*: November 2006: 20: pp 1-3.

Kestle JR, Cochrane DD, Drake JM: Shunt insertion in the summer: Is it safe? *Journal of Neurosurgery*: September 2006: 105-3Suppl: pp 165-168.

Kestle JR, Garton HJ, Whitehead WE, Drake JM, Kulkarni AV, Cochrane DD, Muszynski C, Walker ML: The management of shunt infection (MOSI): A multicenter pilot study. *Journal of Neurosurgery*: September 2006: 105-3 Suppl: pp 177-181.

Kulkarni AV, Busse JW, Shams I: Characteristics associated with citation rate of the medical literature. *PLOS One*: May 2007: 2: pp e-403.

Kurschel S, Lellouch-Tubiana A, Kulkarni AV, Sainte-Rose C: Pleomorphic xanthoastrocytoma of the cerebellopontine angle in a child. *Child's Nervous System*: November 2006: 22: pp 1479-1482.

MacGregor D, Kulkarni AV, Dirks PB, Rumney P: *Head Injury in Children and Adolescents*: (MacGregor D, Kulkarni AV, Dirks PB, Rumney P, eds.) MacKeith Press, 2006.

Matouk C, Hutchinson J, Guergeurian AM, Kulkarni AV: Acute management of pediatric head injury. In: *Head Injury in Children and Adolescents*: (MacGregor D, Kulkarni AV, Dirks PB, Rumney P, eds.) MacKeith Press, 2006.

Matouk C, Kulkarni AV: Brain injury. In: *Head Injury in Children and Adolescents*: (MacGregor D, Kulkarni AV, Dirks PB, Rumney P, eds.) MacKeith Press, 2006.

Mohamed IS, Otsubo H, Shroff M, Donner E, Drake J, Snead OC 3rd: Magnetoencephalography and diffusion tensor imaging in gelastic seizures secondary to a cingulate gyrus lesion. *Clinical Neurology and Neurosurgery*: August 2006.

Oishi M, Otsubo H, Iida K, Suyama Y, Ochi A, Weiss SK, Xiang J, Gaetz W, Cheyne D, Chuang SH, Rutka JT, Snead III OC: Preoperative simulation of intracerebral epileptiform discharges: Synthetic aperture magnetometry virtual sensor analysis of interictal magnetoencephalography data. *Journal of Neurosurgery: Pediatrics*: July 2006: 105: pp 41-49.

Qaddoumi I, Mansour A, Musharbash A, Drake J, Swaidan M, Tihan T, Bouffet E: Impact of telemedicine on pediatric neuro-oncology in a developing country: The Jordanian-Canadian experience. *Pediatric Blood Cancer*: January 2007: 48(1): pp 39-43.

Rohrbach M, Chitayat D, Drake J, Velsher L, Sirkin WL, Blaser S: Prenatal diagnosis of fetal exencephaly associated with amniotic band sequence at 17 weeks of gestation by fetal magnetic resonance imaging. *Fetal Diagnosis and Therapy*: November 2006: 22(2): pp 112-115.

Salhia B, Tran NL, Symons M, Winkles JA, Rutka JT, Berens ME: Molecular pathways triggering glioma cell invasion. *Future Drugs*: July 2006: 6: No. 4: pp 613-626.

Singh SK, Dirks PB: Brain tumour stem cells: Identification and concepts. *Neurosurgery Clinics of North America*: January 2007: 18: pp 31-38.

Tamber MS, Bansal K, Liang ML, Mainprize TG, Salhia B, Northcott P, Taylor MD, Rutka JT: Current concepts in the molecular genetics of pediatric brain tumors: Implications for emerging therapies. *Child's Nervous System*: November 2006: 22: pp 1379-1394.

Ward R, Dirks PB: Cancer stem cells: At the headwaters of tumor growth. *Annual Reviews of Pathology and Mechanisms of Disease*: February 2007: 2: pp 175-189.

Zadeh G, Andrade-Souza YM, Tsao MN, Scora D, Armstrong D, Humphreys R, Rutka J, Drake J, Dirks P, Schwartz ML: Pediatric arteriovenous malformation: University of Toronto experience using stereotactic radiosurgery. *Child's Nervous System*: November 2006: 10: pp195-199.

Invited Visits to Other Hospitals/Universities

Dirks PB: Quebec/New Jersey Stem Cell Workshop, Montreal, PQ, June 2007. Brain Tumor Stem Cells.

Dirks PB: Stem Cells and Cancer, Keystone Conference, Keystone, CO, March 2007. Brain tumor stem cells.

Dirks PB: Neuroscience Rounds, Children's Hospital of Boston, Boston, MA, February 2007. Brain tumor stem cells: Defining a ground state with chemical genetics.

Dirks PB: Wellcome Trust Center for Stem Cell Research, Cambridge, UK, Cambridge, United Kingdom, March 2007. Brain tumor stem cells: Defining a new ground state for self renewal.

Dirks PB: 4th IRCC International Cancer Conference, Torino, Italy, June 2007. Brain Tumor Stem Cells: Defining their Ground State.

Dirks PB: Catholic University, Rome, Italy, June 2007. Brain tumor stem cells: Looking ahead to targeted therapy.

Dirks PB: Translational Seminar Series, London Regional Cancer Program, London, ON, May 2007. Brain tumor stem cells: Moving towards targeted therapy.

Dirks PB: Cancer Research UK Cambridge Research Institute, Cambridge, United Kingdom, March 2007. Brain tumor stem cells: New cellular targets for brain tumor treatment.

Dirks PB: EuroBio Conference 2006, Paris, France, October 2006. Cancer stem cells.

Dirks PB: Cancer Stem Cells as Targets for Cancer Prevention and Early Detection, National Institutes of Health-National Cancer Institute (NIH-NCI) Workshop, Bethesda, MD, May 2007. Cancer stem cells and brain tumors: A chemical genetic perspective.

Dirks PB: European Molecular Biology Organization (EMBO) Workshop, Catanzano, Italy, September 2006. Characterization of brain tumor stem cells.

Dirks PB: 11th Annual Scientific Meeting, Society for Neuro-Oncology, Orlando, FL, November 2006. Development of the stem cell hypothesis in brain tumors.

Dirks PB: International Society of Developmental Neurobiology, Banff, AB, August 2006. Human brain tumor initiating cells.

Dirks PB: American Association for Cancer Research, Los Angeles, CA, April 2007. New concepts in organ site research: Brain tumor stem cells.

Drake JM: Congress of Neurological Surgeons, Chicago, IL, October 2006. (1) Discussant - shunting vs. ETV: Long-term cognitive outcome, (2) Discussant - noninvasive measurement of ICP and CBF in patients with hydrocephalus: A clinical predictive tool, (3) Hydrocephalus: Current and emerging therapies. (Moderator.)

- Drake JM:** Neuroendoscopy 2007 Conference, Paris, France, May 2007. ETV for hydrocephalus under one year of life: A true alternative (contra)? May 10, 2007.
- Drake JM:** Neural Tube Defect Workshop, Riyadh, Saudi Arabia, January 2007. Neural tube defects - management issues in the 21st Century: Hydrocephalus and VP shunts.
- Drake JM:** Fourth International Hydrocephalus Workshop, Rhodes, Greece, May 2007. Outcome in pediatric endoscopic third ventriculostomy.
- Drake JM:** Jordanian Neurosurgical Society Meeting (at King Abdullah Hospital), Amman, Jordan, March 2007. Pediatric brain tumour, hydrocephalus and spine disorders.
- Drake JM:** American Academy of Neurological Surgery, Greensboro, GA, October 2006. Predicting post operative hydrocephalus in pediatric post fossa tumor patients.
- Drake JM:** Symposium IV: CSF Circulation and Hydrocephalus, American Society of Pediatric Neurosurgeons, Lana'i, HI, USA, January 2007. The true impact of "advanced" valve technology.
- Rutka J:** Invited Speaker, 2nd Biennial Meeting of the World Academy of Neurological Surgery, Verona, Italy, June 2007. (1) Rolandic epilepsy in children, (2) Temporal lobectomy in children: Results from 120 cases at the Hospital for Sick Children, (3) Surgery for malignant brain tumors: A look to the near future.
- Rutka J:** Invited Speaker, 50th Anniversary of Neurosurgery, Yonsei University, Seoul, Korea, May 2007. (1) Surgical management of rolandic epilepsy in children, (2) Medulloblastoma: Past, present and future perspectives.
- Rutka J:** Invited Speaker and a Clinical Discussion Participant in a Pediatric Panel, Drug Resistant Epilepsy from Basic Science to Pharmacological and Surgical Management, 22nd International Scientific Meeting, Beer-Sheva, Israel, March 2007. Speeches: (1) The role of MEG in epilepsy surgery, (2) Surgical management of rolandic epilepsy.
- Rutka J:** Visiting Professor and Brain Club Speaker, St. Jude Research Hospital, Memphis, TN, March 2007. Medulloblastoma: A quest for neutral therapeutic targets.
- Rutka J:** Visiting Professor, Neuroscience Research Seminar – Medulloblastoma: A quest for novel therapeutic targets, and Oncology Grand Rounds: Malignant brain tumors in children: Past, present and future perspectives, Children's Hospital, Los Angeles, CA, February 2007.
- Rutka J:** Guest Speaker, 20th Anniversary Symposium, A Celebration of 20 Years of Clinical Neuroscience, Brown Medical School, Providence, RI, November 2006. Malignant brain tumors: From a difficult past to a promising future.
- Rutka J:** Janes Visiting Professor, Department of Surgery, University of British Columbia, Vancouver, BC, November 2006. Delivered Chung lectureship. (1) Astrocytoma invasiveness: Molecular mechanisms from the leading edge, (2) Dangerous river, (3) Malignant brain tumors: Past, present and future perspectives.
- Rutka J:** Invited Speaker, Research Update in Neuroscience for Neurosurgeons (RUNN) Course, The Society of Neurological Surgeons, Woods Hole, MA, October 2006. Astrocytoma invasiveness: Molecular mechanisms from the leading edge.
- Rutka J:** Janes Visiting Professor, Grand Rounds Lecture, University of Alberta, October 2006. (1) Malignant brain tumours: Past, present and future perspective, (2) Resident lecture: Management options for intractable rolandic epilepsy in children.
- Rutka J:** Visiting Professor, Calgary and Alberta Neurosurgery Society Meeting, Calgary, AB, October 2006. (1) Neurosurgery resident research: A new paradigm shift, (2) Brainstem tumors in children: Diagnosis, classification, management.
- Rutka J:** Guest Visiting Professor, Alberta (Western Canadian) Neurosurgical Society Meeting, University of Calgary, Calgary, AB, September 2006. (1) Craniopharyngiomas: Time for a change in management strategies, (2) Pediatric epilepsy surgery symposium lecture, (3) Temporal lobectomy for intractable epilepsy in children: An analysis of outcomes in 126 children, (4) Research in neurosurgery: A paradigm shift.
- Rutka J:** Invited Speaker, 26th Congress of Brazilian Neurosurgery, Florianopolis, Brazil, September 2006. (1) Advances in treatment of childhood CNS tumors, (2) Pineal region tumors, (3) Molecular biology and future perspectives – malignant gliomas, (4) Cerebral gliomas: Current management and future perspectives.
- Rutka J:** Guest Visitor, Hospital do Clinicas de Porto Alegre, Brazil, September 2006. Medulloblastoma: A quest for novel therapeutic targets.
- Rutka J:** George Perrett Memorial Lecturer, University of Iowa Hospitals and Clinics, Iowa City, IO, August 2006. The Neurosurgical management of rolandic epilepsy in children.
- Taylor MD:** Pediatric Brain Tumor Foundation Annual Meeting, Ashville, NC, November 2006. Building a blueprint for brain cancer.

Taylor MD: British Neuro-Oncology Society, Portsmouth, United Kingdom, June 2007. Charlies challenge lecture: Recent advances in the genetics of human and murine pediatric brain tumors.

Taylor MD: I Workshop Internacional de Neuro Oncologia Pediatrica, San Paulo, Brasil, June 2007. (1) Molecular biology of intracranial germ cell tumors, (2) Molecular biology of medulloblastoma, (3) Molecular biology of pediatric astrocytoma, (4) Recent advances in the molecular biology of ependymoma.

Taylor MD: International Society for Pediatric Neurosurgery, Taipei, Taiwan, September 2006. Molecular genetics of pediatric brain tumors.

Taylor MD: Head Start Principal Investigators Meeting, Los Angeles, CA, October 2006. (1) Molecular predictors of prognosis in infants, (2) Proposed molecular biological studies on headstart IV protocol.

Taylor MD: Program in Neurosciences, University of Iowa, Iowa City, IA, March 2007. Multiple recurrent genetic events in medulloblastoma converge on histone lysine methylation.

Taylor MD: Scientific Program Committee, National Institute of Health, Bethesda, MD, February 2007. NIH consensus conference on spinal tumors.

Taylor MD: BRAINchild Annual Meeting, Mississauga, ON, March 2007. Recent advances in the biology of medulloblastoma.

Research and Investigations

Senior Investigator's Name Appears in Italics

A novel preclinical mouse model of medulloblastoma. *Taylor MD: National Brain Tumor Foundation, Andrew Bryce Pediatric Grant.* (\$25,000 2006 - 2007.)

A study of cancer stem cells in human brain tumors. *Dirks PB: National Cancer Institute of Canada.* (\$428,172 2004 - 2007.)

Cancer stem cells and cells of origin in mouse experimental brain tumors. *Dirks P: National Cancer Institute of Canada.* (\$423,000 2006 - 2009.)

Cellular and molecular characterization of cancer stem cells in human brain tumors. *Dirks PB: Canadian Institutes of Health Research.* (\$229,516 2004 - 2007.)

Characterization of amplified oncogenes in pediatric ependymoma. *Taylor M: Canadian Institutes of Health Research.* (\$467,000 2006 - 2010.)

Children with posterior fossa brain tumours: Quality of life and predictors of outcome. *Kulkarni AV, Bouffet E: Brainchild Foundation.* (\$42,685 2006 - 2008.)

Functional genomic dissection of the initiation and progression of medulloblastoma. *Taylor MD: CIHR Institute of Human Development, Child and Youth Health, and Sick Kids Foundation.* (\$130,000 2005 - 2007.)

High resolution genotyping of pediatric medulloblastoma. *Taylor MD: Neurosurgery Research and Education Foundation.* (\$45,000 2006 - 2007.)

Identification of pathways regulating survival and development of cancer and cancer stem cells. *Guidos C (Project Director), Danska J, Dick J, Dirks P, Done S, Egan S, Green D, Hitzler H, Leong W, Mak T, Minden M, Pan J, Vallis K, Beyne J, Howe S, McCready D: Genome Canada (total award for entire group 12 million).* (\$861,956 2006 - 2009.)

Novel genetic approaches to medulloblastoma. *Rutka J, Taylor M: Pediatric Brain Foundation of the United States.* (\$330,000 2006 - 2009.)

Role of hedgehog signaling in the pathogenesis of medulloblastoma. *Rutka JT, Taylor MD: National Cancer Institute of Canada.* (\$450,000 2005 - 2008.)

The determinants of health in children with hydrocephalus. *Kulkarni AV, Donnelly R: Canadian Institutes of Health Research and Hospital for Sick Children Foundation.* (\$94,536 2005 - 2007.)

The effect of hospital admissions on children with hydrocephalus. *Kulkarni AV: RR Graham Scholarship, Department of Surgery, University of Toronto.* (\$75,000 2007 - 2010.)

The role of cytoskeletal GTPases in astrocytoma migration. *Rutka JT: Canadian Institutes of Health Research.* (\$500,000 2004 - 2009.)

Honours Received

Taylor MD: CIHR Clinician-Scientist Award Phase II. May 2007.

Taylor MD: Elsie W. Crann Award, University of Toronto. March 2007.

Taylor MD: NCIC Grant Peer Review Panel J (Pathology and Tumor Markers), Invited Member. June 2007.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. B.A. Alman – Professor (Division Head)

Dr. W.G. Cole – Professor

Dr. S. Hopyan – Assistant Professor

Dr. A. Howard – Associate Professor

Dr. U.G. Narayanan – Assistant Professor

Dr. R.B. Salter – Professor

Dr. J.H. Wedge – Professor

Dr. J.G. Wright – Professor

Dr. R. Zeller – Associate Professor

Publications

Alman BA, Horton WA: Developmental biology in orthopaedics: Summary of the 2006 American Academy of Orthopaedic Surgeons (AAOS) research symposium. *Journal of Bone and Joint Surgery*: March 2007: 89A(3): pp 668-671.

Baliko F, Bright TE, Poon R, Cohen B, Egan SE, Alman BA: Inhibition of notch signalling induces neural differentiation in Ewing sarcoma. *American Journal of Pathology*: May 2007: 170(5): pp 1686-1694.

Boutis K, Willan AR, Babyn P, Narayanan UG, Alman BA, Schuh S: A randomized controlled trial of a removable brace versus casting in children with low-risk ankle fractures. *Pediatrics*: June 2007: 119(6): pp 1256-1263.

Braun S, Hedden D, Howard A: Superior mesenteric artery syndrome following spinal deformity correction. *Journal of Bone and Joint Surgery*: October 2006: 88: pp 2252-2257.

Chen Y, Whetstone HC, Youn A, Nadesan P, Chow ECY, Lin AC, Alman BA: Beta catenin signalling pathway is crucial for bone morphogenetic protein 2 to induce new bone formation. *Journal of Biological Chemistry*: January 2007: 282(1): pp 526-533.

Derbew M, Beveridge M, Howard A, Byrne N: Building surgical research capacity in Africa: The Ptolemy Project. *PLOS Medicine*: July 2006: 3: pp e-305.

Donaldson D, Stephens D, Howard A, Alman B, Narayanan U, Wright JG: Surgical decision making in adolescent idiopathic scoliosis. *Spine*: July 2006: 32(4): pp 1526-1532.

Donaldson S, Hedden D, Stephens D, Alman B, Howard A, Narayanan U, Wright JG: Surgeon reliability in rating physical deformity in adolescent idiopathic scoliosis. *Spine*: July 2006: 32(3): pp 363-367.

Dubousset J, Zeller R, Miladi L, Wicart P, Mascard E: Orthopaedic treatment of spinal deformities in infancy and early childhood. *Revue de Chirurgie Orthopédique et Réparatrice de L'Appareil Moteur*: July 2006: 92(1): pp 73-82.

Easson AM, Bezjak A, Ross S, Sam F, Wright JG: The ability of existing questionnaires to measure symptom change after paracentesis for symptomatic ascites. *Annals of Surgical Oncology*: July 2006.

Ferreti M, Gassner R, Wang Z, Perera P, Deschner J, Sowa G, Salter RB, Agarwal S: Biomechanical signals suppress pro-inflammatory responses in cartilage: Early events in experimental antigen – induced arthritis. *The Journal of Immunology*: December 2006: 177: pp 8757-8766.

Gignac MAM, Davis AM, Hawker GA, Wright JG, Mahomed N, Fortin PR, Badley EM: “What do you expect? You’re just getting older”: A comparison of perceived osteoarthritis-related and aging-related health experiences in middle- and older-aged adults. *Arthritis and Rheumatism*: December 2006: 55(6): pp 905-912.

Graham B, Regehr G, Naglie G, Wright JG: Development and validation of diagnostic criteria for carpal tunnel syndrome. *Journal of Hand Surgery*: August 2006: 31(6): pp 919-924.

Groll DL, Heyland DK, Caeser M, Wright JG: Assessment of long-term physical function in Acute Respiratory Distress Syndrome (ARDS) patients. Comparison of the Charlson comorbidity index and the functional comorbidity index. *American Journal of Physical Medicine and Rehabilitation*: July 2006: 85(7): pp 574-581.

Hawker GA, Guan J, Croxford R, Coyte PC, Glazier RH, Harvey BJ, Wright JG, Williams JI, Badley EM: A prospective population-based study of the predictors of undergoing total joint arthroplasty. *Arthritis and Rheumatism*: September 2006: 54(10): pp 3212-3220.

Ho MS, Tsang KY, Lo RL, Susic M, Makitie O, Chan TW, Ng VC, Sillence DO, Boot-Handford RP, Gibson G, Cheung KM, Cole WG, Cheah KS, Chan D: COL10A1 nonsense and frameshift mutations have a gain-of-function effect on the growth plate in human and mouse metaphyseal chondrodysplasia type Schmid. *Human Molecular Genetics*: April 2007: E-published.

Hopyan S, Alman BA: Growth and development. In: *Pediatric Orthopaedic Secrets -Third Edition*: (Staheli L, Song K, eds.) Elsevier Inc, Philadelphia, 2007: pp 9-13.

Howard AW: Injury in childhood-A vexingly simple problem. *Canadian Medical Association Journal*: October 2006: 175(8): pp 867-883.

Howard AW, Rothman L, Beben N, Fiissel D, MacArthur C: Evaluation of Safe Kids Week 2004: Age 4 to 9? It's booster seat time! *Injury Prevention*: August 2006: 12: pp 316-319.

Hurwitz SR, Tornetta P, Wright JG: An AOA critical issue; how to read the literature to change your practice: An evidence-based medicine approach. *Journal of Bone and Joint Surgery (American)*: August 2006: 88(8): pp 1873-1879.

Johnson SR, Archibald A, Davis AM, Badley E, Wright JG, Hawker GA: Is self-reported improvement in osteoarthritis pain and disability reflected in objective measures? *Journal of Rheumatology*: January 2007: 34: pp 159-164.

Li CF, Macdonald JR, Wei Ry, Ray J, Lau K, Kandel C, Koffman R, Bell S, Scherer SW, Alman BA: Human sterile alpha motif domain 9, a novel gene identified as down-regulated in aggressive fibromatosis, is absent in the mouse. *BioMed Central (BMC) Genomics*: April 2007: 8(1): pp 92.

Li CF, Wei R, Baliko F, Bapat B, Alman BA: An association between the 4G polymorphism in the PAI-1 promoter and the development of aggressive fibromatosis (desmoid tumour) in familial adenomatous polyposis patients. *Familial Cancer*: December 2006: 6: pp 89-95.

MacPherson AK, MacArthur C, To TM, Chipman ML, Wright JG, Parkin PC: Economic disparity in bicycle helmet use by children six years after the introduction of legislation. *Injury Prevention*: July 2006: 12(4): pp 231-235.

Mau E, Whetstone H, Yu C, Hopyan S, Wunder JS, Alman BA: PTHrP regulates growth plate chondrocyte differentiation and proliferation in a Gli 3 dependent manner utilizing hedgehog ligand dependent and independent mechanisms. *Developmental Biology*: May 2007: 305(1): pp 28-39.

Narayanan UG: The role of gait analysis in the orthopaedic management of cerebral palsy. *Current Opinion in Pediatrics*: February 2007: 19(1): pp 38-43.

Narayanan UG, Fehlings D, Weir S, Knights S, Kiran S, Campbell K: Caregiver Priorities and Child Health Index of Life with Disabilities: Initial development and validation of an outcome measure of health status and well-being in children with severe cerebral palsy. *Developmental Medicine and Child Neurology*: October 2006: 48: pp 804-812.

Owen JL, Stephens D, Wright JG: Reliability of radiographic measurement of fracture angulation in children with femoral shaft fractures. *Canadian Journal of Surgery*: July 2006: 50(2): pp 115-118.

Roposch A, Wedge JH, Krahn M: The role of the ossific nucleus in the treatment of established hip dislocation. *Clinical Orthopaedics and Related Research*: August 2006: 449: pp 295-302.

Skalli W, Zeller R, Miladi L, Bourcureau G, Savidan M, Lavaste F, Dubouset J: Importance of pelvic compensation in posture and motion after posterior spinal fusion using CD instrumentation for idiopathic scoliosis. *Spine*: July 2006: 31(12): pp e359-e366.

Smith PL, Donaldson S, Hedden DM, Alman B, Howard A, Stephens D, Wright JG: Parents and patients' perceptions of postoperative appearance in adolescent idiopathic scoliosis. *Spine*: September 2006: 31(20): pp 2367-2374.

Turnpenny PD, Alman B, Cornier AS, Giampetro PF, Offiah A, Tassy O, Pourquie O, Kusumi K, Dunwoodie S: Abnormal vertebral segmentation and the notch signalling pathway in man. *Developmental Dynamics*: June 2007: 236(6): pp 1456-1474.

Wainwright AM, Narayanan UG: A new technique for the reduction of paediatric femoral fractures using elastic stable intramedullary nails. *Annals of the Royal College of Surgeons of England*: May 2007: 89(4): pp 432-434.

Wright JG: A practical guide to assigning levels of evidence. *Journal of Bone and Joint Surgery (American)*: July 2006: 89(5): pp 1128-1130.

Wunder JS, Nielson TO, Maki RG, O'Sullivan B, Alman BA: Opportunities for improving the therapeutic ratio for patient with sarcoma. *Lancet Oncology*: June 2007: 8(6): pp 513-524.

Young, NL, McCormick A, Mills WA, Barden WS, Boydell K, Law M, Wedge J, Fehlings D, Mukherjee S, Rumney P, Williams J: The Transition Study: A look at youth and adults with cerebral palsy, spina bifida and acquired brain injury. *Physical and Occupational Therapy in Pediatrics*: December 2006: 26: pp 25-45.

Zaidi A, Babyn P, Astori I, White L, Dorea A, Cole W: MRI of traumatic patellar dislocation in children. *Pediatric Radiology*: November 2006: 36: pp 1163-1170.

Invited Visits to Other Hospitals/Universities

Alman BA: American Academy of Orthopaedic Surgeons/Pediatric Orthopaedic Society of North American (AAOS/POSNA) - International Pediatric Orthopaedic Symposium, Orlando, FL, November 2006. (1) Biological methods for bone grafting and bone growth stimulation for osteotomies, fusions, lengthenings and congenital pseudoarthrosis (Bisphosphonates, BMP, PEMG, U/S, Synthetics, etc), (2) Congenital pseudoarthrosis of the tibia, (3) Duration of antibiotic management for musculoskeletal infections, (4) Intra-operative traction for severe scoliosis; Indications, techniques, results, (5) Osteogenesis imperfecta biological and surgical treatments, (6) Management of infections in children.

Alman BA: Eugene Rogala Visiting Professorship, Grand Rounds, Department of Surgery, Montreal Shriners Hospital, McGill University, Montreal, PQ, October 2006. (1) A classification for genetic disorders in orthopaedics, (2) Duchenne muscular dystrophy and scoliosis: A case for basic science in orthopaedics, (3) Intra-operative traction for scoliosis, (4) Simple bone cysts: Not so simple.

Alman BA: Department of Biochemistry, University of Hong Kong, Hong Kong, China, December 2006. Fibromatosis to future: Beta-catenin in mesenchymal development.

Alman BA: American Academy of Orthopaedic Surgeons (AAOS) Developmental Biology in Orthopaedics Symposium, Toronto, ON, October 2006. (1) Symposium welcome and introduction, (2) Future research directions: Symposium summary and conclusions.

Alman BA: American Academy of Orthopaedic Surgeons/Pediatric Orthopaedic Society of North American (AAOS/POSNA) - International Pediatric Orthopaedic Symposium, Orlando, FL, November 2006.

Alman BA: Current Concepts and Techniques in Spinal Deformity Course, Toronto, ON, June 2007. Muscular dystrophy.

Alman BA: Grand Rounds, Department of Orthopaedic Surgery, University of California Los Angeles (UCLA)/Orthopaedic Hospital, Los Angeles, CA, May 2007. Scoliosis in duchenne muscular dystrophy: A case for basic science in orthopaedics.

Alman BA: Society for Developmental Biology: Somitogenesis 2007, Cancun, Mexico, June 2007. Therapy and future approaches in the management of disordered somitogenesis.

Cole WG: Pediatric Orthopaedic Society of Mexico, Guadalajara, Mexico, November 2006. (1) Controversies in the management of femoral fractures, (2) Management of congenital dislocations of the patella, (3) Controversies in the management of unicameral bone cysts, Presidential Guest Speaker.

Cole WG: Australian Orthopaedic Association, Canberra, ACT, Australia, October 2006. (1) Osteoporosis - a disease of childhood, (2) Osteoarthritis - a disease that starts in childhood, (3) Unicameral bone cysts - management issues, (4) Multiple hereditary exostoses - management issues, Visiting Professor in Pediatric Orthopaedic.

Cole WG: Presidential Guest Lecturer at the Pediatric Orthopaedic Seminar, Australian Paediatric Orthopaedic Society, Tweed Heads, Queensland, Australia, September 2006. (1) Paediatric Orthopaedics - Past, present and future, (2) Metabolic bone disease, (3) Multiple hereditary exostoses - etiology and management, (4) Skeletal dysplasias - etiology and management.

Cole WG: Discussion Leader, Gordon Research Conference on Cartilage Biology and Pathology, Venture, CA, March 2007. Cartilage gene defects in skeletal dysplasias and degenerative joint disease.

Cole WG: 2006 Research Symposium, American Academy of Orthopaedic Surgeons and the National Institutes of Health, Toronto, ON, October 2006. Genetics of osteoarthritis in developmental biology in orthopaedics.

Howard A: SafeKids Canada, Toronto, ON, December 2006. Child occupant restraints-Interview on SafeKids Canada DVD for national distribution.

Howard A: 13th Annual Alberta Health Research Symposium, Calgary, AB, February 2007. Child passenger restraints.

Howard A: Sunnybrook Trauma & Critical Care, Toronto, ON, February 2007. Child restraints: Paediatric trauma (7th Annual Trauma Nursing Conference).

Howard A: Institute for Clinical Evaluative Sciences (ICES), Toronto, ON, March 2007. Children in car crashes - injury biomechanics, restraint effectiveness and computer simulation of crashes.

Howard A: Toronto Star, Toronto, ON, January 2007. Freezing rain makes for tough sledding: It's a slippery slope as cold and icy weather turns very steep tobogganing hills into super speedy hospital highways.

Howard A: Chair/Host debate on helmet legislation, McCutcheon Lectureship, Toronto, ON, November 2006.

Howard A: CFTO-TV, Toronto, ON, January 2007. Tobogganing injury prevention.

Howard A: The Globe and Mail, Toronto, ON, February 2007. Why tobogganing isn't a carefree romp.

Howard A: iPALS (Injury Prevention Across the Life Span) Fall Symposium, Nottawasaga Inn Resort, Alliston, ON, September 2006. Workshop on Indicators for Traffic Injury.

Narayanan UG: Elastic Sable Intramedullary Nailing of Paediatric Fractures: Workshop, Ste. Justine Paediatric Orthopaedic Review Course, 2007, Montreal, PQ, March 2007.

Narayanan UG: European Paediatric Orthopaedic Society, Sorrento, Italy, April 2007. A comparison of physician and physiotherapist run clubfoot clinics using the Ponseti method.

Narayanan UG: Ontario Orthopaedic Association 29th Annual General Meeting, Toronto, ON, November 2006. (1) A quiver full of arrows: An update on the management of paediatric femur fractures, (2) Back to the basics: An update on the management of clubfeet.

Narayanan UG: St. Justine Pediatric Orthopaedic Review Course, Montreal, PQ, March 2007. (1) Everything you need to know about Monteggia, Galeazzi and other forearm fractures of children, (2) Lower limb problems with the spastic child: Where to start in the management of ambulatory cerebral palsy?

Narayanan UG: Royal College of Physicians & Surgeons of Canada Lectureship, Alberta Children's Hospital, Calgary, AB, October 2006. Evidence based medicine: A new prescription for paediatric orthopaedics?

Narayanan UG: American Academy of Cerebral Palsy & Developmental Medicine 60th Annual Meeting, Boston, MA, September 2006. Further validation of the CPHILD: A disease specific measure of HRQL in children with severe cerebral palsy.

Narayanan UG: 34th Annual Paediatric Orthopaedic Seminar & Townsend Lecture, Alberta Children's Hospital, Calgary, AB, October 2006. (1) Management of the foot & ankle in cerebral palsy, (2) Measuring health related quality of life in children with cerebral palsy.

Narayanan UG: Classification, Assessment, Management & Outcomes of Children with Cerebral Palsy; In Cerebral Palsy Seminar, Pediatric Orthopaedic Society of India, Jaipur, Rajasthan, India, February 2007. Multiple presentations.

Narayanan UG: Diagnosis, Classification, Assessment, Management & Outcomes, one-day symposium on Management of Cerebral Palsy: Today & Tomorrow, National Society for Equal Opportunities for the Handicapped (Gujarat), Ahmedabad, Gujarat, India, January 2007. Multiple presentations.

Narayanan UG: Diagnosis, Classification, Assessment, Management & Outcomes of Children with Cerebral Palsy, 2-Day International Symposium on Cerebral Palsy, VHS Trust Sundaram Foundation Hospital, Chennai, Tamil Nadu, India, February 2007. Multiple presentations.

Narayanan UG: Paediatric Orthopaedic Society of North America, Hollywood, FL, May 2007. The utilization of gait analysis for clinical decision making in the management of children with spastic cerebral palsy: Measuring surgeons' uncertainty and regional variation in North America.

Narayanan UG: European Paediatric Orthopaedic Society, Sorrento, Italy, April 2007. The utilization of gait analysis for clinical decision making in the management of children with spastic cerebral palsy: Measuring surgeons' uncertainty and regional variation in North America.

Wright JG: Symposium: Subtalar alignment/instability, Pediatric Orthopaedic Society of North America Specialty Day, San Diego, CA, February 2007. Tarsal coalition - update.

Zeller R: Current Concepts and Techniques of Spinal Deformity Course, Medtronic of Canada, Toronto, ON, June 2007. (1) Cerebral palsy, (2) Kyphosis classification, (3) Reduction techniques.

Zeller R: Department of Scientific Education, Alemana Clinic, Faculty of Medicine, University of Desarrollo, Santiago, Chile, May 2007. (1) Deformities and other complex problems of the spine course: Clinical evaluation, detection and alarm signs, (2) Intra-surgical tricks in correction of severe scoliosis, (3) Neuromuscular scoliosis, (4) New implants, (5) Strategies in congenital scoliosis, (6) The future of deformities.

Zeller R: Paradigm Spine GmbH, Berlin, Germany, May 2007. A novel non-fusion implant for the treatment of congenital scoliosis: A personal historical experience.

Zeller R: Paradigm's Spine Corporate Medical Advisory Board and Scientific Advisory Board Meeting, Miami, Florida, January 2007. A novel non-fusion implant for the treatment of congenital scoliosis: A personal historical experience.

Zeller R: Annual Meeting, European Paediatric Orthopaedic Society, Sorrento, Italy, April 2007. How to manage complex spinal deformities without vertebral resection.

Zeller R: Paediatric Update Course, Department of Paediatrics, The Hospital for Sick Children, Toronto, ON, April 2007. Principles of brace treatment for scoliosis.

Zeller R: Salter Visiting Professor, Toronto, ON, November 2006. Revision surgery for previously fused spinal deformities in children and adolescents.

Research and Investigations

Senior Investigator's Name Appears in Italics

A conceptual framework for outcome measurement in children: Consequences for health economic evaluation and decision-making. *Ungar W, Wright JG, Willan A, Marshall D, Feldman B: Canadian Institutes of Health Research. (\$283,322 2004 - 2007.)*

A randomized control trial of splint versus cast in children with minimally angulated wrist fractures. *Boutis K, Willan A, Howard A, Babyn P, Goeree R: Hospital for Sick Children Foundation. (\$129,775 2007 - 2009.)*

A RCT comparing botox and placebo in the treatment of idiopathic clubfoot. *Wright JG, A RCT comparing botox and placebo in the treatment of idiopathic clubfoot: Zimmer. (\$8,300 2006.)*

AACPDM Research Group Project: Evaluating outcomes associated with multi-disciplinary care for children with cerebral palsy using clinical practice improvement (CPI) methodology. *Damiano D, Narayanan UG, Fehlings F (co-PI, Toronto); other Investigators from multiple North American and Australian sites: American Academy of Cerebral Palsy and Developmental Medicine. (\$29,000 2006 - 2007.)*

Beta-catenin in aggressive fibromatosis: Molecular pathology and implications for therapy. *Alman BA: National Cancer Institute of Canada (NCIC) - Operating Grant. (\$433,326 2005 - 2008.)*

Bracing in adolescent idiopathic scoliosis (BrAIST). *Weinstein S, Clarke WR, Dolan L, Spratt K, Morcuende J, Wright JG: National Institutes of Health. (2006 - 2011.)*

Bracing in adolescent idiopathic scoliosis (BrAIST). *Wright JG, Clarke WR, Dolan L, Spratt K, Morcuende J, Weinstein S: Canadian Institutes of Health Research. (\$821,458 2006 - 2011.)*

Children's traffic and road injury prevention (TRIP) team. *Howard AW, Altenhof W, Callaghan J, Hewitt A, Kobti Z, MacPherson A, Mann R, Potvin J: Canadian Institutes of Health Research.* (\$98,583 2006 - 2007.)

Climbing the learning curve: A new approach to teaching non-radiologists x-ray interpretation. *Pusic M, Boutis K, Narayanan UG, Pecaric M: Royal College of Physicians and Surgeons of Canada.* (\$49,580 2005 - 2006.)

Concerns, needs and expectations of parents and caregivers of children with severe cerebral palsy. *Narayanan UG, Antle BJ, Weir S, DeOliveira L: Ontario Federation for Cerebral Palsy Research.* (\$32,035 2006 - 2007.)

Connaught New Staff Matching Grant. *Hopyan S: University of Toronto.* (\$30,000 2007 - 2008.)

Dean's Fund New Staff Grant. *Hopyan S: University of Toronto - Faculty of Medicine.* (\$10,000 2007 - 2012.)

From knowledge generation to knowledge translation: A systems approach to reducing the burden of injury in Canada. *Raina R, MacArthur C, Holowaty PH, Howard AW, Morrongiello B, Shannon H, et al: Canadian Institutes of Health Research.* (\$750,000 2003 - 2007.)

Functional outcomes following orthopaedic surgery based on gait analysis vs observational analysis in children with cerebral palsy: A randomized controlled trial. *Narayanan UG, Willan AR, Wedge J, Fehling DL, Redekop S: Zimmer Foundation.* (\$8,500 2006 - 2007.)

Functional outcomes following orthopaedic surgery based on gait analysis vs. observational analysis in children with cerebral palsy: A randomized controlled trial. *Narayanan UG, Willan AR, Wedge J, Fehlings DL, Redekop S: Bloorview Kid's Foundation & Research Institute.* (\$25,015 2006 - 2007.)

Functional outcomes following orthopaedic surgery based on gait analysis vs. observational analysis in children with cerebral palsy: A randomized controlled trial. *Narayanan UG, Willan AR, Wedge J, Fehlings DL: Pediatric Orthopaedic Society of North America.* (\$31,000 2006 - 2007.)

Identification of genes responsible for human bone disease through mouse mutagenesis. *Aubin JE, Cole WG, Grynepas MD, Henderson JE, Stanford WL, Vogel WF: Canadian Institutes of Health Research.* (\$1,162,705 2004 - 2009.)

Identifying the desmoid initiating cell. *Alman BA: Desmoid Tumor Research Foundation.* (\$270,000 2006 - 2009.)

Improving education and coping of scoliosis patients undergoing surgery and their families using e-health. *Wright JG, Nicholas DB, Hetherington CR, Lupea D, Nyhof-Young JM: Canadian Institutes of Health Research.* (\$240,363 2006 - 2009.)

Investigating physician bias as a possible explanation for gender disparity in the utilization of knee arthroplasty surgery. *Borkhoff C, Wright JG: Canadian Arthritis Network.* (\$9,000 2003 - 2006.)

Investigating physician bias as a possible explanation for gender disparity in the utilization of knee arthroplasty surgery. *Wright JG, Coyte PC, Glazier RH, Hawker GA, Kreder HJ, Mahomed NN: Canadian Institutes of Health Research.* (\$283,322 2004 - 2007.)

Modulating hedgehog and beta-catenin signalling in osteoarthritis. *Alman BA: Canadian Institutes of Health Research.* (\$380,000 2006 - 2009.)

Molecular mechanism of Dupuytren's contracture. *Gan B, Alman BA, Howard J: Canadian Institutes of Health Research.* (\$376,000 2003 - 2006.)

Molecular pathology of cartilage neoplasia. *Wunder JS, Alman BA (CoPIs): Canadian Institutes of Health Research.* (\$560,000 2003 - 2008.)

Molecular pathology of Ehlers-Danlos syndrome and chondrodysplasias. *Cole WG: Canadian Institutes of Health Research.* (\$735,341 2005 - 2009.)

Molecular pathology of healing. *Alman BA: Canadian Institutes of Health Research.* (\$423,975 2005 - 2008.)

Safety and efficacy of botox injection in alleviating post-operative pain and improving quality of life in lower extremity limb lengthening and deformity correction: A multicenter, randomized, double-blinded, placebo-controlled study. *Hamdi R, Narayanan UG, multiple collaborators: Clinical Outcomes Studies Advisory Board (COSAB) of Shriners Children's Hospitals.* (\$220,000 2007 - 2010.)

School playground surfacing - A randomized prospective comparison of injury rates on sand versus wood chip surfaces. *Howard AW, MacArthur C, MacPherson A, Willan AR: Canadian Institutes of Health Research.* (\$160,354 2004 - 2006.)

School playground surfacing: A randomized prospective comparison of injury rates on sand versus wood chip surfaces (New Investigator Award). *Howard AW: Canadian Institutes of Health Research.* (\$250,000 2004 - 2009.)

Start - Up Fund. *Hopyan S: The Hospital for Sick Children - Research Institute.* (\$80,000 2005 - 2008.)

The chondrogenic potential of muscle grafts under influence of CPM. *Alman B, Salter RB: Zimmer Corporation* (\$10,000 2005-2006.)

The 45-year results of combined open reduction and innominate (Salter) osteotomy for developmental dislocation of the hips. *Salter RB, Alman B: Zimmer Corporation* (\$25,000 2005 – 2007.)

The outcome at 40-48 years after open reduction with innominate osteotomy of congenital hip dislocation for patients aged 1.5 to 4 years. *Thomas S, Wedge J, Salter RB: Physicians' Services Incorporated Foundation.* (\$22,500 2006 - 2007.)

Thresholds for injury acceptability: Where should prevention interventions be targeted? *Howard AW, MacArthur C, Morrongiello B: iPALS.* (\$7,000 2005 - 2006.)

Honours Received

Alman BA: Lister Award - Given to a Senior Investigator for outstanding research activity in the Department of Surgery, University of Toronto. September 2006.

Howard A: APA's Injury Control Special Interest Group trainee award. May 2007.

Narayanan UG: Bloorview Research Institute Research Grant Award: Functional outcomes following orthopaedic surgery based on gait analysis vs. observational analysis in children with cerebral palsy. A randomized controlled trial. August 2006.

Narayanan UG: Nominated for Gayle Arnold Award for Best Paper presented at the 2006 American Academy of Cerebral Palsy and Developmental Medicine (AACPDMD) meeting. November 2006.

Narayanan UG: Pediatric Orthopaedic Society of North America Research Grant Award: Functional outcomes following orthopaedic surgery based on gait analysis vs. observational analysis in children with cerebral palsy. July 2006.

Salter RB: Robert B. Salter Floor at the Cellular and Biomolecular Research (CCBR) building. 2007.

DIVISION OF PLASTIC SURGERY

Dr. H.M. Clarke – Professor

Dr. D.M. Fisher – Assistant Professor

Dr. C.R. Forrest – Professor (Division Head)

Dr. C.Y. Pang – Professor

Dr. J.H. Phillips – Associate Professor

Dr. R.M. Zuker – Professor

Publications

Aburezq H, Daskalogiannakis J, Forrest CR: Management of the prominent premaxilla in bilateral cleft lip and palate. *Cleft Palata Craniofacial Journal*: January 2006: 43(1): pp 92-95.

Dasgupta R, Wales PW, Zuker RM, Fisher DM, Langer JC: Case Report: The use of Surgisis (R) for abdominal wall reconstruction in the separation of omphalopagus conjoined twins. *Pediatric Surgery International*, E-published: April 2007.

Huang N, Khan A, Ashrafpour H, Neligan PC, Forrest CR, Kontos CD and Pang CY: Efficacy and mechanism of adenovirus-mediated VEGF-165 gene therapy for augmentation of skin flap viability. *American Journal of Physiology Heart Circulation Physiology*: July 2006: 91(1): pp H127-H137.

Lapid O, Ho ES, Goia C, Clarke HM: Evaluation of the sensory deficit after sural nerve harvesting in pediatric patients. *Plastic and Reconstructive Surgery*: February 2007: 119(2): pp 670-673.

Leshem D, Phillips J, Tompson B: Segmental le fort I surgery: Turning a predicted soft tissue failure into a success. *Journal of Plastic and Reconstructive Surgery*: October 2006: 118: pp 1213-1216.

MacAdam SA, Kennedy S, Lalonde D, Anzarut A, Clarke HM, Brown EE: The Canadian plastic surgery workforce survey: Interpretation and implications. *Plastic and Reconstructive Surgery*: June 2007: 119(7): pp 2299- 2306.

Manktelow R, Zuker RM, Neligan PC: Facial paralysis reconstruction. In: *Grabb & Smiths Plastic Surgery*: (Thorne CH, Beasley RW, Aston SJ, Bartlett SP, Gurtner GC, Spear SL, eds.) Lippincott Williams & Wilkins, Philadelphia, 2007: pp 417-427.

Manktelow RT, Tomat LR, Zuker RM, Chang M: Smile reconstruction in adults with free muscle transfer innervated by the masseter motor nerve: Effectiveness and cerebral adaptation. *Plastic and Reconstructive Surgery*: September 2006: 118(4): pp 885-899.

Marcus JR, Stokes TH, Mukundan S, Forrest CR: Quantitative and qualitative assessment of morphology in sagittal synostosis: Mid-sagittal vector analysis. *Journal of Craniofacial Surgery*: July 2006: 17(4): pp 680-686.

Martou G, O'Blenes CA, Huang N, McAllister SE, Neligan PC, Ashrafpour H, Pang CY and Lipa JE: Development of an in vitro model for study of the efficacy of ischemic preconditioning in human skeletal muscle against ischemia-reperfusion injury. *Journal of Applied Physiology*: November 2006: 101(5): pp 1335-1342.

Zuker RM: Lower extremity hindquarter transplantation in conjoined twins. In: *Hand Transplantation*: (Lanzetta M, Dubernard JM, eds.) Springer-Verlag, Milan: 2007: pp 435-441.

Zuker RM, Manktelow R: Functioning free muscle transfers. In: *Hand Clinics: Microsurgical Reconstruction of the Upper Extremity: State of the Art*: (Jones NF, ed.) Elsevier Saunders, Philadelphia: 2007: pp 57-72.

Invited Visits to Other Hospitals/Universities

Clarke HM: 27 Congresso Brasileiro de Cirurgia da Mao, Porto Alegre, Brazil, April 2007. (1) Plexo obstetrico: quando operamos?, (2) Plexo obstetrico: como operamos?, (3) Manejo das malformacoes congenitas.

Clarke HM: American Society for Peripheral Nerve, Rio Grande, Puerto Rico, January 2007. Brachial plexus birth palsy (with Drs. Scott Kozin and Allan Belzberg.)

Clarke HM: Family Medicine Forum 2006, Quebec City, PQ, November 2006. Brachial plexus injury.

Clarke HM: Canadian Society of Plastic Surgeons, Banff, AB, May 2007. Canadian expert series: Congenital hand surgery.

Clarke HM: American Society of Plastic Surgeons, San Francisco, CA, October 2006. Complex reconstruction of the pediatric hand.

Clarke HM: 10th Triennial Congress of the International Federation of Societies for Surgery of the Hand, Sydney, Australia, March 2007. (1) Extending the indications for primary nerve reconstruction in obstetrical brachial plexus palsy, (2) Obstetric plexus palsy (IFSSH Scientific Committee Report.)

Clarke HM: American Association for Hand Surgery, Rio Grande, Puerto Rico, January 2007. Pediatric brachial plexus injury (with Drs. Scott Kozin and Allan Belzberg).

Clarke HM: 6th Annual International Paediatric Burns Videoconference 2006 (Via Telehealth), Brisbane, Queensland (Australia); Wuhan, Hubein (China); Toronto, ON, August 2006. Predictors of child distress during the treatment of young scald burn children (with Young AR, Hubley PL).

Fisher DM: Children's Hospital of Los Angeles, Los Angeles, CA, May 2007. (1) Autologous ear reconstruction - Kasrai L, Fisher DM, (2) Demonstration Surgery: Bilateral complete cleft lip repair, (3) Demonstration Surgery: Unilateral complete cleft lip repair, (4) Demonstration Surgery: Unilateral incomplete cleft lip repair.

Fisher DM: Etiology & Management of Cleft Lip & Palate Workshop, Ottawa, ON, October 2006. Faculty.

Fisher DM: American Society of Plastic Surgeons, San Francisco, CA, October 2006. Instructional Course - Cleft nasal deformity.

Fisher DM: Children's Hospital of Los Angeles, Los Angeles, CA, May 2007. Unilateral cleft lip repair.

Fisher DM: University of Southern California, Los Angeles, CA, May 2007. Unilateral cleft lip repair.

Forrest CR: 9th Annual Advances in Pediatric Medicine, Mississauga, ON, September 2006. Asymmetric skull.

Forrest CR: Visiting Professor, McGill University, Montreal, PQ, June 2007. Saggital synostosis: It's not just cosmetic.

Forrest CR: Visiting Professor, Tel Aviv University, Tel Aviv, Israel, April 2007. (1) The future of craniofacial surgery, (2) Fibrous dysplasia: Current concepts in management, (3) Pediatric facial fractures, (4) Current concepts in the management of craniosynostosis, (5) Cleft nose septorhinoplasty, (6) Midface distraction.

Forrest CR: Visiting Professor, Johns Hopkins University, Baltimore, MD, March 2007. (1) Saggital synostosis: It is not just cosmetic, (2) Optic nerve trauma, (3) Cleft nose rhinoplasty, (4) Midface distraction.

Forrest CR: The Hospital For Sick Children, Neurology Rounds, Toronto, ON, January 2007. The asymmetric head.

Phillips JH: XXXVIII Congreso Nacional Asociacion Mexicana de Cirugia Plastica Estetica Y Reconstructiva (XXXVIII National Congress, Reconstructive and Plastic Surgery Mexican Association), Stryker Latin America, Cancun, Mexico, May 2007. Instructional Course: Universal systems Leibinger.

Phillips JH: AO Visiting Professor 2007, Lexington, KY, April 2007. (1) Le fort III osteotomies: Traditional and distraction approaches, (2) A cephalometric analysis of maxillary and mandibular parameters in Treacher Collins Syndrome, (3) Orthognathic surgery in unusual conditions.

Phillips JH: Advanced Symposium: Advances in the Management of Craniomaxillofacial Surgery, AO North America, Lake Tahoe, NE, February 2007.

Zuker RM: American Society for Reconstructive Microsurgery, Rio Grande, Puerto Rico, January 2007. (1) Facial reanimation, (2) Pediatric microsurgery, (3) Invited Speaker: Turtles and challenges: A survival guide for the young microsurgeon, (4) Updated Session: Neurointegration of transplanted lower extremity in conjoined ischiopagus twin.

Zuker RM: Invited Lecturer, Pediatric Plastic Surgery Symposium, Royal College of Surgeons, Edinburgh, Scotland, November 2006. (1) Microsurgery in children, (2) Facial paralysis reconstruction, (3) Conjoined twins - Lessons learned, (4) Hindquarter transplantation in ischiopagus conjoined twins.

Zuker RM: Anguilla Medical Group, Anguilla, February 2007. Conjoined twins - Lessons learned.

Zuker RM: Keynote Speaker, International Conference for Plastic, Reconstructive and Aesthetic Surgery, Berlin, Germany, June 2007. Facial reanimation.

Zuker RM: VI Congreso Centroamericano y Caribe de Cirugia Plastica, El Salvador, March 2007. (1) Instructional course: La microcirugia en ninos, (2) Paralisis facial en ninos, (3) Neurointegracion y funcion muscular despues de transplante de extremidad inferiore.

Zuker RM: Anguilla Medical Group, Anguilla, February 2007. Neuromuscular cerebral integration.

Zuker RM: 4th International Moebius Syndrome Conference, Piacenza, Italy, May 2007. Operazione per un sorriso.

Zuker RM: Invited Speaker, 7th International Moebius Syndrome Conference, San Francisco, CA, July 2006. Surgery for a smile.

Zuker RM: Epidermolysis Bullosa (EB) Retreat, Toronto, ON, May 2007. The role of the hand surgeon in epidermolysis bullosa.

Zuker RM: Visiting Professor, Birmingham Children's Hospital, Birmingham, England, October 2006. Turtles and challenges: A survival guide for the young microsurgeon.

Research and Investigations

Senior Investigator's Name Appears in Italics

Angiogenic cytokine gene therapy for optimal augmentation of skin flap viability: Efficacy and mechanism. *Pang CY: Canadian Institutes of Health Research.* (\$456,545 2007 - 2012.)

Perioperative protection and postischemic salvage of skeletal muscle from ischemia/reperfusion injury. *Pang CY, Neligan P, Forrest C: Canadian Institutes of Health Research.* (\$94,232 2006 - 2007.)

Perioperative protection and postischemic salvage of skeletal muscle from ischemia/reperfusion injury. *Pang CY, Neligan P, Forrest C: Canadian Institutes of Health Research.* (\$280,032 2006 - 2009.)

Skin flap ischemia: Pathology and pharmacologic intervention. *Pang CY: Canadian Institutes of Health Research.* (\$40,000 2001 - 2006.)

Skin flap ischemia: Pathophysiology and pharmacological intervention. *Pang CY: Canadian Institutes of Health Research.* (\$9,738 2006 - 2007.)

The creation of a normal smile. *Zuker RM, Manktelow RT: Josie Walther Fund.* (\$15,000 2006 - 2009.)

Honours Received

Clarke HM: Opponent for Doctoral Thesis Defence for Dr. Christina Strombeck, "Follow-up studies of the obstetrical brachial plexus injury," Karolinska Institute, Stockholm, Sweden. October 2006.

Clarke HM: Supervisor for Dr. Jenny Lin - A. Ross Tilley Fellowship, Canadian Society of Plastic Surgeons. July 2006.

Zuker RM: Honorary Fellowship, The Royal College of Surgeons of Edinburgh, Scotland. November 2006.

DIVISION OF UROLOGY

Dr. D.J. Bagli – Associate Professor

Dr. W.A. Farhat – Associate Professor

Dr. A.E. Khoury – Professor (Division Head)

Dr. A. Lorenzo – Assistant Professor

Dr. J.L. Pippi Salle – Associate Professor

Publications

Aitken KJ, Block G, Lorenzo A, Herz D, Sabha N, Dessouki O, Fung F, Szybowska M, Craig L, Bagli DJ: Mechanotransduction of extracellular signal-regulated kinases 1 and 2 mitogen-activated protein kinase activity in smooth muscle is dependent on the extracellular matrix and regulated by matrix metalloproteinases. *American Journal of Pathology*: August 2006: 169(2): pp 459-470.

Braga LH, Lorenzo AJ, Tatsuo ES, Silva IN, Pippi Salle JL: Prospective evaluation of feminizing genitoplasty using partial urogenital sinus mobilization for congenital adrenal hyperplasia. *Journal of Urology*: November 2006: 176(5): pp 2199-2204.

Brown AI, Ringuette MJ, Prestwich GD, Bagli DJ, Woodhouse KA: Effects of hyaluronan and SPARC on fibroproliferative events assessed in an in vitro bladder acellular matrix model. *Biomaterials*: July 2006: 27(20): pp 3825-3835.

Cheng M, Shou Z, Wallis CM, Farhat W: Quantifying angiogenesis in VEGF-enhanced tissue-engineered bladder constructs by dynamic contrast-enhanced MRI using contrast agents of different molecular weights. *Journal of Magnetic Resonance Imaging*: January 2007: 25(1): pp 137-145.

Cook A, Khoury A, Kader K, Hebert D, Navarro O, Pippi Salle JL: Does peak systolic velocity correlate with renal artery stenosis in a pediatric renal transplant population? *Pediatric Transplant*: August 2006: 10(5): pp 608-612.

Dave S, Farhat WA: Physiological aspects of pediatric urological laparoscopic surgery. *Indian Journal of Urology*: December 2006: 22(4): pp 304-309.

Farhat WA, Casale P: Principles of minimally invasive surgery. In: *Clinical Pediatric Urology, 5th Edition*: (Docimo, Canning, Khoury, eds.) Informa Healthcare, London, England, 2007.

Khoury AE, Bagli DJ: Reflux and megaureter. In: *Campbell-Walsh Urology ninth edition*: (Wein, Kovoussi, Novick, Partin, Peters, eds.) Saunders Elsevier, Philadelphia, PA: 2007: pp 3423-3481.

Lorenzo AJ, Cerveira J, Farhat W: Pediatric laparoscopic ileal cystoplasty: Complete intracorporeal surgical technique. *Journal of Urology*: May 2007: 69(5): pp 977-981.

Lorenzo A, Khoury AE: Endoscopic treatment of reflux: Management pros and cons. *Current Opinion in Urology*: July 2006: 16(4): pp 299-304.

Lorenzo A, Pippi Salle JL, Barroso U, Cook A, Grober E, Wallis C, Bagli DJ, Khoury AE: What are the most powerful determinants of endoscopic vesicoureteral reflux correction? Multivariate analysis of a single institution experience during 6 years. *Journal of Urology*: October 2006: 176(4): pp 1851-1855.

Merguerian PA, Cartwright L, Khoury AE (Associate Editor): Genitourinary rhabdomyosarcoma and other bladder tumors. In: *The Kelalis-King-Belman Textbook of Clinical Pediatric Urology Fifth Edition*: (Editor-in-Chief-Docimo S; Associate Editors-Canning DA, Khoury AE) Thomson Publishing Services, Andover, Hampshire, 2007: pp 969-98(60).

Invited Visits to Other Hospitals/Universities

Bagli DJ: Pan-Arab Continence Society Annual Meeting, Manama, Bahrain, November 2006. Invited keynote speaker: Contemporary management of voiding dysfunction in children: Science & the patients.

Farhat WA: Genesys Capital Partners: Toronto Technology Access Partnership (TTAP), Toronto, ON, July 2006. Artificial bladder.

Farhat WA: Beirut Government Hospital: Rafic Hariri Teaching Medical Institute, Beirut, Lebanon, December 2006. Basic laparoscopic skills course.

Farhat WA: American University of Beirut Medical Center, Beirut, Lebanon, December 2006. Current practice of laparoscopy in pediatric urology.

Farhat WA: The 41st Annual Congress of the Egyptian Association of Urology, Cairo, Egypt, December 2006. Nuances of laparoscopy in pediatric urology.

Farhat WA: Vanderbilt University, Research Conference, Nashville, TN, April 2007. The ABC's of urinary bladder tissue engineering.

Farhat WA: Regenerative Medicine Ethics Network 2nd Annual Meeting, Banff, AB, November 2006. Tissue engineering.

Farhat WA: American University of Beirut Medical Centre, Beirut, Lebanon, December 2006. What a pediatrician should know about pediatric urology.

Khoury AE: Columbia University Medical Center, New York, NY, January 2007. (1) Bladder augmentation, bladder neck reconstruction or mitrofanoff, (2) Case presentations.

Khoury AE: European Society for Pediatric Urology, Brugge, Belgium, April 2007. Chair, Intersex Session.

Khoury AE: Societe Internationale Urologie, Cape Town, South Africa, November 2006. Hypospadias Workshop with live surgery.

Khoury AE: Pediatric Rounds at St. Joseph's Health Centre (Qmed), Toronto, ON, September 2006. Reflux.

Khoury AE: Columbia University Medical Center, New York, NY, January 2007. Regenerative medicine in pediatric urology: Where are we heading?

Khoury AE: Ogilvy Renault LLP, Toronto, ON, September 2006. Urology at SickKids.

Pippi Salle JL: Chair, Video Session of the Workshop, 20th Congress of Asian Association of Pediatric Surgeons and Live Operative Workshops, New Delhi, India, November 2006.

Pippi Salle JL: Society of International Urology, Cape Town, South Africa, November 2006. (1) Chair, Video Session of the Workshop, (2) Chairman of Workshop on Management of Hypospadias, (3) Course Chairman, "Update in Pediatric Urology," (4) Long Tip Versus Onlay Island Flap for the Treatment of Proximal Hypospadias Without Chordee. (Debate Moderator), (5) Management of Complex Case of Hypospadias, (6) Technical points to improve outcome in hypospadias repair. (Session Moderator.)

Pippi Salle JL: Brazilian Society of Pediatric Surgery, Rio de Janeiro, Brazil, March 2007. (1) Chairman of Panel, Urodynamics in Children, (2) Co-Chairman of 2nd Biental of Pediatric Urology.

Pippi Salle JL: Guest Lecturer on "Surgical Management of Urinary Incontinence," Spanish Pediatric Urology Meeting, Madrid, Spain, November 2006.

Pippi Salle JL: Lecturer, Brazilian Society of Pediatric Surgery, Rio de Janeiro, Brazil, March 2007. Alternative techniques for feminizing genitoplasty.

Pippi Salle JL: Lectures, International Postgraduate Teaching Course on Pediatric Urology - Hospital Servizio Sanitario Regional Emilia-Romagna, Bologna, Italy, April 2007. Bladder neck reconstruction for urinary incontinence and technical alternatives of feminizing genitoplasty.

Pippi Salle JL: North African Congress of Pediatric Surgery, Marrakech, Morocco, May 2007. Chair of Video Sessions (1) Hypospadias repair using the snodgraft technique, (2) Bladder exstrophy repair in a female newborn, (3) Clitoral dismembered clitoroplasty, (4) Pippi Salle procedure for urinary incontinence.

Pippi Salle JL: Visiting Professor, Department of Urologic Sciences, University of British Columbia, Vancouver, BC, June 2007. (1) Decisions and dilemmas in the management of intersex conditions, (2) Devastation of the Amazon Rain Forest: Who is responsible?

Pippi Salle JL: Guest Speaker, Lecturer, North African Congress of Pediatric Surgery, Marrakech, Morocco, May 2007. Early management of urogenital malformations.

Pippi Salle JL: Lecture, University of Parma, Italy, April 2007. Feminizing genitoplasty: An update.

Pippi Salle JL: Guest Speaker, Annual Meeting of "Update in Pediatric Nephro-Urology for Primary Care Physicians" of Arkansas, Little Rock, AR, January 2007. (1) Genital abnormalities in children, (2) Management of hydronephrosis diagnosed antenatally.

Pippi Salle JL: Guest Surgeon, Casablanca Children's Hospital, Casablanca, Morocco, May 2007. Performed (1) Vaginoplasty, bladder exstrophy repair, (2) Hypospadias repair, feminizing genitoplasty (Pippi Salle procedure) - with live demonstration.

Pippi Salle JL: Guest Surgeon, Spanish Pediatric Urology Meeting, Madrid, Spain, November 2006. Performed bladder neck reconstruction (Pippi Salle Procedure, bladder augmentation and Monti Procedure) in a patient with neurogenic urinary incontinence. Live transmission to the 250 participants.

Pippi Salle JL: Guest Surgeon, 20th Congress of Asian Association of Pediatric Surgeons and Live Operative Workshops, New Delhi, India, November 2006. (1) Performed corporal dismembered clitoroplasty - an alternative technique for feminizing genitoplasty in girls with clitoral enlargement with live transmission to 450 participants, (2) Management of Complex Case of Hypospadias. (Session Moderator), (3) Technical points to improve outcome in hypospadias repair.

Pippi Salle JL: Visiting Professor/Lecturer, Division of Urology, University of Arkansas, Little Rock, AR, January 2007. (1) Intersex, (2) Management of Hypospadias, (3) Management of neonatal hydronephrosis.

Pippi Salle JL: Guest Surgeon, International Postgraduate Teaching Course on Pediatric Urology - Hospital Servizio Sanitario Regional Emilia-Romagna, Bologna, Italy, April 2007. Performed corporal dismembered clitoroplasty and mobilization of urogenital sinus with live transmission.

Pippi Salle JL: Guest Surgeon, University of Parma, Italy, April 2007. Performed surgical reconstruction for bladder exstrophy and corporal dismembered clitoroplasty and mobilization of urogenital sinus with live transmission.

Pippi Salle JL: Guest Surgeon, 2nd Bienal of Pediatric Urology, Brazilian Society of Pediatric Surgery, Rio de Janeiro, Brazil, March 2007. Performing surgery - feminizing genitoplasty, live transmission and interaction to participants.

Pippi Salle JL: Lecturer, Society of International Urology, Cape Town, South Africa, November 2006. Technical points to improve outcome in hypospadias repair.

Pippi Salle JL: Visiting Professor/Lecturer, Division of Urology, University of Arkansas, Little Rock, AR, January 2007. Update on the management of vesico-ureteral reflux.

Research and Investigations

Senior Investigator's Name Appears in Italics

Biologically Enhanced Fascia Lata Graft for Soft Tissue Repair. *Derwin K, Farhat W: Cleveland Clinic Foundation (Biomedical Research and Technology Transfer Program-part of Ohio's Third Frontier Initiative). (\$225,000 2005 - 2008.)*

Epigenetic changes in uroepithelium following e.coli infection: New keys to understanding urinary tract infection susceptibility. *Bagli DJ: Hospital for Sick Children - Research Institute. (\$50,000 2007 - 2008.)*

Honours Received

Lorenzo A: Nomination for the 2007 Family Advisory Committee Award. May 2007.

MOUNT SINAI HOSPITAL

Heads of Divisions

Dr. R.S. McLeod - General Surgery
Dr. J.S. Wunder - Orthopaedic Surgery
Dr. K. Jarvi - Urology

Jay Wunder
Surgeon-in-Chief



Mount Sinai Hospital recently underwent an internal reorganization of clinical programs leading to the development of Centers of Excellence which include: Surgery and Oncology; Acute and Chronic Medicine; Women's and Infants' Health; and Laboratory Medicine and Infection Control. Each Center of Excellence has tripartite leadership consisting of a clinical chief, operations director and scientist. A major thrust of this realignment is to better integrate clinical care and clinical research in the hospital with more basic science and translational research occurring within the Samuel Lunenfeld Research Institute. The Department of Surgery will play a major role in development of the Surgery and Oncology Center of Excellence. Dr. Jay Wunder was appointed Head of the Department of Surgery, Surgeon-in-Chief, and clinical lead for the Surgery and Oncology Center of Excellence which has the following strategic objectives:

- Strengthen patient and family-centered care with a focus on patient safety
- Advance the hospital's role as an academic health science center through greater scientific and clinical interaction
- Broaden community-health collaborations
- Strengthen accountability and improve outcomes

A major focus of the department over the past year through the efforts of the Surgery and Oncology Center of Excellence involved increasing surgical volumes and improving wait times for patients as part of the Ontario Wait Times Project. This focused on colorectal cancer, breast cancer, extremity and retroperitoneal sarcoma, and hip and knee arthroplasty. Our group provided exemplary leadership in this area particularly within our LHIN in meeting all volume requirements, and in demonstrating major improvements in the length of time patients wait for their surgery. We also collaborated on a number of LHIN-wide patient care initiatives including:

- development of specific Patient Care Pathways to meet the medical and rehabilitation needs of arthroplasty patients as part of the Total Joint Network
- implementation of a Central Referral, Intake and Assessment Center jointly between Mount Sinai Hospital and Toronto Western Hospital/UHN for patients requiring care for joint diseases and aimed at streamlining the process particularly for the arthroplasty population by including advanced practice physiotherapists in the center
- The Hip Fracture Project to streamline in-patient care and timely discharge planning for elderly patients with hip fractures, also as part of the Total Joint Network
- The Colonoscopy Screening Intake Unit at Mount Sinai Hospital as a collaborative program between Mount Sinai Hospital and UHN to focus on screening for individuals at increased risk for developing colorectal cancer



New Staff

Dr. Alex Zlotta joined the Division of Urology from Brussels, Belgium. Alex is a world-renowned surgical oncologist recruited to develop a Uro-oncology program at Mount Sinai Hospital as part of the mandate of The Murray Koffler Urologic Wellness Centre, and in conjunction with the Uro-oncology site group and Department of Surgical Oncology at Princess Margaret Hospital. Alex has a very impressive clinical research program with peer-reviewed grant funding, is a sought-after speaker and educator, is the Associate Editor of the journal *European Urology* and successfully moved the journal's Editorial Office to Toronto from Brussels. As part of his appointment at the Samuel Lunenfeld Research Institute, he will help establish new translational genetic programs focusing on early diagnosis and risk profiling for patients with bladder cancer and familial prostate cancer.

Appointments, Promotions and Awards

Dr. Allan Gross was awarded the Genzyme International Cartilage Repair Society (ICRS) Cartilage Research Lifetime Award. Dr. Gross is also the head of the Orthopaedic Expert Panel as part of the Ontario Wait Times Project. Dr. David Backstein continues in the important role as Director of Undergraduate Education for the Department of Surgery. Dr. Peter Ferguson ranked in the top 10 of both Under-graduate teachers as well as Post-graduate teachers in the Department of Surgery. Dr. Ferguson also received the Robert B. Salter Teaching Award, as the best resident teacher in the University of Toronto Division of Orthopaedic Surgery, as voted on by the orthopaedic residents. Dr. Jay Wunder was promoted to Full Professor.

Dr. Kirk Lo received a Canadian Urology Association Research Scholarship. Dr. Alex Zlotta received his PhD in Brussels.

Alexandra Easson is a member of the Palliative Care Group of the American College of Surgeons. Dr. Helen MacRae played a major role in the recent expansion of the Surgical Skills Centre in her capacity as the D.H. Gales Director of the University of Toronto Surgical Skills Centre. Dr. Robin McLeod is a Regent of the American College of Surgeons. Carol Swallow is the Chair of the RCPSC General Surgery Oncology Specialty Committee and Chair of the Research Committee of the Canadian Association of General Surgeons. The Zane Cohen Digestive Disease Research Unit was named and opened. The aim of this site will be to bring together and help coordinate the activities of the many researchers interested in GI diseases from across the University of Toronto hospitals.

Research

Research productivity in terms of publications and peer reviewed funding remained at an all time high for members of our department.

In Memory

We will all sadly miss Dr. Saul Sidlofsky who passed away this year shortly after retiring. Saul spent his career at Mount Sinai Hospital in the Division of General Surgery and developed an interest and practice focusing on breast disease. His efforts were instrumental in developing the breast cancer program at Mount Sinai Hospital which led to the initiation of the multidisciplinary Marvella Koffler Breast Centre.

DIVISION OF GENERAL SURGERY

Dr. Z. Cohen – Professor

Dr. A.M. Easson – Assistant Professor

Dr. M.R. Goldberg – Associate Professor

Dr. R. Gryfe – Assistant Professor

Dr. I.H. Koven – Associate Professor

Dr. H.M. MacRae – Associate Professor

Dr. J.A. McCart – Assistant Professor

Dr. R.S. McLeod – Professor (Division Head)

Dr. I.B. Rosen – Professor

Dr. C.J. Swallow – Associate Professor

Publications

Adisa Y, Easson AM: Breast cancer - A review for African surgeons. (February 2007). E-publication: Surgery in Africa - Monthly Reviews, The Ptolemy Project, Office of International Surgery: (Jani P, Ostrow B (eds.) University of Toronto, Toronto, 2007: pp 20.

Barkun J, Woo D, Marcaccio M, Soper N, McLeod RS, Members of the Evidence Based Reviews in Surgery Group: Small gall stones may increase the risk of pancreatitis; Is there a benefit for a prophylactic cholecystectomy. (Canadian Association of General Surgeons and American College of Surgeons evidence-based reviews in surgery). Canadian Journal of Surgery: February 2007: 50(1): pp 62-65.

Brown CJ, Dubreill D, Santoro L, Liu M, O'Connor BI, McLeod RS: Lateral internal sphincterotomy is superior to topical nitroglycerin for healing of chronic anal fissure and does not compromise fecal incontinence: Six year follow up of a multi-centre randomized controlled trial. Diseases of the Colon and Rectum: April 2007: 50(4): pp 442-448.

Coburn NG, Swallow CJ, Kiss A, Law C: Significant regional variation in adequacy of lymph node assessment and survival in gastric cancer. Cancer: July 2006: 107(9): pp 2143-2151.

Dubrowski A, Park J, Moulton C-A, Larmer J, MacRae H: A comparison of single- and multiple-stage approaches to teaching laparoscopic suturing. American Journal of Surgery: February 2007: 193: pp 266-268.

Easson AM: Palliative Surgery Ch 51. In: Principles and Practice of Palliative Care and Supportive Oncology, 3rd Edition: (Berger AM, VonRoenn JH, Shuster JL, eds.) Lippincott Williams and Wilkins, Philadelphia: 2007: pp 10.

Easson AM, Pisters PWT: The role of palliative surgery Ch 20. In: Cancer Pain Management: Fisch MJ, Burton A (eds.) McGraw-Hill, New York, 2007: pp 8.

Fenech DS, Liu M, Takahashi T, Spencer LM, Cohen Z, Swallow C, MacRae HM, McLeod RS: Function and quality of life after transanal excision of rectal polyps and cancers. Diseases of the Colon and Rectum: May 2007: 50(5): pp 598-603.

Hendren SK, Swallow CJ, Smith A, Lipa JE, Cohen Z, MacRae HM, Gryfe R, O'Connor BI, McLeod RS: Complications and sexual function after vaginectomy for anorectal tumors. Diseases of the Colon and Rectum: June 2007: 50(6): pp 810-816.

Johnson PM, Gallinger S, McLeod RS: The authors reply. Diseases of the Colon and Rectum: October 2006: 49.

Jowett N, LeBlanc V, Xeroulis G, MacRae H, Dubrowski A: Surgical skill acquisition with self-directed practice using computer-based video training. American Journal of Surgery: February 2007: 193: pp 237-242.

Kennedy Ed, Rothwell DM, Cohen Z, McLeod R: Increased experience and surgical technique leads to improved outcome after ileal pouch anal anastomosis- A population-based study. Diseases of the Colon and Rectum: July 2006: 49(7): pp 958-965.

Mastracci TM, Hendren S, O'Connor BI, McLeod RS: The impact of surgery for colorectal cancer on quality of life and functional status in the elderly. Diseases of the Colon and Rectum: December 2006: 49(12): pp 1878-1884.

McLeod RS: Does seprafilm really reduce adhesive small bowel obstructions? Diseases of the Colon and Rectum: August 2006: 49(8): pp 1234-1236.

McLeod RS: Randomized, controlled trials: Is there a role for them in surgery? *Annals of Surgery*: November 2006: 244(5): pp 684-685.

McLeod RS, Richard C: A randomized controlled trial comparing topical nitroglycerin to sphincterotomy in the treatment of chronic anal fissures. Limited Project Grant #059. *Seminars in Colon & Rectal Surgery*: December 2006: 17(4): pp 165-170.

Sidhu RS, Park J, Brydges R, Macrae HM, Dubrowski A: Laboratory based vascular anastomosis training: A randomized controlled trial evaluating the effects of bench model fidelity and level of training on skill acquisition. *Journal of Vascular Surgery*: February 2007: 45(2): pp 343-349.

Swallow CJ: Small bowel resection for gastrointestinal stromal tumor. *Operative Techniques in General Surgery*: March 2007: 9: pp 19-29.

Swallow CJ, Catton CN: Local management of adult soft tissue sarcomas. In: *Seminars in Oncology*: (Demmy T, ed.) 2007: pp 256-269.

Tan JCC, McCready DR, Easson A, Leong WL: The role of sentinel lymph node biopsy in ductal carcinoma in situ treated by mastectomy. *Annals of Surgical Oncology*: February 2007: 14(2): pp 638-645.

Wells BJ, Stotland P, Ko MA, Wunder J, Last LD, Smith AJ, Swallow CJ: Results of an aggressive approach to resection of locally recurrent rectal cancer (LRRC.) *Annals of Surgical Oncology*: January 2007: 14(2): pp 390-395.

Invited Visits to Other Hospitals/Universities

Cohen Z: Visiting Professor (Ara Darzi), St. Mary's Hospital, London, England, June 2007.

Cohen Z: Mentoring in the Inflammatory Bowel Disease (IBD) Symposium, Toronto, ON, November 2006.

Cohen Z: Symposium on Inflammatory Bowel Disease, Annual Meeting, American College of Surgeons, Chicago, IL, October 2006.

Cohen Z: Visiting Professor, St. Mark's Hospital, London, England, June 2007. 25 years experience with the pelvic pouch procedure.

Easson AM: Special Lecture, Division of General Surgery, University of Western Ontario, sponsored by the Educational Fellowship Program in Care at the End of Life of the Associated Medical Services, London, ON, May 2007. Palliative surgery: Care when there is no cure.

Easson AM: American Society of Clinical Oncology, Chicago, IL, June 2007. Surgical management of malignant bowel obstruction.

Easson AM: Chicago Supportive Oncology Conference, Chicago IL, September 2006. Surgical management of malignant bowel obstruction.

MacRae HM: Update In General Surgery 2007, Toronto, ON, March 2007. Evidence for laparoscopy in rectal cancer.

MacRae HM: Sidney Colorectal Surgical Society Annual Scientific Meeting 2006, Sydney, Australia, November 2006. (1) Laparoscopic surgeries for IBD diseases, (2) Laparoscopic surgeries for colorectal cancer.

MacRae HM: American Association of Medical Colleges Research in Medical Education Annual Meeting, Seattle, WA, November 2006. Self-assessed proficiency on technical surgical skill is an accurate predictor of technical performance.

MacRae HM: 2007 Association for Surgical Education Meeting, Washington, DC, April 2007. Slowing down when you should: A new model of intra-operative judgment and its implications for teaching.

McLeod RS: Surgery Grand Rounds, Division of General Surgery, McGill University, Montreal, PQ, March 2007. Adopting evidence into practice.

McLeod RS: Current Principles & Practice 2006, University of Minnesota, Minnesota, MN, September 2006. Anal fissure - To operate or not to operate?

McLeod RS: Grand Rounds, St. Luke's-Roosevelt Hospital, New York, NY, February 2007. Assessing outcome following surgery for rectal cancer.

McLeod RS: University of Rochester, Rochester, NY, January 2007. Assessing outcome following surgery for rectal cancer.

McLeod RS: Surgical Caucus of the American Medical Association, Chicago, IL, June 2007. Canadian health care system.

McLeod RS: Program Directors Meeting, Association of Program Directors for Colon & Rectal Surgery, Chicago, IL, May 2007. Evidence based reviews in surgery.

McLeod RS: Current Principles & Practice 2006, University of Minnesota, Minnesota, MN, September 2006. Ileonal pouch: One, two or three stages?

McLeod RS: Howard M. Frykman, MD Memorial Lecture, Current Principles & Practice 2006, University of Minnesota, Minnesota, MN, September 2006. Outcomes in colon & rectal surgery.

McLeod RS: Joint Symposium, Society of American Gastrointestinal Endoscopic Surgeons (SAGES)/Society for Surgery of the Alimentary Tract (SSAT)/American Hepato Pancreatic Biliary Association (AHPBA), Chicago, IL, October 2006. Polyposis-epidemiology, surveillance and treatment.

McLeod RS: Visiting Professor, 5th Annual L.D. MacLean General Surgery, Division of General Surgery, McGill University, Montreal, QC, March 2007. Recurrence of Crohn's disease - The problem, The solution?

McLeod RS: The Fifth Penn Inflammatory Bowel Disease Symposium, University of Pennsylvania, Philadelphia, PA, March 2007. Surgical advances in Crohn's disease.

McLeod RS: Canadian Gastrointestinal (GI) Fellows Course, Toronto, ON, November 2006. What the gastroenterologist should know about Inflammatory Bowel Diseases (IBD) surgery.

Swallow CJ: Ontario Gastrointestinal Multidisciplinary Oncology Conference, Toronto, ON, November 2006. Are there indications for surgery in the setting of gastrointestinal malignancies with isolated peritoneal metastases?

Swallow CJ: Canadian Association of Women Surgeons Symposium, Canadian Surgical Forum, Calgary, AB, September 2006. GIST - a paradigm for the future of cancer surgery.

Swallow CJ: Canadian Society for Surgical Oncology (CSSO) Symposium, Canadian Surgical Forum, Calgary, AB, September 2006. Weird and wonderful tumours of the GI tract - GIST.

Research and Investigations

Senior Investigator's Name Appears in Italics

An exploration of patient preferences for the management of malignant ascites. *Easson AM, Anoo T: Department of Psychosocial Oncology, University of Toronto. (\$6,000 2006 - 2007.)*

Assessment of the relief of symptoms after the drainage of ascites: An evaluation of four questionnaires. *Easson AM, Bezjak A, Ross S, Wright J: Dean's Fund New Staff Award. (\$10,000 2003 - 2009.)*

Associated Medical Services Fellow in End of Life Care. *Easson AM: Associated Medical Services. (\$125,000 2004 - 2009.)*

Disclosure of surgical error, death and dying, challenging situations: Teaching and evaluating communication skills in a surgical education program. *Easson AM, Hawryluck L: Dean's Excellence Fund for Medical Education, University of Toronto. (\$20,000 2003 - 2006.)*

Evaluation of vaccinia virus oncolysis in glioblastoma. *McCart JA: University of Toronto, Faculty of Medicine, Grant Miller Cancer Research Grant. (\$19,126 2003 - 2008.)*

Evidence based reviews in surgery. *McLeod RS: Ethicon and Ethicon Endosurgery. (\$90,000 2006 - 2007.)*

Immunogene therapy for colorectal cancer. *McCart JA, Medin JA, Co-PI: National Colorectal Cancer Campaign. (\$55,000 2005 - 2006.)*

Immunogene therapy for prostate cancer: Testing outcomes in non-human primates. *Medin JA, Trachtenberg J, McCart JA, Moloo B: Ontario Institute of Cancer Research. (\$560,100 2006 - 2009.)*

Lentivirus gene therapy for Farber disease in NHPs. *Medin JA, McCart JA: National Institutes of Health. (\$250,000 2005 - 2007.)*

Molecular epidemiological studies of patient outcome and response to treatment. (Interdisciplinary research on the determinants and impact of colorectal cancer: Molecular genetic factors, risk modifiers and population health.) *McLaughlin J, Gryfe R: Canadian Institutes of Health Research. (\$3,627,210 2006-2010.)*

Palliative surgical procedures in a cohort of Stage IV lung and colorectal cancer patients. *Easson AM, Walsh A, Rodin G: Mount Sinai Hospital Department of Surgery AEF. (\$5,000 2006.)*

Phase I/II trial of celecoxib with preoperative chemoradiation for resectable rectal cancer with in vivo analysis of celecoxib effector pathways. *Kim J, Brierley J, Ward I, Headley D, Tsao M, Cummings B, Ringash J, Catton P, Wong R, Swallow C, Easson A, Siu L, Yi Q: Ontario Cancer Research Network. (\$33,033 2003 - 2006.)*

Plk4 and chromosomal instability. *Swallow CJ, Dennis JW: Canadian Institutes of Health Research.* (\$447,000 2006 - 2009.)

Plk4 expression and regulation in human colorectal cancer. *Swallow CJ: National Colorectal Cancer Campaign.* (\$73,600 2005 - 2006.)

Preclinical assessment of vaccinia virus for functional tumour imaging. *McCart JA: University of Toronto, Faculty of Medicine, Dean's Fund.* (\$9,997 2002 - 2007.)

Self-assessment of technical surgical ability by medical student and its impact on training: A randomized controlled study. *Dubrowski A, Jowett HN, LeBlanc V, MacRae H: Dean's Excellence Fund for Medical Education.* (\$28,620 2006.)

The prognosis of colorectal cancer in patients with inflammatory bowel disease compared to population controls. *Brown CJ, McLeod RS, Gallinger S, Gryfe R: The National Colorectal Cancer Campaign.* (\$10,000 2006 - 2007.)

The prognosis of colorectal cancer in patients with inflammatory bowel disease compared to population controls. *Brown CJ, McLeod, RS, Gallinger S, Gryfe R: Goldstein Ogden Fund.* (\$10,000 2006 - 2007.)

Vaccinia as an oncolytic therapeutic virus for CLL. *McCart JA, Spaner D, Foley R: The Leukemia and Lymphoma Society of Canada.* (\$100,000 2005 - 2007.)

Honours Received

Cohen Z: Naming of the Dr. Zane Cohen Digestive Diseases Clinical Research Centre at Mount Sinai Hospital. November 2006.

Easson AM: Best Oral Paper: Ontario Provincial Conference on Palliative and End-of-Life Care, London, ON, April 2007 for Palliative surgical interventions in stage IV lung and gastrointestinal cancer patients. Easson AM, Walsh A, Ounjian M, Rodin G. April 2007.

Easson AM: Best resident oral presentation: Canadian Society of Surgical Oncology, Toronto, ON, April 2007 for Sentinel lymph node biopsy in breast cancer: Optimal number of nodes and relevance of axillary level II nodes. Boileau J-F, Easson A, Escallon J, Leong W, Reedijk M, McCready DR. April 2007.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. D. Backstein – Assistant Professor

Dr. R.S. Bell – Professor

Dr. P.C. Ferguson – Assistant Professor

Dr. A.E. Gross – Professor

Dr. E.A. Silverstein – Assistant Professor

Dr. J.S. Wunder – Professor (Division Head)

Publications

Backstein D, Morag G, Hanna S, Safir O, Gross A: Long term follow-up of distal femoral varus osteotomy of the knee. *Journal of Arthroplasty*: June 2007: 22(4): pp 2-6.

Backstein D, Safir O, Gross A: Periprosthetic fractures of the knee. *Journal of Arthroplasty*: June 2007: 22(4): pp 45-49.

Brydges R, Carnahan H, Backstein D, Dubrowski A: Application of motor learning principles to complex surgical tasks: Searching for the optimal practice schedule. *Journal of Motor Behavior*: January 2007: 39(1): pp 40-48.

Deheshi BM, Jaffer SN, Griffin AM, Ferguson PC, Bell RS, Wunder JS: Joint salvage for pathologic fracture of giant cell tumor of the lower extremity. *Clinical Orthopaedics and Related Research*: April 2007.

Ferguson PC: Advances in the treatment of giant cell tumour of bone. *COA Bulletin*: May 2007: 76: pp 24-25.

Flint MN, Griffin AM, Bell RS, Ferguson PC, Wunder JS: Aseptic loosening is uncommon with uncemented proximal tibia tumor prostheses. *Clinical Orthopaedics and Related Research*: July 2006: 450: pp 52-60.

Gofton W, Tabloie F, Backstein D, Dubrowski A: Individual learning styles do not influence acquisition of computer assisted orthopaedic surgery. *Journal of Computer Assisted Radiation*: June 2007: 2(1S): pp 254-255.

Griffin AM, Euler CI, Sharpe MB, Ferguson PC, Wunder JS, Bell RS, Chung PW, Catton CN, O'Sullivan B: Radiation planning comparison for superficial tissue avoidance in radiotherapy for soft tissue sarcoma of the lower extremity. *International Journal of Radiation Oncology, Biology, Physics*: March 2007: 1:67(3): pp 847-856.

Gross AE: Periprosthetic fractures: A problem on the rise. *Orthopaedics*: September 2006: 29(9): pp 787-788.

Gross AE: Web commentary: Fresh stored allografts for the treatment of osteochondral defects of the knee, by Williams et al. *Journal of Bone and Joint Surgery (American)*: April 2007.

Gross AE, Goodman S: The indications, technique, and results for structural allografts in revision arthroplasty of the acetabulum. In: *The Adult Hip Volume 2*: (Callaghan JJ, Rosenberg AG, Rubash HE, eds.) Lippincott Williams & Wilkins, Philadelphia, PA, 2007: pp 1399-1408.

Hill RP, Kaspler P, Griffin AM, O'Sullivan B, Catton CN, Alasti H, Abbas A, Heydarian N, Ferguson PC, Wunder JS, Bell RS: Studies of the in vivo radiosensitivity of human skin fibroblasts. *Radiotherapy & Oncology*: June 2007.

Holt GE, Thomson AB, Griffin AM, Bell R, Wunder J, Rougraff B, Schwartz HS: Multifocality and multifocal postradiation sarcomas. *Clinical Orthopaedics and Related Research*: July 2006.

Kellett CF, Boscainos PJ, Gross AE: Surgical options for articular defects of the knee. *Expert Review of Medical Devices*: September 2006: 3(5): pp 585-593.

Kellett CF, Boscainos PJ, Maury AC, Pressman A, Cayen B, Zalal P, Backstein D, Gross AE: Proximal femoral allograft treatment of Vancouver Type-B periprosthetic femoral fractures after total hip arthroplasty. *Journal of Bone and Joint Surgery (American)*: March 2007: 89-A: pp 68-79.

Kellett C, Boscainos PJ, Pressman A, Cayen B, Zalal P, Backstein D, Gross A: Proximal femoral allograft treatment of Vancouver type-b3 periprosthetic femoral fractures after total hip arthroplasty. *Surgical technique. Journal of Bone and Joint Surgery*: March 2007: 89(Supp 2): pp 68-79.

Kurahashi A, Backstein D, Dubrowski A: Utilizing a technical skill centre to enhance fundamental skill acquisition in surgical clerkship at the University of Toronto. *Focus on Surgical Education*: May 2007: 24(2): pp 26-28.

Maury AC, Safir O, Heras GL, Pritzker KP, Gross AE: Twenty-five year chondrocyte viability in fresh osteochondral allograft. A case report. *Journal of Bone and Joint Surgery (American)*: January 2007: 89(1): pp 159-165.

Pradhan A, Cheung YC, Grimer RJ, Abudu A, Peake D, Ferguson PC, Griffin AM, Wunder JS, O'Sullivan B, Hugate Jr R, Sim FH: Does the method of treatment affect the outcome in soft tissue sarcomas of the adductor compartment? *Journal of Bone and Joint Surgery (British)*: November 2006: 88(11): pp 1480-1486.

Puloski SK, Griffin AM, Ferguson PC, Bell RS, Wunder JS: Functional outcome after treatment of aggressive tumors in the distal radius. *Clinical Orthopaedics and Related Research*: April 2007.

Rizek RM, Teschke S, Trajkovski (chapter editors); Afolabi T, Wasserstein D (associate editors); Ferguson P, von Schroeder H (staff editors): Orthopaedics. In: *The Toronto Notes 2007*: (Heng M, Greenwald JA, eds.) Toronto Notes for Medical Students, Inc., Toronto, ON, 2007: pp OR1-OR46.

Shaheen M, Deheshi BM, Riad S, Werier J, Holt GE, Ferguson PC, Wunder JS: Prognosis of radiation-induced bone sarcoma is similar to primary osteosarcoma. *Clinical Orthopaedics and Related Research*: July 2006: 450: pp 76-82.

Trajkovski T, Ferguson P: Clinical cases - osteosarcoma. *University of Toronto Medical Journal*: December 2006: 84(1): pp 21-25.

Wells, BJ, Stotland P, Ko MA, Al-Sukhni W, Wunder J, Ferguson P, Lipa J, Last L, Smith AJ, Swallow CJ: Results of an aggressive approach to resection of locally recurrent rectal cancer. *Annals of Surgical Oncology*: October 2006.

Werier J, Ferguson PC, Bell RS, Hill R, Wunder JS, O'Sullivan B, Kandel RA: Model of radiation-impaired healing of a deep excisional wound. *Wound Repair and Regeneration*: July 2006: 14(4): pp 498-505.

Yan T, Wunder JS, Gokgoz N, Gill M, Eskandarian S, Parkes RK, Bull SB, Bell RS, Andulis IL: COPS3 amplification and clinical outcome in osteosarcoma. *Cancer*: April 2007.

Yan T, Wunder JS, Gokgoz N, Seto KK, Bell RS, Andulis IL: hCDC4 variation in osteosarcoma. *Cancer Genetics Cytogenetics*: September 2006: 169(2): pp 138-142.

Zalzal P, Backstein D, Gross AE, Papini M: Notching of the anterior femoral cortex during total knee arthroplasty. *Journal of Arthroplasty*: August 2006: 21(5): pp 737-743.

Invited Visits to Other Hospitals/Universities

Backstein D: *Surgical Advances in Orthopaedics*, Blue Mountain Resort, Collingwood, ON, September 2006. Acetabular reconstructive options.

Backstein D: 7th Annual Arthritis and Arthroplasty Course, Washington, DC, September 2006. Arthroplasty concepts and risk/benefit ratios. (Moderator.)

Backstein D: Società Italiana di Chirurgia de Ginocchio, Artocopia, Sport, Cartilagine e Technologie Ortopediche (SIGASCOT), Bologna, Italy, October 2006. Biologic reconstruction of the knee using fresh allograft.

Backstein D: *Surgical Advances in Orthopaedics*, Blue Mountain Resort, Collingwood, ON, September 2006. Crosslinked polyethylene - new and improved?

Backstein D: *Shaping Successful Outcomes*, Halifax, NS, February 2007. (1) Decision making in total knee arthroplasty, (2) Gender specific TKA solution.

Backstein D: Orthopaedic Surgery Rounds, Assaf Harofeh Hospital, Tel Aviv, Israel, April 2007. Managing bone loss in total knee arthroplasty.

Backstein D: *Surgical Advances in Orthopaedics*, Blue Mountain Resort, Collingwood, ON, September 2006. (1) Revision total knee replacement. (Moderator), (2) Minimally invasive total knee replacement, (3) Mobile bearing total knee replacement.

Backstein D: 7th Annual Arthritis & Arthroplasty Course, Washington, DC, September 2006. Safety and efficacy of MIS THA (Con).

Bell RS: Annual Nigel Rusted Guest Lecture, Discipline of Surgery, Faculty of Medicine, Memorial University of Newfoundland, St. John's, NF, May 2007. (1) The triumph of limb salvage surgery, (2) Hedgehogs, stem cells and patients.

Gross AE: Instituto Nacional de Traumatologia-Ortopedia (INTO), Rio De Janeiro, Brazil, June 2007. (1) Acetabular revision: A classification & treatment guide in 2007, (2) Femoral revision: A classification & treatment guide, (3) Modified sliding trochanteric osteotomy in revision total hip replacement, (4) The complex infected total hip, (5) The difficult primary hip, (6) The role of structural allografts in revision arthroplasty of the femur, (7) Total hip replacement for dysplasia.

Gross AE: 100th Anniversary of the Vreden Institute of Traumatology and Orthopaedics, St. Petersburg, Russia, September 2006. (1) Fresh osteochondral allografts for posttraumatic knee defects, (2) Periprosthetic fractures: A problem on the rise, (3) Periprosthetic fractures in TKA, (4) Revision arthroplasty of the knee - restoration of bone stock, (5) Revision THR: A classification & treatment guide, (6) THR for dysplasia, (7) Use of trabecular metal & cages in revision acetabular surgery, (8) ZMR hip system in revision THA.

Gross AE: Visiting Professor. International Hip and Knee Arthroplasty Symposium, Riyadh, Saudi Arabia, September 2006. (1) Fresh osteochondral allografts for posttraumatic knee defects, (2) Periprosthetic fractures: A problem on the rise, (3) Periprosthetic fractures in TKA, (4) Revision arthroplasty of the knee - restoration of bone stock, (5) Revision THR: A classification & treatment guide, (6) THR for dysplasia, (7) Use of trabecular metal & cages in revision acetabular surgery, (8) ZMR hip system in revision THA.

Gross AE: 6th Asia Pacific Orthopaedic Symposium 2007, Bangkok, Thailand, June 2007. (1) Long term results of fresh osteochondral allografts for posttraumatic knee defects, (2) Osteotomy about the knee for OA, (3) Revision arthroplasty of the acetabulum 2007, (4) Revision arthroplasty of the femur, (5) Revision arthroplasty of the knee with restoration of bone stock, (6) The difficult primary hip, (7) Total hip replacement for dysplasia.

Gross AE: Invited Lecturer, 51st Annual Conference of Indian Orthopaedic Association (IOACON 2006), New Delhi, India, November 2006. (1) Longterm results of fresh osteochondral allografts for posttraumatic knee defects, (2) Modified sliding trochanteric osteotomy in revision THR, (3) Osteotomy about the knee for OA, (4) Periprosthetic fractures: A problem on the rise, (5) Periprosthetic fractures in TKA, (6) Revision arthroplasty of the knee with restoration of bone stock, (7) Revision THR: Classification & treatment guide, (8) The complex infected total hip, (9) The difficult primary hip. (10) THR for dysplasia, (11) Two Incision vs. Watson Jones: The learning curve, (12) Use of trabecular metal and cages in revision acetabular surgery, (13) ZMR hip system in revision THA.

Gross AE: XVI International Course on Osteoarticular Reconstructive Surgery, Madrid, Spain, March 2007. (1) Periprosthetic fractures of the hip, (2) Revision arthroplasty of the acetabulum 2007, (3) Revision arthroplasty of the femur, (4) Total hip replacement for dysplasia.

Gross AE: Invited Faculty, Zimmer Hip & Knee Revision Arthroplasty: Issues and Techniques, New York, NY, December 2006. Case presentations: (1) Use of allograft & cages in revision acetabular surgery, (2) ZMR hip system in revision THA.

Wunder JS: Israel Orthopaedic Association, Tel Aviv, Israel, December 2006. (1) How the Terry Fox Story would be different today, (2) Management of pathologic acetabular fractures.

Wunder JS: Sheba Medical Center, Tel Hashomer, Israel, December 2006. Optimizing management for soft tissue sarcoma.

Research and Investigations

Senior Investigator's Name Appears in Italics

Hedgehog signaling in cartilaginous neoplasia: Implications for treatment. *Wunder JS, Alman BA: Canadian Institutes of Health Research. (\$159,332 2003 - 2008.)*

Molecular medicine and surgery phase II central seminars. *Backstein D, Woods N, Massicotte E: McLaughlin Centre for Molecular Medicine Grant. (\$8,876 2006 - 2007.)*

New measures for quantifying soft tissue fibrosis. *Davis AM, Bell RS, Lee P, O'Sullivan B, Hill R, Levin W, Wunder JS, Inman D: Canadian Institutes of Health Research. (\$99,421 2003 - 2006.)*

Predictors of disability outcomes following revision total knee arthroplasty (renewal). *Davis A, Garbuz D, Gignac M, Gross A, Kiss A, Mahomed N, Schemitsch E: Canadian Institutes of Health Research. (\$284,640 2005 - 2010.)*

Repair of early joint damage - A tissue engineering approach. *Kandel R, Grynblas M, Pilliar R, Erkorkmaz K, Gross AE, Hurtig A, Nagy M, Papini WL, Stanford E, Toyserkani E, Waldman SD, White L, Zalzal P: Canadian Institutes of Health Research (\$400,000.00 per year). (\$2,400,000 2007 - 2012.)*

Terminal Grant for Interdisciplinary Health Research Team (IHRT) in Musculoskeletal Neoplasia. *Bell RS, Alman B, Andrulis IL, Bramwell V, Davis AM, Greenberg M, Hill R, Kandel RA, Malkin D, Masri B, O'Sullivan B, Turcotte R, Wunder JS: Canadian Institutes of Health Research. (\$310,000 2006 - 2007.)*

Honours Received

Backstein D: Winner of Best Poster Prize for “Using novel performance measures to evaluate the effectiveness of surgical training in spinal surgery.” March 2007.

Ferguson PC: Robert B. Salter Award - Outstanding Teacher as voted by orthopaedic residents. October 2006.

DIVISION OF PLASTIC SURGERY

Dr. N.H. McKee – Professor

Invited Visits to Other Hospitals/Universities

McKee NH: Seminar, Common Hand Complaints, Ontario College of Family Physicians 44th Annual Scientific Assembly, Toronto, ON, November 2006.

McKee NH: World Society for Reconstructive Microsurgery, Athens, Greece, June 2007. “Muscle Reinnervation” presentation (one-third of an instructional course on “Muscle research” – Moderator and Presenter.)

Research and Investigations

Senior Investigator's Name Appears in Italics

Creating a user friendly interface for the “Helping Hand”. *McKee NH*, Anne Agur, Karan Singh, Eugene Fiume, Michele Oliver: *Canadian Society for Surgery of the Hand*. (\$10,000 2006 - 2007.)

DIVISION OF UROLOGY

Dr. K. Jarvi – Professor (Division Head)

Dr. K.C. Lo – Assistant Professor

Dr. A. Zlotta – Professor

Publications

Barmoshe S, Zlotta AR: Pharmacotherapy for prostate cancer, with emphasis on hormonal treatments. Expert Opinion on Pharmacotherapy: September 2006: 7(13): pp 1685-1699.

Barmoshe S, Zlotta AR: How do I treat and follow my TUNA patients? World Journal of Urology: (E-published July 21, 2006): September 2006: 24(4): pp 397-404.

Bollen R, Rosenblatt A, Espinoza BP, De Groot A, Quackels T, Roumequere T, vanden Bossche M, Wespes E, Zlotta AR, Schulman CC: Laparoscopic partial nephrectomy with “on-demand” clamping reduces warm ischemia time. European Urology: April 2007: 52(3): pp 804-810. E-published April 21, 2007.

Djavan B, Ravery V, Rocco B, Zlotta A, Brausi M, Margreiter M, Hammerer P, Kaisary A, Anagnostou T, Romics I, Dobronski P, De Cobelli O, Marberger M : European study of radical prostatectomy: Time trends in Europe, 1993-2005: British Journal of Urology International: July 2007:100 (Suppl 2): 22-25.

Libman J, Jarvi K, Lo K, Zini A: Beneficial effect of microsurgical varicocelectomy is superior for men with bilateral versus unilateral repair. Journal of Urology: December 2006: 176(6): pp 2602-2605.

Moskovtsev SI, Jarvi K, Legare C, Sullivan R, Mullen JB: Epididymal P34H protein deficiency in men evaluated for infertility. Fertility and Sterility: April 2007: E-published.

Pianezza MI, Singh D, Van der Kwast T, Jarvi K: Rare case of recurrent angiokeratoma of fordyce Pn penile shaft: Case reports. Urology: October 2006: 68(4): pp 891.

Shariat SF, Zlotta AR, Ashfaq R, Sagalowsky A, Lotan Y: Cooperative effect of cell-cycle regulators expression on bladder cancer development and biologic aggressiveness. Modern Pathology: April 2007: 20(4): pp 445-459. E-published March 2, 2007.

Sternberg CN, Krainer M, Oh WK, Bracarda S, Bellmunt J, Ozen H, Zlotta A, Beer TM, Oudard S, Rauchenwald M, Skoneczna I, Borner MM, Fitzpatrick JM: The medical management of prostate cancer: A multidisciplinary team approach. British Journal of Urology (BJU) International: January 2007: 99(1): pp 22-27. E-published September 6, 2006.

Wilschanski M, Dupuis A, Ellis L, Jarvi K, Zielenski J, Tullis E, Martin S, Corey M, Tsui L-C, Durie P: Mutations in the cystic fibrosis transmembrane regulator gene and in vivo transepithelial potentials. American Journal of Respiratory and Critical Care Medicine: October 2006: 174: pp 787-794.

Zlotta AR: Random biopsies in bladder tumors: In most cases, you shall not! European Urology: (E-published June 15, 2006): August 2006: 50(2): pp 186-193.

Zlotta A, Bassingthwaite J, Bedlington N, Beglingerr C, Coatrieux J-L, Scott D, Hunter P, Kamm R, Kurachi Y, Mackay A, Mosekilde E, Read I, Van der Helm F: Chapter 5, Common Objectives. Chapter 6, Research Challenges. IN: Seeding the Europhysiome: A Roadmap to the Virtual Physiological Human: STEP Consortium: March 2007 (Viceconti M, Clapworthy G, Van Sint Jan S, Garny A, Brook BS, Waters SL, Thomas R, Gregersen H, Donghua K, Fenner J, Pinney P, McCormack K, Coveney PV, eds.): pp 26-35; pp 38-55.

Zlotta AR, Schulman C: Immediate versus deferred androgen-deprivation therapy for prostate cancer: The jury is still out. Nature Clinical Practice Urology: September 2006: 3(9): pp 474-475.

Invited Visits to Other Hospitals/Universities

Jarvi K: CME, Toronto, ON, February 2007. Emergency urology.

Jarvi K: Queen’s University, Quest 2007, Kingston, ON, February 2007. Infertility.

Jarvi K: 12th Annual Upstate New York Resident Competition, School of Medicine & Dentistry, University of Rochester, Rochester, NY, April 2007. Genetic causes for male infertility.

Jarvi K: Canadian Fertility and Andrology Society, Ottawa, ON, November 2006. Imaging of the male reproductive tract: Who, what and why?

Lo KC: Plenary Session, American Urological Association, Anaheim, CA, May 2007. Impact of urological treatment on male infertility.

Lo KC: Andrology Forum, Canadian Urological Association, Quebec, PQ, June 2007. Treatment of varicocele in male infertility.

Zlotta A: Chairman of Session, 4th Meeting of the European Society of Oncological Urology (ESOU), Paris, France, January 2007.

Zlotta A: Invited Lecturer of the Urological Society of Tokyo and of Shin Egawa, Professor and Chair, Department of Urology, JIKEI University School of Medicine, Tokyo, Japan, February 2007. PSA and new markers in prostate cancer: Targeted therapies and new therapies for hormone-refractory prostate cancer.

Zlotta A: Chairman of Session and Invited Faculty, 22nd Congress of the European Association of Urology (EAU), Berlin, Germany, March 2007.

Zlotta A: Invited Faculty, European School of Urology (ESU), Prague, Czech Republic, March 2007. Prostate biopsy course.

Zlotta A: Chairman of Session, Canadian Urological Association Meeting, Quebec City, PQ, June 2007.

Zlotta A: Invited Faculty, European School of Urology Programme, 4th European Urology Residents Programme (EUREP), Prague, Czech Republic, September 2006. Module 1: Urological cancer.

Zlotta A: Faculty Speaker, 2nd GenitoUrinary (GU) Oncology Conference, Cape Town, South Africa, November 2006.

Zlotta A: Keynote Speaker, 28th Congress of the Société Internationale d'Urologie, Cape Town, South Africa, November 2006.

Research and Investigations

Senior Investigator's Name Appears in Italics

A novel model for the xenotransplantation of fresh and cryopreserved testicular tissues using the immunodeficient NCR mice. *Lo KC, Jarvi K, Mullen B, Casper R: Canadian Urological Association Scholarship Fund. (\$40,000 2005 - 2006.)*

Prevalence and age distribution of prostate carcinoma and its precursor lesions in African, Asian and Caucasian men in autopsy specimens: A prospective comparative international study. *Zlotta AR, Fleshner N, Jarvi K, Vander Kwast T, Finelli T and various collaborators in the world as Montorsi Prs from Milan, Alcaraz from Barcelona, Schulman from Brussels, Pushkar from Moscow, Egawa from Tokyo and Kyabu from Congo: The Prostate Cancer Research Foundation of Canada. (\$59,000 2007 - 2008.)*

Use of seminal fluid protein patterns as biomarkers for diseases in the male reproductive tract: Prediction of spermatogenesis in men with azoospermia. *Lo K, Jarvi K, Diamandis E, Mullen B: Physicians' Services Incorporated Foundation. (\$145,500 2007 - 2009.)*

Honours Received

Zlotta A: Conferred Docteur en Sciences Medicales (PhD) degree, Universite Libre de Bruxelles (Free University of Brussels) with the unanimity of all members of the jury. January 2007.

ST. JOSEPH'S HEALTH CENTRE

Heads of Divisions

Dr. T. Harmantas – General Surgery
Dr. M. Roscoe – Orthopaedic Surgery
Dr. R. Levine – Plastic Surgery
Dr. C. Compeau – Thoracic Surgery
Dr. U. Jain – Urology

Lloyd Smith
Surgeon-in-Chief



The past year has been both challenging and exciting for the Department of Surgery at St. Joseph's Health Centre. The environment has been continually changing as we try to adapt to the wait list initiatives with regards to hip and knee joint replacement surgery and surgical oncology. In both of these areas, we were able to achieve our targets. In the area of surgical oncology, we began multidisciplinary tumour boards in February of 2007. The tumour boards involve surgeons and medical oncologists from St. Joseph's Health Centre along with radiation oncologists from the University Health Network.

In terms of our wait lists for surgical oncology, our biggest challenge has been with urology cases. The Department has recruited Dr. Ashis Chawla, who has trained in minimally invasive urological surgery at MacMaster University. Hopefully, Dr. Chawla will help to improve wait times in urological cancer surgery.

In terms of facilities, St. Joseph's has begun the destruction of Our Lady of Mercy Wing in preparation for building a new patient tower on that same site. The demolition alone will last for approximately one year.

Appointments and Promotions

Dr. Amr ElMaraghy was promoted to Assistant Professor in the Division of Orthopaedic Surgery, recognizing his contribution to teaching, research and clinical excellence. Dr. Lloyd Smith was promoted to Associate Professor in the Division of General Surgery, recognizing his contribution to post-graduate teaching and minimally invasive surgery. Dr. Lloyd Smith was appointed as the General Surgery Fellowship Director for the University Division of General Surgery. Dr. Paul Sullivan was appointed as the Director of the University of Toronto Minimally Invasive Surgery Fellowship. Dr. Yaron Shargall was appointed as the Director of Medical Education for St. Joseph's Health Centre.

Awards

Dr. Lloyd Smith won the Family Medicine Award for Best Surgical Teacher and Dr. Richard Hart won the Ernie Spratt Award for Best Surgical Teacher in the Division of General Surgery.

Dr. Ronald Levine won the E. Bruce Tovee Teaching Award for outstanding post-graduate teaching.

Conclusion

The Department of Surgery has reaffirmed our vision to become the Best Community Teaching Hospital in Canada. Currently, we have residents or fellows in all our surgical sub-specialties and we will continue to develop our teaching program further. Looking to the future, we plan to continue to provide excellence in teaching and clinical surgery.





DIVISION OF GENERAL SURGERY

Dr. T. Harmantas – Assistant Professor (Division Head)

Dr. R. Hart – Lecturer

Dr. D. Lindsay – Lecturer

Dr. L.C. Smith – Assistant Professor

Dr. P. Sullivan – Lecturer

Invited Visits to Other Hospitals/Universities

Hart R: Annual Meeting, American Hepato-Pancreato-Biliary Association, Las Vegas, NE, April 2007. Talk: Germline Adenomatous Polyposis Coli (APC) and MutY Human Homologue (MYH) mutations do not account for a significant fraction of sporadic ampullary cancer (Zogopoulos G, Gallinger Z, Kim R, McGilvray I, Wei A, Taylor B, Langer B, Greig P, Hart R, Cetty RR, Gallinger S of the University of Toronto.)

Smith L: Owen Sound Hospital (aka: Brey Bruce Regional Hospital), Owen Sound, ON, July 2006. Preceptorship in laparoscopy anti-reflux surgery.

Smith L: Hernia Symposium at the Canadian Association of General Surgeons (CAGS), sponsored by Ethicon, Calgary, AB, September 2006. Current challenges in laparoscopic ventral hernia repair.

Smith L: Annual Meeting of the Alberta Association of General Surgeons, Banff, AB, February 15, 2007 – February 17, 2007. Current trends in ventral hernia repair.

Smith L: Ventral Hernia Symposium, British Columbia Surgical Society, Victoria, BC, May 12, 2007. Minimally invasive surgery (MIS) and laparoscopic (LAP) hernia repairs.

Honours Received

Hart R: Ernie Spratt Resident Teaching Award, November 2007, St. Joseph's Health Centre's Clinical Day.

Smith L: St. Joseph's Health Centre Family Medicine Residents Teaching Award – Surgical Rotation. 2006.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. A.W. ElMaraghy – Lecturer

Dr. M. Kliman – Lecturer

Dr. M. Roscoe – Lecturer (Division Head)

Dr. G. Vincent – Lecturer

Dr. M. Wood – Lecturer

Invited Visits to Other Hospitals/Universities

ElMaraghy AW: The 23rd Annual Upper Extremity Update, University of Toronto, Toronto, ON, March 2007. Ruptures of the distal biceps tendon: Facilitating timely diagnosis and surgical referral.

Research and Investigations

Senior Investigator's Name Appears in Italics

(1) Patient satisfaction with anesthetic technique and setting for open carpal tunnel release, (2) Ontario Physician Practice Survey: Choice of anesthetic technique and setting for open carpal tunnel release. *ElMaraghy AW, Panchapakesan V: St. Joseph's Health Centre Surgical and Oncology Program Research Grant. (\$3,500 2006 - 2007.)*

Morphometric assessment of acromial interaction with the clavicular hook plate. *ElMaraghy AW, Devereaux MD: Synthes Canada Ltd. (\$30,000 2007 - 2008.)*

DIVISION OF PLASTIC SURGERY

Dr. C. Fielding – Lecturer

Dr. L. Kasrai – Assistant Professor

Dr. R. Levine – Associate Professor (Division Head)

Dr. R. Wanzel – Assistant Professor

Publications

Levine RH, Spiegelman JI: Abdominoplasty: A comparison of outpatient and inpatient procedures shows that it is a safe and effective procedure for outpatients in an office-based surgery clinic. *Plastic and Reconstructive Surgery: August 2006: 188: pp 1-7.*

Invited Visits to Other Hospitals/Universities

Kasrai L: Children's Hospital of Los Angeles, Los Angeles, CA, May 2007. Autologous ear reconstruction - Kasrai L, Fisher DM.

Honours Received

Levine R: Bruce Tovee Award. 2007.



DIVISION OF THORACIC SURGERY

Dr. C. Compeau – Assistant Professor (Division Head)

Dr. Y. Shargall – Assistant Professor

Dr. E. Spratt – Associate Professor

Publications

De Perrot M, Waddell TK, Shargall Y, Pierre AF, Fadel E, Uy K, Chaparro C, Hutcheon M, Singer LG, Keshavjee S: Impact of donors aged 60 years or more on outcome after lung transplantation: Results of an 11-year single-center experience. *Journal of Thoracic Cardiovascular Surgery*: February 2007: 133(2); pp 525 - 531.

DIVISION OF UROLOGY

Dr. U. Jain – (Division Head)

Dr. A. Marcuzzi – Lecturer

Dr. A. McLean

Dr. J.H. Wait – Lecturer

ST. MICHAEL'S HOSPITAL

Heads of Divisions

Dr. L. Errett – Cardiovascular and Thoracic Surgery
Dr. A.B. Nathens – General Surgery
Dr. R.L. Macdonald – Neurosurgery
Dr. E. Schemitsch – Orthopaedic Surgery
Dr. J. Mahoney – Plastic Surgery
Dr. R.J. Honey – Urology
Dr. F.M. Ameli – Vascular Surgery

Ori Rotstein
Surgeon-in-Chief



It's been an extremely exciting year for the Department of Surgery at St. Michael's Hospital. The atmosphere of late has been abuzz with plans of the new Li Ka Shing Knowledge Institute and all its amenities. The potential opportunities for research and education activities within a single institute appear unlimited.

The most exciting part of the past year's activities has been to welcome our new recruits. In July, we welcomed Dr. Julian Spears to the Division of Neurosurgery and Dr. Avery Nathens to the Division of General Surgery who assumes the role of Division Head as well as the Director of the Trauma Program.

Dr. Spears is a graduate of the University of Toronto Neurosurgery training program and during the context of his training received his Master of Science in Clinical Epidemiology from Harvard University School of Public Health. He is unique in his clinical skills in that he is trained not only as a clinical neurosurgeon but also as an interventional neuroradiologist. He also holds a co-appointment in the Department of Medical Imaging. His skills in outcomes research will also complement the outstanding clinical care given by our hospital team in this area.

Dr. Nathens is also a University of Toronto graduate, having obtained a Doctoral Degree from the Surgeon-Scientist Program, focusing on the inflammatory response following injury. He then did a fellowship in trauma and critical care at the University of Washington, Harborview Medical Centre concentrating on trauma system models. Dr. Nathens also holds a Tier II Canada Research Chair in Systems of Trauma.

In January we were delighted to welcome Dr. Subodh Verma to the Division of Cardiovascular and Thoracic Surgery, Dr. Teodor Grantcharov to the Division of General Surgery and Dr. R. Loch Macdonald as the new Head, Division of Neurosurgery and Keenan Endowed Chair in Surgery.

Dr. Verma completed his MD training in Calgary, obtained a PhD in Cardiovascular Pharmacology from the University of British Columbia, and did his post-doctoral and fellowship training in Toronto. Dr. Verma brings with him an exceptional reputation in cardiovascular research, having won several awards and has published a multitude of peer reviewed papers in highly regarded Journals.

Dr. Grantcharov completed his Doctoral Degree in medical sciences from the University of Aarhus in Denmark, did his surgical residency at the Copenhagen University and then went on to complete a fellowship in minimally invasive surgery at the Western Pennsylvania Hospital, Temple University School of Medicine in Pittsburgh. Dr. Grantcharov's clinical interest is in the area of minimally invasive surgery, with a focus on foregut disease including cancer. His academic interest is in the field of surgical simulation.



Dr. Loch Macdonald did his neurosurgical training in Toronto and joins us from the University of Chicago where he was once named one of the top surgeons in Chicago. His clinical interest and expertise is in cerebrovascular surgery and neurosurgery for the brain and spinal cord tumors. A warm thanks to Dr. William Tucker for being the interim Division Head while awaiting the arrival of Dr. Macdonald.

St. Michael's Hospital was once again cited as the most popular site for clinical clerk training for students at the University of Toronto. In June, St. Michael's Hospital hosted a Physicians and Surgeons Education Achievement Day. Our Faculty has been recognized for excellence in teaching by receiving a number of recognition awards. Dr. John Bohnen received the William Horsey Postgraduate Teaching Award; Dr. Robert Stewart was awarded the Donald J. Currie Teaching Award for Undergraduate Teaching; the Leo Mahoney Resident Teaching Award went to Dr. Michael Kogan (Resident), and the McGoey Award in Orthopaedic Surgery went to Dr. Vanessa Stass (Resident.)

Dr. David Latter has accepted the role of Director of Fellowship Training, Department of Surgery, University of Toronto, as well as the role of Deputy, Surgeon-in-Chief at St. Michael's Hospital. Dr. John Bohnen was awarded the Best Lecturer in the Principles of Surgery Seminar Series. Dr. Bohnen has also been chosen as the 2006 PAIRO Lois H. Ross Resident Advocate Award and the Gulf Cooperation Council Residency Program Director of the Year. Dr. William Tucker was affirmed the next President of the Canadian Medical Protective Association and assumed that role in August. Dr. Ori Rotstein was awarded the Graduate Course Lecturer Award at the Institute of Medical Science and has been appointed to another five-year term as Director of the Institute of Medical Science.

Several members in our Department have also been awarded Values in Action Awards for their outstanding contribution to the Hospital and to our core values of Human Dignity, Excellence, Compassion, Social Responsibility, Community of Service and Pride of Achievement. The Wound Care Team which included Drs. James Mahoney, Melinda Musgrave, and Timothy Daniels won the Values in Action Award for Excellence. Dr. Michael Cusimano was awarded the Values in Action Compassion Award.

Promoted this year to the rank of Associate Professor was Dr. Robert Mustard.

As we move into the next academic year, we look forward to further opportunities for growth in our Department.

DIVISION OF CARDIOVASCULAR AND THORACIC SURGERY

Dr. D. Bonneau – Associate Professor

Dr. L.E. Errett – Associate Professor (Division Head)

Dr. D.A. Latter – Associate Professor

Dr. S. Verma – Associate Professor

Publications

Anderson TJ, Sun YH, Hubacek J, Hyndman ME, Verma S, Shewchuk L, Scott-Douglas N: Effects of folic acid on forearm blood flow in patients with end-stage renal disease. *Nephrology Dialysis Transplantation*: July 2006: 21(7): 1927-1933.

Fujii H, Li SH, Szmítko PE, Fedak PW, Verma S: C-reactive protein alters antioxidant defenses and promotes apoptosis in endothelial progenitor cells. *Arteriosclerosis, Thrombosis and Vascular Biology*: August 2006: E-published ahead of print.

Hu A, Chow CM, Dao D, Errett L, Keith M: The effect of socio-economic status in patient's knowledge of Coumadin therapy after mechanical heart valve replacement. *Journal of Cardiovascular Nursing*: December 2006: 21: pp 48.

Lekas M, Lekas P, Latter DA, Kutryk MB, Stewart DJ: Growth factor-induced therapeutic neovascularization for ischemic vascular disease: Time for re-evaluation? *Current Opinion in Cardiology*: July 2006: 4: pp 376-384.

Rootman DB, Latter DA, Ahmed N: Case report of ventricular septal defect secondary to blunt chest trauma. *Canadian Journal of Surgery*: June 2007: 50: pp 227.

Wang CH, Anderson N, Li SH, Szmítko PE, Cherng WJ, Fedak PW, Fazel S, Li RK, Yau TM, Weisel RD, Stanford WL, Verma S: Stem Cell Factor Deficiency is vasculoprotective. Unraveling a new therapeutic potential of imatinib mesylate. *Circulation Research*: August 2006: E-published ahead of print.

Zhong Y, Li SH, Liu SM, Szmítko PE, He XQ, Fedak PW, Verma S: C-reactive protein upregulates receptor for advanced glycation end products expression in human endothelial cells. *Hypertension*: September 2006: 48(3): pp 504-511.

Invited Visits to Other Hospitals/Universities

Errett LE: Canadian Cardiovascular Society, Vancouver, BC, October 2006. Annual Canadian Cardiovascular Congress.

Errett LE: 16th World Congress of the World Society of Cardio-Thoracic Surgeons, Bayer Healthcare Division, Ottawa, ON, August 2006. Anti-plates and serine protease inhibition in cardiothoracic surgery: Evidence and practice.

Errett LE: 14th Annual Conference of the Egyptian Society of Cardiothoracic Surgery, University of Tanta, Tanta, Egypt, May 2007. (1) Are chest compressions safe for the patient with sternal plates?, (2) Can local application of tranexamic acid reduce post-CABG blood loss?, (3) Initial steps in setting up an evidence-based delirium protocol: A neurotrauma and cardiovascular surgery experience, (4) Is beating heart coronary artery bypass grafting worth it?, (5) Sternal plates fixation for sternal wound reconstruction: Initial experience, (6) Surgical treatment of atrial fibrillation.

Errett LE: Stikeman Visiting Professor, CV and Thoracic Surgery, McGill University, Montreal, QC, June 2007. Norman Bethune "Storny Petro."

Errett LE: Bayer Healthcare Diagnostics. Presented at the Sudbury General Hospital, Sudbury, ON, June 2007. The role of anti-platelet medications in cardiac surgery.

Research and Investigations

Senior Investigator's Name Appears in Italics

ACE2 – Novel regulator of endothelial function. *Verma S: Heart and Stroke Foundation.* (\$120,000 2007 - 2009.)

Adipokines and atherosclerosis in South Asians. *Gupta MK, Verma S: Pfizer Competitive Grants (pfizercv.ca)* (\$200,000 2006 – 2007.)

Adiponectin and Inflammation. *Verma S: Canadian Diabetes Association.* (\$75,000 2007 – 2009.)

Can innovative dietary strategies complement medical management to reduce cardiovascular risk factors in diabetic patients following coronary artery bypass graft surgery? *Keith M, Jenkins D, Verma S, Chow CM, Lee Errett L: Canadian Diabetes Association.* (\$64,000 2006 - 2007.)

- Does nutrient supplementation influence cardiac structure, function and survival by altering energy metabolism? *Keith M, Briet F, Stewart D, Mazer CD: Canadian Institutes of Health Research.* (\$156,000 2005 - 2007.)
- Effects of ezetimibe on adipokines in diabetes. (Investigator-initiated proposal) *Verma S: MerckFrosstSchering Canada.* (\$95,000 2006 – 2007.)
- Endothelial function testing (FATE Study.) *Anderson TJ: Canadian Institutes of Health Research and Pfizer Canada.* (\$150,000 2004 – 2009.)
- Endothelial progenitor cells and PPAR. *Verma S: Heart and Stroke Foundation.* (\$70,000 2004 – 2006.)
- Glitazones and endothelial function. (Investigator-initiated proposal) *Verma S: GlaxoSmithKline Canada.* (\$65,000 2005 – 2007.)
- Group Grant to train junior researchers in the area of clinical and basic atherosclerosis, Traineeship in Atherosclerosis Program, St. Michael's Hospital, University of Toronto. *Verma S, Latter D, Errett L, Parker T: Sanofi-Aventis Canada, Novartis Canada, Glaxo-SmithKline Canada, Merck, MerckFrosstSchering Canada.* (\$350,000 2006 - 2007.)
- Hemodynamic performance of the Medtronic Mosaic Ultra Bioprosthetic heart valve: Aortic valve model 305U. *Errett L, Bonneau D, Latter D: Medtronic of Canada.* (\$80,000 2006 - 2007.)
- Nocturnal hemodialysis and endothelial repair. *Chan C, Verma S: Heart and Stroke Foundation.* (\$72,000 2005 – 2007.)
- Ramipril and CRP (4r trial.) *Verma S: Sanofi Aventis Canada.* (\$270,000 2004 – 2006.)
- RasGRP3: Novel target of endothelial progenitor. *Verma S: Heart and Stroke Foundation.* (\$76,000 2006 – 2008.)
- Telomerase regulation by C-reactive protein. *Verma S: Canadian Institutes of Health Research.* (\$93,000 2005 – 2008.)
- The “ADVANTAGE “ heart valve study. *Errett LE, Bonneau D, Latter D, Leclerc Y, Salasidis G: Medtronic of Canada Ltd.* (\$600,000 2001 - 2006.)
- The impact of cardiopulmonary bypass and cardiac surgery on lymphocyte energetics and immune function in patients with non-insulin dependent diabetes mellitus. *Briet F, Keith M, Errett L, Mazer D: Society of Cardiovascular Anesthesiologists.* (\$40,000 2005 - 2007.)
- Traineeship in atherosclerosis. *Verma S: Rx & D Companies.* (\$300,000 2006 – 2007.)

Honours Received

Errett LE: The Norman Bethune Award - China's highest honour award in recognition to Dr. Errett's contributions to cardiac surgery and training of surgeons in China. November 2006.

DIVISION OF GENERAL SURGERY

Dr. N. Ahmed – Assistant Professor

Dr. J. Ali – Professor

Dr. N. Baxter – Assistant Professor

Dr. J.M.A. Bohnen – Professor

Dr. M.J. Burnstein – Associate Professor

Dr. T. Grantcharov – Assistant Professor

Dr. A. Kapus – Associate Professor

Dr. J. Koo – Associate Professor

Dr. J.C. Marshall – Professor

Dr. R. Mustard – Assistant Professor

Dr. A.B. Nathens – Associate Professor (Division Head)

Dr. O.D. Rotstein – Professor

Dr. K. Szaszi – Assistant Professor

Publications

Aarts M-AW, Brun-Buisson C, Cook DJ, Kumar A, Opal S, Rocker G, Smith T, Vincent J-L, Marshall J: Antibiotic management of suspected nosocomial ICU-acquired infection: Does prolonged empiric therapy improve outcome? *Intensive Care Medicine*: June 2007: 9. E-published ahead of print.

Aggarwal R, Grantcharov TP, Darzi A: A framework for systematic training and assessment of technical skills. *JACS*: April 2007.

Aggarwal R, Grantcharov TP, Eriksen JR, Blirup D, Kristiansen VB, Funch-Jensen P, Darzi A: An evidence-based virtual reality training program for novice laparoscopic surgeons. *Annals of Surgery*: August 2006.

Aggarwal R, Grantcharov TP, Moorthy K, Miland T, Papasavas P, Dosis A, Bello F, Darzi A: An evaluation of the feasibility, validity, and reliability of laparoscopic skills assessment in the operating room. *Annals of Surgery*: June 2007.

Aggarwal R, Tully A, Grantcharov TP, Larsen CR, Miskry T, Farthing A, Darzi A: Virtual reality training for laparoscopic ectopic removal - An evidence-based approach. *British Journal of Obstetrics and Gynecology*: December 2006.

Ali J: The Advanced Trauma Operative Management (ATOM) course in a Canadian Residency Program. *Canadian Journal of Surgery*: April 2007.

Ali J, Adam R, Sammy I, Ali E, Williams JI: The simulated trauma patient teaching module - Does it improve students' performance? *Journal of Trauma*: June 2007: 62(6): pp 1416.

Baxter NN, Garcia-Aguilar J: Organ preservation for rectal cancer. *Journal of Clinical Oncology*: February 2007: 25: pp 1014-1020.

Baxter NN, Guillem J: Colorectal cancer: Epidemiology, etiology, and molecular basis. In: *American Society of Colon and Rectal Surgeons Textbook*: (Fleshman J, ed.) Springer: New York, 2007.

Baxter NN, Hartman LK, Tepper JE, Ricciardi R, Durham SB, Virnig BA: Postoperative but not preoperative irradiation for rectal cancer increases the risk of small bowel obstruction with surgery. *Annals of Surgery*: February 2007: 245: pp 553-559.

Baxter NN, Whitson BA, Tuttle TM: Trends in the treatment and outcome of pancreatic cancer in the United States. *Annals of Surgical Oncology*: May 2007: 14: pp 1320-1326.

Bulger EM, Nathens AB, Rivara FP, Mackenzie E, Sabath DR, Jurkovich GJ: National variability in out-of-hospital treatment after traumatic injury. *Annals of Emergency Medicine*: September 2006.

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- del Sorbo L, Marshall JC:** Antimicrobial resistance in the ICU. In: 2006 Yearbook of Intensive Care and Emergency Medicine: (Vincent JL, ed.) Springer-Verlag: Berlin, 2006: pp 582-591.
- Ding Z, Jia SH, Marshall JC, Downey GP, Waddell TK:** Up-regulation of functional CXCR4 expression on human lymphocytes in sepsis. *Critical Care Medicine*: December 2006: 34: pp 3011-3017.
- Fan L, Sebe A, Peterfi Z, Masszi A, Rotstein OD, McCulloch CA, Szaszi K, Mucsi I, Kapus A:** Cell contact-dependent regulation of epithelial-myofibroblast transition via the Rho-Rho kinase-phospho-myosin pathway. *Molecular Biology of the Cell*: March 2007: 18: pp 1083-1097.
- Francis DO, Kaufman R, Yueh B, Mock C, Nathens AB:** Air bag-induced orbital blow-out fractures. *Laryngoscope*: November 2006: 116(11): pp 1966-1972.
- Grantcharov TP, Funch-Jensen P:** Learning curve patterns in technical skills acquisition in laparoscopic surgery. Can anyone learn it? *Surgical Endoscopy*: February 2007.
- Grantcharov TP, Schulze S, Kristiansen V:** The impact of objective assessment and structured feedback on improvement of laparoscopic skills in the Operating Room. *Surgical Endoscopy*: April 2007.
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- Klein MB, Hayden D, Elson C, Nathens AB, Gamelli RL, Gibran NS, Herndon DN, Arnoldo B, Silver G, Schoenfeld D, Tompkins RG:** The association between fluid administration and outcome following major burn: A multicenter study. *Annals of Surgery*: April 2007: 245(4): pp 62-68.
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- Klein MB, Nathens AB, Heimbach DM, Gibran NS:** An outcome analysis of patients transferred to a regional burn center: Transfer status does not impact survival. *Burns*: December 2006: 32(8): pp 940-950.
- Larsen CR, Grantcharov TP, Sorensen JL, Dalsgaard T, Ottesen B:** Objective assessment of gynaecological laparoscopic skills using a virtual reality simulator. *Surgical Endoscopy*: September 2006.
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- Marshall JC:** The pathogenesis and molecular biology of sepsis. *Critical Care and Resuscitation Journal*: September 2006: 8: pp 227-229.
- Marshall JC:** The Surviving Sepsis Campaign. *Critical Care and Resuscitation Journal*: September 2006: 8: pp 181-182.

- Marshall JC:** Acute pancreatitis. In: *Clinical Critical Care Medicine*: (Albert RK, Slutsky A, Ranieri VM, Takala J, Torres A, eds.) Mosby Inc: Philadelphia, PA, 2006: pp 525-530.
- Marshall JC:** Biomarkers of sepsis. *Current Infectious Disease Reports*: September 2006: 8: pp 351-357.
- Marshall JC:** Critical care surgery: Past or future tense? *Current Opinion in Critical Care*: August 2006: 12: pp 322-324.
- Marshall JC:** Latrogenesis, inflammation, and organ injury: Insights from an animal model. *Critical Care Medicine*: November 2006: 10: pp 173-175.
- Marshall JC, Malam Z, Jia S-H:** Modulating neutrophil apoptosis. In: *Novartis Foundation 2007 Symposium on Sepsis: New Insights, New Therapies*: John Wiley & Sons, Ltd: Chichester, UK, 2007: pp 53-66.
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- Moore FA, McKinley BA, Moore EE, Nathens AB, West M, Shapiro MB, Bankey P, Freeman B, Harbrecht BG, Johnson JL, Minei JP, Maier RV:** Inflammation and the host response to injury, a large-scale collaborative project: Patient-oriented research core-standard operating procedures for clinical care: III. Guidelines for shock resuscitation. *Journal of Trauma*: July 2006: 61(1): pp 82-89.
- Nathens AB, McMurray MK, Cuschieri J, Durr EA, Moore EE, Bankey PE, Freeman B, Harbrecht BG, Johnson JL, Minei JP, McKinley BA, Moore FA, Shapiro MB, West MA, Tompkins RG, Maier RV:** The practice of venous thromboembolism prophylaxis in the major trauma patient. *Journal of Trauma*: March 2007: 62(3): pp 557-563.
- Nathens AB, Nester TA, Rubenfeld GD, Nirula R, Gernsheimer TB:** The effects of leukoreduced blood transfusion on infection risk following injury: A randomized controlled trial. *Shock*: October 2006: 26(4): pp 342-347.
- Nathens AB, Rivara FP, Mack CD, Rubenfeld GD, Jurkovich GJ, Maier RV:** Variations in rates of tracheostomy in the critically ill trauma patient. *Critical Care Medicine*: December 2006: 34(12): pp 2919-2924.
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- Powers KA, Szasz K, Khadaroo RG, Tawadros PS, Marshall JC, Kapus A, Rotstein OD:** Oxidative stress generated by hemorrhagic shock recruits toll-like receptor 4 to the plasma membrane in macrophages. *Journal of Experimental Medicine*: August 2006: 203: pp 1951-1961.
- Powers KA, Szasz K, Khadaroo RG, Tawadros P, Marshall JC, Kapus A, Rotstein OD:** Hemorrhagic shock recruits Toll-like receptor 4 to the plasma membrane in macrophages: A novel mechanism of cell priming for LPS signaling. *Journal of Experimental Medicine*: August 2006: 203: pp 1951-1961.
- Ricciardi R, Baxter NN:** Association versus causation versus quality improvement; setting benchmarks for lymph node evaluation in colon cancer. *Journal of the National Cancer Institute*: May 2007: 99: pp 414-415.
- Ricciardi R, Rothenberger DA, Madoff RD, Baxter NN:** Population-based analysis of lymph node metastases in colorectal cancer. *Clinical Gastroenterology Hepatology*: December 2006: 4: pp 1522-1527.
- Ricciardi R, Rothenberger DA, Madoff RD, Virnig BA, Baxter NN:** The status of radical proctectomy and sphincter-sparing surgery in the United States. *Diseases of the Colon and Rectum*: June 2007: E-published.
- Ricciardi R, Town RH, Kellogg TA, Ikramuddin S, Baxter NN:** Outcomes after open versus laparoscopic gastric bypass. *Surgery Laparoscopic Endoscopic and Percutaneous Techniques*: October 2006: 16: pp 317-320.
- Rivara FP, Nathens AB, Jurkovich GJ, Maier RV:** Do trauma centers have the capacity to respond to disasters? *Journal of Trauma*: October 2006: 61(4): pp 949-953.

Rosengart MR, Nathens AB, Schiff MA: The identification of criteria to evaluate prehospital trauma care using the Delphi technique. *Journal of Trauma*: March 2007; 62(3): pp 708-713.

Roudsari B, Nathens AB, Koepsell T, Mock C, Rivara F: Analysis of clustered data in multicenter trauma studies. *Injury*: September 2006; 37: pp 614-621.

Roudsari BS, Nathens AB, Arreola-Risa C, Cameron P, Civil I, Grigoriou G, Gruen RL, Koepsell TD, Lecky FE, Lefering RL, Liberman M, Mock CN, Oestern HJ, Petridou E, Schildhauer TA, Waydhas C, Zargar M, Rivara FP: Emergency Medical Service (EMS) systems in developed and developing countries. *Injury*: June 2007.

Shafi S, Nathens AB, Elliott AC, Gentilelo L: Effect of trauma systems on motor vehicle occupant mortality: A comparison between states with and without a formal system. *Journal of Trauma*: December 2006; 61(6): pp 1378-1379.

Sihler KC, Nathens AB: Management of severe sepsis in the surgical patient. In: *Surgical Clinics of North America* Vol. 86(6): (Puyana JC, Rosengart MR, Martin FT, eds.) WB Saunders: Philadelphia, 2006: pp 1457-1481.

Urbach DR, Horvath KD, Baxter NN, Khaitan L, Brower ST, Pryor DP, Trus TL, Jobe BA, Madan AK, Torquati A, Schwaitzberg S: A research agenda for gastrointestinal and endoscopic surgery. *Surgical Endoscopy*: February 2007: E-published.

Utter GH, Lee T, Nathens AB, Reed WF, Owings JT, Nester TA, Busch MP: Leukoreduction of blood transfusions does not diminish transfusion-associated microchimerism in trauma patients. *Transfusion*: November 2006; 46(11): pp 1863-1869.

Utter GH, Maier RV, Rivara FP, Nathens AB: Outcomes following ruptured abdominal aortic aneurysms: The "halo effect" of trauma center designation. *Journal of American College of Surgeons*: October 2006; 203(4): pp 498-505.

West MA, Shapiro MB, Nathens AB: Inflammation and the host response to injury, a large-scale collaborative project: Patient-oriented research core-standard operating procedures for clinical care: IV. Guidelines for transfusion in the trauma patient. *Journal of Trauma*: August 2006; 61(2): pp 436-439.

Worrell SS, Koepsell TD, Sabath DR, Gentilelo LM, Mock CN, Nathens AB: The risk of re-injury in relation to time since first injury: A retrospective population-based study. *Journal of Trauma*: September 2006; 60(2): pp 379-384.

Wright JL, Nathens AB, Rivara FP, Mackenzie EJ, Wessells H: Specific fracture configurations predict sexual and excretory dysfunction in men and women 1 year after pelvic fracture. *Journal of Urology*: October 2006; 176: pp 1540-1545.

You N, Baxter NN, Stewart A, Nelson H: Is the increasing rate of local excision for stage I rectal cancer in the United States justified? A nationwide cohort study from the National Cancer Database. *Annals of Surgery*: March 2007; 245: pp 726-733.

Zatzick DF, Rivara FP, Nathens AB, Jurkovich GJ, Wang J, Fan M-Y, Russo J, Salkever DS, MacKenzie E: A nationwide US study of post-traumatic stress after hospitalization for physical injury. *Psychological Medicine*: June 2007: pp 1-12.

Zhao X, Laschinger C, Arora P, Szaszi K, Kapus A, McCulloch CA: Force activates alpha-smooth muscle actin promoter activity through the Rho signaling pathway. *Journal of Cell Science*: March 2007; 120: pp 1801-1809.

Invited Visits to Other Hospitals/Universities

Ali J: Calgary, AB, January 2007. Advanced trauma life support (ATLS), instructor course.

Ali J: American College of Surgeons, Sao Paulo, Brasil, August 2006. Advanced trauma life support (ATLS) program.

Ali J: American College of Surgeons, Chicago, IL, June 2007. (1) Advanced trauma life support (ATLS) program, (2) Prehospital trauma life support (PHTLS) program.

Ali J: American College of Surgeons, Costa Rica, October 2006. (1) Advanced trauma life support (ATLS), instructor course, (2) Advanced trauma life support (ATLS), provider course.

Ali J: American College of Surgeons, St. John's, NF, November 2006. Advanced trauma life support (ATLS), instructor course.

Ali J: Sunnybrook Health Sciences Centre, Toronto, ON, November 2006. Advanced trauma life support (ATLS), instructor course.

Ali J: American College of Surgeons, Trinidad and Tobago, November 2006. Advanced Trauma Life Support 20th Anniversary.

Ali J: Foothills Medical Centre, Calgary, AB, March 2007. Advanced trauma operative management program.

Ali J: American College of Surgeons, Committee on Trauma, Denver, CO, March 2007. Chapter 10: Geriatric trauma and summary of educator's revision.

Ali J: American Association for the Surgery of Trauma, New Orleans, LA, September 2006. (1) Establishing ATLS program in Costa Rica and abbreviated ATLS students' performance?, (2) The simulated trauma patient teaching module – Does it improve student's performance?

Ali J: Tawam Hospital (Abu Dhabi), Department of Surgery, Al Ain, UAE, February 2007. Trauma education and the impact of TEAM in the undergraduate curriculum.

Ali J: College of Physicians and Surgeons of Costa Rica, San Jose, Costa Rica, November 2006. Trauma evaluation and management (TEAM) program.

Ali J: University of West Indies, Trinidad and Tobago, November 2006. Trauma training in the Caribbean - lessons learned.

Baxter N: Perspectives in Colorectal Cancer, September 2006. Advances in colorectal surgery.

Baxter N: International Society for Digestive Surgery World Congress, Rome, Italy, December 2006. Colorectal cancer around the world - incidence, screening, and treatment. In North America, quality of life.

Baxter N: American Society of Colon and Rectal Surgeons Annual Meeting, St. Louis, MO, June 2007. Core subjects; advanced colon and rectal cancer.

Baxter N: North American Association of Central Cancer Registries Annual Conference, Detroit, MI, June 2007. Determining quality of cancer care using cancer registry data. Patterns of care analysis using SEER-Medicare data.

Baxter N: American Society of Colon and Rectal Surgery Annual Meeting, St. Louis, MO, June 2007. Laparoscopic colectomy: The basics and beyond. Establishment of pneumoperitoneum.

Baxter N: Update on the Management of Gastrointestinal Malignancies, San Diego, CA, October 2006. New developments in colorectal surgery.

Baxter N: Perspectives in Colorectal Cancer, Scottsdale, AZ, September 2006. Optimal therapy for T2 rectal cancer.

Baxter N: Canadian Association of General Surgeons Annual Meeting, Colorectal Cancer Postgraduate Course, Calgary, AB, September 2006. (1) Outcomes research: How does it affect our management of colorectal cancer, (2) Screening for colorectal cancer: 2006 and beyond.

Baxter N: University of Minnesota Advances in Breast, Endocrine, and Cancer Surgery, Minneapolis, MN, June 2007. Should we routinely teach breast self-examination to screen for breast cancer? Evidence based guidelines and the politics of screening for breast cancer.

Baxter N: American Society of Colon and Rectal Surgery Annual Meeting, St. Louis, MO, June 2007. So you want to be an editor? Statistical pitfalls in data reporting.

Baxter N: Society of Surgical Oncology Annual Meeting, Washington, DC, March 2007. The great debates: Molecular markers in colon cancer - "pro."

Baxter N: International Society for Digestive Surgery World Congress, Rome, Italy, December 2006. Treatment of premalignant conditions of the GI tract; polyposis syndromes.

Baxter N: Roswell Park, Buffalo, NY, November 2006. Visiting Professor.

Baxter N: University of Buffalo, Grand Surgical Rounds, Buffalo, NY, November 2006. What do we know about nodes?

Bohnen JMA: Dalhousie University, Halifax, NS, November 2006. 12th Annual General Surgery Refresher Course. Update in sepsis.

Burnstein MJ: Canadian Surgery Forum, Calgary, AB, September 2006. (1) Consultant's Corner. (Moderator), (2) Canadian Society of Cataract and Refractive Surgery (CSCRS) Symposium: Polyps. (Moderator), (3) Technical Issues in Colonoscopy and Polypectomy.

Burnstein MJ: Cleveland Clinic Foundation, Cleveland, OH, May 2007. (1) Rectal cancer management - A Canadian perspective, (2) Complex cases, (3) Techniques in colonoscopic polypectomy.

Burnstein MJ: American Society of Colon and Rectal Surgeons, St. Louis, MO, June 2007. Controversies in diverticulitis: (i) Diverticulitis in the elderly patient, (ii) Diverticulitis in the immunosuppressed patient.

Grantcharov T: 15th Congress of the European Association of Endoscopic Surgery, Athens, Greece, June 2007. (1) Achieving consensus for virtual reality program, (2) Comprehensive training curriculum in minimally invasive surgery. How far are we from global implementation?

Grantcharov T: Danish Surgical Society Annual Meeting, Copenhagen, Denmark, November 2006. Advanced laparoscopic surgery training - Can we shorten the learning curve?

Grantcharov T: 10th World Congress of Endoscopic Surgery, Berlin, Germany, September 2006. (1) Design and validation of a comprehensive training curriculum in minimally invasive surgery, (2) International approach to curriculum implementation, selection and certification using virtual reality simulation.

Grantcharov T: Multi-Disciplinary Seminar on the Treatment of Morbid Obesity, Paris, France, April 2007. (1) Laparoscopic bariatric surgery - What do we need to start a bariatric program?, (2) Training and certification of the bariatric surgeon.

Grantcharov T: Bulgarian Surgical Society Clinical Congress, Sofia, Bulgaria, October 2006. Laparoscopic surgery for morbid obesity - Technical aspects, complications and outcomes.

Grantcharov T: American College of Surgeons Spring Meeting, Las Vegas, Nevada, USA, April 2007. Skills training and the educational process.

Marshall JC: 3rd Critical Care Science Symposium, Brisbane, Australia, August 2006. (1) Sepsis: Evolving concepts, (2) Choosing the best biomarker, (3) Is there still a place for anti-TNF therapies?

Marshall JC: 27th International Symposium of Intensive Care and Emergency Medicine, Brussels, Belgium, March 2007. (1) Endotoxemia in the critically ill, (2) Basic cell biology for the intensivist, (3) Biomarkers: What do we do with all this?, (4) Pre-B Cell Colony - Enhancing Factor (PBEF)/Visfatin, (5) The Canadian Critical Care Trials Group, (6) The role of apoptosis, (7) Protocolized care: Proceed with caution, (8) Empiric antibiotics: Good or bad?

Marshall JC: 11th Toronto International Symposium on Acute Care, Toronto, ON, October 2006. (1) Endotoxin in the critically ill, (2) How does the immune system recognize danger? (3) What is the role of endotoxemia?

Marshall JC: 4th International Symposium on Intensive Care and Emergency Medicine, Sao Paulo, Brazil, June 2007. (1) Host-microbial interactions in critical illness, (2) Latrogenesis, inflammation, and organ injury, (3) Blood transfusion for resuscitation of septic shock: Con, (4) Advances in sepsis source control, (5) Surgical decision-making: Integrating evidence, inference, and experience, (6) Critical appraisal of the Surviving Sepsis Campaign.

Marshall JC: 2nd International Pan-Arab Critical Care Congress, Dubai, UAE, April 2007. (1) ICU-acquired infection: Insights from the AATICC Trial, (2) Principles of source control, (3) Altered apoptosis as a mechanism of disease, (4) Lipopolysaccharide: Endotoxin or exohormone?, (5) The PIRO model: How can it be used to improve the design of clinical trials?

Marshall JC: R.P. Knowles Memorial Lecture, 12th International Veterinary Emergency and Critical Care Symposium, San Antonio, TX, September 2006. (1) Optimizing strategies beyond evidence-based medicine: Integration of evidence, inference, and experience, (2) The gut-liver axis in shock, (3) Latrogenesis in the ICU, (4) Diagnostic and therapeutic challenges in sepsis.

Marshall JC: 9th Course on Critical Care Medicine, Mechanical Ventilation, and Sepsis, Mexico City, Mexico, July 2006. (1) Outcomes from clinical trials in the ICU, (2) Staging sepsis using PIRO, (3) Biomarkers of sepsis.

Marshall JC: 7th World Congress on Trauma, Shock, Inflammation and Sepsis, Munich, Germany, March 2007. (1) Source control: How to achieve it; why it fails, (2) The case for treating colonized patients to reduce antibiotic resistance development: Con, (3) Sepsis: How important is infection?, (4) Therapeutic targets and clinical staging in antimicrobial trials, (5) Endpoints for randomized controlled trials in trauma.

Marshall JC: Canadian Critical Care Society Residents' Day, Toronto, ON, October 2006. (1) The Canadian Critical Care Trials Group, (2) Management of acute pancreatitis.

Marshall JC: Presidential Address, 27th Annual Meeting, Surgical Infection Society (SIS), Toronto, ON, April 2007. Coming of age.

Marshall JC: 6th Annual Colloquium, International Sepsis Forum, Annapolis, MD, June 2007. Conceptual models of acute illness and chronic health.

Marshall JC: Evaluating Surgery, Balliol College, Oxford, England, March 2007. Evaluating surgical interventions: How do the issues differ from the evaluation of non-surgical interventions?

Marshall JC: 34th Annual Meeting of the Japanese Association of Acute Medicine, Fukuoka, Japan, October 2006. Evidence-based management of severe sepsis: The Surviving Sepsis Campaign.

Marshall JC: 7th European Congress of Clinical Microbiology and Infectious Disease, Munich, Germany, March 2007. From SIRS to PIRO: What makes the difference?

Marshall JC: Sunnybrook Gut Club, Sherwood Inn, ON, August 2006. Management of acute pancreatitis.

Marshall JC: International Conference on Surgical Infections, Stockholm, Sweden, September 2006. Markers of severity during severe infections.

Marshall JC: 6th International Sepsis Forum (ISF) Colloquium: Enabling Clinical Research in Severe Sepsis, Canyon City, UT, October 2006. Programmatic research: The Canadian Critical Care Trials Group model.

Marshall JC: 19th Annual Meeting, Alberta Society of Intensive Care Physicians, Lake Louise, AB, January 2007. Sepsis: Evolving concepts.

Marshall JC: 21st Associazione Professionisti, Imprenditori, Cristiani Evangelici (APICE) Meeting, Venice, Italy, November 2006. Source control.

Marshall JC: 30th Annual Meeting, Shock Society, Baltimore, MD, June 2007. Statistical inference and the scientific method.

Marshall JC: 4th Symposium on the Functional Genomics of Critical Illness and Injury, National Institutes of Health (NIH), Bethesda, MD, November 2006. The Canadian Critical Care Trials Group.

Marshall JC: 8th Congress of the German Interdisciplinary Union of Intensive Care and Emergency Medicine, Hamburg, Germany, November 2006. The Canadian Critical Care Trials Group.

Marshall JC: 60th Societa' Italiana Di Anestesia Analgesia Rianimazione E Terapia Intensiva (SIAARTI), Umbria, Italy, October 2006. The role and measurement of endotoxin in the septic patient.

Marshall JC: Visiting Professor, Fukuoka University, Fukuoka Japan, November 2006. The Surviving Sepsis Campaign.

Nathens AB: Clinical Congress of the American College of Surgeons, Chicago, IL, October 2006. Adjunctive therapies in necrotizing soft tissue infections.

Nathens AB: Key Challenges in the Management of Surgical Infections. Ortho-McNeil Pharmaceutical Inc. Advisory Board Meeting, Fort Lauderdale, FL, January 2007. Clinical trial design in intra-abdominal infections.

Nathens AB: Eastern Association for the Surgery of Trauma, Fort Myers, FL, January 2007. DNAR status after a major trauma: The impact of ICU environment.

Nathens AB: Functional Genomics of Critical Illness and Injury Symposium (National Institutes of Health), Bethesda, MD, October 2006. Gene expression in severe trauma.

Nathens AB: Third Annual Infectious Diseases - Critical Care Pharmacotherapy Conference, Toronto, ON, June 2007. Intra-abdominal infections.

Nathens AB: St. Michael's Hospital 3rd Annual Emergency Nursing Conference, Toronto, ON, April 2007. Primary and secondary triage of the major trauma patient.

Nathens AB: Pediatric National Study on Costs and Outcome of Trauma (NSCOT) Conference, Washington, DC, March 2007. Prior studies comparing processes of trauma care at children's hospitals vs. adult hospitals.

Nathens AB: Expert Panel, Wait Times: Where Are We Now And Where We Need To Go Next, Ontario Hospital Association, Toronto, ON, February 2007. Results and lessons learned.

Nathens AB: American Cancer Society (ACS) Grant Writing Symposium, Clinical Congress of the American College of Surgeons, Chicago, IL, October 2006. Specifics of grant writing.

Nathens AB: Society of University Surgeons Second Annual Academic Congress, Phoenix, AZ, February 2007. The survival advantage in trauma centers: Expeditious intervention or experience?

Nathens AB: Foothills Medical Centre - Surgical Rounds, Calgary, AB, May 2007. Trauma systems.

Rotstein OD: Canadian Surgery Forum-Gallie Lecture, The Royal College of Physicians and Surgeons of Canada, Calgary, AB, September 2006. Novel resuscitation strategies aimed at improving outcome in trauma patients: Bench to bedside to curbside.

Rotstein OD: General Surgery Expert Panel, Wait Times: Where We Are Now and Where We Need to Go Next, Ontario Hospital Association, Toronto, ON, February 2007. Results and lessons learned.

Research and Investigations

Senior Investigator's Name Appears in Italics

An epidemiologic study of lymph node evaluation in colorectal cancer patients. *Viring BA, Rothenberger DA, Jessurun J: National Cancer Institute, National Institutes of Health (US).* (\$408,561 2006 - 2008.)

Cancer Research Infrastructure Award. *Koo J, Haq R, Bell D: Ontario Cancer Research Network (OCRN).* (\$200,000 2004 - 2007.)

Ca²⁺ signaling in acute hypoxia: Role of the Na⁺/Ca²⁺ exchanger in endothelial responses. *Szaszi K: Canadian Institutes of Health Research Senior Research Fellowship.* (\$100,000 2005 - 2007.)

CCURE: Critical care from cell to society. *Slutsky AS, Cook D, Martin P, Baker A, Stewart D, Sibbald W, Marshall J, Downey G, Hawryluck L, Marsden P: Canadian Foundation for Innovation (CFI).* (\$4,600,000 2002 - 2007.)

Clinical Research Network for the Treatment of ALI and ARDS. (2.5% effort). *Nathens AB: National Institutes of Health.* (\$9 2006 - 2012.)

Clinical Trials Incubator Unit, Specialized Centers of Clinically Oriented Research (SCCOR) Program in acute lung injury. (20% effort.) *Nathens AB: National Institutes of Health.* (\$1,707,032 2003 - 2008.)

Crash Injury Research & Engineering Network (CIREN) (10% Effort). *Nathens AB: National Highway Traffic Safety Administration (NHTSA).* (\$2,546,924 2005 - 2010.)

Critical Care Unit for Research Excellence (CCURE). *Slutsky A, Marshall JC, et al: St. Michael's Hospital: Canada Foundation for Innovation (40%) and Ontario Innovative Trust (60%).* (\$4,588,720 2002 - 2006.)

Determining the optimal configuration of organized systems of trauma care: Inclusive versus exclusive trauma systems. (5% effort). *Nathens AB: Centers for Disease Control.* (\$150,000 2004 - 2006.)

Does chemotherapy cause dementia in older breast cancer survivors? *Baxter NN, Virnig BA, Phillips KA: The Lance Armstrong Foundation.* (\$110,000 2004 - 2007.)

Effect of leukoreduction in infection risk in trauma 20% effort). *Nathens AB: National Institutes of Health.* (\$651,767 2002 - 2006.)

Evaluating patient satisfaction with an alcohol screening and brief intervention protocol. *White McFarlan A, Deveau C, Houston J, Nathens AB, Willis T: SMH - TNS Internal Multi-disciplinary Small Grant Competition.* (\$500 2007.)

Evaluating the safety and reliability of transcolonic abdominal exploration. *Baker J: St. Michael's Hospital GI Division Research Grant.* (\$16,000 2007.)

Hypertonic preconditioning for liver ischemia/reperfusion injury: A novel protective strategy. *Rotstein OD: Physicians' Services Incorporated.* (\$150,000 2005 - 2007.)

International collaborative research development proposal - Age of blood study. *Hebert PC, Marshall JC: Canadian Institutes of Health Research.* (\$25,000 2006.)

Membrane potential-dependent inflammatory signaling in kidney tubular cells. *Szaszi K: Banting Foundation.* (\$20,000 2006 - 2007.)

New model of surgery training. *Bohnen J, Reznick R: Ontario Ministry of Health and Long Term Care.* (\$50,000 2006 - 2007.)

Novel mechanisms of prolonged neutrophil survival in human sepsis: A bedside-to-bench approach. *Marshall JC: Canadian Institutes of Health Research.* (\$543,565 2003 - 2008.)

Patterns of cancer care in the disabled. *Baxter NN, Virnig BA: The American Society of Clinical Oncology.* (\$170,100 2004 - 2008.)

Perioperative ischemic evaluation study (POISE study). *Yang H, Rotstein OD, Multidisciplinary Research Group (Canada-wide): Canadian Institutes of Health Research.* (\$5,306,074 2001 - 2006.)

PET Predict Study. *Koo J: Ontario Clinical Oncology Group.* (\$4,900 2006.)

PROphylaxis of thromboEmbolism in Critical Care Trial (PROTECT). *Cook DJ, Marshall JC: Canadian Institutes of Health Research.* (\$4,800,000 2005 - 2009.)

Protocol TFP008 A Phase 3, Multicenter, Randomized, Placebo-Controlled, Double-Blind, Three-Arm Study to evaluate the safety and efficacy of Tifacogin (Recombinant Tissue Factor Pathway Inhibitor) administration in subjects with severe community-acquired pneumonia. *Marshall JC: Novartis Pharmaceuticals Corporation.* (\$55,000 2005 - 2008.)

PTHOST Study. *Koo J: Hamilton Health Sciences Research Centre.* (\$650 2006 - 2007.)

Regulation of epithelial paracellular permeability by apical transport processes. *Szaszi K: Natural Sciences and Engineering Research Council.* (\$180,000 2006 - 2011.)

Surgery education for rural family medicine: A survey. *Bohnen J, Wyman R: Ontario Ministry of Health and Long Term Care.* (\$50,000 2006 - 2007.)

Survival Using Glucose Algorithm Regulation (SUGAR). *Chittock DR, Marshall JC: Canadian Institutes of Health Research.* (\$40,000 2006 - 2009.)

Team Talk II: A multi-institutional evaluation of a checklist intervention to structure communication and promote patient safety in the operating room. *Lingard L, Regehr D, Baker R, Bohnen J, Reznick R, Orser B, Doran D, Rotstein L: Canadian Institutes of Health Research.* (\$312,000 2004 - 2008.)

The effects of stress on clinical performance in simulated trauma scenarios. *Nathens AB: Physicians' Services Incorporated Foundation.* (\$24,000 2007 - 2008.)

The major goal of the Acute Care Section is to focus on investigations pertaining to care of the injured patient. (5% effort). *Mock C, Nathens AB: Centers for Disease Control.* (\$602,104 2001 - 2006.)

The role of the cell-cell contact-cytoskeleton-nucleus axis in epithelial-mesenchymal transition of kidney tubular cells. *Kapus A, Szaszi K: Kidney Foundation of Canada.* (\$100,000 2007 - 2009.)

Treatment and survivorship in young adults with cancer. *Baxter NN, Urbach D, Rabeneck L: Ontario Ministry of Research and Innovation Early Researcher Award.* (\$190,000 2007 - 2012.)

Honours Received

Baxter N: Bernard Langer Surgeon Scientist Award. May 2007.

Baxter N: Canadian Institutes of Health Research New Investigator Award. July 2006.

Bohnen JMA: Gulf Cooperation Council (GCC) Residency Program Director of the Year. June 2007.

Bohnen JMA: William Horsey PostGraduate Teaching Award, St. Michael's Hospital. June 2007.



Grantcharov T: 10th World Congress of the Endoscopic Surgery, Berlin, Germany. Environmentally Adapted Energy System (EAES) Technology Award Session for the Six Best Oral Presentations. September 2006.

Marshall JC: Chair, International Sepsis Forum. January 2007.

Marshall JC: Charles H. Tator Surgeon-Scientist Mentoring Award, Department of Surgery, University of Toronto. May 2007.

Marshall JC: Fellow, American Surgical Association. June 2007.

Marshall JC: President, Surgical Infection Society. May 2007.

Nathens AB: Canada Research Chair in Trauma Systems Development. July 2006.

Nathens AB: University of Washington, Department of Surgery Teaching Award. July 2006.

DIVISION OF NEUROSURGERY

Dr. M.D. Cusimano – Professor

Dr. H.J. Ginsberg – Assistant Professor

Dr. R.L. Macdonald – Professor (Division Head)

Dr. P.J. Muller – Professor

Dr. R.G. Perrin – Associate Professor

Dr. J.S. Spears – Assistant Professor

Dr. W.S. Tucker – Associate Professor

Publications

Cusimano MD: Follicular carcinoma of the thyroid with aggressive metastatic behaviour in a pregnant woman: Report of a case and review of the literature. *Hormones*: December 2006: 5(4).

Cusimano MD, Josse JM: The effect of a skiing/snowboarding safety video on the increase of safety knowledge in Canadian youth - A pilot study. *International Journal of Circumpolar Health*: October 2006: 65:5: pp 385-388.

Cusimano MD, Kan P: Validation of a quality of life questionnaire for patients with pituitary adenoma. *Canadian Journal of Neurological Sciences*: September 2006: 33: pp 80-85.

Cusimano MD, Schweizer TA, Oriet CC, Meiran N, Alexander MP, Stuss DT: The cerebellum mediates conflict resolution. *Journal of Cognitive Neuroscience*: January 2007.

Ferguson S, Macdonald RL: Predictors of cerebral infarction in patients with aneurysmal subarachnoid hemorrhage. *Neurosurgery*: April 2007: 60: pp 658-667.

Ginsberg HJ, Drake JM, Peterson TM, Cobbold RSC: Recanalization of obstructed cerebrospinal fluid ventricular catheters using ultrasonic cavitation. *Neurosurgery*: October 2006: 59(4).

Hansen-Schwartz J, Vajkoczy P, Macdonald RL, Pluta RM, Zhang JH: Cerebral vasospasm: Looking beyond vasoconstriction. *Trends Pharmacology Science*: June 2007: 28: pp 252-256.

Hawryluk G, Cusimano MD: The role of recombinant factor VIIa in neurosurgery: Hope or hype? *Journal of Neurosurgery*: December 2006: 105: pp 859-868.

Kimchi TJ, Willinsky RA, Spears J, Lee SK, TerBrugge K: Endovascular treatment of intracranial aneurysms with matrix coils: Immediate posttreatment results, clinical outcome and follow-up. *Neuroradiology*: January 2007.

Macdonald RL, Pluta R, Zhang J: Cerebral vasospasm after subarachnoid hemorrhage - The emerging revolution. *Nature Clinical Practice Neurology*: January 2007: 3: pp 256-263.

Nikitina E, Jahromi BS, Bouryi VA, Takahasi M, Xie A, Zhang ZD, Macdonald RL: Voltage-dependent calcium channels of dog basilar artery. *Journal of Physiology*: April 2007: 580: pp 523-541.

Parlea L, Fahim L, Munoz D, Hanna A, Anderson J, Cusimano MD, Kovacs K, Gardiner G: Follicular carcinoma of the thyroid with aggressive metastatic behaviour in a pregnant woman: Report of a case and review of the literature. *Hormones*: December 2006: 5(4): pp 295-302.

Rosen DS, Amidei C, Tolentino J, Reilly C, Macdonald RL: Subarachnoid hemorrhage clot volume is correlated with age and neurological grade. *Neurosurgery*: February 2007: 60: pp 259-266.

Salehi F, Kovacs K, Scheithauer BW, Cusimano MD, Pfeifer E: Histologic study of the human pituitary gland in traumatic brain injury. *Brain Injury*: June 2007: 21(6): pp 651-656.

Salehi F, Kovacs K, Scheithauer BW, Lloyd RV, Cusimano MD: A review of the use of DNA microarrays for the analysis of pituitary neoplasms. *Microscopy and Analysis*: November 2006: 20(6): pp 5-8.

Young JB, Jahromi BS, Zhang ZD, Macdonald RL: A novel device for in vitro isometric tension recordings of cylindrical artery segments. *Medical Engineering and Physics*: January 2007: 29: pp 169-174.

Invited Visits to Other Hospitals/Universities

Cusimano MD: Board Meeting Symposium, International Road Safety Academy (IRSA) Canada, Toronto, ON, September 2006.

Cusimano MD: CHIR-Partner Injury Workshop, Canadian Institutes of Health Research, Montreal, PQ, June 2007.

Cusimano MD: Invitee, F7CBI-1600 Study, Results Meeting, Novo Norkisk, Prague, Czech Republic, March 2007.

Cusimano MD: Radio Interview, Mike Stafford Show, AM 640, Toronto, ON, July 2006. Body checking in hockey and concussions.

Cusimano MD: University of Western Ontario, London, ON, October 2006. Diagnosis management and prevention of concussions in hockey.

Cusimano MD: University of Western Ontario, London, ON, November 2006. Gamma knife radiosurgery in the management of pituitary adenomas.

Cusimano MD: 2006 Meeting, International Society of Pituitary Surgeons, San Carlos de Bariloche, Argentina, October 2006. Measuring quality of life in patients with pituitary tumors.

Cusimano MD: Canadian Radiosurgery Society (CaRS) Meeting, Niagara-on-the-Lake, ON, November 2006. Patterns of referral and therapy with the implementation of a Provincial Gamma Knife Radiosurgery Program.

Cusimano MD: Southwest Injury Prevention Conference, London, ON, October 2006. Using geomatics for injury prevention research in Ontario.

Ginsberg HJ: Is new technology better technology?, Vail, CO, March 2007. (1) Cervical spine trauma, front, back or front and back, (2) Thoracolumbar, front, back or front and back.

Macdonald RL: Invited Participant, Actelion CONSCIOUS-2 Critical Events Committee Meeting, Basel, Switzerland, June 2007.

Macdonald RL: Invited Speaker, Breakfast Seminar, 75th Annual Meeting, American Association of Neurological Surgeons, Washington, DC, April 2007. (1) Intraoperative neuromonitoring for aneurysm surgery, (2) Modern perspectives in management of vasospasm.

Macdonald RL: Invited Speaker, International Stroke Conference, San Francisco, CA, February 2007. Endothelin antagonists as clues to the pathogenesis of vasospasm.

Macdonald RL: Invited Speaker, Academic Department of Neurosurgery, Addenbrooke's Hospital, Cambridge, United Kingdom, May 2007. Justification of combined morbidity and mortality endpoint for CONSCIOUS-2.

Macdonald RL: Chicago Review Courses in Neurosurgery, Chicago, IL, January 2007. Pathophysiology of subarachnoid hemorrhage and vasospasm.

Macdonald RL: 32nd International Stroke Conference, San Francisco, CA, February 2007. Randomized trial of clazosentan for prevention of vasospasm after aneurysmal subarachnoid hemorrhage (Macdonald RL, Kassell NF, Mayer S, Schmeidek P, Weidauer S, Pasqualin A.)

Perrin RG: Panelist - International Opportunities in Neurosurgery, AANS Annual Meeting, Washington, DC, April 2007.

Perrin RG: Surgical Treatment of Pituitary Tumors, Brain Stem Tumors and Use of Endoscopy in Neurosurgery, WFNS Course - Moscow, Moscow, Russia, May 2007. Session II Moderator.

Perrin RG: The World Federation of Neurosurgical Societies: Past, Present and Future, Indonesian Society of Neurological Surgeons Annual Scientific Meeting, Bali, Indonesia, November 2006.

Perrin RG: World Federation of Neurosurgical Societies: Past, Present and Future, WFNS Course - Moscow, Moscow, Russia, May 2007. How I do it - Anterior cervical decompression and fusion with instrumentation.

Perrin RG: The Indonesian Society of Neurological Surgeons Annual Scientific Meeting, Bali, Indonesia, November 2006. (1) Carotid artery reconstruction: Surgery vs. stent, (2) Management of cerebral aneurysms: Clip vs. coil.

Perrin RG: 5th Annual Caribbean Neurosciences Symposium, Montego Bay, Jamaica, January 2007. (1) Spinal metastases, (2) Surgery vs. stenting for extracranial carotid stenosis.

Spears JS: Chairman of the CNS Section, Hereditary Hemorrhagic Telangiectasia (HHT) Guidelines Conference, Toronto, ON, November 2006.

Spears JS: 8th Annual Interventional Neuroradiology Symposium, Toronto, ON, September 2006. Decompressive craniectomy for acute stroke.

Spears JS: Canadian Association of Critical Care Nurses, Toronto, ON, April 2007. Management of cerebral aneurysms.

Spears JS: Joint Policy and Planning Committee, Ministry of Health, Toronto, ON, December 2006. Neurovascular care in Ontario: A clinician's perspective.

Spears JS: Caribbean Neurosciences Symposium, University of West Indies, Montego Bay, Jamaica, January 2007. Update on the management of stroke: Endovascular interventions.

Tucker WS: 5th Biennial Provincial Counsel Conference, Canadian Medical Protective Association (CMPA), Ottawa, ON, June 2007. Radiology: Recent developments in the treatment of cerebral aneurysms.

Research and Investigations

Senior Investigator's Name Appears in Italics

3-D computer simulator of spinal fusion surgery. *Ginsberg H, Whyne C: Stryker Canada. (\$15,000 2006 - 2008.)*

A randomised, double-blind, placebo-controlled, multi-centre, dose escalation study to evaluate the safety and preliminary efficacy of recombinant factor VIIa (NovoSeven/NiaStase) in subjects with brain contusions (Phase 2). *Cusimano MD, Baker A, Ginsberg H, Bruce G, Muller P, Muradali D, Tucker W, Perrin R: Novo Nordisk Canada Incorporated. (\$75,000 2005 - 2007.)*

An internet-based intervention for depression in mild traumatic brain injury patients: A pilot study. *Andrews M, Cusimano MD, Topolovec-Vranic J, Bhalariao S, Cullen N, Masanic C, McCutcheon A, Michalak A, Ouchterlony D: Ontario Neurotrauma Foundation. (\$96,000 2005 - 2007.)*

Cognitive disorders following focal cerebellar lesions. *Alexander M, Cusimano MD, Schweitzer T, Stuss D: National Institutes of Health. (\$931,820 2006 - 2010.)*

Compromised driving ability in trauma and neurosurgery patients: A driving simulator study of patients with focal cerebellar lesions. *Cantelmi D, Cusimano MD, Schweizer TA: St. Michael's Hospital Trauma/Neurosurgery Program Internal Multi-Disciplinary Small Grant Program. (\$1,500 2007 - 2008.)*

Currently investigating novel strategies for intra-operative navigation during spinal instrumentation surgery. *Ginsberg H, Cobbold R: National Sciences and Engineering Research Council of Canada - \$15,000.00 & DePuy Spine \$30,000.00 (Johnson & Johnson). (\$45,000 2006 - 2008.)*

Development of a Novel Computer Program to evaluate patients with emergencies in the fluid, electrolyte and acid-base area. *Halperin ML, Ginsberg HJ, Kamel KS, Mazer D, Bohn D, Davids MR: Keenan Award. (\$25,000 2006 - 2007.)*

Education and internet-based interventions for depression in mild traumatic brain injury patients. *Cusimano MD, Topolovec-Vranic J: Ontario Neurotrauma Foundation. (\$110,000 2005 - 2007.)*

Molecular dynamics of wound healing and the role of Eph/Ephrin system in wound angiogenesis (Yassari R, supervisor.) *Macdonald RL: American College of Surgeons Resident Research Scholarship. (\$60,000 2005 - 2007.)*

Photodynamic therapy: Basic and clinical science studies and prospective clinical trials in the use of photodynamic therapy (PDT) for the treatment of malignant brain tumors. *Muller P, Hetzel F, Chopp M, Hitchcock M, Patterson M, Singh G, Wilson B: National Institute of Health. (\$7,067,876 2004 - 2009.)*

Role of calpain-mediated modification of delayed rectified potassium channels (kv2.1) in subarachnoid hemorrhage-induced vasospasm (Musleh W, faculty supervisor). *Macdonald RL: Neurosurgery Research and Education Foundation Research Fellowship. (\$40,000 2006 - 2007.)*

Secondary neurological injury after subarachnoid hemorrhage in dogs: Role of thromboembolism, microcirculatory spasm and delayed neuronal apoptosis. (Summer Student Award to Mohammed Sebri, Faculty Supervisor.) *Macdonald RL: St. Michael's Hospital. (\$4,000 2007.)*

The fractionation and localization of attentional and language processing in the cerebellum. *Stuss DT, Cusimano M, Alexander MP, Schweizer TA: Canadian Institutes of Health Research. (\$270,444 2006 - 2010.)*

Treatment of subarachnoid hemorrhage with human albumin. *Macdonald RL (Co-Investigator): National Institute of Health. (\$60,000 2006 - 2007.)*

Using geographic information system (GIS) technology for injury prevention research and control. *Cusimano MD, Arena KE, Chipman ML, Glazier RH, Grant VM, Johnson IL, Jones KG, Lea AC: Canadian Institutes of Health Research. (\$225,000 2004 - 2007.)*

Youth Science and Technology Outreach Program. *Slutsky AS, Kohn M, Cusimano MD, O'Campo P, Yardy G, O'Neil J, Dunn J, Dias M, Falk M, Kidd M, Omeara P, Gobin S, Vernon S, Barker S, Evans T, Naik V: Ministry of Innovation. (\$89,575 2007 - 2010.)*

Honours Received

Cusimano MD: Values in Action Award for Compassion-St. Michael's Hospital. September 2006.

Macdonald RL: America's Top Surgeons by the Consumer's Research Council of America. January 2007.

Macdonald RL: Chicago's Top Doctors. January 2007.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. H. Ahn – Lecturer

Dr. E.R. Bogoch – Professor

Dr. T.R. Daniels – Associate Professor

Dr. M.D. McKee – Associate Professor

Dr. E. Schemitsch – Professor (Division Head)

Dr. J.P. Waddell – Professor

Dr. D.B. Whelan – Assistant Professor

Publications

Ahn H, Fehlings M: Management of perioperative spinal cord injury. In: AO Spine Manual: (Aebi M, Arlet V, Webb JK, eds.) AO Spine Publishing, New York: 2007.

Ahn H, Mousavi P, Lee C, Roth S, Finkelstein J, Vitken A, Whyne C: Tumor ablation using laser induced thermo-therapy pre-vertebroplasty affects biomechanical stability and cement fill for vertebrae with simulated lytic metastases. *European Spine Journal*: April 2007: 20.

Bhandari M, Busse J, Devereaux PJ, Montori VM, Swiontkowski M, Tornetta III P, Einhorn TA, Khera V, Schemitsch EH: Factors associated with citation rates in the orthopaedic literature. *Canadian Journal of Surgery*: April 2007: 50(2): pp 119-123.

Bogoch ER, Beaton DE, McDonald-Blumer H: Web commentary on “Effective osteoporosis education in an outpatient orthopaedic setting.” *Journal of Bone and Joint Surgery (American)*: January 2007. E-published in <http://ejbjs.org/cgi/content/full/89/2/301/DC1>.

Bogoch ER, Escott BG, Judd MPG: Insufficient flexion of the metacarpophalangeal joint of the little finger following Swanson silicon arthroplasty for rheumatoid arthritis. *Hand*: June 2007: E-published.

Bogoch ER, Lee TC, Fornasier VL, Berger SA: Articular damage is associated with intraosseous inflammation in the subchondral bone marrow of joints affected by experimental inflammatory arthritis and is modified by zoledronate treatment. *Journal of Rheumatology*: June 2007: 34: pp 1229-1240.

Colapinto MN, Schemitsch EH, Wu L: Ball-thrower’s fracture of the humerus. *Canadian Medical Association Journal*: July 2006: 175(1): pp 31.

Chahal J, Stephen DJ, Bulmer B, Daniles T, Kreder HJ: Factors associated with outcome after subtalar arthrodesis. *Journal of Orthopaedic Trauma*: September 2006: 20 (8): pp 555-561.

Daniels TR: Surgical management of claw toe deformities. *Audio-Digest Orthopaedics*: November 2006: 29: pp 11.

Daniels TR, Tamir E: Surgical treatment of diabetic foot complications. *Geriatrics & Aging*: August 2006: 9, No. 7: pp 499-504.

Dante L, Ahn H, Montanera W, Ginsberg H: Repeated meningitis as a delayed complication of scoliosis surgery. *Journal of Spinal Disorders and Techniques*: June 2007: 20: pp 333-336.

Davis ET, Gallie P, MacGroarty K, Waddell JP, Schemitsch EH: The accuracy of image-free computer navigation in the placement of the femoral component of the Birmingham Hip Resurfacing: A CADAVER STUDY. *Journal of Bone and Joint Surgery, British Volume*: April 2007: 89-B(4): pp 557-560.

Davis ET, McKee MD, Waddell JP, Hupel T, Schemitsch EH: Total hip arthroplasty following failure of free vascularized fibular graft. *Journal of Bone and Joint Surgery (American)*: November 2006: 88(Supp 3): pp 110-115.

Delong EG, Einhorn TA, Koval K, McKee MD, Smith W, Sanders R, Watson T: Current concepts review: Bone grafts and bone graft substitutes in orthopaedic trauma surgery. *Journal of Bone and Joint Surgery (American)*: May 2007: 89A: pp 649-658.

Hall JA, Phieffer LS, McKee MD: Humeral shaft fracture around proximal humeral locking plates: A report of two cases. *Journal of Orthopaedic Trauma*: November 2006: 20: pp 710-714.

Levine M, Jupiter JB, Ahmad C, McKee MD: Treatment options for clavicle fractures. *Orthopaedics Today*: March 2007: 27(3): pp 62-66.

Marra G, Morrey BF, Gallay SH, McKee MD, O’Driscoll S: Fracture and non-union of the olecranon in total elbow arthroplasty. *Journal of Shoulder and Elbow Surgery*: July 2006: 15: pp 486-494.

- McConnell AJ, Yoo DJ, Zdero R, Schemitsch EH, McKee MD:** Methods of operative fixation of the acromio-clavicular joint: A biomechanical comparison. *Journal of Orthopaedic Trauma*: April 2007: 21(4): pp 248-253.
- McKee MD:** Aseptic nonunion. In: *AO Principles of Fracture Management, Second Edition*. Thieme, New York, 2007: pp 505-521.
- McKee MD:** Management of segmental bone defects: The role of osteoconductive orthobiologics. *Journal of the American Academy of Orthopaedic Surgery*: October 2006: 14(10): pp 163-167.
- McKee MD:** Plate and screw fixation of clavicle nonunion. In: *Advanced Reconstruction: Shoulder*. AAOS Publishing, Rosemont, 2007: pp 377-383.
- McKee MD:** Reamed versus unreamed intramedullary nailing of the femur: Comparison of the rates of ARDS in multiply injured patients. *Journal of Orthopaedic Trauma*: July 2006: 20(6): pp 384-387.
- McKee MD:** Trauma and post-traumatic reconstruction. In: *Advanced Elbow Reconstruction*. (McKee MD, King GJW, Yamaguchi K, O'Driscoll S: eds.) AAOS, Rosemont, 2007: pp 1-100.
- McKee MD, King GJW, Yamaguchi K, O'Driscoll S:** Reconstruction of delayed and nonunions of the distal humerus. In: *Advanced Elbow Reconstruction*: AAOS, Rosemont: 2007: pp 355-363.
- Papini M, Zdero R, Schemitsch EH, Zalzal P:** The biomechanics of human femurs in axial and torsional loading: Comparison of finite element analysis, human cadaveric femurs, and synthetic femurs. *Journal of Biomechanical Engineering*: February 2007: 129(1): pp 12-19.
- Petrisor BA, Keating J, Schemitsch EH:** Grading the evidence: Levels of evidence and grades of recommendation. *Injury*: April 2007: 37(4): pp 321-327.
- Saito J, Aslam N, Tokunaga K, Schemitsch EH, Waddell JP:** Bone remodeling is different in metaphyseal and diaphyseal-fit uncemented hip stems. *Clinical Orthopaedics and Related Research*: October 2006: 451: pp 128-133.
- Schemitsch EH:** Will physician extenders improve access to care? *Canadian Orthopaedic Association Bulletin*: July 2006: 72: pp 7.
- Talbot M, Schemitsch EH:** Fat embolism syndrome: History, definition, epidemiology. *Injury*: October 2006: 37(4S): pp S3-S7.
- Tamir E, Daniels T, Finestone A, Nofhas M:** Off-loading neuropathic plantar heel ulcers using a metal stirrup brace: Case report. *Foot and Ankle International*: March 2007: 28(3): pp 385-387.
- Vanhouwelingen AP, Schemitsch EH, McKee MD:** Clavicular fractures: Open reduction and internal fixation. In: *Master Techniques in Orthopaedic Surgery: Fractures*: (Wiss D, ed.) Lippincott Williams and Wilkins: Philadelphia, 2006: pp 3-15.
- Veillette CJ, Mehdian H, Schemitsch EH, McKee MD:** Survivorship analysis and radiographic outcome following tantalum rod insertion for osteonecrosis of the femoral head. *Journal of Bone and Joint Surgery (American)*: November 2006: 88(Suppl 3): pp 48-55.
- Ward S, Laughren J, Escott B, Elliot-Gibson V, Bogoch ER, Beaton D:** A program with a dedicated coordinator improved chart documentation of osteoporosis after fragility fracture. *Osteoporosis International*: February 2007: 18(8): pp 1127-1136.
- Whelan DB:** Nonoperative treatment compared with plate fixation of displaced midshaft clavicular fractures. *Journal of Bone and Joint Surgery (American)*: January 2007: 89-A No. 1: pp 1-10.
- Zdero R, Rose S, Schemitsch EH, Papini M:** Cortical screw pullout strength and effective shear stress in synthetic third generation composite femurs. *Journal of Biomechanical Engineering*: April 2007: 129(2): pp 289-293.

Invited Visits to Other Hospitals/Universities

- Ahn H:** New Spinal Technologies: Is New Technology Better? Stryker USA, Vail, CO, March 2007. (1) Minimally invasive spine surgery: A literature review, (2) VLIFT: An evolution in anterior column reconstruction of the spine.
- Bogoch ER:** First Annual Geriatric Trauma Summit, University of Minnesota, St. Paul, MN, September 2006. Developing a care plan for the geriatric orthopaedic trauma patient.
- Daniels TR:** The Biennial-Bicoastal Canadian Orthopaedic Foot & Ankle Society (COFAS) Symposium, Vancouver, BC, March 2007. (1) Hallux valgus surgery - Plenty of opinions, plenty of techniques, (2) Role of triple arthrodesis, (3) Lateral ligament repair: Brostrom.
- Daniels TR:** Australian Orthopaedic Association, Canberra, Australian Capital Territories, October 2006. (1) Surgical management of the ulcerated charcot foot, (2) Will ankle arthroplasty replace ankle arthrodesis?, (3) Hallux valgus surgery - Plenty of opinions, plenty of techniques. Are they justified?

Daniels TR: Canadian Orthopaedic Association (COA), Halifax, NS, June 2007. Outpatient percutaneous flexor tenotomies for management of diabetic claw toe deformities with ulcers.

Daniels TR: Canadian Rheumatology Association (CRA) 2007 Winter Workshop and 62nd Annual Meeting, Lake Louise, AB, February 2007. Rheumatoid foot (Keynote speaker).

Daniels TR: Podiatric Association of Canada (PAC) Diabetes Professional Development, Toronto, ON, February 2007. The diabetic foot.

McKee MD: Contemporary and future concepts of orthopaedics, Whistler, BC, February 2007. (1) Bicep tendon ruptures, (2) Elbow fracture-dislocations, (3) Proximal tibial fractures - The case for ring fixators.

McKee MD: Association for Osteosynthesis (AO) Course Davos 2006, Davos, Switzerland, December 2006. (1) BMP's - Clinical applications, (2) Proximal humeral fractures, (3) Clavicle fractures, (4) Multiple laboratories, (5) Discussion group.

McKee MD: Orthopaedic Trauma - Concepts to Controversies, Breckenridge, CO, March 2007. (1) Fracture-dislocations of the elbow, (2) Humeral shaft fractures, (3) Clavicle fractures, (4) Case presentations.

McKee MD: American Academy of Orthopaedic Surgeons/American Shoulder and Elbow Surgeons (AAOS/ASES) Shoulder and Elbow Update, Tucson, AZ, May 2007. (1) Fractures of the clavicle, (2) Fractures of the proximal ulna, (3) Elbow arthritis - Non-prosthetic options, (4) Open elbow release.

McKee MD: Orthopaedic Trauma Association Annual Meeting, Phoenix, AZ, October 2006. (1) New Alternatives to bone grafting, (2) High - energy polytrauma patient, (3) Midshaft clavicle fractures, (4) Distal humeral fixation.

McKee MD: 4th Annual Current Solutions in Orthopaedic Trauma, Orlando, FL, November 2006. (1) Nonunions of the clavicle, (2) Proximal humeral fractures - fix or replace, (3) Upper extremity fixation - lab.

McKee MD: Association Internationale pour l'Ostéosynthèse Dynamique (AIOD) Trauma Course, Collingwood, ON, September 2006. (1) Terrible triad injuries, (2) Tibial nonunion, (3) Operative treatment of clavicle fractures.

McKee MD: Orthopaedic Trauma Association Annual AAOS Specialty Day, San Diego, CA, February 2007. (1) Ultrasound for fracture healing: What is the evidence?, (2) A RCT of TEA versus ORIF for intra-articular fractures of the distal humerus in elderly patients.

McKee MD: Course Chairman - Nursing Continuing Education, Zimmer Canada, Toronto, ON, October 2006. Basic principles of fracture fixation.

McKee MD: Manitoba Orthopaedic Society, Winnipeg, MB, May 2007. Fractures of the clavicle.

McKee MD: Grand Orthopaedic Rounds, University of Manitoba, Winnipeg, MB, May 2007. Functional outcome following distal humeral fractures - and how to improve it.

McKee MD: Orthopaedic Trauma Association (OTA) Residents Course, Phoenix, AZ, October 2006. Humeral shaft fractures.

Schemitsch EH: Principles and Practice of Clinical Research, Las Vegas, NE, August 2006. (1) Designing a randomized trial. (Moderator), (2) Lecture: How to prepare a study protocol, (3) Lecture: How are multi-centre trials organized, (4) Breakout Session Leader: Research proposals.

Schemitsch EH: Guest Lecturer, Swedish Orthopaedic Association, Varberg, Sweden, August 2006. Controversies in upper limb surgery.

Schemitsch EH: Association Internationale pour l'Ostéosynthèse Dynamique (AIOD) Trauma Course, Collingwood, ON, September 2006. (1) Course Chair, (2) Lecture: Evidence based outcome of locked plating, (3) Mini debates. (Moderator), (4) Lecture: Comminuted distal humerus fractures, (5) Panel Discussion Moderator, (6) Lecture: Displaced femoral neck fractures: ORIF vs. total hip, (7) Lecture: Intertrochanteric fractures: Gamma nail vs. plate, (8) Lecture: Humeral shaft fracture: Nail vs. plate.

Schemitsch EH: Smith & Nephew 3rd International Resurfacing Forum, Boston, MA, September 2006. Femoral neck fracture-mechanical basis for failure.

Schemitsch EH: Combined Meeting Australian and New Zealand Orthopaedic Associations, Adelaide, Australia, October 2006. (1) Invited Guest Lecturer, (2) Lecture: Fractures of the distal femur-IM nail, (3) Lecture: A randomized prospective trial of ring fixation vs. ORIF for severe tibial plateau fractures, (4) Basic science of reaming, (5) Ideal tibial nail insertion point varies with tibial rotation, (6) Cell based VEGF gene transfer to promote fracture healing, (7) Clavicular fractures-plate, (8) Current concepts in the treatment of open tibia fractures: from bench to bedside.

Schemitsch EH: Basic Science Session, Orthopaedic Trauma Association, Phoenix, AZ, October 2006. Moderator.

Schemitsch EH: Basic Science Focus Forum, Phoenix, AZ, October 2006. (1) Symposium Moderator, (2) Enhancement of fracture healing: What is the evidence?

Schemitsch EH: Association Internationale pour l'Ostéosynthèse Dynamique (AIOD) Comprehensive Approach to Hip Fractures - A Cadaver Course, Toronto, ON, November 2006. (1) Course Chair, (2) Moderator, (3) Lecture: Post-op management: What is the evidence?, (4) Lab leader, (5) Panel Discussion Leader, (6) Lecture: Manual traction versus fracture table.

Schemitsch EH: Comprehensive Operative Approaches to Hip and Knee Fractures, Nice, France, December 2006. (1) Course Chair, (2) Lecture: Post-op management: What is the evidence?, (3) Lab Leader, (4) Case presentations. (Moderator), (5) Session Moderator, (6) Lecture: Femur fractures: Manual traction vs. fracture table, (7) Lecture: Periprosthetic femur fractures: Pearls and pitfalls.

Schemitsch EH: Managing Hip Fractures in the Osteoporotic Patient, International Society for Fracture Repair/International Osteoporosis Foundation (ISFR-IOF) Workshop, Monte Carlo, Monaco, December 2006. (1) Moderator, (2) Lecture: Optimal arthroplasty: What is the evidence, (3) Lecture: Trials.

Schemitsch EH: Hip Surgery in the Young Adult III, Banff, AB, January 2007. (1) Management of femoral neck fractures: Results and complications of hip resurfacing, (2) Cross linked polyethylene, (3) Case presentations, (4) Computer assisted THR.

Schemitsch EH: Contemporary and Future Concepts of Orthopaedics, Whistler, BC, February 2007. (1) Course Chairman, (2) State of the art treatment of the open tibial fracture in 2007, (3) Proximal third tibia fractures: How to get a better reduction, (4) Fractures of the distal femur: Nailing is the way to go, (5) Moderator of panel discussion.

Schemitsch EH: American Academy of Orthopaedic Surgeons Annual Meeting, San Diego, CA, February 2007. (1) Symposium: Managing hip fractures in the osteoporotic patient: Optimal Arthroplasty: What is the evidence?, (2) Treatment of humeral shaft and elbow fractures: What's the evidence?

Schemitsch EH: The Principle and Practice of Clinical Research, Goteborg, Sweden, April 2007. (1) How to prepare a study protocol, (2) How to design a good dataform, (3) Writing a successful research proposal, (4) What are the types of non randomized studies?

Schemitsch EH: 2nd Annual San Francisco Orthopaedic Trauma Course, San Francisco, CA, April 2007. (1) Proximal humerus fractures, (2) Workshop: Proximal humerus locked plating, (3) Workshop tibia fracture reduction techniques, (4) Osteobiologics. (Moderator), (5) Workshop: Fracture treatment with the use of BMP's, (6) DVT in fracture care: When to anticoagulate, (7) Workshop leader: Reamer irrigator aspirator with lateral entry femoral nailing for subtrochanteric fractures.

Schemitsch EH: Canadian Association of Sports Medicine, Quebec City, PQ, April 2007. (1) Pulsed electro magnetic fields: What is the evidence?

Schemitsch EH: Emerging Technologies in Hip and Knee Replacement Surgery, Niagara-on-the-Lake, ON, May 2007. (1) Biomechanical investigation of hip resurfacing, (2) Navigation in hip resurfacing.

Schemitsch EH: 1st Annual Canadian Navigation User's Meeting, Montebello, PQ, May 2007. (1) Canadian CAOS Reimbursement.

Schemitsch EH: Osteosynthesis and Trauma Care (OTC) Hip Fracture Course, Nice, France, June 2007. (1) Course Chair, (2) Treatment of femoral neck fractures: Pearls and pitfalls, (3) Perioperative management: Femoral neck fractures, (4) Lab leader, (5) Case presentations.

Schemitsch EH: Osteosynthesis and Trauma Care (OTC) Leadership Forum, Nice, France, June 2007. (1) Enhancement of fracture healing: Calcium sulphates, (2) What is the future of enhancement of fracture healing?

Schemitsch EH: Canadian Orthopaedic Association, Halifax, NS, June 2007. (1) Principles and practice of orthopaedic research: A primer instructional course lecture. Designing a clinical study: What study designs can I use?, (2) Session Moderator, (3) Speciality half day: Knee - navigation arthroplasty, (4) Trauma tips and tricks. (Moderator.)

Schemitsch EH: American Orthopaedic Association, Ashville, NC, June 2007. (1) Orthopaedic surgeons: Artists or Scientists. (Symposium Moderator), (2) What can you learn from a clinical case series.

Waddell JP: Examiner, University of West Indies, Kingston, Jamaica, June 2007.

Waddell JP: Global Forum on Road Traffic Trauma, Societe Internationale de Chirurgie Orthopedique et Traumatologie (SICOT), Internet2 Videoconference, Toronto, ON, June 2007. Moderator.

Waddell JP: North American Hip & Knee Symposium, Copper Mountain, CO, February 2007. (1) Avoiding and managing THA complications, (2) Panelist, Lysis Chronicles: Revision hip issues - pre-op planning.

Waddell JP: Residents Comprehensive Fracture Course, Orthopaedic Trauma Association, Phoenix, AZ, October 2006. (1) Closed reduction and treatment: Distal radius, ankle, humerus, (2) Panelist: To cut or not to cut.

Waddell JP: Emerging Technologies in Hip and Knee Replacement Surgery, Niagara-on-the-Lake, ON, May 2007. (1) Course Co-Chair, (2) Hip Program, round table discussion. (Moderator), (3) Hip resurfacing - Complications, (4) Revision Total Hip Replacement Session. (Moderator), (5) Revision total hip replacement - Extensive porous.

Waddell JP: 1st Joint Congress, European Association for Trauma and Emergency Surgery and European Trauma Society, Graz, Austria, May 2007. (1) Is there still a place for oral anticoagulation with cumarin in trauma patients?, (2) Chair, Trauma to the Chest and Abdomen.

Waddell JP: Mid-Atlantic Arthritis & Arthroplasty Course: Hip, Knee, Shoulder and Foot & Ankle, Washington, DC, September 2006. (1) Primary THA following pelvic and femoral deformity correction, (2) Case presentations: Hip arthritis in the young, (3) The use of cages in acetabular reconstruction, (4) Case presentations: Arthroplasty concepts and risk/benefit ratios.

Waddell JP: Association for the Rational Treatment of Fractures - held in conjunction with the European Federation of National Associations of Orthopaedics and Traumatology, Florence, Italy, May 2007. (1) Session Fractures of the Tibia. (Moderator), (2) Overview of open fractures of tibia, (3) Case presentations.

Waddell JP: Societe Internationale de Chirurgie Orthopedique et de Traumatologie/Societe Internationale de Recherche Orthopedie et Traumatologie (SICOT/SIROT) Annual International Conference, Buenos Aires, Argentina, August 2006. (1) Skeletal stabilization, (2) Complications of high tibial osteotomies, (3) Case presentation: Osteotomies around the knee, (4) General principles, antibiotic methods, debridement of infected non-unions, (5) Panelist: Non-unions, (6) Assessment, resuscitation, investigation in polytrauma, (7) Antibiotic impregnated bone substitute in the treatment of infected long bone defects, (8) Femoral osteotomy, (9) Panelist: Hip Degenerative Disease in the Young Adult.

Waddell JP: Canadian Institute's 3rd Annual Reducing Healthcare Wait Times, Toronto, ON, November 2006. Improving access to total joint replacement - A national strategy.

Waddell JP: Global Forum on Road Trauma, Societe Internationale de Chirurgie Orthopedique et de Traumatologie (SICOT), Internet2 Videoconference, Toronto, ON, December 2006. Moderator.

Whelan DB: Invited Lecturer for Instructional Course Lecture, Canadian Orthopaedic Association, Halifax, NS, June 2007. Complications in knee ligament surgery.

Research and Investigations

Senior Investigator's Name Appears in Italics

A prospective RCT investigating the effect of a novel reamer aspirator on the incidence of fat embolism during IM nailing of femoral shaft fractures. *McKee MD, Schemitsch EH, Bhandari M, Davis E: Orthopaedic Trauma Association.* (\$65,000 2005 - 2007.)

A randomized controlled trial of 1st MTP joint fusion compared to 1st MTP joint hemiarthroplasty in severe hallux rigidus. *Lau JTC, Daniels TR, Waddell JP, Mahomed N: Physicians' Services Incorporated Foundation.* (\$36,500 2005 - 2006.)

A randomized trial comparing a novel reamer irrigator aspirator to standard reaming for treatment of femoral shaft fractures. *Schemitsch EH, McKee MD: Orthopaedic Trauma Association.* (\$65,000 2006 - 2008.)

A randomized trial of fluid lavage in the treatment of open wounds. *Bhandari M, Petrisor B, Schemitsch EH: Association Internationale pour l'Ostéosynthèse Dynamique (AIOD).* (\$35,000 2006 - 2007.)

A randomized trial of fluid lavage in the treatment of open wounds. *Bhandari M, Petrisor B, Schemitsch EH: Orthopaedic Trauma Association.* (\$65,000 2006 - 2008.)

A randomized trial of fluid lavage in the treatment of open wounds (FLOW). Pilot Study. *Bhandari M, Petrisor B, Schemitsch EH: Physicians' Services Incorporated Foundation.* (\$100,000 2005 - 2006.)

Ankle arthroplasty vs. ankle arthrodesis for end-stage arthritis: A functional comparison. *Daniels TR, Duggal N, Redekop S: IFFAS.* (\$5,700 2005 - 2006.)

Assessment of a computerized navigation system in a cadaveric lower extremity model. *Schemitsch EH: Stryker.* (\$20,000 2006 - 2007.)

AWAIT Study: Adolescent idiopathic scoliosis, are we waiting too long? *Wright JG, Ahn H: Restracom.* (\$70,000 2005 - 2007.)

Biomechanical and finite element analysis of the Birmingham Hip Resurfacing. *Schemitsch EH: Smith and Nephew.* (\$50,000 2006 - 2007.)

Cell-based gene therapy to accelerate fracture healing. *Schemitsch EH, Li R, Stewart D, Von Schroeder H: Association Internationale pour l'Ostéosynthèse Dynamique (AIOD) Canada.* (\$10,000 2007 - 2008.)

- Cell-based VEGF gene transfer to promote fracture healing. *Schemitsch EH, Li R, Von Schroeder H, Stewart D: Physicians' Services Incorporated Foundation.* (\$86,000 2005 - 2007.)
- Data collection for monitoring of provincial post fracture osteoporosis screening co-ordinator project. *Beaton DE, Bogoch ER: Ontario Ministry of Health and Long Term Care.* (\$111,305 2006 - 2007.)
- Development of clinical trials infrastructure. *Schemitsch EH: Orthopaedic Research and Education Fund.* (\$150,000 2003 - 2006.)
- Development of a fellowship in surgical navigation. *Schemitsch EH: Stryker.* (\$50,000 2006 - 2008.)
- Development of an international hip fracture research collaborative. *Bhandari M, Guyatt G, Schemitsch EH, Sanders D: Canadian Institutes of Health Research.* (\$25,000 2005 - 2006.)
- Efficacy of tranxamic acid in reducing blood loss in adult patients having major spine surgery. *Wong J, Ahn H: Physicians' Services Incorporated Foundation.* (\$35,000 2005 - 2007.)
- Exploring racial/ethnic differences in communication between patients and orthopaedic surgeons. *Hudak P, Hawker G, Levinson W, Schemitsch EH: Social Sciences and Humanities Research Council of Canada.* (\$88,077 2006 - 2008.)
- Osteoporosis care for fragility fracture patients. *Bogoch ER: Martin Family Foundation.* (\$100,000 2007.)
- Outcome management: The importance of time. *Davis A, Badley E, Beaton D, Cote P, Flannery J, Gignac M, Hogg-Johnson S, Mahomed N, Schemitsch EH, Streiner D: Canadian Institutes of Health Research.* (\$624,224 2005 - 2009.)
- Predictors of disability following revision knee arthroplasty. *Davis A, Garbuz D, Gignac M, Kiss A, Mahomed N, Gross A, Schemitsch EH: Canadian Institutes of Health Research.* (\$284,640 2005 - 2010.)
- Refining the coordinator model of post fracture osteoporosis care. *Bogoch ER: Procter and Gamble Pharmaceuticals.* (\$50,000 2007.)
- Regional osteoporosis coordinator knowledge exchange trial (ROCKET). *Jaglal S, Beaton DE, Bogoch ER, Cadarette S, Donescu S, Hawker G, Klooseck M, Majumdar S, Meadows L, Papaioannou A, Thorpe K, Zwarenstein M, Siaschini P, Ramirez O, Jiwa F: Ontario Ministry of Health and Long Term Care Osteoporosis Strategy, Toronto Rehabilitation Institute.* (\$320,983 2007 - 2008.)
- Secondary prevention of osteoporosis following fragility fracture. *Bogoch ER: Procter and Gamble Pharmaceuticals.* (\$50,000 2006 - 2007.)
- The effect of VEGF and eNOS genes in bone repair. *Schemitsch EH, Li R, Stewart D, Von Schroeder H: Zimmer/University of Toronto.* (\$7,500 2006 - 2007.)
- To brace or not to brace in stable thoracolumbar burst fractures: A pilot prospective randomized controlled trial. *Wai E, Ahn H: Physicians' Services Incorporated Foundation.* (\$25,000 2007 - 2008.)
- Toronto pilot study: Rick Hansen spinal cord injury registry. *Verrier M, Ahn H, Fehlings M, Finkelstein J: Rick Hansen Group, Ontario Neurotrauma Foundation.* (\$300,000 2005 - 2008.)
- Trial to re-evaluate ultrasound in the treatment of tibial fractures. *Guyatt G, Bhandari M, Busse J, Schemitsch EH, Sanders D: Canadian Institutes of Health Research.* (\$72,683 2004 - 2006.)
- Trial to re-evaluate ultrasound in the treatment of tibial fractures. *Guyatt G, Bhandari M, Busse J, Schemitsch EH, Sanders D: Canadian Institutes of Health Research/Smith and Nephew.* (\$400,000 2006 - 2010.)
- Trial to re-evaluate ultrasound in the treatment of tibial fractures. *Guyatt G, Bhandari M, Busse J, Schemitsch EH, Sanders D: Smith and Nephew.* (\$1,600,000 2006 - 2010.)
- Use of a novel scaffold to accelerate fracture healing. *Kuzyk P, Schemitsch EH, Davies J: Association Internationale pour l'Ostéosynthèse Dynamique (AIOD) Canada.* (\$5,000 2007 - 2008.)
- Use of a novel scaffold to accelerate fracture healing. *Kuzyk P, Schemitsch EH, Davis J: Osteosynthesis and Trauma Care Foundation.* (\$10,000 2007 - 2008.)

Honours Received

Daniels TR: Director of Postgraduate Education in Department of Surgery at St. Michael's Hospital. November 2006.

Daniels TR: International Faculty Guest Speaker at the Annual Scientific Meeting of the Australian Orthopaedic Association, Canberra Australia. October 2006.

Daniels TR: Orthopaedic Residency Training Program Director at St. Michael's Hospital. July 2006.

Daniels TR: Team Excellence Award: St. Michael's Values in Action. October 2006.

McKee MD: Edwin G. Bovill Award - Best Paper 2006 - Orthopaedic Trauma Association - "A multicenter prospective RCT of ORIF versus TEA for displaced intra-articular distal humeral fractures in elderly patients." October 2006.

McKee MD: Orthopaedic Trauma Association - Top Basic Science Poster - Ideal tibial intramedullary nail insertion point varies with tibial rotation. October 2006.

McKee MD: Upper Extremity Debate Award (UEie), 21st Annual Vail Orthopaedic Symposium. January 2007.

Schemitsch EH: Best Poster Award Orthopaedic Trauma Association (Walker RM, McKee MD, Waddell JP, Schemitsch EH) 2006.

Schemitsch EH: Best Scientific Paper - International Society for Fracture Repair. 2006.

Schemitsch EH: Guest Lecturer Australian Orthopaedic Association. 2006.

Schemitsch EH: Guest Lecturer Swedish Orthopaedic Association. 2006.

Schemitsch EH: Bovill Award Best Paper Orthopaedic Trauma Association Annual Meeting 2006. (McKee MD, Schemitsch E and the Canadian Orthopaedic Trauma Society) 2007.

DIVISION OF PLASTIC SURGERY

Dr. J.L. Mahoney – Associate Professor (Division Head)

Dr. M.A. Musgrave – Assistant Professor

Publications

McKay D, Mahoney JL, Fawzy H: Are chest compressions safe for the patient with sternal plates? Investigation using a human cadaveric model. *The Canadian Journal of Plastic Surgery*: June 2007: 15: pp 113.

McLaren A, Newbatt E, Lu S, Teague L, Nisenbaum R, Mahoney JL: Impact of tissue engineered dermis on healing of lower extremity wounds: A retrospective four-year review. *European Journal of Wound Management*: May 2007: 7: pp 94.

Invited Visits to Other Hospitals/Universities

Mahoney JL: Trauma Expert Panel, Ontario Ministry of Health, Toronto, ON, September 2006.

Mahoney JL: Southwestern Medical Centre, Dallas, TX, April 2007. Advanced techniques: (1) Complex chest and body wall reconstruction. Initial management of sternal wounds. (2) Complex chest and body wall reconstruction: Postoperative issues.

Mahoney JL: University of Cardiff Wales, Cardiff, UK, May 2007. Department of Wound Healing Research Unit .

Mahoney JL: Halton Peel 5th Annual International Conference for Physicians, Hanoi, Vietnam, February 2007. New techniques in wound care.

Mahoney JL: Law Society of Upper Canada - Continuing Legal Education/Oatley-McLeish, Toronto, ON, June 2007. Soft tissue injuries - Guide to proof of personal injury damages, psychological injuries and chronic pain.

Mahoney JL: Society for the Advancement of Wound Care, Tampa, FL, April 2007. The impact of pressure ulcers on patient quality of life: Validation of the cardiff wound impact questionnaire.

Musgrave MA: Smith & Nephew Preceptorship, Toronto, ON, October 2006. Controversies in wound care.

Musgrave MA: Local Health Integrated Networks and Seamless Wound Care: The Art and Science of Building Bridges, Markham, ON, September 2006. Controversies in wound infection.

Research and Investigations

Senior Investigator's Name Appears in Italics

Development of valid and reliable pressure ulcer prevalence surveillance tool. *Teague L, Banez C, Ganson C, Jeffs L, Jianli L, Moghabghab R, Mahoney JL, Polansky K, Rich-vanderbij L, Savage P, Tully S: Canadian Nursing Foundation. (\$29,800 2006.)*

Honours Received

Mahoney JL: Best Research Initiative - Canadian Association of Wound Care (CAWC) - The Impact of Pressure Ulcers on Patient's Quality of Life: Validation of the Cardiff Wound Impact Questionnaire - Adams J, Teague L, Mahoney J. November 2006.

Mahoney JL: Values in Action - St. Michael's Hospital Award for Clinical Excellence in Wound Care. October 2006.

Mahoney JL: WK Lindsay Resident Research Award - Division of Plastic Surgery, University of Toronto. April 2007.

Mahoney JL: Young Investigators Award for Oral Presentation: Symposium for the Advancement of Wound Care - The Impact of Pressure Ulcers on Patient Quality of Life: Validation of the Cardiff Wound Impact Questionnaire. (Adams J, Teague L, Mahoney J) May 2007.

DIVISION OF UROLOGY

Dr. R.J.D. Honey – Associate Professor (Division Head)

Dr. K.T. Pace – Assistant Professor

Dr. R.J. Stewart – Assistant Professor

Publications

Matsumoto E, Pace KT, Honey RJ: Virtual reality (VR) ureteroscopy simulator as a valid tool for assessing endourological skills. *International Journal of Urology*: August 2006: 13(7): pp 896-901.

Pianezza ML, Mokhtassi A, Wu L, Honey RJ: Case report: Renal lymphangiectasia. *Canadian Journal of Urology*: August 2006: 13(4): pp 3204-3207.

Shukla A, Prasad GVR, Huang M, Honey RJ, Zaltzman JS: Outcomes of commercial renal transplantation: A Canadian experience. *Transplantation*: November 2006: 82(9): pp 1130-1135.

Zwahlen D, Fishman P, Honey RJ, Milosevic M, Tannock I: Malignant pheochromocytoma of the urinary bladder in a 28 year old man. *Canadian Journal of Urology*: February 2007: 14(1): pp 3455-3457.

Invited Visits to Other Hospitals/Universities

Honey RJD: American Urological Association, Annual Meeting, Anaheim, CA, May 2007. Hands-on course: Flexible ureteroscopy.

Pace KT: First International Urolithiasis Research Symposium: International Kidney Stone Institute, Indianapolis, IN, November 2006. Improving SWL outcomes: Impact of rate and voltage escalation.

Pace KT: Canadian Urological Association Educational Forum on Endourology, Quebec City, QC, June 2007. Shock wave lithotripsy is the best initial treatment for most lower calyceal stones.

Pace KT: Canadian Urological Association Educational Forum on Endourology, Quebec City, QC, June 2007. Shock wave lithotripsy is the best initial treatment for most proximal ureteric stones.

Research and Investigations

Senior Investigator's Name Appears in Italics

Impact of pneumoperitoneum on renal physiology: A rat model. *Pace TK, Arone-Nieto A, Ghiculete D, Honey RJ: St. Michael's Hospital TIP Grant.* (\$2,000 2005 - 2006.)

The impact of laparoscopic surgery on renal physiology. *Pace KT, Stewart RJ, Honey RJD, Hare G, Blew B: Physicians' Services Incorporated Foundation.* (\$170,000 2004 - 2006.)

Honours Received

Stewart RJ: Donald J. Currie Undergraduate Teaching Award. June 2007.

DIVISION OF VASCULAR SURGERY

Dr. F.M. Ameli – Associate Professor (Division Head)

Dr. V. Campbell – Lecturer

Dr. A.G. Lossing – Associate Professor

Dr. W. Tanner – Lecturer

Invited Visits to Other Hospitals/Universities

Ameli FM: Special Invitation to President's Dinner, The Vascular Society of Great Britain and Ireland, Edinburg, Scotland, November 2006.

Ameli FM: Presenter, 23rd Annual Meeting, Association of International Vascular Surgeons, Gressony, Italy, March 2007. Brachial artery injury - A missed diagnosis.

Ameli FM: Presenter, Rocky Mountain Traumatologic Society Meeting, Snowmass, CO, January 2007. Posterior elbow dislocation causing brachial artery transection - Misdiagnosis and delay in treatment.

Ameli FM: Presenter, Canadian Society for Vascular Surgery, Calgary, AB, September 2006. Posterior elbow dislocation causing brachial artery transection - Misdiagnosis and delay in treatment.

SUNNYBROOK HEALTH SCIENCES CENTRE

Heads of Divisions

Dr. S. Fremes – Cardiac and Vascular Surgery
Dr. A. Smith – General Surgery
Dr. M. Schwartz – Neurosurgery
Dr. H. Kreder – Orthopaedic Surgery
Dr. P. Binhammer – Plastic Surgery
Dr. L. Klotz – Urology

Robin Richards
Surgeon-in-Chief



Sunnybrook had an eventful year with the initiation of capital redevelopment of the Emergency Room and the construction of three new ambulatory operating rooms at the Bayview Campus. Searches for Chiefs of the Trauma Critical Care Strategic Program and the Department of Medicine were successfully completed and a member of our own Department, Dr. Barry McLellan, was appointed CEO. David Leslie was identified as the new Board Chair.

New Staff

Natalie Coburn was appointed as a Surgeon-Investigator in the Division of General Surgery bringing further expertise in hepatobiliary and gastric cancer management to Sunnybrook. Darlene Fenech was appointed as a Surgeon-Investigator in the Division of General Surgery to develop a practice in complex colorectal oncologic surgery. Shariar Shahrokhi was appointed as a Surgeon-Teacher in the Division of Plastic Surgery to provide comprehensive care to patients with burns. Veronica Wadey was appointed as a Surgeon-Investigator in the Division of Orthopaedic Surgery with an interest in educational research and joint replacement. Richard Jenkinson and Diane Nam were appointed as Clinical Associates in the Division of Orthopaedic Surgery to augment clinical services in trauma care and reconstruction. Fred Vincent and Nick Phan were appointed as Clinical Associates in the Division of Neurosurgery to augment care in this area.

Appointments and Promotions

Paul Binhammer was promoted to Assistant Professor and identified as the Head of the Division of Plastic Surgery. Homer Tien was promoted to Assistant Professor having successfully completed his postgraduate degree in the Department of Health Policy, Management and Evaluation.

Claire Holloway was promoted to Associate Professor in the Division of General Surgery in recognition of her scholarly activity in the surgical management of breast cancer. John Murnaghan was promoted to Associate Professor in the Division of Orthopaedic Surgery in recognition of his contributions to education. Sandro Rizoli was promoted to Associate Professor in the Division of General Surgery for his contributions to our understanding of the management of shock. Cari Whyne was promoted to Associate Professor in the Division of Orthopaedic Surgery for her scholarly activity in biomechanics. Hans Kreder was promoted to Full Professor in the Division of Orthopaedic Surgery in recognition of his scholarly activity in the field of hip and knee reconstruction.

Sender Herschorn was installed as the inaugural holder of the Martin Barkin Chair in Urological Research. Andy Smith was appointed as the inaugural leader of knowledge translation in the Centre for Health Services Research of the Sunnybrook Research Institute, established to identify opportunities for improvement and innovation at the interface between care and research. Laurence Klotz was named founding Editor-in-Chief of the Canadian Urological Association Journal and President-Elect of the Canadian Urology Association.

Educational Activity and Awards

Terry Axelrod received an excellence in Continuing Education Award and Rob Nam received a Clinical Teaching/Supervision Award from the Peters Boyd Academy. Sender Herschorn received the WT Aiken Award for Undergraduate Medical Education Individual Teaching Excellence from the Faculty.

Claire Holloway and Laurence Klotz gave presentations at the Institution's second annual cancer research day. Robin Richards co-directed and Stewart Wright participated in the 23rd Annual Upper Extremity Update. Claire Holloway, Daryl Kucey, Sandro Rizoli, Homer Tien, Fred Brenneman, and Lorraine Tremblay contributed to the 47th Annual Update in General Surgery. Andy Smith directed and Claire Holloway, Calvin Law, May Lynn Quan and Frances Wright participated in the Update in Surgical Oncology.

Mike Schwartz arranged and hosted the second meeting of the Canadian Radiosurgical Society in Niagara-on-the-Lake. Oleh Antonyshyn, assisted by Jeff Fialkov, organized a successful craniofacial surgery symposium with live surgical demonstrations. Lesley Carr contributed to a symposium on pain in the pelvis. Bernie Goldman gave the W.G. Bigelow Lecture at the annual general meeting of the Canadian Cardiovascular Society.

Research Activity and Awards

Natalie Coburn received a Dean's Fund New Staff Grant for a study of gastric cancer care in Ontario. Paul Marks was appointed as an Associate Member to the Institute of Medical Science. May Lynn Quan and Anna Gagliardi together with co-investigator Frances Wright received funding from the Canadian Breast Cancer Foundation.

Robert Nam received CIHR and NCIC grants for his research in prostate cancer screening and risk assessment. Vasu Venkateswaran with co-applicants Laurence Klotz and others received a CIHR operating grant and a Prostate Cancer Research Foundation grant.

Manuel Gomez, Rob Cartotto, Joel Fish and their students had multiple presentations at the 39th Annual Meeting of the American Burn Association. Karen Cross, supervised by Joel Fish, received the PSI Resident Research Award for her work on burn depth assessment using infra-red spectroscopy.

Other Awards and Activities

Mike Ko, Varun Kapila, Henry Sawires and Bryan Wells received Harrison Awards. Rob Cartotto and Fred Brenneman received the Tile Award for outstanding service to the Department. Andy Smith, Calvin Law, Frances Wright, Anna Gagliardi and Linda Last received the inaugural Cancer Quality Council of Ontario Awards for their outstanding work in knowledge translation directed toward improving outcome in colorectal cancer practice. David Houlden was appointed to the Editorial Board of the Journal of Clinical Monitoring and Computing.

The arthroplasty program of the Holland Centre, led by Jeff Gollish and Hans Kreder was recognized by the Toronto Central LHIN and the Ministry for improving efficiency by process redesign by developing a new model of care for hip and knee arthroplasty. A team of Sunnybrook surgeons (Michael Ford, Gideon Cohen, Joel Finkelstein, Lorraine Tremblay, Sharon Sharir and Andy Smith) together with their residents received the highest score on CBC's Test the Nation's IQ edging out the teams of Millionaires, Fitness Instructors, Mayors, Talk Jocks, Celebrities and Tattoo Artists.



Retirements and Sabbaticals

Dave Rowed retired from the Division of Neurosurgery after many years of distinguished service, having been recognized by promotion to Full Professor for his expertise in the management of cerebellopontine angle neoplasms. Massey Beveridge resigned as the Director of the Office of International Surgery, having worked indefatigably to develop an extensive network of vital international connections. Massey spent the year on sabbatical at the Labrador-Grenfell Integrated Health Authority. Sharon Sharir took up a position at the Humber River Regional Hospital. Joel Fish was on sabbatical in New Zealand where he had been asked to establish a national burn care system. Mitch Brown, Lavina Lickley and George Hiraki assumed positions at the Women's College Hospital where John Semple was appointed Surgeon-in-Chief.

Conclusion

As the year finished, work began on the large and long-awaited M Wing expansion to patriate the Perinatology and Gynecology Strategic Program and markedly expand the Sunnybrook Research Institute. This sizeable project will open a new chapter in Sunnybrook's history. An air of optimism prevailed with Surgery having a noticeably enhanced academic environment in the context of renewed institutional leadership. The future of Surgery at Sunnybrook seems bright and the Department is thankful for the opportunities on the horizon and the substantive role it has been asked to play within our Institution and by our University Department, our Faculty, the Toronto Central LHIN and the Province.

DIVISION OF CARDIAC AND VASCULAR SURGERY

Dr. G.T. Christakis – Professor

Dr. G. Cohen – Assistant Professor

Dr. S.E. Fremes – Professor (Division Head)

Dr. B.S. Goldman – Professor

Dr. D. Kucey – Assistant Professor

Dr. R. Maggisano – Associate Professor

Publications

Alghamdi AA, Moussa F, Fremes SE: Does the use of preoperative aspirin increase the risk of bleeding in patients undergoing coronary artery bypass grafting surgery? Systematic review and meta-analysis. *Journal of Cardiac Surgery*: May 2007: 22(3): pp 247-256.

Desai N, Fremes SE: Intraoperative indocyanine green angiography: Ready for prime time? *Journal of Thoracic and Cardiovascular Surgery*: May 2007: 133(5): pp 1396-1397.

Desai ND, Miwa S, Kodama D, Koyama T, Cohen G, Pelletier MP, Cohen EA, Christakis GT, Goldman BS, Fremes SE: A randomized comparison of intraoperative indocyanine green angiography and transit-time flow measurement to detect technical errors in coronary bypass grafts. *Journal of Thoracic and Cardiovascular Surgery*: September 2006: 132(3): pp 585-594.

Desai ND, Naylor CD, Kiss A, Cohen EA, Feder-Elituv R, Miwa S, Radhakrishnan S, Dubbin J, Schwartz L, Fremes SE: Radial Study Patency Study Investigators: Impact of patient and target-vessel characteristics on arterial and venous bypass graft patency: Insight from a randomized trial. *Circulation*: February 2007: 115(6): pp 684-691.

Fernando A, Spencer F, Homer T, Hamilton P, Rizoli S, Chu P, Maggisano R, Brennehan F, Tremblay L: Diagnosis and outcome of blunt caval injuries in the Modern Trauma Centre. *Journal of Trauma*: November 2006: 61: pp 1053-1057.

Guru V, Fremes SE, Naylor CD, Austin PC, Shrive FM, Ghali WA, Tu JV: Public versus private institutional performance reporting: What is mandatory for quality improvement? *American Heart Journal*: September 2006: 152(3): pp 573-578.

Guru V, Glasgow KW, Fremes SE, Austin PC, Teoh K, Tu JV: The real-world outcomes of off-pump coronary artery bypass surgery in a public health care system. *Canadian Journal of Cardiology*: March 2007: 23(4): pp 281-286.

Guru V, Omura J, Alghamdi AA, Weisel R, Fremes SE: Is blood superior to crystalloid cardioplegia? A meta-analysis of randomized clinical trials. *Circulation*: July 2006: 114(1 Sup): pp I331-1338.

Invited Visits to Other Hospitals/Universities

Christakis GT: Contemporary Cardiac Care, Niagara-on-the-Lake, ON, September 2006. Aortic valve and root disease - When to operate/when to wait.

Christakis GT: 5 Chiefs' Meeting, North York General Hospital (NYGH), Markham, ON, April 2007. Controversies in cardiac surgery.

Christakis GT: Owen Sound-Grey Bruce Rounds, Owen Sound, ON, April 2007. Current trends in aortic surgery.

Christakis GT: American Society of Thoracic Surgery (AATS), Washington, DC, May 2007. Does the stentless porcine valve provide benefit or excess morbidity?

Christakis GT: KMH Cardiology & Diagnostic Centres, Markham, ON, November 2006. Expediting access to heart surgery and improving patient care.

Cohen G: Combined Cardiology/CV Surgery Rounds, Toronto, ON, April 2007. Atrial fibrillation: A Sunnybrook experience.

Cohen G: Excellence in Interventional Cardiology, Whistler, BC, November 2006. Left main stenosis - Surgery or stent.

Cohen G: 8th International Dead Sea Symposium, Tel Aviv, Israel, October 2006. Minimally invasive maze, techniques and results.

Fremes SE: Dr. Joseph Dvorkin Memorial Lecture, 11th Annual Cardiac Sciences Research Day, University of Alberta, Edmonton, AB, June 2007. Improving the quality of coronary surgery.

Fremes SE: Schulich Heart Program Research Day, Sunnybrook Health Sciences Centre, Toronto, ON, November 2006. Long term evaluation of radiography for CABG: The role of angiography.

Research and Investigations

Senior Investigator's Name Appears in Italics

A randomized, double, blind, placebo-controlled, multi-center study to evaluate the cardioprotective effects of MC-1 in patients undergoing high-risk coronary artery bypass graft (CABG) surgery (MEND-CABG). *Fremes SE* with multi-center investigators: *Medicare International Inc.* (\$160,000 2006 - 2007.)

Biochemical and genetic predictors of coronary bypass graft atherosclerosis. *Fremes SE*, Desai N, Cohen EA, Liu P: *Canadian Institutes of Health Research.* (\$156,306 2005 - 2007.)

FREEDOM Trial - Future revascularization evaluation in patients with diabetes mellitus: Optimal management of multivessel disease. *Fuster V*, *Fremes SE* (Site PI) and the FREEDOM Study Investigators: *National Heart, Lung and Blood Institute.* (\$162,000 2006 - 2011.)

Graft imaging to improve patency (GRIIP) study. *Fremes SE*, Desai N, Cohen EA: *Heart and Stroke Foundation of Ontario.* (\$199,702 2005 - 2007.)

Understanding the link between quality of care and outcomes report cards for coronary artery bypass graft (CABG) surgery in Ontario. *Tu JV*, *Fremes SE*, Naylor D, Anderson GM, Feindel CM, Novick RJ, Guru V: *Heart and Stroke Foundation of Ontario.* (\$171,395 2004 - 2006.)

Unraveling the black box of adverse events in cardiac surgery. *Fremes SE*, Tu JV, Anderson GM, Novick RJ, Guru V, Rubens FD, Mazer D, Adhikari NKJ, Scales DC, Fowler RA: *Heart and Stroke Foundation of Canada.* (\$260,950 2006 - 2009.)

Cardiovascular complications of diabetes. *Moody A*, Burns P, Tobe S, Silverberg J, Leung D, Maggisano R: *Canadian Institutes of Health Research (CIHR) in partnership with the Heart and Stroke Foundation of Canada (HSFC).* (\$288,081 2007-2009.)

DIVISION OF GENERAL SURGERY

Dr. F.D. Brenneman – Associate Professor

Dr. P.T.Y. Chu – Assistant Professor

Dr. N.G. Coburn – Assistant Professor

Dr. A.R. Gagliardi – Assistant Professor

Dr. S.S. Hanna – Associate Professor

Dr. G. Hiraki – Assistant Professor

Dr. C.M.B. Holloway – Assistant Professor

Dr. C.H.L. Law – Assistant Professor

Dr. L. Lickley – Professor

Dr. M.L. Quan – Assistant Professor

Dr. S. Rizoli – Assistant Professor

Dr. T.M. Ross – Associate Professor

Dr. A.J. Smith – Associate Professor (Division Head)

Dr. H.C. Tien – Assistant Professor

Dr. L. Tremblay – Assistant Professor

Dr. F. Wright – Assistant Professor

Publications

Aziz D, Gardner S, Pritchard K, Paszat L, Holloway CMB: Selective application of axillary node dissection in elderly women with early breast cancer. *Annals of Surgical Oncology*: February 2007: 14(2): pp 652-659.

Aziz D, Rawlinson E, Narod S, Sun P, Holloway CMB: Does re-excision of positive margins affect local recurrence rate in breast cancer? *The Breast Journal*: July 2006: 4: pp 331.

Bondy S, Elit L, Chen Z, Law CHL, Paszat L: Prognostic factors for women with Stage 1 ovarian cancer with or without adhesions. *European Journal of Obstetrics and Gynaecological Oncology*: December 2006: 27(6): pp 585-588.

Brofman N, Atri M, Epid D, Hanson JM, Grinblat L, Chughtai T, Brenneman FD: Evaluation of bowel and mesenteric blunt trauma with multidetector CT. *Radiographics*: July 2006: 26: pp 1119-1131.

Chughtai TS, Sharkey P, Brenneman F, Rizoli S: Blunt diaphragmatic rupture mandates a search for blunt aortic injury: An update. *Annals of Thoracic Surgery*: March 2007: 83(3): pp 1234-1235.

Coburn NG: General surgery. In: *The Toronto Notes 2007: A Comprehensive Medical Reference and Review for the Medical Council of Canada Qualifying Exam-Part 1 and the United States Medical Licensing Exam-Step 2*: (Heng M, Greenwald JA, eds.) Toronto Notes for Medical Students, Inc.: Toronto, 2007.

Coburn NG, Clarke-Pearson E, Chung MA, Law C, Fulton J, Cady B: A novel approach to T classification in tumor-node-metastasis staging of breast cancer. *American Journal of Surgery*: October 2006: 192: pp 434-438.

Coburn NG, Swallow CJ, Kiss A, Law CHL: Significant regional variation in adequacy of lymph node assessment and survival in gastric cancer. *Cancer*: November 2006: 107(9): pp 2143-2151.

Elit L, Bondy S, Chen Z, Law CHL, Paszat L: The quality of the operative report for women with ovarian cancer in Ontario. *Journal of Obstetrics and Gynaecology of Canada*: October 2006: 28(10): pp 892-897.

Gagliardi AR, Wright FC, Quan ML, McCready D: Evaluating the organization and delivery of breast cancer services: Use of performance measures to identify knowledge gaps. *Breast Cancer Research and Treatment*: January 2007: 103: pp 131-148.

- Goddard SL, Chesney, Aldren RM, Chorab Z, Brozowski M, Wright FC, Wells RA:** Pathological splenic rupture: A rare complication of chronic myelomonocytic leukaemia. *American Journal of Hematology*: May 2007: 82(5): pp 405-408.
- Govindarajan A, Coburn NG, Kiss A, Rabeneck L, Smith AJ, Law CHL:** Population-based assessment of the surgical management of locally advanced colorectal cancer. *Journal of the National Cancer Institute*: October 2006: 98(20): pp 1474-1481.
- Helyer LK, Law CHL, Butler M, Last LD, Smith AJ, Wright FC:** Surgery as a bridge to palliative chemotherapy in patients with malignant bowel obstruction from colorectal cancer. *Annals of Surgical Oncology*: April 2007: 43(6): pp 1264-1271.
- Hendren SK, Swallow CJ, Smith AJ, Lipa J, Cohen Z, MacRae HM, Gryfe R, O'Connor BI, McLeod RS:** Complications and sexual function after vaginectomy for anorectal tumors. *Diseases of the Colon and Rectum*: February 2007: E-published.
- Iannitti D, Coburn ND, Somberg J, Ryder BA, Monchik J, Cioffi W:** Use of the round ligament of the liver to decrease pancreatic leaks: A novel technique. *Journal of the American College of Surgeons*: December 2006: 203: pp 857-864.
- Dumper J, Mackenzie S, Mitchell P, Sutherland F, Quan ML, Mew D:** Complications of Meckels diverticula in adults. *Canadian Journal of Surgery*: October 2006: 49: pp 353.
- Khalifa M, Maksymov V, Rowsell CH, Hanna SS:** A novel approach to the intraoperative assessment of the uncinate margin of the pancreaticoduodenectomy specimen. *HPB Surgery*: April 2007: 9: pp 146-149.
- Khalifa M, Rowsell CH, Gladdy R, Ko Y-J, Hanna SS, Smith A, Law CHL:** Is EGFR expression altered following postoperative chemotherapy for colorectal adenocarcinoma? *World Journal of Surgical Oncology*: December 2006: 4:92: pp 1-6.
- Klitgaard T, Tabanera y Palacios R, Boffard KD, Lau PTC, Warren B, Rizoli S, Rossaint R, Kluger Y, Riou B:** Pharmacokinetics of recombinant activated factor VII in trauma patients with severe bleeding. *Critical Care Medicine*: July 2006: 10(4): pp R104.
- Kummer C, Spencer Netto F, Rizoli SB, Yee D:** A review of traumatic airway injuries: Potential implications for airway assessment and management. *Injury* 2007: October 2006: 38(1): pp 27-33. E-published ahead of print.
- Li YM, Wang JX, Holloway C, Plewes D:** A positive-contrast tri-modality tissue marker for breast tumour localization. *Physics in Medicine and Biology*: February 2007.
- Power N, Atri M, Haddad R, Smith AJ:** CT assessment of anastomotic bowel leaks. *Clinical Radiology*: January 2007: 62: pp 37-42.
- Rizoli SB, Boffard KD, Riou B, Warren B, Lau P, Kluger Y, Rossaint R, Tillinger M and the NovoSeven Trauma Study Group:** Recombinant activated factor VII as an adjunctive therapy for bleeding control in severe trauma patients with coagulopathy: Subgroup analysis from two randomized trials. *Critical Care*: December 2006: 10(6): pp R178.
- Rizoli SB, Nascimento B, Osman F, Spencer F, Katic M, Callum J, Brenneman FD, Tremblay LN, Tien HC:** Recombinant activated coagulation factor VII and bleeding trauma patients. *Journal of Trauma*: December 2006: 61(6): pp 1419-1425.
- Scarpelini S, Nascimento B, Tien H, Tremblay L, Rizoli S:** An overview on the use of recombinant factor VIIa in obstetrics and gynecology. *Drugs Expert Opinion in Gynecology and Obstetrics*: April 2007: 2(2): pp 217-226.
- Spencer F, Hamilton P, Rizoli SB, Nascimento B, Brenneman F, Tien H, Tremblay LN:** Traumatic abdominal wall hernia: Epidemiology and clinical implications. *Journal of Trauma*: November 2006: 61(5): pp 1058-1061.
- Spencer-Netto F, Tien HC, Hamilton P, Rizoli SB, Chu P, Maggisano R, Brenneman FD, Tremblay LN:** Diagnosis and outcome of blunt caval injuries in the modern trauma center. *Journal of Trauma*: November 2006: 61(5): pp 1053-1057.
- Tien HC, Farrell R, Macdonald J:** Preparing Canadian military surgeons for Afghanistan. *Canadian Medical Association Journal*: November 2006: 175(11): pp 1365-1366.
- Tien HC, Nascimento B, Callum J, Rizoli S:** An approach to transfusion and hemorrhage in trauma: Current perspective on restrictive transfusion strategies. *Canadian Journal of Surgery*: June 2007: 50(3): pp 202-209.
- Tien HC, Spencer Netto F, Tremblay LN, Rizoli SB, Brenneman FD:** Preventable deaths from hemorrhage at a level I Canadian trauma centre. *Journal of Trauma*: January 2007: 62(1): pp 142-146.
- Tien HC, Tremblay LN, Rizoli SB, Gelberg J, Chughtai T, Spencer F, Caldwell C, Brenneman FD:** Radiation exposure from diagnostic imaging in severely injured trauma patients. *Journal of Trauma*: January 2007: 62(1): pp 151-156.

Tien HC, Tremblay LN, Rizoli SB, Gelberg J, Chughtai T, Tikuisis P, Shek P, Brenneman FD: The association between alcohol and mortality in patients with severe traumatic brain injury. *Archives of Surgery*: December 2006: 141(120): pp 1185-1191.

Tien HC, van der Hurk TW, Dunlop P, Kropelin B, Nahouraii R, Battad AB, Egmond TV: Small bowel injury from a tangential gunshot wound without peritoneal penetration: A case report. *Journal of Trauma*: March 2007: 62(3): pp 762-764.

Wells BJ, Stotland P, Ko MA, Al-Sukhni W, Wunder J, Ferguson P, Lipa J, Last LD, Smith AJ, Swallow CJ: Results of an aggressive approach to resection of locally recurrent rectal cancer. *Annals of Surgical Oncology*: February 2007: 14: pp 390-395.

Wright FC, DeVito C, Langer B, Hunter A, The Expert Panel on Multidisciplinary Cancer Conference Standards: Multidisciplinary cancer conferences: A systematic review and development of practice standards. *European Journal of Cancer*: April 2007: 43(6): pp 1002-1010.

Wright FC, Simunovic M, Coates A, Fitch M: The quality initiative in rectal cancer strategy: A qualitative study of participating surgeons. *Journal of the American College of Surgery*: July 2006: 203(6): pp 795-802.

Invited Visits to Other Hospitals/Universities

Brenneman FD: Newfoundland Surgical Society Annual Meeting, Deer Lake, NF, March 2007. (1) Advances in ventral hernia repair, (2) Management of pelvic fractures.

Brenneman FD: 8th Annual Trauma Nursing Conference 2007 (Course Co-Director), Sunnybrook Health Sciences Centre, Toronto, ON, February 2007. (1) Penetrating trauma, (2) Lessons learned.

Brenneman FD: Advances in Hernia Repair Conference, Johnson & Johnson Professional Education Seminar, Niagara-on-the-Lake, ON, June 2007. 2 talks - (1) Difficult open ventral hernia repair, (2) Advances in inguinal hernia repair.

Brenneman FD: Johnson & Johnson Professional Education Program, Montreal, PQ, February 2007. Advanced Hernia Repair Conference. (1) Laparoscopic ventral hernia repair, (2) Advances in inguinal hernia repair techniques.

Brenneman FD: South Central Operating Room Nurses Association (SCORNA) Regional Meeting, Thunder Bay, ON, September 2006. Advances in hernia repair.

Brenneman FD: Johnson & Johnson Professional Education Seminar, Antigonish, NS, June 2007. Advances in laparoscopic ventral hernia repair.

Brenneman FD: Lakehead Summer School, Thunder Bay, ON, September 2006. Current advances in hernia repair.

Brenneman FD: Thunder Bay Regional Health Sciences Centre OR Nursing Seminar, Thunder Bay, ON, September 2006. Current techniques in hernia repair.

Brenneman FD: Johnson & Johnson Professional Education Lecture, Windsor, ON, November 2006. Laparoscopic ventral hernia repair.

Brenneman FD: Toronto Chapter of the United Ostomy Association of Canada, Toronto, ON, April 2007. Management of parastomal hernias.

Brenneman FD: Hotel Dieu Hospital, Windsor, ON, November 2006. Operative techniques of laparoscopic ventral hernia repair.

Brenneman FD: Joseph Brant Memorial Hospital, Burlington, ON, July 2006. Operative techniques of laparoscopic ventral hernia repair.

Brenneman FD: Kingston General Hospital, Kingston, ON, November 2006. Operative techniques of laparoscopic ventral hernia repair.

Brenneman FD: St. Martha's Hospital, Antigonish, NS, June 2007. OR teaching - advanced laparoscopic ventral hernia repair techniques.

Brenneman FD: Sudbury Trauma Conference, Sudbury, ON, November 2006. Penetrating Trauma.

Brenneman FD: Seminar teaching to Canadian Forces Physician Assistants, Department of National Defense - CF Base Camp Borden, Barrie, ON, April 2007. The acute abdomen.

Brenneman FD: Surgical Forum, Canadian Association of General Surgeons (CAGS) Meeting, Montreal, PQ, September 2006. The difficult open ventral hernia repair.

Brenneman FD: Seminar teaching to Canadian Forces Physician Assistants, Department of National Defense - CF Base Camp Borden, Barrie, ON, June 2007. Trauma.

Brenneman FD: William Osler Health Centre - Etobicoke General Hospital General Surgery Journal Club, Etobicoke, ON, February 2007. Trauma.

- Brenneman FD:** Emergency 2006 Paramedic Conference, Toronto, ON, September 2006. Trauma management.
- Gagliardi AR:** Improved Clinical Effectiveness Through Behavioural Research Group, Ottawa Health Research Institute, Ottawa, ON, May 2007. Evaluating knowledge exchange between researchers and decision-makers.
- Gagliardi AR:** Improved Clinical Effectiveness Through Behavioural Research Group, Ottawa Health Research Institute, Ottawa, ON, October 2006. Exploring organizational factors influencing the organization and delivery of cancer surgery.
- Hanna SS:** Christian Medical Dental Society, Kelowna, BC, April 2007. “When is enough enough?” Reflections on end of life care.
- Hanna SS:** Ontario Association of General Surgeons, Toronto, ON, November 2006. Resection of colorectal liver metastases: State of the art in 2006.
- Holloway CMB:** Wellness in Women, Toronto, ON, May 2007. Advances in the surgical management of breast cancer.
- Holloway CMB:** Consensus Conference, British Columbia Cancer Agency, Toronto, ON, September 2006. Management of the axilla.
- Law CHL:** Student Surgical Skills Development (S3D), Toronto, ON, January 2007. A career in surgical oncology: Perspectives and outlooks.
- Law CHL:** Canadian Association of General Surgery (CAGS), Calgary, ON, September 2006. An approach to a patient with suspected liver metastases.
- Law CHL:** Surgical Oncology Day, Sunnybrook Health Sciences Centre, Toronto, ON, February 2007. Pancreatic cancer: Overcoming challenges.
- Law CHL:** Trillium Health Sciences Centre, Mississauga, ON, February 2007. Rare tumours of the gastrointestinal tract.
- Law CHL:** Discussion Facilitator of Symposium, Cancer Care Ontario, Toronto, ON, February 2007. The nature of evidence: A program in evidenced based care.
- Law CHL:** Oncology Rounds, William Osler Health Centre, Brampton, ON, September 2006. Unusual tumours of the abdomen.
- Quan ML:** Canadian Association of General Surgeons, Canadian Society of Surgical Oncology and the BC Cancer Agency, Kelowna, BC, September 2006. Sentinel Node Biopsy: The Current National Outlook.
- Smith AJ:** Canadian Partnership Against Cancer, Alberta Cancer Board, Toronto, ON, May 2007.
- Smith AJ:** Canadian Association of General Surgeons (Dan Birch), Edmonton, AB, June 2007. A Canadian consensus conference on the advancement of minimally invasive surgery.
- Smith AJ:** Society of Surgical Oncology, Washington, DC, March 2007. Diagnosis and management of HNPCC and FAP.
- Smith AJ:** Cancer Care Nova Scotia, Halifax, NS, May 2007. Management of recurrent rectal cancer.
- Smith AJ:** Cancer Care Ontario-North Simcoe Muskoka LHIN, Barrie, ON, April 2007. Mentoring cancer surgery.
- Smith AJ:** Canadian Surgery Forum, Canadian Association of General Surgeon, Calgary, AB, September 2006. Neoadjuvant therapy for primary rectal cancer.
- Tien HC:** Tactical and Rescue Unit, Peel Regional Police, Brampton, ON, September 2006. Blast injuries.
- Tien HC:** Toronto International Symposium on Acute Care, Toronto, ON, October 2006. Lessons learned from Afghanistan: Multi-drug resistant acinetobacter.
- Tien HC:** Blast and Improvised Explosive Devices (IED) Health Effects and Injury Mitigation, Defence Research and Development Canada (DRDC), Toronto, ON, November 2006. The Canadian Forces Health Services approach to blast injuries.
- Tien HC:** Canadian Surgery Forum, Calgary, ON, September 2006. Trauma care in Afghanistan.
- Tien HC:** Scarborough General Hospital, Toronto, ON, May 2007. Trauma care in Afghanistan: Challenges.
- Tien HC:** Executive Committee, Canadian Association of General Surgeons, Toronto, ON, February 2007. Trauma surgery in Afghanistan.
- Tien HC:** Tactical and Rescue Unit, Peel Regional Police, Brampton, ON, September 2006. Wound ballistics.

Tremblay L: Paper Session A, Annual Meeting, Trauma Association of Canada (TAC), Ottawa, ON, May 2007. Moderator/Session Chair.

Tremblay L: Annual Meeting, Trauma Association of Canada (TAC), Ottawa, ON, May 2007. Temporary abdominal wall closure - What is the best method?

Tremblay L: Annual Conference, American College of Surgeons, Chicago, IL, October 2006. Ventilator induced lung injury: Volutrauma, dytokines, low volume ventilation.

Wright F: Royal Victoria Hospital, Barrie, ON, May 2007. Mentoring sentinel node biopsy for breast cancer.

Wright F: South Muskoka Memorial Hospital, Bracebridge, ON, June 2007. Mentoring sentinel node biopsy for breast cancer and melanoma surgery.

Wright F: York Central Hospital, Toronto, ON, February 2007. Multidisciplinary cancer conferences - Why bother?

Wright F: Scarborough Hospital CME Rounds, Toronto, ON, October 2006. Sentinel node biopsy and breast cancer.

Wright F: The Georgian Bay Oncology Group, Barrie, ON, December 2006. Sentinel node biopsy in breast cancer and melanoma.

Wright F: North Western Ontario Surgical Oncology Network, Dryden, ON, June 2007. Sentinel node for breast cancer.

Research and Investigations

Senior Investigator's Name Appears in Italics

A phase I/II study of neoadjuvant docetaxel with concurrent radiation therapy for locally advanced breast cancer (LABC) (CHEMORAD study). *Holloway C, Spayne J, Pritchard K, Trudeau M, Clemons M, Pignol JP, Rakovitch E: Sanofi-Aventis.* (\$400,000 2006 - 2009.)

A phase I/II trial of ¹¹¹In-DTPA-trastuzumab fab injection for radioimmunoguided surgery in women with HER2/neu-positive breast cancer. *Holloway CMB, Reilly R, Kahn H, Caldwell C, Ehrlich L, Pritchard K, Quan ML, Wright F: Ontario Cancer Research Network.* (\$312,068 2006 - 2009.)

A population based study of the outcomes of transanal resection for rectal cancer. *Law C, Paszat L, Klar N, Stern H, Swallow C, Smith AJ: National Cancer Institute of Canada.* (\$172,000 2002 - 2006.)

A prospective study to determine the role of 2-[¹⁸F]fluoro-2-deoxy-D-glucose (FDG) positron emission tomography (PET) in the assessment of regional nodal spread of disease in breast cancer patients. *Pritchard K, Shelley W, Julian J, Levine M, McCready D, Holloway C, Gulenchyn K, Lovrics P, Down N, Mirsky D, George R, Engel J, O'Malley F, Elavanthil L: Ontario Clinical Oncology Group.* (2005 - 2008.)

Cancer follow-up care in Ontario: Patterns of practice. *Grunfeld E, Elit L, Walker H, Sussman J, del Guidice L, Rakovitch E, Imrie K, Paszat L, Krzyzanowska M, Law CHL, Coburn NG, Kwon J, Hodgson D: Cancer Care Ontario Research Network.* (\$148,692 2006 - 2008.)

Clinical research consortium to improve resuscitation outcomes. *Shutsky A, Tremblay L: National Institute of Health.* (\$2,454,201 2004 - 2009.)

Colonoscopy collaborative network. *Rabeneck L, Gandhi M, Feinberg S, Smith D, Smith A, Bertnick P: Cancer Care Ontario.* (\$150,000 2007 - 2008.)

Combined intraoperative MRI and ultrasound guidance for breast surgery. *Plewes D, Causer P, Holloway C, Siegler P: Canadian Breast Cancer Research Alliance.* (\$92,975 2006 - 2007.)

Does clinical breast examination, mammography or magnetic resonance imaging most accurately correlate with pathological response after neo-adjuvant therapy in women with locally advanced breast cancer? *Wright FC, Clemons M, Verma S, Trudeau M, Fitzgerald B, Jong R, Causer P, Pignol JP, Zubovits J, Holloway C: Canadian Breast Cancer Foundation.* (\$113,096 2004 - 2008.)

Ductal carcinoma in situ: A population-based analysis. *Rakovitch E, Paszat L, Hanna W, Done S, Kahn H, Mai V, Goodwin P, Vallis K, Wong J, Holloway C, Gravel D, SenGupta S, Elavathil L, Tuck A, Escott N, Bonin M: Canadian Breast Cancer Research Alliance.* (\$939,737 2004 - 2007.)

Evaluating a knowledge translation strategy for pancreatic cancer surgery in Ontario 1995-2003. *Simunovic M, Wright FC, Brown A, Gagliardi A, Langer B, Davis D, Urbach D, Elit L, Holowaty E, Fitch M, Levine M, To T, Tandan V: National Cancer Institute of Canada.* (\$290,369 2005 - 2007.)

- Evaluating the quality of sentinel node biopsy practice in Ontario. *Quan ML, Gagliardi A, Wright FC, McCready DR, Urbach D: Canadian Breast Cancer Foundation.* (\$284,745 2007 - 2009.)
- Exploring the cancer-related information needs of general surgeons. *Gagliardi A, Smith AJ, Wright FC: Grant Miller Cancer Research Grant, Faculty of Medicine, University of Toronto.* (\$20,000 2006 - 2011.)
- Exploring the cognitive processes influencing intra-operative decisions during colorectal cancer surgery. *Gagliardi A, Govindarajan A, Wirtzfeld D, Gallinger S, Law C, Smith A: National Colorectal Cancer Campaign.* (\$5,080 2006 - 2008.)
- Factors influencing lymph node staging practice in colorectal cancer. *Gagliardi AR, Wright FC, Smith AJ: Dean's Fund, New Staff Grant, Faculty of Medicine, University of Toronto.* (\$9,797 2006 - 2009.)
- Identifying opportunities for improving prevention of infections following colorectal cancer surgery. *McLeod R, Fenech D, Nathens A, McKenzie M, Gagliardi AR: Colon Cancer Canada.* (\$29,500 2006 - 2007.)
- Lobular carcinoma in situ: A population based analysis. *Rakovitch E, Paszat L, Hanna W, Pignol JP, Kahn H, Quan, ML, Wong J, Ackerman I: National Cancer Institute of Canada/Canadian Breast Cancer Research Alliance.* (\$585,545 2006 - 2009.)
- Multidisciplinary cancer conferences: Exploring obstacles and facilitators to their establishment and function. *Lookhong N, Wright FC, Gagliardi AR, Paszat L: Colon Cancer Canada.* (\$5,000 2007 - 2008.)
- Multidisciplinary consensus on performance measures for sentinel lymph node biopsy. *Quan ML, Gagliardi AR, Wright FC: Canadian Breast Cancer Research Alliance.* (\$19,813 2006 - 2007.)
- Ontario Cancer Surgery Survey. *Gagliardi AR, Wright FC, Lookhong N, Holloway C, Urbach D: Cancer Care Ontario.* (\$34,500 2007 - 2008.)
- Population-based assessment of lymphadenectomy during radical cystectomy for bladder cancer in Ontario. *Sharir S, Law CHL: Dean's Fund, Faculty of Medicine, University of Toronto.* (\$10,000 2006 - 2011.)
- Practice variation and surgical outcomes in the treatment of locally advanced colorectal cancer. *Law CHL, Govindarajan A: Canadian Cancer Society Clinical Research Fellowship, National Cancer Institute of Canada.* (\$43,094 2006 - 2007.)
- Practices, determinants and outcomes of surgery in patients with locally advanced colorectal cancer. *Govindarajan A, Smith AJ, Law CHL: National Colorectal Cancer Campaign.* (\$5,000 2006 - 2007.)
- Priorities for knowledge translation research in colorectal cancer. *Gagliardi A, Wright F, Smith A: National Cancer Institute of Canada.* (\$15,000 2006 - 2007.)
- Priorities for knowledge translation research in colorectal cancer. *Gagliardi AR, Wright FC, Smith AJ: Canadian Institutes of Health Research, Institute of Cancer Research.* (\$15,000 2006 - 2007.)
- Psychosocial functioning in women with mastectomy with or without breast reconstruction. *Metcalfe KA, Narod S, Semple J, Holloway C: Canadian Breast Cancer Foundation Ontario Chapter.* (\$183,168 2004 - 2007.)
- Qualitative analysis of operative notes to describe factors that influence intraoperative decisions during colorectal cancer surgery. *Govindarajan A, Smith AJ, Gallinger S, Law CHL, Gagliardi A: National Colorectal Cancer Campaign.* (\$5,080 2006 - 2007.)
- Quality of gastric cancer care in Ontario: A population-based cohort study. *Coburn NG, Rabeneck L: University of Toronto, Dean's Fund New Staff Grant 2007.* (\$10,000 2007 - 2008.)
- Risk of advanced proximal neoplasia of the colon in asymptomatic adults. *Rabeneck L, Paszat LF, Bondy SJ, Law, CHL, Hsieh E, Stukel T, Marshall D, McLaughlin JR, Kim Y-I: Canadian Institutes of Health Research.* (\$952,659 2005 - 2009.)
- Social prognostic and therapeutic factors associated with breast cancer survival in Canada and the United States: Health care access and effectiveness in diverse urban and rural contexts. *Gorey KM, McCready D, Holowaty E, Luginaah I, Fung K, Hamm C, Wright W, Wright FC: Canadian Institutes of Health Research/Canadian Breast Cancer Research Alliance.* (\$353,000 2004 - 2009.)
- Social, prognostic and therapeutic factors associated with colon cancer survival in Canada and the United States: Health care access and effectiveness in diverse urban and rural places: 1995 to 2010. *Gorey KM, Herbert C, Wright FC, Hamm C, Kanjeekal S, Holowaty E, Fung K, Bartfay E: National Cancer Institute of Canada/Canadian Cancer Society.* (\$293,050 2005 - 2008.)
- Surgical care of gastric cancer patients in Ontario: A population-based study. *Coburn NG, Law CHL, Swallow CJ, Rabeneck L: University of Toronto, Connaught Grant Funds.* (\$23,000 2007 - 2008.)

Surveillance magnetic resonance imaging and ultrasound for women at high risk for hereditary breast cancer. *Warner E, Wright FC, Causer P, DeBoer G, Jong R, Messner S, Narod S, Plewes D, Wong J, Yannfe M: Ontario Cancer Research Network.* (\$288,000 2005 - 2009.)

The impact of Positron Emission Tomography (PET) imaging prior to liver resection for colorectal adenocarcinoma metastases: Prospective, Multicenter Randomized Clinical Trial (PETCAM). *Gallinger S, Moulton CA, Levine M, Tandan VR, Wall W, Fairfull Smith R, Jalink D, Roberts R, Grieg P, Hanna SS, Marcaccio M, Law CHL: Ontario Clinical Oncology Group.* (\$968,842 2005 - 2008.)

The role of thromboelastography in minimizing blood transfusions in trauma patients. *Tien H, Rizoli S: Department of National Defence, Canada.* (\$185,000 2006 - 2007.)

The role of thromboelastography in trauma. *Rizoli S, Tien H, Tremblay L, Reis M: Defence Research and Development Canada (DRDC).* (\$244,388 2006 - 2008.)

Trauma care at a Role 3 Canadian Forces Hospital in Afghanistan. *Tien H, Redelmeier D, Brenneman F, Shek P: Department of National Defence, Canada.* (\$40,000 2006.)

Understanding how patients value the competing risks, benefits and long term outcomes for the treatment of rectal cancer. *Kennedy E, McLeod R, Llewellyn-Thomas H, Smith AJ, Swallow C, Ko YJ, Fenech D: National Cancer Institute of Canada.* (\$189,476 2007 - 2009.)

Honours Received

Law CHL: Team Award in Quality for leadership in improving the quality of colorectal surgery (Co-Recipients: Smith AJ, Gagliardi A, Wright FC, Last L). November 2006.

Smith AJ: Cancer Care Ontario and Cancer Quality Council of Ontario Quality Innovation Award. November 2006.

Wright F: Cancer Quality Council of Ontario and Canadian Cancer Society Quality Award. September 2006.

DIVISION OF NEUROSURGERY

Dr. M. Fazl – Assistant Professor

Dr. D.A. Houlden – Assistant Professor

Dr. F. Pirouzmand – Assistant Professor

Dr. D.W. Rowed – Professor

Dr. M.L. Schwartz – Professor (Division Head)

Publications

Andrade-Souza YM, Ramani M, Scora D, Tsao MN, terBrugge K, Schwartz ML: Embolization before radiosurgery reduces the obliteration rate of arteriovenous malformations. *Neurosurgery*: March 2007: 60: pp 443-552.

Andrade-Souza YM, Ramani M, Scora D, Tsao MN, terBrugge K, Schwartz ML: Radiosurgical treatment for Rolandic arteriovenous malformations. *Journal of Neurosurgery*: November 2006: 105: pp 689-697.

Bethune A, Houlden D, Smith T, Yee A, Midha R, Singrakhia M: Generalized peripheral nerve failure during thoracic spine surgery. *Journal of Clinical Monitoring and Computing*: November 2006: 21: pp 41-47.

Krassioukov AV, Houlden DA, Fehlings MG: Electrophysiological testing for diagnosis and surgical monitoring during resection of tumors of the spine. In: *Spinal Cord and Peripheral Nerves*: (Dickan CA, Fehlings MG, and Gokaslan ZL, eds.) Thieme Medical Publishing: New York, 2006: pp 262-278.

Lin V, Houlden DA, Bethune A, Nolan M, Rowed DW, Pirouzmand F, Nedzelski J, Chen J: A novel method in predicting immediate post-operative facial nerve function post acoustic neuroma excision. *Otology and Neurology*: October 2006: 27: pp 1017-1022.

Zadeh G, Andrade-Souza YM, Tsao MN, Scora D, Armstrong D, Humphreys R, Rutka J, Drake J, Dirks P, Schwartz ML: Pediatric arteriovenous malformation: University of Toronto experience using stereotactic radiosurgery. *Child's Nervous System*: February 2007: 23: pp 195-199.

Invited Visits to Other Hospitals/Universities

Houlden DA: Clinical Neuroscience and Neurosurgery, Foothills HSC, Calgary, AB, April 2007. (1) Clinical neurophysiology - Basic and intraoperative applications, (2) Intraoperative neuromonitoring - Selected Cases, (3) What I Learned on my trip from the ICU to the OR and back again.

Houlden DA: Southern Society of Electroneurodiagnostic Technologists, Jacksonville, FL, November 2006. Cranial nerve monitoring.

Houlden DA: American Peripheral Nerve Society, Puerto Rico, January 2007. Intraoperative monitoring.

Houlden DA: Trillium Health Network, Mississauga, ON, February 2007. Intraoperative motor evoked potentials.

Schwartz ML: The National Neurological and Neurosurgical Hospital, University of London, London, UK, April 2007. Management of brain metastases with particular reference to radiosurgery.

Schwartz ML: Circulo Medico, Rosario, Argentina, May 2007. Predicting outcome for AVM radiosurgery.

Schwartz ML: The National Neurological and Neurosurgical Hospital, University of London, London, UK, April 2007. Predicting outcome for AVM radiosurgery.

Schwartz ML: Societe de Neurochirurgie de Langue Francaise, Punta Cana, Dominican Republic, June 2007. Predire les resultats de la radiochirurgie pour les MAV.

Schwartz ML: Congreso Argentino de Emergencias Medico-Quirurgicas, Rosario, Argentina, May 2007. (1) Traumatic brain injury: Establishing the prognosis, (2) Traumatic brain injury: The evidence base for current treatment.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. T.S. Axelrod – Associate Professor

Dr. H.U. Cameron – Associate Professor

Dr. J.C. Cameron – Assistant Professor

Dr. G.R. Fernie – Professor

Dr. J.A. Finkelstein – Associate Professor

Dr. M.H. Ford – Assistant Professor

Dr. J.D. Golish – Assistant Professor

Dr. H. Hall – Professor

Dr. R.M. Holtby – Assistant Professor

Dr. H.J. Kreder – Associate Professor (Division Head)

Dr. B.E. Maki – Professor

Dr. B.W. Malcolm – Assistant Professor

Dr. P.H. Marks – Associate Professor

Dr. J.J. Murnaghan – Assistant Professor

Dr. R.R. Richards – Professor

Dr. J. Schatzker – Professor

Dr. D.G.S. Stephen – Associate Professor

Dr. M. Tile – Professor

Dr. V. Wadey – Assistant Professor

Dr. I. Weller – Assistant Professor

Dr. C. Whyne – Assistant Professor

Dr. C.S. Wright – Assistant Professor

Dr. A.J.M. Yee – Assistant Professor

Publications

Ahn H, Mousavi P, Chin L, Roth S, Finkelstein J, Vitken A, Whyne C: The effect of prevertebroplasty tumor ablation using laser induced thermo-therapy on biomechanical stability and cement fill in the metastatic spine. *European Spine Journal*: April 2007. E-published ahead of print.

Axelrod T: Reamed versus unreamed intramedullary nailing of the femur: Comparison of the rate of ARDS in multiple injured patients. *Journal of Orthopaedic Trauma*: July 2006: 20: pp 384-388.

Axelrod TS: The rationale for operative management of distal radius fractures. *Audio-Digest Orthopaedics*: July 2006: 29100NO: pp 1.

Bethune A, Houlden D, Smith T, Yee A, Midha R, Singrakhia M: Generalized peripheral nerve failure during thoracic spinal surgery; A case report. *Journal of Clinical Monitoring and Computing*: February 2007: 21(1): pp 41-47.

Boger J, Hoey J, Poupart P, Boutilier C, Fernie G, Mihailidis A: A planning system based on Markov decision processes to guide people with dementia through activities of daily living. *IEEE Transactions on Information Technology in Biomedicine*: July 2006: 87: pp 105-100.

Bubbar V, Kreder HJ: The intention to treat principle: A primer for the orthopaedic surgeon. *Journal of Bone and Joint Surgery (American)*: September 2006: 88A: pp 2097-2099.

Burch S, Bisland SK, Wilson BC, Whyne C, Yee AJ: Multimodality imaging for vertebral metastases in a rat osteolytic model. *Clinical Orthopaedics and Related Research*: January 2007: 454: pp 230-236.

- Chahal J, Stephen DJG, Bulmer B, Daniels T, Kreder HJ:** Factors associated with outcome after subtalar arthrodesis. *Journal of Orthopaedic Trauma*: October 2006: 20(8): pp 555-562.
- Chow E, Finkelstein J, Coleman R:** Metastatic cancer of the bone. In: *Cancer: Principles and Practice of Oncology*, 8th Edition: (Vincent T. DeVita, Theodore S. Lawrence, Steven A. Rosenberg, eds.) Lippincott Williams and Wilkins: 2007.
- Finkelstein JA:** What is the ideal surgical treatment for an adult patient with a lytic spondylolisthesis? In: *Evidence-Based Orthopaedics*: (Wright JG, ed.) Elsevier: Philadelphia, Pennsylvania, 2007.
- Goh P, Chow E, Sinclair E, Emmenegger U, Lemon S, Yee AJ, Wynnychuk L, Ko Y:** New multidisciplinary prostate bone metastases clinic -- First of its kind in Canada. *Current Oncology*: January 2007: 14(1): pp 9-12.
- Jaglal SB, Cameron C, Hawker GA, Carroll J, Jaakkimainen L, Cadarette SM, Bogoch ER, Kreder HJ, Davis D:** Development of an integrated care delivery model for post fracture care in Ontario, Canada. *Osteoporosis International*: July 2006.
- Kaplan L, Bronstein Y, Barzilay Y, Hasharoni A, Finkelstein J:** Canal expansive laminoplasty in the management of cervical spondylotic myelopathy. *Israel Medical Association Journal*: August 2006: 8(8): pp 548-552.
- Khoury A, Whyne C, Daly M, Moseley D, Bootsma G, Skriniskas T, Siewerdsen JH, Jaffray D:** Intraoperative cone-beam CT for measurement and correction of periaxial malrotation of the femoral shaft: A surface-matching approach. *Medical Physics*: April 2007: 34(4): pp 1380-1387.
- Maki BE, McIlroy WE:** Control of rapid limb movements for balance recovery: Age-related changes and implications for fall prevention (invited.) *Age and Ageing*: August 2006: 35-S2: pp ii12-ii18.
- Mansfield A, Peters AL, Liu BA, Maki BE:** A perturbation-based balance training program for older adults: Study protocol for a randomised controlled trial. *BioMed Central (BMC) Geriatrics*: June 2007: 7: pp 12.
- Mulford J, Axelrod TS:** Traumatic problems of the distal radioulnar joint. *Orthopaedic Clinics of North America*: April 2007: 38: pp 289-297.
- Murnaghan JJ:** Orthopaedic surgery: Diseases of the musculoskeletal system. In: *Essentials of Surgical Specialties*, 3rd Edition: (Lawrence PF, Bell RM, Dayton MT, eds.) Lippincott Williams & Wilkins: Baltimore, 2007: pp 231-284.
- Pugash R, Sinclair E, David E, Myers J, Yee AJ, David E, Chow E:** Percutaneous cementoplasty of a lytic metastasis of the left acetabulum. *Current Oncology*: February 2007: 14(1): pp 4-8.
- Razmjou H, Yee A, Holtby R, Vidmar M, Ford M, Finkelstein J:** Relationship between preoperative patient characteristics and expectations in candidates for total knee arthroplasty. *Proceedings of the 2007 Canadian Orthopaedic Association*: Halifax, NS, 2007.
- Razmjou H, Bean A, Van Osnabrugge V, MacDermid JC, Holtby R:** Cross-sectional and longitudinal construct validity of two rotator cuff disease specific outcome measures. *BioMed Central (BMC) Musculoskeletal Disorders*: July 2006: 7:26: pp 1-9.
- Razmjou H, Hains T, Holtby R:** Diagnostic and therapeutic decision making: Exploring the role of ore-test probability in patients with rotator cuff pathology. *Physiotherapy Canada*: July 2006: 2006:58: pp 1-9.
- Razmjou H, Yee A, Ford M, Finkelstein J:** Response shift in outcome assessment in patients undergoing total knee arthroplasty. *Journal of Bone and Joint Surgery (American)*: December 2006: 88A(12): pp 2590-2595.
- Razmjou H, Yee A, Holtby R, Vidmar M, Ford M, Finkelstein J:** Relationship between preoperative patient characteristics and expectations in candidates for total knee arthroplasty. *Journal of Bone and Joint Surgery (British)*: June 2007.
- Richards R:** Glenohumeral arthrodesis. In: *Advanced Reconstruction Shoulder*: (Zuckerman J, ed.) American Academy of Orthopaedic Surgeons: 2007.
- Richards R:** Elbow arthrodesis. In: *Advanced Reconstruction Elbow*: (Yamaguchi Y, King G, O'Driscoll S, McKee M, eds.) American Academy of Orthopaedic Surgeons, 2007.
- Richards R:** Glenohumeral arthrodesis. In: *Disorders of the Shoulder: Diagnosis and Management*. 2nd Edition: (Iannotti JP, Williams GR, eds.) Lippincott Williams & Wilkins: Philadelphia, 2007.
- Scialfa CT, Fernie GR:** Adaptive technology. In: *The Handbook of the Psychology of Aging* (6th Edition): (Birren JE, Schaie KW, eds.) Academic Press: New York, 2006: pp 425-441.
- Sinclair E, Li K, Pope J, Farhadian M, Harris K, Yee A, Librach L, Wynnychuk L, Danjoux C, Chow E:** A multidisciplinary bone metastases clinic at Toronto Sunnybrook Regional Cancer Centre - A review of the experience from 1999 to 2005. *Journal of Clinical Oncology (Royal College of Radiologists)*: April 2007: 19(3): pp S45.

Tschirhart C, Finkelstein J, Whyne C: Optimization of tumour volume reduction and cement augmentation in percutaneous vertebroplasty for prophylactic treatment of spinal metastases. *Journal of Spinal Disorders*: October 2006: 19(8): pp 584-590.

Tschirhart CE, Finkelstein JA, Whyne CM: Biomechanics of vertebral level, geometry, and transcortical tumors in the metastatic spine. *Journal of Biomechanics*: January 2007: 40(1): pp 46-54.

Yee AJ, Bae HW, Friess D, Roth SM, Whyne CM, Robbin M, Johnstone B, Yoo JU: The use of simvastatin in rabbit posterolateral lumbar intertransverse process spinal fusion. *Spine*: July 2006: 6(4): pp 391-396.

Invited Visits to Other Hospitals/Universities

Axelrod TS: Association for Osteosynthesis - AO North America Education, Toronto, ON, November 2006. Basic Principles and Techniques of Operative Fracture Management Course. (1) Evaluation of course, (2) Discussion groups. (Moderator), (3) Planning hands on workshop lab, (4) Pre-operative planning lecture,

Axelrod TS: American Academy of Orthopaedic Surgeons, Annual Meeting, Chicago, IL, February 2007. Complications of distal radius fractures: Arthritis and carpal deformity instructional course lecture #367.

Axelrod TS: Association for Osteosynthesis/Association for the Study of Internal Fixation (AO ASIF) and Sunnybrook Health Science Center, Toronto, ON, February 2007. Internal Fixation of Fractures; Course for Operating Theatre Personal: (1) Lecture: Fractures of the forearm and wrist, (2) Lecture: The history of the AO.

Cameron HU: Orthopaedic Educational Summit, Vail, CO, January 2007. (1) A comedy of errors - The compounding effect of multiple minor errors, (2) Cemented stems – Theory and results of thin mantles, (3) MIS total knee surgery – Oppose.

Cameron HU: Graft Marterials Meeting, Boseman, MT, August 2006. Calcium phosphate based bone graft substitutes.

Cameron HU: 19th Annual Symposium of the International Society for Technology in Arthroplasty, New York, NY, October 2006. (1) Defining the role of modular stem design in total hip arthroplasty, (2) Long stems in primary total hip replacement, (3) Long term results of hip replacement in CDH.

Cameron HU: Hip Revision Meeting, Sydney, Australia, August 2006. (1) Long term results of a proximally modular stem in hip revision surgery, (2) Theory of proximal modularity.

Cameron HU: Vail Educational Summit, Vail, CO, January 2007. Modular necks in total hip replacement.

Cameron HU: Knee Revision Meeting, Minneapolis, MN, August 2006. Stems in knee revision surgery.

Cameron JC: Poster Presentations, International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS), Florence, Italy, May 2007. (1) Functional outcome following patello-femoral arthroplasty, (2) Meniscus allograft replacement for unicompartement osteoarthritis of the knee, (3) Puddu open wedge HTO for OA of the knee, (4) Rotational osteotomy of the proximal tibia for mal-tracking/dislocation of the patella.

Cameron JC: Rocky Mountain Traumatological Society, Aspen, CO, January 2007. Rotational osteotomy of the proximal tibia for mal-tracking/dislocation of the patella.

Fernie GR: Discussant, 15th Annual Labelle Lectureship, Lehoux P Technology, Hamilton, ON, October 2006. Innovation in health Care: Who's calling the shots?

Fernie GR: 35th Annual Scientific and Educational Meeting, Canadian Association of Gerontology, Quebec City, PQ, October 2006. Innovative rehabilitation research for people in challenging environments. Special Joint CAG/Canadian Institutes of Health Research Institute on Aging Symposium 1 on Innovative Approaches to Optimize Balance and Mobility in Older Adults.

Fernie GR: Communication and Social Interaction in Health Aging, Annual Meeting of the Inter Disciplinary Canadian Institutes of Health Research (CIHR) Strategic Research Training Project, Oxford, Eastern Townships, PQ, February 2007. Technology and disability.

Finkelstein JA: Association for Osteosynthesis (AO) Degenerative Spinal Disorders Symposium, Montreal, PQ, July 2006. Co-Chair.

Ford MH: Law Society of Upper Canada, Toronto, ON, May 2007. Injuries to the neck and back - Oatley McLeish guide to proof of personal injury damages.

Holtby RM: Canadian Orthopaedic Association (COA) Annual Meeting, Halifax, NS, June 2007. (1) A descriptive study of failed rotator cuff surgeries following work-related injuries, (2) Difference in outcome between bursal and articular partial thickness rotator cuff tears: A one-year follow-up results, (3) Impact of rotator cuff and superior labral pathology on shoulder biomechanics: (Examination under anaesthesia.)

Holtby RM: International Society of Arthroscopy, Knee Surgery & Orthopaedic Sports Medicine, Florence, Italy, May 2007. Outcome following surgical repair of SLAP Type II lesions: A two-year follow-up.

Holtby RM: Canadian Orthopaedic Nurses Association (CONA) 23rd Annual Meeting, Spiral Banquet and Conference Center, Toronto, ON, October 2006. Shoulder surgery. All you ever wanted to know.

Kreder HJ: American Academy of Orthopaedic Surgeons and Orthopaedic Trauma Society Pelvic and Acetabular Fracture Course: Advanced Concepts, Details and Improved Outcomes #3107, Chicago, IL, May 2007. Analysis and definitive management of associated transverse plus posterior wall acetabular fractures.

Kreder HJ: Association for Osteosynthesis (AO) International, Davos, Switzerland, December 2006. (1) Antegrade femoral nailing: The piriformis start point, 2) Biological and mechanical enhancement in fracture treatment. (Session Moderator), (3) Indications for operative and non-operative treatment of mid and distal humeral fractures.

Kreder HJ: Emerging Trends and Controversies in Total Hip and Knee Arthroplasty, Whistler, BC, March 2007. Bilateral total knee replacement: Simultaneous or staged.

Kreder HJ: Association for Osteosynthesis/Association for the Study of Internal Fixation (AO ASIF) Course on Basic Principles and Techniques of Operative Fracture Fixation, San Diego, California, September 2006. (1) Bone healing: Principles overview, (2) Intramedullary nailing: Technique of femoral and tibial nailing, (3) The spectrum of stability: Principles-absolute stability.

Kreder HJ: American Academy of Orthopaedic Surgeons and Orthopaedic Trauma Society Pelvic and Acetabular Fracture Course: Advanced Concepts, Details and Improved Outcomes #3107, Chicago, IL, May 2007. (1) Complex pelvic fractures: Definitive management breakout session, (2) Pelvic and acetabular fracture patient management: Degloving injuries, obesity and pre-operative DVT issues

Kreder HJ: Calgary Trauma Retreat, Calgary, AB, May 2007. Developing the best orthopaedic trauma care system for patients, providers and payors.

Kreder HJ: Association Internationale pour l'Osteosynthese Dynamique (AIOD), Blue Mountain, ON, September 2006. (1) Distal femur fractures; Percutaneous approaches, (2) Hip Trauma: Total hip replacement after hip fracture, (3) Indirect reduction and locked plating, (4) Intra-articular distal radius fractures: Percutaneous fixation, (5) Trauma cases: What would you do?, (6) Young patients and total hip replacement: Which bearing surface is best?

Kreder HJ: AO North America Nursing Continuing Education Bioskills Workshop, Toronto, ON, February 2007. Dynamic hip screw: Indications for fixation of proximal femur fractures and technique.

Kreder HJ: Association Internationale pour l'Osteosynthese Dynamique (AIOD), Whistler, BC, February 2007. Femoral fractures: (1) Advantages and disadvantages of manual traction versus fracture table, (2) Nailing tips and tricks for obese patients, (3) Subtrochanteric femur fractures: When and how to use plates, (4) Trauma case: What would you do?

Kreder HJ: Emerging Trends and Controversies in Total Hip and Knee Replacement, Whistler, BC, March 2007. (1) Immediate total hip arthroplasty in acetabular fractures, (2) Periprosthetic acetabular fractures: Concepts of management and surgical tricks, (3) Periprosthetic fractures around total knee replacements, (3) Total hip arthroplasty revision surgery concepts. (Moderator), (4) Total joint arthroplasty controversies regarding the interface: Ceramic, metal, cross-linked polyethylene.

Kreder HJ: Celebrating Innovations in Health Care Exposition, Toronto, ON, May 2007. Integrating healthcare service delivery: A new model of care for patients with arthritis. The hip and knee replacement program of the Toronto Central LHIN Joint Disease Management Program.

Kreder HJ: North York Orthopaedic Surgery Group Continuing Medical Education Meeting, Toronto, ON, October 2006. Proximal femur fractures and periprosthetic fractures: Techniques, trick and tips of management.

Kreder HJ: Canadian Orthopaedic Association, Halifax, NS, June 2007. Trauma specialty half day tips and tricks: How I fix a distal femur fracture.

Maki BE: Invited Participant, Canada Meets UK on Design and Technology for Quality of Life in Old Age, CIHR Institute on Aging / UK Strategic Promotion of Aging Research Capacity (SPARC), Toronto, ON, June 2007.

Maki BE: Invited Participant, National Roundtable on Mobility in Aging, CIHR, Ottawa, ON, September 2006.

Maki BE: Inviting Participant, National Consensus Conference on Falls Prevention: 5-Year Falls Research Agenda Setting, U.S. Veterans Health Administration, Clearwater Beach, FL, April 2007.

Maki BE: 8th National Evidence-Based Fall Prevention Conference: Transforming Fall Prevention Practices, Clearwater Beach, FL, April 2007. Balance, biomechanics and falls (invited presentation).

Maki BE: Organized and Chaired Symposium, Canadian Institutes of Health Research (CIHR), Institute on Aging/Canadian Association on Gerontology, Quebec, PQ, October 2006. Joint CIHR/CAG symposium on balance and mobility research.

Maki BE: Invited Presentation (presented on my behalf by Perry S), 5th World Congress on Biomechanics, Munich, Germany, July 2006. New interventions to promote more effective change-in-support balance.

Maki BE: Invited Presentation, Annual Conference of the Canadian Association on Gerontology, Quebec, PQ, October 2006. Research to optimize effectiveness of handrails.

Marks PH: Holland Orthopaedic and Arthritic Centre, Toronto, ON, January 2007. Articular cartilage, injury, repair and the development of osteoarthritis.

Marks PH: The ProKnee Symposium, Toronto, ON, February 2007. (1) Choice of biomarkers for OA trials and studies-current status. Development of meniscal injury, cartilage and bone injury and other models, (2) Early findings from the RetroKnee Study, (3) Findings and data from intraoperative and early postoperative observations. Opportunities for clinical fellows to assist in exploration of current and future data, (4) Findings from the RetroKnee Study. Suggestions for further investigations using the Retro and ProKnee data, (5) Intra-inter-examiner reliability of the KT-1000 5-11 years after anterior cruciate ligament reconstruction, (6) Predictors of osteoarthritis following anterior cruciate ligament reconstruction – The cohort at baseline, (7) The relationship between objective, subjective, and functional examination 5-11 years after anterior cruciate ligament reconstruction surgery, (8) What is an epidemiologist doing in a study like this?

Marks PH: Orthopaedic Surgery and Sports Traumatology at the Bruderholz-Hospital, Basel, Switzerland, June 2007. Current concepts in cartilage repair.

Marks PH: Department of Orthopaedic Surgery and Traumatology at the Bruderholz-Hospital, Basel, Switzerland, June 2007. Current medical care of the Professional Sports Team.

Marks PH: Lower Extremity Musculoskeletal Imaging Update: A Comprehensive Multi-Modality Approach, Toronto, ON, November 2006. MRI of the knee: A clinical perspective.

Marks PH: Smith and Nephew, 21st Annual American Resident Research Competition and Conference, Memphis, TN, August 2006. The ACL risk equation: Does ACL reconstruction prevent articular degeneration?

Marks PH: University of Pittsburgh, Pittsburgh, PA, July 2006. The ACL risk equation: Does reconstruction prevent articular degeneration.

Richards RR: Law Society of Upper Canada, Toronto, ON, May 2007. Injuries to the shoulder, arm and hand.

Richards RR: American Society for Surgery of the Hand, Washington, DC, September 2006. Radial nerve palsy following humeral fracture.

Stephen DGS: Lecturer, 8th Annual Chicago Trauma Symposium, Chicago, IL, July 2006.

Stephen DGS: Faculty and Evaluator of Course, Principles of Operative Fracture Management Course Part I: Basic Principles; Part II Advanced Principles, Sun Valley, ID, March 2007. (1) Calcaneal fractures, (2) Femoral fractures.

Stephen DGS: Invited Faculty, AO Basic Principles and Techniques of Operative Fracture Management Course for Residents, Reno, NE, January 2007. (1) History of the AO, principles and philosophy, progress, evolution and current research, (2) Principles of management - Articular fractures, (3) Specific fractures – Articular. (Moderator.)

Stephen DGS: AO Advanced Course, Toronto, ON, November 2006. (1) Introduction to course, (2) Outcome of calcaneus.

Stephen DGS: Basic Principles and Techniques of Operative Fracture Management Course for Residents, AO North America, San Diego, CA, September 2006. (1) Lecture: The patient and the injury, (2) Discussion group. (Moderator), (3) Course evaluator for AO.

Stephen DGS: 22nd Annual Meeting, Orthopaedic Trauma Association, Phoenix, AZ, October 2006. (1) Locked plates for diaphyseal fractures: When, where and why, (2) Controversies in fractures of the foot and ankle.

Stephen DGS: Basic Principles and Techniques of Operative Fracture Management., Chicago, IL, October 2006. (1) Principles overview. (Moderator), (2) Lab instructor, (3) Discussion groups.

Stephen DGS: Visiting Professor, Dalhousie Orthopaedic Grand Rounds, Dalhousie University, Halifax, NS, March 2007. (1) Acetabular fractures in the elderly, (2) Fixation vs replacement.

Stephen DGS: Principles of Operative Fracture Management Course Part III: Solutions for Fracture Fixation Problems, Tyson's Corner, VA, April 2007. (1) Indication for plating of femoral shaft fractures, (2) Calcaneal fractures.

Stephen DGS: Zimmer Trauma Course, Toronto, ON, December 2006. (1) Management of subtrochanteric fractures, (2) Management of supracondylar femur fractures.

Stephen DGS: AO Advances in Fracture Management Course, Krakow, Poland, May 2007. (1) Pelvic injuries, classification and pathomechanism, their recognition. Emergency care of closed and open fractures, (2) LAB 5: Emergency and definitive external fixator frame for the pelvic disruption. Plating of symphyseal disruption, (3) Acetabular fractures: Pathomechanism, classification, diagnosis, (4) Emergency care of acetabular fractures. Definitive care of the simple types and examples of today's possibilities in complex cases, (5) Discussion groups.

Stephen DGS: Letournel Pelvic and Acetabular Course, Los Angeles, CA, September 2006. (1) Radiology of the posterior wall and column acetabular fractures, (2) Management of fracture dislocation sacroiliac joint, (3) Anterior pelvic fixation. (Lab Moderator.)

Stephen DGS: The 2nd Annual Kenneth D. Johnson Lecture, Nashville, TN, November 2006. (1) Solutions for common pelvic ring injuries: Case presentations, (2) Subtrochanteric femoral fractures: How I perform plate fixation.

Stephen DGS: American Association of Orthopaedic Surgeons Annual Meeting, San Diego, CA, February 2007. Talus and calcaneous fractures: Current treatment.

Whyne C: CIRQUE, Queen's University, Kingston, ON, February 2007. Engineering outside the box.

Yee AJM: Conference Symposia, Canadian Spine Society, Mont-Tremblanc, PQ, March 2007. Bone morphogenic proteins and bone graft extenders: What is their role?

Yee AJM: Invited Speaker, Course Faculty, Degenerative Spine Symposium, Association for Osteosynthesis (AO) North America, Montreal, PQ, July 2006. (1) Cervical radiculopathy: Anterior interbody devices, (2) Degenerative disc disease: Clinical applications and future.

Yee AJM: 11th World Congress on Advances in Oncology and 9th International Symposium on Molecular Medicine, Crete, Greece, October 2006. Ganoderma oil inhibits tumor cell proliferation and induces tumor cell death.

Research and Investigations

Senior Investigator's Name Appears in Italics

A biomechanical assessment of kyphoplasty and IBC in a human cadaveric burst fracture model. *Whyne C, Ford M, Yee A, Finkelstein J: Wright Medical.* (\$24,000 2006 - 2007.)

A prospective study of biomechanically based guidelines in metastatic burst fracture risk prediction. *Whyne C, Yee A, Finkelstein J, Kreder H, Chow E, Barnes A, Weller I, Clemons M, Trudeau M: Canadian Breast Cancer Research Alliance.* (\$335,406 2003 - 2007.)

A randomized, comparative multicenter clinical trial evaluating BST-CarGel and microfracture in repair of focal articular cartilage lesions on the femoral condyle. *Marks P, Restrepo A, Shive M: BioSyntech Canada Incorporated.* (\$240,000 2005 - 2008.)

An intelligent environment to support aging-in-place and independence. *Mihailidis A, Fernie GR, Boutilier C: Alzheimer's Association.* (\$172,000 2004 - 2007.)

Biomechanical implications of metastatic disease in the spine: Evaluation of stability and tumour burden in a preclinical model. *Whyne C, Yee A, Finkelstein J: Canadian Institutes of Health Research.* (\$239,460 2004 - 2007.)

Biomechanical implications of metastatic disease in the spine: Evaluation of stability and tumour burden in a preclinical model. *Whyne C, Yee A, Finkelstein J: Canadian Institutes of Health Research.* (\$40,096 2007 - 2008.)

Compensatory stepping in response to postural perturbation in a group of working-age, unilateral, transtibial amputees. *Maki BE, Pauley T, Devlin M: Workplace Safety and Insurance Board (Solutions for Workplace Change Program.)* (\$18,020 2004 - 2006.)

Control of balance reactions in the complex environments of daily life: Effects of age-related changes in visual processing and the development of novel approaches for fall prevention. *Maki BE, McIlroy WE, Fernie GR, Pratt J: Canadian Institutes of Health Research.* (\$782,042 2004 - 2009.)

Development and testing of a perturbation-based balance training program to improve balance reactions and prevent falls in older adults. *Maki BE, Mansfield A: Ontario Neurotrauma Foundation.* (\$7,000 2007.)

Development and validation of an automated tool for detecting and preventing unsafe stair use by older adults. *Mihailidis A, Maki BE, Sveistrup H, Hoey J: Canadian Institutes of Health Research.* (\$48,227 2006 - 2007.)

Development of a Canadian-led international bone metastases module to accompany the European Organization for Research and Treatment of Cancer QoL Group core questionnaire (EORTC QLQ-C30) for future clinical trials in patients with bone metastases. *Chow E, Bezjak A, Brundage M, Clemons M, Wu J, Yee AJM, Bottomley A, Hoskin P, Velikova G: National Cancer Institute of Canada (NCIC).* (\$271,483 2005 - 2008.)

Evaluation of a preclinical model of vertebral metastasis: An in vivo study of the VX2 rabbit carcinoma. *Whyne CM, Yee AJ: Zimmer Grant.* (\$10,000 2005 - 2006.)

Evaluation of pGLcNAc-derived materials as activator of intervertebral disc tissue repair. *Seth A, Yee A, Whyne CM: Marine Polymer Technologies.* (\$217,560 2007 - 2009.)

Functional outcome in cardiovascular patients undergoing surgical hip fracture repair (FOCUS). *Carson J, Multicentre Trial Involving USA and Canadian Sites: National Institute of Health (NIH), National Heart and Lung Institute.* (\$8,000,000 2003 - 2008.)

Health care technology and place - Research training program. *Coyte PC, McKeever P, Fernie GR et al: Canadian Institutes of Health Research.* (\$1,980,000 2002 - 2007.)

How does health care delivery impact outcomes for lumbar spinal surgery. *Yee AJ, Bederman S, Kreder H, Weller I, Finkelstein JA: Orthopaedic and Arthritic Institute, Musculoskeletal (MSK) Program.* (\$15,000 2005 - 2006.)

Infection control turnstile. *Fernie GR, McGeer AJ, Mihailidis A: The Health Technology Exchange.* (\$85,000 2006 - 2007.)

Infection control turnstile. *Fernie GR, McGeer AJ, Mihailidis A: Canadian Institutes of Health Research.* (\$42,500 2006 - 2007.)

Innovative approaches to optimizing balance and mobility in older adults. *Maki BE, McIlroy WE, Fernie GR, Popovic M, Lui B, Fisher R: Canadian Institutes of Health Research.* (\$1,101,385 2002 - 2007.)

Intelligent design for adaptation, participation and technology (IDAPT): Innovative rehabilitation for people in challenging environments. *Fernie GR, Colangelo A, Cott C, Davis A, De Nil L, Maki BE, McIlroy WE, Naglie G, Naumann S, Patla A: Canadian Foundation for Innovation.* (\$18,398,069 2004 - 2009.)

Laboratories and workspaces for scientists and graduate students engaged in the iDAPT research program at Toronto Rehabilitation Institute (tentatively approved: pending final administrative approval). *Fernie GR, Boutilier C, Bradley D, Colangelo A, Cott C, Davis A, Maki BE, McIlroy WE, McKeever P, Naglie G: Canadian Foundation for Innovation.* (\$17,631,726 2004 - 2008.)

Large aggregating proteoglycans and therapeutic strategies in intervertebral disc cell metabolism. *Yee AJ, Yang B, Whyne C: Zimmer Grant.* (\$8,300 2006 - 2007.)

Managing the “tail of the curve”: The course, predictive factors and work-related outcomes of injured workers one year after attending the WSIB Specialty Clinics for upper limb disorders. *Beaton D, MacDermid J, Richards RR, Hogg Johnson S, Franche RL, Cote P, Pagura S, Bombardier C: Workplace Safety and Insurance Board.* (\$287,333 2005 - 2007.)

Metastatic breast cancer genome anatomy. *Seth A, Aubin J, Kahn H, Lyons-Weiler J, Yee AJ, Narod S: Canadian Breast Cancer Research Alliance, Special Competition in New Approaches to Metastatic Disease in Breast Cancer Research.* (\$750,000 2005 - 2010.)

Modeling thin bone structures of the human skeleton. *Whyne C: Natural Sciences and Engineering Research Council.* (\$165,000 2006 - 2010.)

Monitored portable handwash. *Fernie GR, McGeer AJ, Mihailidis A: The Health Technology Exchange.* (\$26,667 2006 - 2007.)

Monitored portable handwash. *Fernie GR, McGeer AJ, Mihailidis A: Canadian Institutes of Health Research.* (\$13,333 2006 - 2007.)

New emerging team - Balance and mobility in elderly. *Maki BE, Fernie GR, Liu B, McIlroy WE, Popovic M, Fisher R: Canadian Institutes of Health Research.* (\$1,085,000 2002 - 2007.)

Photodynamic therapy for the treatment of metastatic breast carcinoma to the spine: Development and validation in a pre-clinical model. *Yee A, Finkelstein JA, Burch S, Bisland S, Wilson B: Canadian Breast Cancer Foundation.* (\$300,000 2004 - 2007.)

Recombinant elastin-like polypeptide based materials for use in artificial spinal discs. *Woodhouse K, Whyne C, Yee A: Emerging Materials Network Collaborative Grant, Ontario Centres of Excellence.* (\$211,400 2006 - 2008.)

Rehabilitation Engineering Research Center on universal design and the built environment at Buffalo. *Steinfeld E: National Institute on Disability and Rehabilitation Research.* (\$5,538,000 2005 - 2009.)

Risk factors and indicators that predict the progression of osteoarthritis after knee injury. *Marks PH, Hurtig M, White L, Weller I: Canadian Institutes of Health Research.* (\$300,000 2004 - 2009.)

Role of spatial memory in the control of grasping reactions. *Maki BE, Scovil S: Ontario Neurotrauma Foundation (Summer Internship Program).* (\$10,000 2006.)

Safe activities following elective total hip replacement (SafeT). *Weller IM, Corey PN, Gignac MA, Gollish JD, Hawker GA, Kennedy DM, Kreder HJ, MacDonald SJ: Canadian Institutes of Health Research.* (\$930,345 2007.)

Safe independent powered wheelchair mobility for residents in long term care institutions with complex physical and cognitive impairments. *Fernie GR, Carswell A, Cott C, Herrmann N, Jutai J, Kiss A: Canadian Institutes of Health Research.* (\$195,970 2005 - 2007.)

The determinants of safe mobility in the elderly who use assistive mobility devices. *Fernie GR, Zabjek K, McIlroy WE, Gage W, Maki BE, Naglie G, Hill S, Black S, Mihailidis A: Canadian Institutes of Health Research.* (\$47,615 2007 - 2008.)

The impact of hip and knee replacements and other new techniques on physiotherapy requirements for orthopaedic surgery. *Chan B, Williams J, Hawker G, Kreder HJ, Buske L, Rorabeck CH: Canadian Health Services Research Foundation.* (\$161,000 2002 - 2006.)

Tumor invasiveness and the role of versican in breast carcinoma metastasis to bone. *Yee AJ, Yang B, Finkelstein JA: Zimmer Grant.* (\$10,000 2005 - 2006.)

Visual processing and postural reactions: Development and pilot testing of a visual training program to improve balance control and prevent falls in older adults. *Maki BE, McKay S: Ontario Neurotrauma Foundation.* (\$10,000 2007.)

All-Arthroscopic or mini-open repair of the rotator cuff. *Holtby RM: Canadian Institutes of Health Research.* (\$609,000 2007.)

Honours Received

Axelrod TS: Edwin G. Bovill, Jr. MD Award to the outstanding scientific paper from each Annual Meeting of the Orthopaedic Trauma Association for A Multicenter Prospective Randomized Controlled Trial of Open Reduction and Internal Fixation vs Total Elbow Arthroplasty for Displaced Intra-articular Distal Hume. February 2007.

Axelrod TS: Peters-Boyd Academy 2006-07 Award for Excellence in Continuing Education Teaching. May 2007.

Kreder HJ: President's Award, Canadian Orthopaedic Association for outstanding contribution to orthopaedics in Canada. June 2007.

Stephen DGS: Teaching Award - Best Table Instructor - AO Resident Pelvic and Acetabular Course. October 2006.

DIVISION OF PLASTIC SURGERY

Dr. O. Antonyshyn – Associate Professor

Dr. P. Binhammer – Assistant Professor (Division Head)

Dr. R.C. Cartotto – Associate Professor

Dr. J. Fialkov – Assistant Professor

Dr. J. Fish – Associate Professor

Dr. M. Gomez – Assistant Professor

Publications

Cartotto R, McGibney K, Smith T, Abadir A: Vasopressin for the septic burn patient. *Burns*: June 2007: 33(4): pp 441-451.

Cross KM, Leonardi L, Payette JR, Gomez M, Levasseur MA, Shattka BJ, Sowa MG, Fish JS: Clinical utilization of near infrared spectroscopy devices for burn depth assessment. *Wound Repair and Regeneration*: May 2007: 15: pp 332-340.

Higgins S, Fowler R, Gomez M, Callum J, Cartotto RC: Transfusion-related acute lung injury (TRALI) in patients with burns. *Journal of Burn Care and Research*: January 2007: 28: pp 56-64.

Hsiao M, Tsai B, Uk P, Jo H, Gomez M, Gollogly JG, Beveridge M: “What do kids know”: A survey of 420 Grade 5 students in Cambodia on their knowledge of burn prevention and first-aid treatment. *Burns*: March 2007: 33: pp 347-351.

Kwan P, Gomez M, Cartotto RC: Safe and successful restriction of transfusion in adults with burn injuries. *Journal of Burn Care and Research*: December 2006: 27: pp 826-834.

Miller S, Bessey PQ, Schurr MJ, Browning SM, Jeng JC, Caruso DM, Gomez M, Latenser BA, Lentz CW, Saffle JR, Kagan RJ, Purdue GF, Krichbaum JA: National burn repository 2005: A ten-year review. *Journal of Burn Care and Research*: July 2006: 27: pp 411-436.

Neuman MG, Shear NH, Malkiewicz IM, Taeri M, Shapiro LE, Krivoy N, Haber J, Gomez M, Fish J, Cartotto R, Cohen L: Immunopathogenesis of hypersensitivity syndrome reactions to sulfonamides. *Translational Research*: May 2007: 149: pp 243-253.

Tang K, Jian L, Qin Z, Zhenjiang L: Characteristics of burn patients at a major burn center in Shanghai. *Burns*: November 2006: 32: pp 1037-1043.

Invited Visits to Other Hospitals/Universities

Antonyshyn O: Advances in the Management of Craniomaxillofacial Surgery, Association for Osteosynthesis (AO) North America Advanced Symposium, Lake Tahoe, NE, February 2007. “Early vs late management of orbital trauma.”

Antonyshyn O: Fundamentals of Orbital Surgery, Association for Osteosynthesis (AO) North America, Rosemont, IL, April 2007. (1) Cadaver dissection instructor, (2) Management of complex orbital fractures.

Cartotto RC: 1st Annual Educational Symposium of the Canadian Interest Group. American Burn Association Annual Meeting, San Diego, CA, March 2007. Skin substitutes for the burn patient. (Course Director and Speaker.)

Research and Investigations

Senior Investigator's Name Appears in Italics

Pilot Research Project: Investigation of skelite synthetic bone substitute in craniomaxillofacial skeletal augmentation. Part I: Skelite RP. *Antonyshyn O, Edwards G, Mainprize J: Millenium Biologix Corporation.* (\$39,000 2005 - 2006.)

Prospective study of imiquimod in the treatment of patients with positive margins following surgical excision of basal cell carcinoma and squamous cell carcinoma. *Barnes EA, Assaad D, Antonyshyn O, Barnes EA, Fialkov J, Choo R, Breen D: 3M Pharmaceuticals.* (\$150,000 2005 - 2007.)

The effects of steroid injection with percutaneous needle aponeurotomy in patients with Dupuytren's contracture: A randomized controlled study. *Binhammer P: Canadian Society of Plastic Surgery.* (\$10,000 2007 – 2008.)

Honours Received

Cartotto RC: The Marvin Tile Award for Distinguished Service to the Department, the Hospital, and the University of Toronto. Sunnybrook Health Sciences Centre, Department of Surgery. June 2007.

DIVISION OF UROLOGY

Dr. L.K. Carr – Assistant Professor

Dr. S. Herschorn – Professor

Dr. L.H. Klotz – Professor (Division Head)

Dr. R.T. Kodama – Associate Professor

Dr. R.K. Nam – Assistant Professor

Dr. S. Sharir – Assistant Professor

Dr. V. Venkateswaran – Assistant Professor

Publications

Appell RA, Dmochowski RR, Herschorn S: Urethral injections for female stress incontinence. *British Journal of Urology*: August 2006; 98 Suppl: pp 27-30.

Bruchovsky N, Klotz L, Crook J, Goldenberg SL: Locally advanced prostate cancer-biochemical results from a prospective phase II study of intermittent androgen suppression for men with evidence of prostate-specific antigen recurrence after radiotherapy. *Cancer*: January 2007; 109(05): pp 858-867.

Bruchovsky N, Klotz L, Crook J, Malone S, Ludgate C, Morris WJ, Gleave ME, Goldenberg SL: Final results of the Canadian prospective phase II trial of intermittent androgen suppression for men in biochemical recurrence after radiotherapy for locally advanced prostate cancer: Clinical parameters. *Cancer*: July 2006; 107(2): pp 389-395.

Herschorn S: Early versus late sacral neuromodulation and systematic reviews - Commentary. *Canadian Urological Association Journal*: June 2007; 1: pp 111-112.

Herschorn S: Vaginal reconstructive surgery for sphincteric incontinence and prolapse. In: *Campbell-Walsh Urology*: (Wein AJ, Kavoussi LR, Novick AC, Partin AW, Peters CA, eds.) Elsevier: Philadelphia, 2006: pp 2187-2233.

Herschorn S, Carrington E: S-shaped coaxial dilators for male urethral strictures. *Urology*: June 2007; 69: pp 1199-1201.

Irwin DE, Milsom I, Hunskaar S, Reilly K, Kopp Z, Herschorn S, Coyne K, Kelleher C, Hampel C, Artibani W, Abrams P: Population-based survey of urinary incontinence, overactive bladder, and other lower urinary tract symptoms in five countries: Results of the European Prospective Investigation into Cancer (EPIC) Study. *European Urology*: December 2006; 50: pp 1306-1315.

Jewett MA, Klotz LH: Advances in the medical management of benign prostatic hyperplasia. *Canadian Medical Association Journal*: June 2007; 176(1): pp 1850-1851.

Joffe R, Klotz L: Results of unilateral genitofemoral nerve grafts with contralateral nerve sparing during radical prostatectomy. *Urology*: June 2007; 69(6): pp 1161-1164.

Klotz L: Active surveillance for favorable risk prostate cancer: What are the results, and how safe is it? *Prostate Cancer Research Institute Insights*: November 2006; 9(4): pp 8-11.

Klotz L: Active surveillance versus radical treatment for favorable-risk localized prostate cancer. *Current Treatment Options in Oncology*: September 2006; 7(5): pp 355-62.

Klotz L: World Urologic Oncology Federation (WUOF): History, mandate, and progress. *Journal of Urologic Oncology*: May 2007; 25(3): pp 186-187.

Loblaw DA, Virgo KS, Nam R, Somerfield MR, Ben-Josef E, Mendelson DS, Middleton R, Sharp SA, Smith TJ, Talcott J, Taplin ME, Vogelzang NJ, Wade III JL, Bennett CL, Scher HI: Initial hormonal management of androgen-sensitive metastatic, recurrent, or progressive prostate cancer: 2007 update of an American Society of Clinical Oncology Practice Guideline. *Journal of Clinical Oncology*: April 2007; 25: pp 1596-1605.

Lukka H, Waldron T, Klotz L, Winquist E, Trachtenberg J: Maximal androgen blockade for the treatment of metastatic prostate cancer-a systematic review. *Current Oncology*: June 2007; 13(3): pp 81-93.

Matthew AG, Currie KL, Ritvo P, Nam R, Nesbitt ME, Kalnin RW, Trachtenberg J: Personal digital assistant data capture: The future of quality of life measurement in prostate cancer treatment. *Journal of Oncology Practice*: May 2007; 3: pp 115-120.

Nam R: Variants of the hk2 protein gene (KLK2) are associated with serum hk2 levels and predict the presence of prostate cancer at biopsy. *Clinical Cancer Research*: November 2006: 12(21): pp 6452-6458.

Nam RK, Sugar L, Wang Z, Yang W, Kitching R, Klotz LH, Venkateswaran V, Narod SA, Seth A: Expression of TMPRSS2 ERG gene fusion in prostate cancer cells is an important prognostic factor for cancer progression. *Cancer Biology and Therapeutics*: January 2007: 6(1): pp 35-40. E-published.

Nam RK, Zhang WW, Klotz LH, Trachtenberg J, Jewett MA, Sweet J, Toi A, Teahan S, Venkateswaran V, Sugar L, Loblaw A, Siminovitch K, Narod SA: Variants of the hK2 protein gene (KLK2) are associated with serum hK2 levels and predict the presence of prostate cancer at biopsy. *Clinical Cancer Research*: November 2006: 12(21): pp 6452-6458.

Palou J, Baniel J, Klotz L, Wood D, Cookson M, Lerner S, Horie S, Schoenberg M, Angulo J, Bassi P: Urothelial carcinoma of the prostate. *Urology*: January 2007: 69(1S): pp 50-61.

Scholz M, Lam RY, Klotz L: Outcomes of treatment vs. observation of localized prostate cancer in elderly men. *Journal of the American Medical Association (JAMA)*: April 2007: 297(15): pp 1651-1652.

Steers WD, Herschorn S, Kreder KJ, Moore K, Strohbehn K, Yalcin I, Bump RC; for the Duloxetine Overactive Bladder (OAB) Study Group: Duloxetine compared with placebo for treating women with symptoms of overactive bladder. *British Journal of Urology*: May 2007.

Van Poppel H, Da Pozzo L, Albrecht W, Matveev V, Bono A, Borkowski A, Marechal JM, Klotz L, Skinner E, Keane T, Claessens I, Sylvester R; for the European Organization for Research and Treatment of Cancer (EORTC); National Cancer Institute of Canada Clinical Trials Group (NCIC CTG); Southwest Oncology Group (SWOG); the Eastern Cooperative Oncology Group (ECOG): A prospective randomized EORTC intergroup phase 3 study comparing the complications of elective nephron-sparing surgery and radical nephrectomy for low-stage renal cell carcinoma. *European Urology*: November 2006: E-published.

Venkateswaran V, Haddad A, Klotz LH, Nam RK, Fleshner NE: An understanding of low-carbohydrates, high-fat diets and cancer (Invited Review.) *Preventive and Alternative Medicine*: November 2006: 2: pp 136-140.

Vieth R, Choo R, Deboer L, Danjoux C, Morton GC, Klotz L: Rise in prostate-specific antigen in men with untreated low-grade prostate cancer is slower during spring-summer. *American Journal of Therapeutics*: September 2006: 13(5): pp 394-399.

Zhang L, Loblaw A, Klotz L: Modeling prostate specific antigen kinetics in patients on active surveillance. *Journal of Urology*: September 2006: 176(4): pp 1392-1397.

Invited Visits to Other Hospitals/Universities

Herschorn S: Dalhousie University Functional Urology Group, Departments of Urology and Gynecology, Halifax, NS, September 2006. (1) Obturator dslings for SUI, (2) Demonstration of obturator sling procedure for Stress Urinary Incontinence (SUI).

Herschorn S: American Urological Association, Anaheim, CA, May 2007. American Urological Association Continuing Medical Education (AUA CME) Course, Controversies in Female Urology. Augmentation cystoplasty for refractory overactive bladder.

Herschorn S: Pfizer Sponsored Symposium, Berlin, Germany, March 2007. Co-Chair: Male Overactive Bladder (OAB), Speaker Training Meeting: (1) Antimuscarinic efficacy in the treatment of Male OAB, (2) Frequently asked questions.

Herschorn S: International Continence Society, Christchurch, NZ, November 2006. Satellite Symposium on The Management of Overactive Bladder (OAB) Symptoms in Men with Lower Urinary Tract Symptoms (LUTS), IMPACT on quality of life, can we successfully treat men with OAB symptoms?

Herschorn S: University of Western Ontario, London, ON, September 2006. The use of Botulinum toxin in overactive bladder.

Herschorn S: Society of Urologic Surgeons of Ontario, Toronto, ON, December 2006. The use of Botulinum toxin in urology.

Herschorn S: Sudbury Urology Forum, Sudbury, ON, June 2007. Treating Lower Urinary Tract Symptoms (LUTS) - What's on the horizon?

Klotz LH: American Society of Clinical Oncology (ASCO) 2007 Annual Meeting, Chicago, IL, June 2007. Active surveillance for favorable risk prostate cancer.

Klotz LH: Society of Urologic Oncology, Anaheim, CA, May 2007. Combined androgen blockade for prostate cancer.

Klotz LH: Caribbean Society of Urology, Santo Domingo, Dominican Republic, June 2007. Controversies in prostate cancer.

Nam RK: From Diagnosis to Metastasis, Prostate Cancer Education Forum, Canadian Urological Association, Quebec, PQ, June 2007.

Nam RK: Societe Internationale d'Urologie (SIU), Genitourinary (GU) Oncology Conference, Cape Town, South Africa, November 2006. Use of nomograms to determine prostate biopsy.

Venkateswaran V: Brampton Chapters - Us Too - Prostate Cancer Support Group, Canadian Prostate Cancer Network, Brampton, ON, June 2007. Opportunities for prevention & recurrence of prostate cancer: Relevance of dietary intervention.

Research and Investigations

Senior Investigator's Name Appears in Italics

A randomized, double-blind, placebo controlled detrol LA "add-on" to alpha-blocker study in men with persistent lower urinary tract symptoms of urinary frequency and urgency with/without urinary incontinence after previous monotherapy with alpha blocker. *Herschorn S (for Canada): Pfizer Global.* (\$50,000 2006 - 2007.)

Biomarker discovery in the transgenic mouse prostate cancer prevention model. *Vasundara V, Klotz L, Fleshner N, Sugar L: New Ideas Grant, Canadian Prostate Cancer Research Initiative.* (\$38,610 2005 - 2007.)

CORAL study (Fosamax vs Placebo in patients initiating therapy with LHRH analogues). Investigator initiated multicentre trial, initiated by L. Klotz, with funds provided to CURC by Abbott Laboratories Canada. Funds include per patient reimbursement (\$500,000) and project management costs (\$300,000). *Klotz L: Canadian Urology Research Consortium.* (\$800,000 2005 - 2008.)

Cross-Canada assessment of a new nomogram prediction tool for prostate cancer screening. *Nam RK, Narod S, Klotz L, Trachtenberg J, Jewett M, Izawa J, Chin J, Bell D, Aprikian A, So A, Toi A: National Cancer Institute of Canada.* (\$462,084 2006 - 2009.)

CURC/CUOG (Canadian Urologic Oncology Group) Casodex dose intensification study (CHICS). Investigator initiated study by L. Klotz. Funds provided to CURC by Astra Zeneca Canada. Funds include per patient reimbursement (\$450,000) and project management costs (\$450,000). *Klotz L: Canadian Urology Research Consortium.* (\$900,000 2005 - 2007.)

Dietary factors influencing IGF signaling in prostate cancer. *Pollak M, Venkateswaran V, Gleave M, Ong C: National Cancer Institute of Canada.* (\$345,548 2007 - 2010.)

Dutasteride vs Placebo in patients initiating intermittent androgen deprivation. . Investigator initiated multicentre trial, initiated by L. Klotz, with funds provided to CURC by Glaxo Smith Kline US. Funds include per patient reimbursement (\$500,000) and project management costs (\$300,000). *Klotz L: Canadian Urology Research Consortium.* (\$800,000 2006 - 2009.)

Effect of a low-carbohydrate diet on prostate cancer *in vivo*: Alterations in biochemical mechanisms involving the insulin and IGF axis. *Venkateswaran V, Klotz L, Fleshner N, Sugar L, Pollak M: Prostate Cancer Research Foundation of Canada.* (\$110,138 2006 - 2008.)

Effect of intermittent versus continuous androgen suppression on bone loss and body composition in a phase 3 randomized trial, Project # 02OCT0203. *Klotz L, Gleave M: Ontario Cancer Research Network.* (\$540,000 2003 - 2006.)

European prospective investigation into cancer (EPIC) Study: Overactive bladder (OAB) epidemiology, risk factors, comorbidities and bother (impact on QoL, productivity, depression, and sexuality). A European and Canadian study. *Herschorn S (for Canada): Pfizer Global.* (\$10,000 2006 - 2007.)

Individual risk assessment for prostate cancer using risk factors, tumour markers and new biomarkers. *Nam RK, Narod S: Canadian Institutes of Health Research.* (\$708,000 2006 - 2009.)

Micronutrients and prostate cancer: Prevention to treatment. *Venkateswaran V, Klotz L, Fleshner N, Sugar L, Teahan S: Canadian Institutes of Health Research.* (\$247,413 2006 - 2009.)

Ontario Cancer Biomarker Network. *Diamantis E, Klotz L (Leader, clinical research division): Ontario Cancer Research Network.* (\$6,000,000 2005 - 2008.)

Prospective evaluation of prostate biopsies for prostate cancer detection. *Nam RK, Narod S, Trachtenberg J, Klotz L, Fleshner N, Jewett M, Sugar L, Toi A, Diamantis E: National Cancer Institute of Canada.* (\$410,070 2004 - 2007.)

Prospective randomized double-blind trial of intravesical injection of botulinum toxin type A versus saline for neurogenic detrusor overactivity and urinary incontinence related to spinal cord injury or multiple sclerosis. *Herschorn S, Gajewski J, Bailly G, Corcos J, Valiquette L, Radomski S, Carr L, Bard R, Ethans K, Baverstock R, Carlson K: Allergan.* (\$295,000 2005 - 2007.)

Randomized trial of sildenafil for mild erectile dysfunction. *Herschorn S: Pfizer Canada.* (\$30,000 2006 - 2007.)

Randomized trial of the effects of cholecalciferol on prostate cancer associated lesions and on cholecalciferol metabolites in prostate tissue. *Vieth R, Klotz L, Van der Kwast T: National Cancer Institute of Canada.* (\$263,000 2006 - 2008.)

Select trial (vitamin E and selenium for prevention of prostate cancer: A randomized trial. Funded at \$170,000,000. over 10 years. *Coltman C, Many co-investigators with the South Western Oncology Group including Klotz LH: National Insitutue of Health.* (\$170 1999 - 2009.)

VECTOR: A randomized double-blind study to assess the safety and efficacy of solifenacin succinate (Vesicare) in comparison to oxybutynin for overactive bladder patients. *Herschorn S: Astellas Canada.* (\$15,000 2007 - 2008.)

Honours Received

Herschorn S: W.T. Aikins Faculty Teaching Award for Excellence in Undergraduate Teaching for individual teaching performance (small group). May 2007.

Klotz LH: 2006 Richard Lafferty Excellence in Writing Award from the Ontario Society of Medical Technologists. November 2006.

Klotz LH: Member, American Association of Genitourinary Surgeons. May 2007.

Nam RK: Faculty Postgraduate Teaching Award Surgical, Division of Urology, University of Toronto. June 2007.

Nam RK: Peter's Boyd Academy Clinical Teaching Supervision Award, Faculty of Medicine, University of Toronto. June 2007.

Venkateswaran V: Letter of Recognition from the Honourable Dalton McGuinty, Premier of the Province of Ontario on Prostate Cancer Research Foundation Award. July 2006.

TORONTO EAST GENERAL HOSPITAL

Heads of Divisions

Dr. R. Zeldin – General Surgery
Dr. G. Maistrelli – Orthopaedic Surgery
Dr. L. Tate – Plastic Surgery
Dr. R. Singal – Urology

Laura Tate
Surgeon-in-Chief



Introduction

The Surgical Department of the Toronto East General Hospital has 19 active surgeons including four urologists, six orthopaedic surgeons, six general surgeons, two thoracic surgeons and four plastic surgeons

General/Thoracic Surgery

Paul Bernick received the John Fowler Family Practice Resident Teaching Award this year and is in the outstanding category at the University level of teaching. Jamie Cyriac has been involved with ASCM teaching for the Berris Wightman Academy. Carmine Simone



is our new Head of the Division of Critical Care. Carmine continues to move our ICU in a direction that the Ministry is using with initiatives for other intensive care units in the use of our preprinted ventilation and patient transfer orders province wide. We are fully active in the 24/7 availability of the Outreach Program. Our Patient Simulator initiative has begun with the simulator located in the Emergency Department. This multidisciplinary teaching device will continue to be developed this year. Our aim is to achieve full accreditation from the University of Toronto Critical Care Department for our Toronto East General site. Dr. Bob MacKenzie and Dr. Brett Beber are working together with Diagnostic Imaging, Oncology, and Family Practice to develop a Time to Treat Breast Model for TEGH. We hope to have this program in place by the Fall. Dr. MacKenzie is the surgical representative on our Medical Educational Committee. The Division of General Surgery has also been a site for the IMG Certification Program successfully working with a general surgeon from Mexico.

Urology

Dr. Peter Vlaovic our new urologist graduated from the Urology Program at the University of Toronto and spent several rotations at TEGH. Peter brings skills of laparoscopic prostatectomy and robotic experience from a fellowship in California.

Orthopaedics

Bill Kraemer is the Postgraduate Program Director for Orthopedics and was promoted to Assistant Professor this year. Bill is also in the outstanding category at the University level of TES.

Plastic Surgery

Laura Tate was promoted to Assistant Professor. Dr. Brett Beber will be involved in ASCM teaching next year. Plastic surgery residents will be rotating through the TEGH for 2 months in 2008 in an effort to increase the community experience. Dr. Tate was involved with a DOCH project this year.

DIVISION OF GENERAL SURGERY

Dr. P. Bernick – Assistant Professor

Dr. J. Cyriac – Lecturer

Dr. T. Gilas – Assistant Professor

Dr. R. Mackenzie – Assistant Professor

Dr. R. Zeldin – Assistant Professor (Division Head)

Honours Received

Bernick PE: Dr. John H. Fowler Excellence in Teaching Award. June 2007.

DIVISION OF PLASTIC SURGERY

Dr. B. Beber – Lecturer

Dr. M. Dupere

Dr. A. Kesarwani

Dr. L. Tate – Assistant Professor (Division Head)

Invited Visits to Other Hospitals/Universities

Brett Beber: Toronto Breast Symposium, Toronto, ON, May 2007. Moderator.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. M. Catre – Lecturer

Dr. W. Kraemer – Assistant Professor

Dr. G. Maistrelli – Associate Professor (Division Head)

Dr. F. Mastrogiacomo – Lecturer

Dr. P. Weiler – Assistant Professor

Dr. P. Wong – Lecturer

Publications

Maistrelli GL, Riaz S: Advances in unicompartmental knee arthroplasty with minimally invasive techniques. *Journal of Orthopaedic Traumatology*: September 2006: 7: pp 51-63.

Maistrelli GL, Riaz S: Unicompartmental knee arthroplasty and its MIS version. *Pakistan Journal of Medical Sciences*: July 2006: 21: pp 1-14.

Mastrogiacomo F, Maistrelli GL: Periprosthetic fractures. In: *Osteoporosis: New Perspectives in Orthopaedics and Traumatology*: (DeNicola U, Marinoni EC, eds.) Springer-Verlag: Italia, Milan, 2006: pp 291-308.

Invited Visits to Other Hospitals/Universities

Maistrelli GL: Surgical Advances in Orthopaedics, CME Course, University of Western Ontario, Collingwood, ON, September 2006. (1) Simultaneous bilateral vs. staged total knees, (2) Varus balancing in total knees, (3) Controversies in total hips: Big heads - The wrong direction.

Maistrelli GL: Visiting Professor, University of Perugia, Perugia, Italy, October 2006. (1) Lecture: MIS hip arthroplasty: Fact or fiction?, (2) Live surgery demonstration: MIS hip arthroplasty.

Maistrelli GL: Visiting Professor, Campus Bio-Medico University, Rome, Italy, September 2006. 1) Lecture: The role of unicompartmental knee arthroplasty in the younger patient, (2) Live surgery demonstration: MIS unicompartmental knee arthroplasty.

Maistrelli GL: Advances in MIS Surgery, Associazione Pugliese E Lucana Ortopedici E Traumatologi Ospedalieri (APLOTO) Meeting, Taranto, Italy, September 2006. MIS unicompartmental knee surgery with oxinium bearing surface.

Maistrelli GL: Università Degli Studi Di Udine, Venice, Italy, March 2007. New arthroplasty alternatives for the younger patient.

Maistrelli GL: 5th Instructional CME Course on Orthopaedics and Trauma, Treviso, Italy, September 2006. Osteoporosis: New perspectives in surgical treatment of fractures. Surgical options for periprosthetic fractures of the hip and knee.

Maistrelli GL: Instructional Course Lecture, Società Italiana di Ortopedia e Traumatologia (SIOT) (Italian Society of Orthopaedic and Traumatology) Annual Meeting, Florence, Italy, October 2006. Periprosthetic hip fractures.

Maistrelli GL: Emerging Technologies in Hip and Knee Replacement Surgery, University of Western Ontario, Niagara-On-The-Lake, ON, May 2007. The role of unicompartmental knee arthroplasty.

Wong P: Guest Speaker, Annual Meeting of The Journal Club of Chinatown Physicians, Markham, ON, July 2006. Sports medicine.

DIVISION OF THORACIC SURGERY

Dr. C. Simone – Lecturer

Dr. R. Zeldin – Assistant Professor

Publications

Hynes P, Kissoon N, Hamielec C, Greene C, Simone C: Dealing with aggressive behaviour within the health care team: A leadership challenge. *Journal of Critical Care*: July 2006: 21(20): pp 224-227.

Invited Visits to Other Hospitals/Universities

Simone C: Presenter, Quality Healthcare Now and “Researcher-on-Call” Teleconference of the Canadian Health Services Research Foundation (CHSRF), Toronto, ON, January 2007. Anatomy of a successful ICU team.

Simone C: Guest Speaker, 33rd Annual Toronto Thoracic Refresher Course, Toronto, ON, June 2007. Benign esophageal tumours: Resect or observe?

Simone C: Presenter, Fourth Annual Toronto Radiation Medicine Conference, King City, ON, April 2007. Collaborating to strengthen thoracic oncology services (with Dr M. Dahele.)

Simone C: Presenter, Lung Cancer Canada and Columbus Centre, Toronto, ON, May 2007. Conoscere il cancro del polmone (per vincerlo): Understanding lung cancer (diagnosis, treatment, survivorship.)

Simone C: Presenter, Leadership Day, Partnership for After School Education (PASE), Toronto, ON, April 2007. Interprofessional patient care success stories: ICU.

Simone C: Guest Lecturer, Exploring a New Era in Critical Care Design, Delivery and Evaluation (Ontario’s Critical Care Strategy - Year One Results), Ontario Hospital Association (OHA), Toronto, ON, April 2007. Leadership and physician engagement in the ICU.

Simone C: Invited Talk, Symposium: Foregoing Treatment, Maintaining Care, The Toronto East General Hospital, January 2007. The ICU perspective.

Zeldin RA: Paper Read at Scientific, Annual Meeting, Canadian Association of Thoracic Surgeons, Calgary, AB, September 2006. Time to treat: Rapid access of lung cancer patients through the system.

DIVISION OF UROLOGY

Dr. R. MacMillan – Assistant Professor

Dr. R. Singal – Lecturer

Dr. J. Kell

Dr. P. Vlaovic

UNIVERSITY HEALTH NETWORK

Heads of Divisions

Dr. T.E. David – Cardiac Surgery
Dr. L. Rotstein – General Surgery
Dr. C. Wallace – Neurosurgery
Dr. R. Davey – Orthopaedic Surgery
Dr. S. Hofer – Plastic Surgery
Dr. S. Keshavjee – Thoracic Surgery
Dr. N. Fleshner – Urology
Dr. B. Rubin – Vascular Surgery

Bryce Taylor
Surgeon-in-Chief



The principal UHN corporate objective of patient centered care was embraced, and new organizational changes were put in place. From a UHN standpoint, all three hospitals came under corporate leadership, contributing to a more seamless administration of Surgical Services. The programmatic changes involved recognition of “Surgical and Critical Care” as a separate program grouping under the leadership of Bryce Taylor, and Surgical Services continued to play important roles in the other programs, i.e. Heart and Circulation, Oncology and Blood Disorders, Transplantation, The Krembil Neuroscience Program and Musculoskeletal Health and Arthritis. In addition, our multidisciplinary programs including Spine, Hand, and Head and Neck thrived in both clinical and academic domains.

Surgery also had significant influence on the five major corporate initiatives at UHN, specifically the I³ Program (intervention, imaging, innovation), the OR Transformation Project, the Guided Therapeutics Program (GTx), Palliative Care, and the EDGIM Project (Emergency/General Internal Medicine). In addition, plans were put in place for the development of the multipurpose operating room (MPOR), and the Guided Therapeutics OR (GTxOR).

Through the Spring of 2007, a new surgical planning process was initiated as a result of the recent changes in administrative structure and the rapidity of change in the surgical world. The “GATES” process (Growing Academically, Technologically, Efficiently and Safely) proved to be an extremely effective way that each division/department in Surgical Services could express their individual visions and future plans. It is hoped that by the Fall of 2007, a comprehensive planning document will be articulated and active in guiding further developments.



New recruits in the 2006-2007 academic year included Allan Okrainec (General Surgery), Erin Kennedy (General Surgery), George Oreopoulos (Vascular Surgery), Doug Wooster (Vascular Surgery), and Khalid Syed (Orthopedic Surgery).



Michael Borger was promoted to Associate Professor and Michael Johnston to Full Professor as of July 2006. For July 2007, Joan Lipa was promoted to Associate Professor, and Barry Rubin, Tom Lindsay, Michael Tymianski and Neil Fleshner were all promoted to Full Professor.

Significant departures from our Department of Surgery included Peter Neligan and Michael Johnston who left to pursue major surgical positions in Seattle and Halifax respectively. Recruitment efforts have been extremely active in Plastic Surgery, Orthopedic Surgery, General Surgery, Neurosurgery, and Vascular Surgery, all of whom will announce new recruits in the Summer and Fall of 2007.

UHN surgeons were extremely successful in grant capture this year, and to name just two, Michael Fehlings was a co-investigator on a \$30 million federal grant from the National Spinal Cord Injury Network, and Richard Wiesel and colleagues were awarded a CFI New Initiatives Fund grant of \$7.2 million for their Regenerative Medicine Project. A large number of personal awards were won by UHN surgeons, including Viv Rao as one of Canada’s “top 40 under 40” (and also the winner of the George Armstrong Peters Prize), and Andres Lozano, who was designated a “highly cited scientific author” by Thompson’s Scientific. Michael Fehlings was the 2007 winner of the Department’s Lister Prize.

Numerous teaching awards were also given to UHN surgeons, specifically R.J. Cusimano and Linda Dvali for Wightman-Berris Academy Awards, Raj Rampersaud for the 2007 Ross Fleming Teaching Award and Andrew Pierre for the Surgical Skills Centre Distinguished Educator Award.

Two legendary UHN surgeons were presented with the prestigious “Global Impact Awards” for 2007. Drs. Griff Pearson and Joel Cooper received these honors at a special event in June 2007 recognizing their contributions to the development of lung transplantation.

Chris Feindel became the inaugural chairholder of the Antonio and Helga DeGasperi Chair in Clinical Trials and Outcomes Research, bringing the total of endowed chairs in the UHN Department of Surgery to twenty.



DIVISION OF CARDIAC SURGERY

Dr. S.J. Brister – Associate Professor

Dr. R.J. Cusimano – Assistant Professor

Dr. T.E. David – Professor (Division Head)

Dr. C.M. Feindel – Professor

Dr. R.K. Li – Professor

Dr. A.C. Ralph-Edwards – Lecturer

Dr. V. Rao – Associate Professor

Dr. H.E. Scully – Professor

Dr. R.D. Weisel – Professor

Dr. T.M. Yau – Associate Professor

Publications

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Zieroth S, Ross H, Rao V, Delgado DH, Cusimano RJ, Thevarajah M, Cameron DA, Nanthakumar K: Permanent pacing after cardiac transplantation in the era of extended donors. *Journal of Heart Lung Transplantation*: September 2006; 25(9): pp 1142-1147.

Invited Visits to Other Hospitals/Universities

Cusimano RJ: Xinxiang Medical College, Xinxiang, Henan Province, China, November 2006. Teleconference: Live surgical demonstration of OPCAB.

Cusimano RJ: Zhongshan Hospital, Xiamen University, Xiamen, Fujian Province, China, November 2006. Teleconference: Live surgical demonstration of OPCAB.

David TE: Contemporary Questions in Congenital Heart Disease, 3rd Annual Toronto Symposium, Toronto, ON, June 2007. "Doctor, when should I have surgery?"

David TE: Florida Valve Symposium: Tampa Bay Heart Institute, St. Petersburg, FL, March 2007. (1) Aortic valve sparing operations, (2) Pulmonary autografts, aortic homografts and stentless xenografts for aortic valve replacement.

David TE: Chilean Congress of Cardiology, Vina del Mar, Chile, November 2006. (1) Functional anatomy of the mitral valve and principles of repair, (2) Functional anatomy of the aortic valve and principles of repair, (3) Surgery of active infective endocarditis, (4) Surgical management of acute aortic dissections.

David TE: 18th Annual Convention, American College of Cardiology Puerto Rico Chapter, San Juan, Puerto Rico, May 2007. (1) Should asymptomatic mitral valve insufficiency be repaired?, (2) Aortic valve repair.

David TE: Harvard Medical School, Department of Continuing Medical Education, Boston, MA, October 2006. Aortic valve repair: The surgical/echocardiographer inter-action.

David TE: 33rd Annual Meeting, The Western Thoracic Surgical Association, Santa Ana Pueblo, NM, June 2007. Aortic valve replacement with Toronto SPV bioprosthesis: Excellent patients but poor valve survival.

David TE: Honoured Guest Speaker, XXV Meeting, The Society for Cardiac Surgeons, Pamplona, Spain, June 2007. Creativity in surgery.

David TE: St. Jude Medical Postgraduate Course for Cardiothoracic Residents, Minneapolis, MN, March 2007. Functional anatomy of the aortic root and principles of aortic valve repair.

David TE: Honoured Guest Address, 36th Annual Meeting, The German Society for Thoracic and Cardiovascular Surgery, Hamburg, Germany, February 2007. (1) Current state of aortic valve sparing operations, (2) Postgraduate course: Reconstructive surgery of the aortic valve.

David TE: Techno-College of the European Association for Cardio-Thoracic Surgery, Bad Neudstadt, Germany, September 2006. Live operative demonstration of MV repair for ischemic mitral regurgitation.

David TE: Postgraduate Course in Adult Cardiac Surgery, 87th Annual Meeting, American Association for Thoracic Surgery, Washington, DC, May 2007. Mitral valve repair for prolapse of the anterior leaflet.

David TE: Walton Lillehei Memorial Symposium Guest Speaker, Minneapolis, MN, August 2006. Principles of aortic valve reconstruction.

David TE: Visiting Professor, Aortic Valve Symposium, Bad Neudstadt, Germany, September 2006. (1) Lecture: Principles of aortic valve repair, (2) Performed live surgeries: (a) Aortic valve sparing in a patient with aortic root aneurysm, (b) Aortic valve sparing in a patient with ascending aortic aneurysm.

David TE: Stikeman Visiting Professor, Cardiovascular and Thoracic Surgery, McGill University, Montreal, QC, June 2007. Principles of aortic valve sparing operations.

David TE: Visiting Professor, University of Munich, Munich, Germany, September 2006. (1) Lecture: Principles of reconstruction of the aortic valve, (2) Performed live surgery: Aortic valve repair.

David TE: Guest Speaker, 29th Annual Meeting & Workshops, Society of Cardiovascular Anesthesiologists, Montreal, QC, April 2007. Understanding aortic valve pathology: Aortic root reconstruction: Techniques and outcomes.

David TE: Keynote Speaker, 5th Annual Current Trends in Cardiothoracic Surgery Conference, Baylor College of Medicine, Houston, TX, June 2007. When is aortic valve repair better than replacement?

Feindel CM: Canadian Cardiovascular Society (Canadian Society of Cardiac Surgeons), Vancouver, BC, October 2006. Aortic dissections and acute aortic syndromes.

Feindel CM: Isala Klinieken (Hospital), The Netherlands, June 2007. Aortic valve sparing operations.

Feindel CM: Co-Chaired Adult Surgery Symposium. American Association of Thoracic Surgeons, Washington, DC, May 2007.

Feindel CM: WORKSHOP - New Developments in Management of Aortic Stenosis. Canadian Society of Cardiac Surgeons, Vancouver, BC, October 2006.

Li R-K: Invited Speaker, Stem Cell Therapy for the Failing Heart, Bangkok, Thailand, December 2006. Angiogenesis induced by cell transplantation/Quantitative analysis of survival of transplanted cells.

Li R-K: XIX World Congress of the International Society for Heart Research, Bologna, Italy, June 2007. Cardiac lin-kit+ stem cells mediate cardiac repair via enhanced angiogenesis.

Li R-K: Invited Speaker, 18th International Meeting, Centre Cardiothoracique de Monaco, Monaco Cedex, Monaco, November 2006. Cardiac regeneration by cell transplantation.

Li R-K: Invited Speaker, Shanghai International Symposium on Cardiology joined with Yangtze International Cardiovascular Congress 2006, Shanghai, China, November 2006. Cardiac regeneration by cell transplantation.

Li R-K: Invited Speaker, International Heart Forum Beijing 2006, Beijing, China, August 2006. Cell engineered cardiac tissue to repair congenital heart defects.

Li R-K: Heart Failure Summit, Toronto, ON, June 2007. Cell therapy to restore cardiac function: Possible mechanisms.

Li R-K: Invited Speaker, International Academy of Cardiovascular Sciences, Winnipeg, MB, July 2006. Matrix modulation after cell transplantation.

Li R-K: Regenerative Medicine Day in Toronto 2007: Exploring the Big Questions in Regenerative Medicine, Toronto, ON, June 2007. Regenerative approaches: Are biomaterials necessary?

Li R-K: Invited Speaker, The Thirteenth Conference on Health Care of the Chinese in North America, New York City, NY, November 2006. Stem cell research - Myocardial recovery.

Rao V: Postgraduate Education Course in Cardiac Surgery, Canadian Cardiovascular Surgery Society, Vancouver, BC, October 2006. Surgical repair of left ventricular aneurysms.

Rao V: Dharbanga Medical College Symposium, Providence, RI, July 2006. Surgical therapy for heart failure.

Rao V: Madhya Pradesh Medical Colleges Alumni Reunion, Toronto ON, August 2006. Surgical therapy for heart failure.

Rao V: World Society of Cardiothoracic Surgeons, Ottawa, ON, August 2006. Surgical therapy for ischemic cardiomyopathy.

Rao V: 16th Annual New Brunswick Heart Center Cardiovascular Symposium, St. John, NB, September 2006. Update on cardiovascular surgery.

Scully HE: Ottawa Women's Canadian Club, Ottawa, ON, September 2006. Canada's doctors - How many and where do they come from?

Scully HE: 2006 Fall Invitational Conference of the Association of Canadian Academic Health Organizations (ACAHO), Ottawa, ON, November 2006. Does the "rise" of the private sector lead to the "demise" of academic medicine in Canada?

Scully HE: Insight Information Company - Human Resources in Canadian Healthcare, Toronto, ON, January 2007. (1) The changing face of physician resources in Canada, (2) The role of the physician: Determining the drivers of change and how to respond. Keynote Speaker/Moderator.

Weisel RD: Society for Thoracic Surgical Education, Santa Fe, NM, April 2007. Cardiac regeneration.

Weisel RD: Bangkok Heart Institute Stem Cell Therapy Symposium, Bangkok, Thailand, December 2006. (1) Cardiac regeneration by cell transplantation: From bench to bedside, (2) Embryonic stem cells, (3) Tissue engineering: Creating a new heart.

Weisel RD: Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, New Brunswick, NJ, May 2007. Cardiac regeneration by stem cell therapy.

Weisel RD: International Heart Forum Beijing 2006, Beijing, China, August 2006. Cardiac regeneration: The future of cardiac surgery.

Weisel RD: Controversies and Advances in the Treatment of Cardiovascular Disease, Beverly Hills, CA, October 2006. Cellular therapy for myocardial repair.

Weisel RD: Canadian Association of Critical Care Nurses Conference, Toronto, ON, April 2007. Genetic treatment of cardiac conditions.

Weisel RD: Trainee Day, Canadian Cardiovascular Society, Vancouver, BC, October 2006. How to make the cut as a cardiovascular trainee.

Weisel RD: American Heart Association on Basic Cardiovascular Sciences, Keystone, CO, August 2006. Overview of stem cells in cardiac surgery.

Weisel RD: Society of Cardiac Surgeons and Cardiac Bioassist Association, Pamplona, Spain, June 2007. Rebuilding the heart: New horizons for cardiac surgeons.

Weisel RD: William W.L. Glenn Lecture, American Heart Association, Chicago, IL, November 2006. (1) Rebuilding the heart: New horizons for cardiac surgeons, (2) Will stem cells be the answer for the treatment of all cardiac disease?

Weisel RD: Bethesda North Hospital, Bethesda, MD, May 2007. Stem cells and cardiac regeneration: How close are we?

Weisel RD: Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, New Brunswick, NJ, May 2007. Tissue engineering.

Yau TM: Chaired Scientific Sessions, Canadian Cardiovascular Congress, Vancouver, BC, October 2006. Canadian Society of Cardiovascular Surgeons (CSCS). Fundamentals in surgical research.

Yau TM: Scientific Sessions, Cardiovascular Seminar Session, American Heart Association, Chicago, IL, November 2006. Precondition against ischemia and reperfusion injury. Moderator.

Yau TM: Cardiovascular Intensive Care Nurses, Toronto General Hospital, Toronto, ON, November 2006. Why do we use the valves we do?

Research and Investigations

Senior Investigator's Name Appears in Italics

Autologous tissue-engineered grafts for congenital heart surgery. *Li RK: Canadian Institutes of Health Research.* (\$647,655 2003 - 2008.)

Cardiac regeneration by cell transplantation. *Weisel RD, Fazel S: Heart and Stroke Foundation.* (\$69,424 2006 - 2007.)

Cell transplantation to improve heart function. *Li RK: Ontario Ministry of Energy, Science and Technology.* (\$150,000 2001 - 2006.)

Development of a new, portable biomedical device for in vivo measurement of regional heart tissue elasticity. *Zu JW, Li RK: Natural Sciences and Engineering Research Council of Canada.* (\$393,700 2004 - 2007.)

Enhancing endogenous repair by cell therapy. *Weisel RD, Fazel S: Heart and Stroke Foundation.* (\$68,192 2006 - 2007.)

Erythropoietin and hypertonic saline for cardiac transplant. *Feindel CM, Rao V: Heart and Stroke Foundation.* (\$92,959 2006 - 2007.)

Functionality of resistant starch and bioactive peptides in preventing chronic diseases and promoting gut functions in studies with the pig model. *Fan MZ, Liu Q, Mine Y, Yada R, Bakovic M, Li RK, Hellerstein M: Ontario Ministry of Agriculture and Food/University of Guelph Food Research Program.* (\$600,000 2004 - 2008.)

Future revascularization evaluation in patients with diabetes mellitus: Optimal management of multivessel disease (freedom). *Dzavik V, Rao V, Barolet A, Ross J, Schwartz L, Steiner G, Brister SJ, Yau T, Cusimano RJ, Fuster V, Mount Sinai School of Medicine, New York: National Heart Lung Blood Institute.* (2005 - 2008.)

Gene-enhanced cell transplantation to reverse heart failure. *Li RK, Fedak PW: Heart and Stroke Foundation of Ontario.* (\$259,216 2004 - 2007.)

Inflammation, infection, trauma and repair cluster - Canada Research Chair in Cardiac Regeneration. *Li RK: Canadian Institutes of Health Research.* (\$1,400,000 2006 - 2014.)

Mechanisms of transplant related vascular injury. *Rao V: Heart and Stroke Foundation of Canada.* (\$63,000 2006 - 2007.)

Minimal invasive cardiac surgery: Is it safe for the brain? *Borger MA, Feindel CM, Djaiani GN: Heart and Stroke Foundation of Ontario.* (\$210,998 2005 - 2007.)

Polyarginine treated vein grafts (PATENT). *Brister SJ, Ralph-Edwards RE, Yau T: Lumen Therapeutics, LLC.* (\$700,000 2005 - 2008.)

Regenerative Medicine project (REMEDI). *Rao V, Weisel R: Canada Foundation for Innovation.* (\$7,000,000 2007.)

Reperfusion strategies for cardiac surgery using cardioplegic enhancements: The RESCUE solution. *Rao V, Weisel R: Johnson & Johnson - University Health Network Development Acceleration Award.* (\$75,000 2006 - 2007.)

Restoration of cardiac function: Cellular regeneration and matrix reconstruction. *Li RK: Heart and Stroke Foundation of Ontario.* (\$439,750 2006 - 2011.)

STICH Trial - Surgical Therapy for Ischemic Congestive Heart failure (awarded world wide). *Rao V, Yau T, Brister SJ, Cusimano RJ: National Institute of Health.* (\$7,500,000 2002 - 2008.)

The cardiac regeneration project: Quantitative cell tracking and response for cardiac regenerative approaches (CARE Project). *Weisel W, Li RK, Jaffray D, Neverova I, Sefton M, Wilson B: Canadian Institutes of Health Research.* (\$2,287,690 2006 - 2012.)

The influence of heart failure on ventricular fibrillation. *Kumaraswamy N, Rao V, Downar E: Canadian Institutes of Health Research.* (\$61,157 2006 - 2007.)

The interplay of recruited stem cells and the matrix after myocardial infarction: Shifting the balance toward repair. *Li RK, Fazel S: Canadian Institutes of Health Research.* (\$738,073 2004 - 2009.)

The Regenerative Medicine (REMEDI) project. *Weisel RD, Jaffray D, Keating A, Keller G, Kotra L, Liu P, Li RK, Sefton M, Wright G: Canadian Foundation for Innovation and Ontario Research Fund.* (\$14,400,000 2006 - 2010.)

Transplant vasculopathy: The role of endothelium. *Rao V: Canadian Institutes of Health Research.* (\$50,000 2006 - 2007.)

Vasculogenesis induced by cell transplantation. *Li RK: Heart and Stroke Foundation of Ontario.* (\$327,408 2003 - 2007.)

Honours Received

Cusimano RJ: Wightman-Berris Teaching Award. May 2007.

David TE: Honorary Member, Society of Cardiac Surgeons. March 2007.

David TE: Honorary Member, Southern Thoracic Surgical Association. November 2006.

David TE: Honorary Member, The German Society for Thoracic and Cardiovascular Surgery. February 2007.

Li R-K: Chinese American Medical Society Scientific Award. October 2006.

Rao V: Canada's National Top 40 Under 40 2006. May 2007.

DIVISION OF GENERAL SURGERY

Dr. M.S. Cattral – Professor

Dr. J. Escallon – Associate Professor

Dr. S. Gallinger – Professor

Dr. R.M. Gorczynski – Professor

Dr. D. Grant – Professor

Dr. P.D. Greig – Professor

Dr. E. Kennedy – Assistant Professor

Dr. W.L. Leong – Assistant Professor

Dr. D.R. McCready – Professor

Dr. I.D. McGilvray – Assistant Professor

Dr. C. Moulton – Assistant Professor

Dr. T. Penner – Assistant Professor

Dr. M. Reedijk – Assistant Professor

Dr. R.K. Reznick – Professor

Dr. LE. Rotstein – Professor (Division Head)

Dr. B.R. Taylor – Professor

Dr. D.R. Urbach – Associate Professor

Dr. A.C. Wei – Assistant Professor

Publications

Anderson M, Baker M, Bell R, Ferguson-Pare M, Lee L, Musing E, Taylor B: The business care for patient safety. *Healthcare Quarterly*: October 2006: 10: pp 20-26.

Aziz D, Rawlinson E, Narod SA, Sun P, Lickley HLA, McCready DR, Holloway CMB: The role of reexcision for positive margins in optimizing local disease control after breast-conserving surgery for cancer. *The Breast Journal*: October 2006: 12(4): pp 331-337.

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Badovinac K, Greig PD, Ross H, Coig CJ, Shemie SD: Organ utilization among deceased donors in Canada 1993 - 2002. *Canadian Journal of Anaesthesia*: August 2006: 53(8): pp 838-844.

Bell CM, Bajcar J, Bierman AS, Li P, Mamdani MM, Urbach DR: Potentially unintended discontinuation of chronic medication after elective surgical procedures. *Archives of Internal Medicine*: December 2006: 166(22): pp 2525-2531.

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Berry M, Lystig T, Beard J, Klingestierna H, Reznick RK: Porcine Transfer Study: Virtual reality simulator training compared to porcine training in endovascular novices. *Cardiovascular and Interventional Radiology*: January 2007.

Berry M, Tystig T, Reznick RK, Lonn L: Assessment of a virtual interventional simulator trainer. *Journal of Endovascular Therapy*: July 2006: 13: pp 65-71.

Boudakov I, Zhang P, Gorczynski RM: Mechanisms involved in suppression induced by CD200:CD200R interaction. *Recent Research Development in Immunology*: July 2006: 9(24).

Boudakov I, Liu J, Fan N, Gulay P, Way K, Gorczynski R: Mice lacking CD200R1 show absence of suppression of LPS induced TNF alpha and MLC responses by CD200. *Transplantation*: June 2007.

Brade A, Brierley J, Oza A, Gallinger S, Cummings B, MacLean M, Pond GR, Hedley D, Wong S, Townsley C, Brezden-Masley C, Moore M: Concurrent gemcitabine and radiotherapy with and without neoadjuvant gemcitabine for locally advanced unresectable or resected pancreatic cancer. A phase I-II study. *International Journal of Radiation Oncology, Biology, Physics*: March 2007: 67(4): pp 1027-1036.

Campbell PT, Newcomb P, Gallinger S, Cotterchio M, McLaughlin JR: Exogenous hormones and colorectal cancer risk in Canada: Associations stratified by clinically defined familial risk of cancer. *Cancer Causes Control*: June 2007: E-published.

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Chapman J-AW, Lickley HLA, Trudeau ME, Hanna WM, Kahn HJ, Murray D, Sawka CA, Mobbs BG, McCready DR, Pritchard KP: Ascertaining prognosis for breast cancer in node-negative patients with innovative survival analysis. *The Breast Journal*: September 2006: 12(1): pp 37-47.

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Cho BCJ, McCready DR: Oncologic principles in breast reconstruction. In: *Post-Surgical Breast Reconstruction Clinics in Plastic Surgery*: (Neligan PC, Lipa JE, eds.) Elsevier Saunders: Philadelphia, 2007: pp 1-13.

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Glebov OK, Rodriguez LM, Lynch P, Patterson S, Lynch H, Nakahara K, Jenkins J, Cliatt J, Humbyrd CJ, Denobile J, Soballe P, Gallinger S, Buchbinder A, Gordon G, Hawk E, Kirsch IR: Celecoxib treatment alters the gene expression profile of normal colonic mucosa. *Cancer Epidemiology Biomarkers Prevention*: July 2006: 15(7): pp 1382-1391.

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Invited Visits to Other Hospitals/Universities

Escallon J: ABC Hospital and Universidad Nacional Autonoma de Mexico, Mexico City, Mexico, May 2007. Acute necrotizing pancreatitis.

Gallinger S: Co-Chair, 2nd Ontario Gastrointestinal Multidisciplinary Oncology Conference, Toronto, ON, November 2006. Colorectal cancer - genetics.

Gallinger S: Credit Valley Hospital Cancer Genetic Retreat, Mississauga, ON, May 2007. Ontario Familial Colorectal Cancer Registry (OFCCR) Update.

Gallinger S: Annual Meeting, Congress of the American Hepato-Pancreato-Biliary Association (AHPBA), Las Vegas, NE, April 2007. Potential indications for total pancreatectomy "Hereditary Pancreatic Cancer" discussant.

Gallinger S: Guest Lecturer, Williamsville New York (WNY) Quarterly Colon Rectal Cancer Meeting, Williamsville, NY, July 2006. Practical colon cancer genetics.

Gallinger S: Translating Research into Practice. Genetic Tests in Therapeutic Decision Making in Breast and Colon Cancer, Annual Meeting, American Society of Clinical Oncology (ASCO) 2007, Chicago, IL, June 2007. Whole Genome Association studies of genetic colorectal cancer susceptibility.

Greig PD: International Hepato-Pancreato-Biliary Association (IHPBA) 2006, Edinburg, Scotland, September 2006. Benefits of training in liver transplantation for HPB surgeons.

Greig PD: American Hepato-Pancreato-Biliary Association, Las Vegas, NE, April 2007. Hepato-Pancreato-Biliary (HPB) training symposium on a competency based HPB program.

Greig PD: 5th International Hepatocellular Carcinoma (HCC): Eastern and Western Experience, Houston, TX, January 2007. Pretreatment before liver transplant - No treatment.

McCready DR: Expert Advice, Online Forum, Toronto Star, Toronto, ON, September 2006.

McCready DR: Chair, Breast Session IV, Society of Surgical Oncology, Washington, DC, March 2007.

McCready DR: Panel Member, Consensus and Controversies, Canadian Society for Surgical Oncology (CSSO), Toronto, ON, April 2007. Melanoma.

Moulton C: Ottawa Conference 2006, New York, USA, July 2006. A Remote Assessment in Real Time (RART) - An innovative tool for procedural assessment (Kneebone R, Nestel D, Yadollahi F, Brown R, Nolan C, Durack J, Brenton H, Moulton C, Archer J, Darzi A).

Moulton C: Workshop, Association for Surgical Education, Washington, DC, April 2007. Slowing down when you should: A new model of intra-operative judgment and its implications for teaching.

Moulton C: Canadian Surgery Forum, Calgary, AB, September 2006. (1) Surgical skills training: What kind of practice makes perfect?, (2) Debate Session: The whipple procedure does not improve outcomes of patients with pancreatic adenocarcinoma.

Reznick RK: 92nd Annual Clinical Congress, American College of Surgeons, Chicago, IL, October 2006. (1) Acquisition and validation of new surgical skills, (2) Surgical simulators and continued learning in surgery.

Reznick RK: 9th Postgraduate Course in Surgical Oncology, Symposium Biel 2007, Biel, Switzerland, May 2007. From skills lab to bedside.

Reznick RK: St. Louis Surgical Society, St. Louis, MO, March 2007. Iconoclastic or crazy? Turning training upside down.

Reznick RK: McGill University Simulation Centre, Montreal, PQ, September 2006. Impact of simulation on new models of training.

Reznick RK: Thematic Day on Patient Safety and Skills Training, Aarhus, Denmark, October 2006. May I be so bold? A prescription for a new model of training.

Reznick RK: D. Hayes Agnew Lecture, University of Pennsylvania Surgical Society Annual Meeting, Philadelphia, PA, March 2007. May I be so Bold? Suggestions for a new model of surgical training.

Reznick RK: Annual Meeting, Flying Physician Association, Toronto, ON, July 2006. Medicine in Canada.

Reznick RK: Keynote Speaker, Danish Head and Neck Society, Kolding, Denmark, October 2006. Perfect practice makes perfect.

Reznick RK: Surgical Grands Rounds, Washington University, St. Louis, MO, March 2007. Playing well in the surgical sandbox.

Reznick RK: McPhedran Lecture, University of Calgary, Calgary, AB, June 2007. Surgery and society are changing: So too should surgical training!

Reznick RK: Keynote Address, CompMed 2007, National Research Council of Canada, Boucherville, PQ, May 2007. Surgical simulation.

Reznick RK: Delaware Chapter of the American College of Surgeons, Newark, DE, December 2006. Surgical training in 3 years or less - crazy or creative?

Reznick RK: Visiting Professorship, John A. Burns School of Medicine, University of Hawaii, Honolulu, HI, January 2007. (1) The anatomy of a surgeon, (2) Workshop on simulation.

Reznick RK: Grand Rounds, Georgetown University Hospital, Washington, DC, March 2007. The future of surgical training: Minor modifications or radical restructuring?

Reznick RK: 10th Anniversary Day, John Jones Surgical Society 10th Anniversary Day, New York, NY, May 2007. Turning surgical training upside down: A changing model for changing times.

Reznick RK: Plenary Symposium Speaker, Canadian Anaesthesiologists Society, Calgary, AB, June 2007. What surgeons can learn from anaesthesiologists.....I can't believe I suggested this title!

Urbach DR: 92nd Annual Clinical Congress, American College of Surgeons (ACS), Chicago, IL, October 2006. Interpreting the data: What are the limitations? The volume and quality conundrum: What are the data?

Urbach DR: Surgical Outcomes Course, American College of Surgeons (ACS), Chicago, IL, November 2006. Uses and misuses of administrative data.

Wei AC: American HepatoPancreatoBiliary Association, Las Vegas, NE, April 2007. Colorectal liver metastases-extending resectability: PVE and two stage resections.

Wei AC: Laparoscopic Liver Resection Course 2007, Australian and New Zealand Hepatic, Pancreatic and Biliary Association, Brisbane, Australia, March 2007. The role of sealants in liver surgery.

Research and Investigations

Senior Investigator's Name Appears in Italics

A clinical database project for the HepatoPancreatoBiliary (HPB) Community of Practice Group. *Wei AC, Gallinger S, Davies W, Fairfull-Smith R, Hanna S, Marcaccio M, Wall B, Jalink D, Barnett H, Langer B, McLeod R: Cancer Care Ontario. (\$35,000 2007 - 2008.)*

A phase II double blind randomized placebo controlled multicenter study assessing the value of adding rad 0012 lethrazol as preoperative therapy. *Leighl N, McCready DR, Leong W, Reedijk M: Novartis. (\$40,000 2005 - 2007.)*

A prospective, randomized, controlled trial of radioguided seed localization versus standard needle localization of nonpalpable breast cancers. *Lovrics P, Reedijk M, Chen V, Cornacchi S, Franic S, Garnett A, Goldsmith CH, Hodgson N, McCready D: Canadian Breast Cancer Foundation. (\$223,577 2005 - 2007.)*

A randomized comparison of laparoscopic myotomy and pneumatic dilatation for achalasia. *Urbach DR, Darling G, Kortan P, Diamant N, Tomlinson G, Laporte A, Deitel W: Canadian Institutes of Health Research. (\$445,410 2005 - 2010.)*

A registry-based observational study assessing clinical outcomes in familial adenomatous polyposis in patients receiving celecoxib compared to control patients. Protocol: NQ 4-00-02-012. *Gallinger S: Pfizer Incorporated. (\$67,500 2005 - 2007.)*

Altered urine function with aging. *Gorczyński RM, Terzioglu E: Turkish Science Foundation. (\$300,000 2006 - 2008.)*

Breast Cancer Clinical Research Program. *Vallis K, McCready DR: University Health Network. (\$800,000 2005 - 2009.)*

Cancer surgery in Ontario: Quality and access. *Urbach DR, Baxter N, Simunovic M, Elit L, Quan ML, Gagliardi A, Law C, Dobrow M: Canadian Institutes of Health Research. (\$8,000 2006.)*

CD200: CD200R regulation of osteoclastogenesis. *Gorczyński R: Space Life Science.* (\$200,000 2003 - 2006.)

CD200: CD200R regulation of bone growth and development in space-flight. *Gorczyński R: Canadian Institutes of Health Research.* (\$116,666 2006 - 2008.)

Characterization of germline DNA copy number variation in familial pancreas cancer. *Gallinger S, Bondy M, Lynch H, Petersen G, Schwartz A, Syngal S, Zogopoulos G: The Lustgarten Foundation for Pancreatic Cancer Research (USA).* (\$100,000 2006 - 2007.)

CIHR team in interdisciplinary research on colorectal cancer. *McLaughlin J, Gallinger S, and 25 others: Canadian Institutes of Health Research.* (\$3,627,210 2006 - 2011.)

Clinical accountability and value-based purchasing: Linking funding to quality of care. *Dobrow M, Urbach DR, Ritvo P, Lemieux-Charles L, Wodchis W: Canadian Institutes of Health Research.* (\$165,348 2006 - 2009.)

Combined resection of intra-and extra-hepatic metastases from colorectal cancer: A phase II trial. *Wei A, Gallinger S, Moore M: Junior Investigator Award Program, Ontario Institute for Cancer Research Intra-Structure Program.* (\$20,000 2007 - 2008.)

Determining the utility of the mini-clinical evaluation exercise as a summative evaluation tool of clinical competence: A multi-institutional initiative. *Hatala R, Page G, Webber E, Reznick R, Rotstein L, Pachev G, Broudo M, Barron S, Ainslie M: Medical Council of Canada.* (\$59,814 2006 - 2007.)

Developing a predictive micro-RNA profile for breast cancer. *Liu FF, Fyles A, McCready DR, Miller N: Weekend Walkers Breast Cancer Innovation Fund.* (\$72,250 2006 - 2008.)

Development of a surgical oncology atlas. *Urbach DR: Cancer Care Ontario.* (\$189,276 2006 - 2007.)

Ductoscopy of breast diseases. *Leong WL, Easson AM, McCready DR: Den Haag Breast Cancer Foundation.* (\$128,000 2004 - 2007.)

Ductoscopy of breast diseases. *Leong WL, Easson AM, McCready DR: Princess Margaret Hospital Women's Committee.* (\$25,000 2004 - 2007.)

Ductoscopy of breast diseases. *Leong WL, Easson AM, McCready DR: Nelson Arthur Hyland Foundation.* (\$25,000 2004 - 2007.)

Effectiveness of colonoscopy for the prevention of colorectal cancer and mortality from colorectal cancer: A population-based case control study. *Baxter N, Urbach DR, Rabeneck L, Austin P: Canadian Institutes of Health Research.* (\$85,185 2006 - 2007.)

Evaluating the quality of sentinel lymph node biopsy practice in Ontario. *Quan ML, Wright FC, McCready DR, Gagliardi A, Urbach D: Canadian Breast Cancer Foundation.* (\$329,745 2006 - 2008.)

Evaluative research in surgical procedures and new health technologies: Ensuring quality, access and sustainability for surgical care in Ontario. *Urbach DR: Ontario Ministry of Health and Long-Term Care, Health Research Personnel Development Program.* (\$250,000 2002 - 2007.)

Genomics and proteomic identification of biomarkers linked to human breast cancer developments, progression, and outcome. *Dirks P, Vallis K, McCready DR, Leong W: Genome Canada.* (\$789,297 2006 - 2010.)

Identification of molecular alterations leading to malignancy in ductoscopically procured pure mammary epithelial cell populations. *Done S, Adams C, Leong W, MacGregor P, Boerner S, Pintilie M, Miller N, Youngson B, McCready DR: Ontario Cancer Research Network.* (\$543,015 2004 - 2007.)

Innovative surgical technologies in Canada: Developing a balanced strategy for integrating new surgical procedures into sustainable health care. *Urbach DR, Martin DK, Lehoux P, McKneally M, Zlotnik-Shaul R, Bernstein M: Canadian Institutes of Health Research.* (\$126,731 2004 - 2006.)

Investigation of dendritic cell ontogeny from highly purified precursors. *Catral MS: Canadian Institutes of Health Research.* (\$273,870 2004 - 2007.)

LPS and hemoglobin induce immunological changes associated with aging. *Gorczyński R: CLP Research.* (\$300,000 2004 - 2007.)

Mechanisms of notch activation and pharmacologic inhibition of notch signaling in human breast cancer. *Reedijk M: Society of University Surgeons.* (\$40,000 2006 - 2007.)

Notch activation in aggressive human breast cancer. *Egan S, Reedijk M: Canadian Breast Cancer Foundation.* (\$200,000 2005 - 2007.)

- Ontario clinical oncology group. *Gallinger S, Moulton CA: PET CAM. (\$180,000 2005 - 2010.)*
- Ontario registry for studies of familial colorectal cancer. Renewal. *Gallinger S, Andrulis I, Bapat B, Knight J and 25 others: National Institutes of Health. (\$10,700,000 2002 - 2007.)*
- Pancreatic cancer linkage consortium. *Petersen GM, Gallinger S, and 27 others: National Institutes of Health. (\$7,000,000 2002 - 2007.)*
- PET predict. *McCready DR: Ontario Clinical Oncology Advisory. (\$21,000 2004 - 2006.)*
- Randomized clinical trials for breast cancer. *McCready DR: National Adjuvant Breast and Bowel Project NSABP. (\$50,000 2006.)*
- Randomized clinical trials for breast cancer. *McCready DR: National Adjuvant Breast and Bowel Project NSABP. (\$75,000 2007.)*
- Role of fg12 in transplantation and cardiac development. *Grant D, Levy G: Heart and Stoke Foundation of Canada. (\$227,750 2005 - 2008.)*
- Self-assessment of technical surgical practice. *Moulton C, Dubrowski A, MacRae H, Reznick R: Dean's Excellence Fund for Medical Education. (\$24,881.)*
- Shaping the future of health innovation research in Canada: A workshop bringing together researchers, designers and users of innovations. *Lehoux P, Urbach DR, Miller F, Battista R: Canadian Institutes of Health Research. (\$10,000 2006.)*
- Slowing down when you should: A new model of expert surgical judgment. *Moulton C, Regehr G, MacRae H: Physicians' Services Incorporated Foundation. (\$41,000 .)*
- Social, prognostic, and therapeutic factors associated with breast cancer survival in Canada and the US: Health care access and effectiveness in diverse urban and rural areas, 1985-2010. *Gorey KM, McCready DR, Holowaty E: Canadian Institutes of Health Research. (\$374,000 2004 - 2009.)*
- Team Talk II: A multi-institutional evaluation of a checklist intervention to structure communication and promote patient safety in the operating room. *Lingard L, Bohnen J, Regehr G, Baker R, Orser B, Doran D, Reznick RK, Rotstein LE, Tan J: Canadian Institutes of Health Research. (\$311,734 2004 - 2009.)*
- The ARCTIC (Assessment of Risk for Colorectal Tumors in Canada) Genome Project. *Zanke B, Hudson T, Gallinger S, Cotterchio M, Lemmens T: Genome Canada. (\$9,600,000 2004 - 2007.)*
- The chemotherapeutic potential of Notch signaling inhibitors in breast cancer. *Reedijk M, Connolly E: Weekend Walkers Breast Cancer Innovation Fund. (\$72,250 2007.)*
- The effects of bench-model practice of technical surgical task on attentional demands and cognitive learning ability. *Moulton C, Dubrowski A, MacRae H: Medical Education Research Grant, The Royal College of Physicians and Surgeons of Canada. (\$43,000.)*
- The genomics of hepatocellular carcinoma: Identifying therapeutic targets and avenues for prevention. *McGilvray ID, Edwards A, Grant D, Heathcote J, Gallinger S: Ontario Cancer Research Network. (\$689,000 2004 - 2007.)*
- The involvement of CD200:CD200R regulatory axis in tumorigenesis. *Gorczynski R, Stiernholm N: Canadian Institutes of Health Research. (\$200,000 2007 - 2008.)*
- The molecular genetics of hepatitis C viral infection: Defining novel therapeutic and pathogenic mechanisms in acute and chronic disease. *McGilvray ID, Heathcote J: Canadian Institutes of Health Research. (\$462,447 2005 - 2008.)*
- The molecular mechanisms of graft injury after liver and bowel transplantation: A proposal to use microarray analysis to identify targets for novel therapies. *Grant D, McGilvray ID, Edwards A, Rotstein O: Fujisawa Canada. (\$600,000 2003 - 2007.)*
- The MYH gene and colorectal cancer risk. *Gallinger S, Cotterchio M, Bristow R, Manno M, Bishop T: National Cancer Institute of Canada. (\$423,000 2005 - 2008.)*
- Transillumination breast spectroscopy (TIBS) and breast cancer risk assessment. *Lothar L, Knight J, McCready DR, Liu F-F: Canadian Breast Cancer Research Alliance. (\$352,481 2006 - 2009.)*
- Validation of an integrated assessment of technical and communication skills: Integrated Procedural Performance Instrument (IPPI) (Data analysis.) *Moulton C, McDonald C, MacRae H, Kneebone R, Tabak D, LeBlanc V: Medical Council of Canada. (\$31,000.)*

Honours Received

Gorczyński RM: Workshop Chairman and Organizer, Transplantation Research, Annual Meeting, Canadian Society for Immunology, Halifax, NS. September 2006.

Kennedy ED: Junior Investigator Award, Ontario Cancer Institute. 2006.

Reznick RK: 2006 KJR Wightman Award for Scholarship in Ethics for paper on “Patient Care is a Collective Responsibility: Shifting Perceptions of Professional Responsibility in Surgery.” October 2006.

DIVISION OF NEUROSURGERY

Dr. M. Bernstein – Professor

Dr. K.D. Davis – Professor

Dr. J.H. Eubanks – Associate Professor

Dr. M.G. Fehlings – Professor

Dr. F. Gentili – Professor

Dr. A. Guha – Professor

Dr. M. Hodaie – Assistant Professor

Dr. W.D. Hutchison – Associate Professor

Dr. K. Johnston – Assistant Professor

Dr. A.M. Lozano – Professor

Dr. E.M. Massicotte – Assistant Professor

Dr. J.A. Saint-Cyr – Professor

Dr. C.H. Tator – Professor

Dr. M. Tymianski – Associate Professor

Dr. T. Valiante – Assistant Professor

Dr. A.A. Velumian – Assistant Professor

Dr. M.C. Wallace – Professor (Division Head)

Publications

Ahn H, Fehlings MG: Management of perioperative spinal cord injury. In: AOSpine Manual, Clinical Applications Vol. 2: (Aebi M, Arlet V, Webb JK, eds.) AOSpine International: Switzerland, 2007: pp 687-694.

Baptiste DC, Fehlings MG: Pathophysiology of cervical myelopathy. Spine Journal: November 2006: 6(6Suppl): pp S190-S197.

Bernstein M: E-mail etiquette. Parkhurst Exchange: September 2006: 14: pp 210.

Bernstein M: Ethical guideposts to a clinical trial in oncology. Current Oncology: October 2006: 13: pp 55-60.

Bernstein M: The voices of neurosurgeons: Doctors' non-medical writing. Canadian Journal of Neurological Sciences: February 2007: 34: pp 121-124.

Bernstein M, Hamstra SJ, Woodrow S, Goldsman A, Reznick RK, Fairholm D: Needs assessment of neurosurgery trainees: A survey study of two large training programs in the developing and developed world. Surgical Neurology: November 2006: 66: pp 117-124.

Bono CM, Vaccaro AR, Fehlings M, Fisher C, Dvorak M, Ludwig S, Harrop J: Measurement techniques for upper cervical spine injuries: Consensus statement of the Spine Trauma Study Group. Spine: March 2007: 32(5): pp 593-600.

Chin CM, Popovic MR, Trasher A, Cameron T, Lozano AM, Chen R: Identification of arm movements using correlation of electrocorticographic spectral components and kinematic recordings. Journal of Neural Engineering: April 2007: 4(2): pp 146-158.

Coffey RJ, Lozano AM: Neurostimulation for chronic non-cancer pain: An evaluation of clinical evidence and recommendations for future trial designs. Journal of Neurosurgery: August 2006: 105: pp 175-189.

Da Costa LB, Tymianski M: Symptomatic non-atherosclerotic bilateral extracranial vertebral artery occlusion treated with extracranial to intracranial bypass: Case report. Arquivos de Neuro-Psiquiatria: September 2006: 64(3A): pp 664-667.

Da Costa LB, Valiante TA, TerBrugge K, Tymianski M: Anterior ethmoidal artery aneurysm and intracerebral hemorrhage: Case report. American Journal of NeuroRadiology: September 2006: (8): pp 1672-1674.

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- Davis KD, Dostrovsky JO:** Human thalamic nociceptive neurons. In: *Encyclopedia of Pain*: (Schmidt RF, Willis WD, eds.) Springer: New York, 2006.
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- Fehlings MG, Farhadi HF:** Cervical stenosis, spinal cord neurapraxia, and the professional athlete. *Journal of Neurosurgery Spine*: April 2007: 6(4): pp 354-355.
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Invited Visits to Other Hospitals/Universities

Bernstein M: Visiting Lecturer, Chulalongkorn University, Bangkok, Thailand, September 2006. (1) Image and function-guided brain tumour surgery, (2) Neurosurgical training in Canada, (3) Outpatient lumbar discectomy.

Bernstein M: Discovery Centre, Halifax, NS, September 2006. Human guinea pigs: Protecting patients in medical research.

Bernstein M: Visiting Lecturer and Teacher, Xinxiang Medical College, First Affiliated Hospital, Weihui, Henan Province, China; and Xiamen University, Zhongshan Hospital, Xiamen, Fujian Province, China, Henan Province and Fujian Province, China, March 2007. Image and function-guided brain tumour surgery.

Bernstein M: Visiting Lecturer, University of the Philippines, Manila, Philippines, September 2006. Image and function-guided brain tumour surgery.

Bernstein M: Invited Keynote Speaker, London Information Day 2006, London, ON, November 2006. The voices of neurosurgeons.

Davis KD: Refresher Course, Annual Meeting, Canadian Anesthesiologists' Society, Calgary, AB, June 2007. Imaging and pain.

Davis KD: Johns Hopkins Hospital, Blaustein Pain Rounds, Baltimore, MD, October 2006. Imaging pain perception.

Davis KD: Symposium, Pain from Fundamental Mechanisms to Clinical Applications, Annual Meeting, Canadian Physiological Society, Beaufort, PQ, February 2007. Neuroimaging of pain and cognition.

Davis KD: Strategic Training Program - Pain: Molecules To Community (Advance Pain Research Methodologies School), Canadian Institutes of Health Research, Gananoque, ON, June 2007. Workshop: Pain assessment and brain imaging.

Eubanks JH: Keynote Address, Hungarian Rett Syndrome Association, Budapest, Hungary, April 2007. Advancements in the understanding of Rett Syndrome: It is not an irremediable condition.

Eubanks JH: Invited Lecturer, 1st Annual Ontario Rett Syndrome Association Conference, Scarborough, ON, November 2006. Progress towards understanding Rett Syndrome from the use of mutant mice.



Eubanks JH: Invited Lecturer, Department of Psychiatry, Brock University, St. Catharines, ON, October 2006. Rett Syndrome: Inhibition is lost, but has excitation been gained?

Eubanks JH: Invited Lecturer, Focus on Epilepsy Course, International Brain Research Organization, Toronto, ON, May 2007. Strategies for generating mutant mouse models for studying epilepsy.

Eubanks JH: Invited Presentation, European Working Group on Rett Syndrome, Pro Rett Ricerca Conference, Busto Arsizio, Italy, April 2007. Towards the correction of Rett-like behavior in Mecp2 deficient mice by targeted gene delivery.

Fehlings MG: National Neurotrauma Society, St. Louis, MO, July 2006. (1) 2006 National Neurotrauma Symposium Program Committee member, (2) Invited talk: New developments in the early management of acute spinal cord injury: Updates from the Surgical Treatment of Acute Spinal Cord Injury Study (STASCIS) & Cethrin clinical trials.

Fehlings MG: American Spinal Injury Association, Tampa, FL, May 2007. (1) American Spinal Injury Association (ASIA) Pre Course: An overview of current clinical trials in Spinal Cord Injury (SCI), (2) ASIA Symposium: Update of SCI clinical trials and clinical trial guidelines, (3) Invited talk: An update on the effectiveness of timing of surgery in cervical spinal cord injury. The Surgical Treatment for Acute Spinal Cord Injury Study (STASCIS).

Fehlings MG: 5th Annual Fellows Forum, Association for Osteosynthesis (AO) Spine North America, Banff, AB, March 2007. (1) Chairman, (2) Invited talk: Treatment of cervical spondylotic myelopathy, (3) Discussant: Current concepts in the management of spine metastasis.

Fehlings MG: Spine Study Trauma Group (STSG), Phoenix, AZ, October 2006. (1) Co-Chair and organizer “An interactive spine course focusing on contemporary surgical techniques in spine trauma,” (2) Case presentation & audience voting: C5-C6 facet unilateral dislocation. (Moderator), (3) Case presentation & audience voting: Cervical central cord injury. (Moderator).

Fehlings MG: Neurosurgery Residents Spine Education Summit, Las Vegas, NV, February 2007. (1) Co-Chair, (2) The cervical spine. (Moderator), (3) Complex spine. (Moderator), (4) Invited talk: Current advances in spinal cord repair and regeneration.

Fehlings MG: Dutch Spine Society, Amsterdam, The Netherlands, November 2006. (1) Current state-of-the-art in the diagnosis and treatment of traumatic spinal cord injury with focus on timing of surgery, (2) Cervical bilateral facet dislocation: Anterior surgical approach, posterior approach - Professor Fehlings vs Dr. M. Coppes.

Fehlings MG: American Association of Neurological Surgeons, Washington, DC, April 2007. (1) Faculty - Head trauma: Current treatments and controversies with hands-on practical session in brain monitoring and techniques, (2) Faculty - Craniovertebral junction surgical approaches: Indications, techniques, limitations and complications, (3) Complication and outcome assessment of lumbar interbody fusion. (Moderator), (4) Management and treatment of traumatic spinal cord injury. (Moderator), (5) Discussant - The presentation of spinal and supraspinal control of a peripheral nerve bridge used to bypass spinal cord injury.

Fehlings MG: 6th International Symposium on Experimental Spinal Cord Repair and Regeneration, University of Brescia, Brescia, Italy, December 2006. (1) Keynote Speaker - Carmillo Golgi Lecture: Targeting the oligodendrocyte as a repair strategy for acute and chronic spinal cord injury, (2) Co-Chairman: New frontiers in the treatment of spinal cord injury, (3) Plenary Lecture: Targeting the oligodendrocyte as a repair strategy for acute and chronic spinal cord injury.

Fehlings MG: Tissue Engineering International & Regenerative Medicine Society (TERMIS), Toronto, ON, June 2007. (1) Plenary Session Chair: Imaging and Regenerative Medicine - Neural I & Neural II, (2) 2007 Scientific Advisory Committee member.

Fehlings MG: Cedar Sinai, Los Angeles, CA, November 2006. (1) Repair and regeneration of the injured spinal cord: From basic science to clinical application, (2) Current concepts and future directions in the management of clinical myelopathy.

Fehlings MG: Association for Osteosynthesis (AO) Spine North America Faculty Development Forum, Southampton, Bermuda, August 2006. (1) Senior Faculty, (2) Chairman - AO Scientific Committee.

Fehlings MG: Management of the Neurotrauma Patient, Synthes, San Francisco, CA, November 2006. (1) Spinal mechanisms, cervical classification, case Dx, and stabilization, (2) Surgical Treatment of Acute Spinal Cord Injury Study (STASCIS) update.

Fehlings MG: Congress of Neurological Surgeons (CNS), Chicago, IL, October 2006. (1) Sports related neurotrauma, (2) Role and timing of decompression in spinal cord injury.

Fehlings MG: Controversies in Spine Trauma Symposium, Association for Osteosynthesis (AO) Spine North America, Naples, FL, May 2007. (1) Timing of surgery for spinal cord injury (SCI), (2) Complex cervical trauma, (3) Experimental treatments for SCI update.

Fehlings MG: Association for Osteosynthesis (AO) North America, Sun Valley, ID, February 2007. Advanced concepts in the management of spinal disorders: (1) Case presentation with Audience Interactive Response System (AIRS) - Cervical radiculopathy, (2) Case presentation with AIRS - Cervical myelopathy (CSM); Early Cervical Spondylotic Myelopathy (CSM).

Fehlings MG: Festival of International Conferences on Caregiving, Disability, Aging and Technology (FICCDAT), Toronto, ON, June 2007. An update on new developments in the management of acute spinal cord injury.

Fehlings MG: Association for Osteosynthesis (AO) Spine International, Davos, Switzerland, December 2006. Cervical spine course: (1) New advances in the pathophysiology and treatment of spinal cord injury, (2) Pathophysiology of the cervical myelopathy, (3) Rheumatoid cervical spine lesion, (4) Degenerative and deformity course: Debate on degenerative cervical spine, (5) Spinal cord injury: Current state, (6) Thoracolumbar spine course cord compression/Regeneration, (7) Trauma and tumor course: Failed cervical spine disc arthroplasty.

Fehlings MG: Co-Chairman, Degenerative Spine Symposium - Principles and Emerging Technologies, Association for Osteosynthesis/Association for the Study of Internal Fixation (AO/ASIF), Montreal. PQ, July 2006.

Fehlings MG: International Spinal Cord Society (ISCoS), Reykjavik, Iceland, June 2007. Interventions for SCI which involve an invasive (surgical) approach.

Fehlings MG: Second National Spinal Cord Injury Conference, Toronto, ON, October 2006. New developments in the management of acute spinal cord injury: An update on the Surgical Treatment of Acute Spinal Cord Injury Study (STASCIS) and Cethrin clinical trials.

Fehlings MG: Royal Canadian Institute Lecture Series, Toronto, ON, February 2007. Regeneration of the injured spinal cord: Pipedream or reality?

Fehlings MG: Gross Visiting Lecturer in Neuroscience, University of Manitoba, Winnipeg, MB, November 2006. Repair and regeneration of the injured spinal cord - Opportunities for clinical translation of basic research discoveries.

Fehlings MG: Visiting Professor, University of Montreal, Montreal, QC, January 2007. Repair and regeneration of the injured spinal cord: From molecule to man.

Fehlings MG: Visiting Professor, Miller School of Medicine, University of Miami, Miami, FL, February 2007. Repair and regeneration of the injured spinal cord: Opportunities for the clinical translation of basic discoveries.

Fehlings MG: Special guest speaker, Boston Life Sciences, Washington, DC, April 2007. Results of the Cethrin phase I/IIa prospective clinical trial of a Rho inhibitor for the treatment of acute spinal cord injury.

Fehlings MG: Spine Trauma Study Group, Denver, CO, January 2007. Translational research in Spinal Cord Injury (SCI) regeneration update: (1) New horizons in SCI research, (2) SCI section beyond Surgical Treatment of Acute Spinal Cord Injury Study (STASCIS): What's next?, (3) STASCIS update, (4) Prospective database for spinal cord compression.

Gentili F: Masters of Neurosurgery Session, The Management of Esthesioneuroblastoma, Joint Meeting, The 56th National Congress of the Italian Neurosurgical Society and The Congress of Neurological Surgeons, Rome, Italy, June 2007.

Gentili F: Invited Faculty, Minimally Invasive Endoscopic Surgery of the Cranial Base and Pituitary Fossa Course, University of Pittsburg Medical Center (UPMC), Pittsburg, PA, May 2007. (1) Hands-on cadaver course instructor, (2) Endoscopic pituitary surgery: The neurosurgical perspective, (3) Endoscopic skull base surgery: The Toronto experience.

Gentili F: Invited Speaker, Education Course, World Federation of Neurosurgical Societies, Guangzhou Medical College, Guangzhou, China, May 2007. (1) The surgical management of lesions of the jugular foramen, (2) The surgical management of lesions of the clivus, (3) Open vs. endoscopic approaches to lesions of the anterior base skull: The Toronto experience.

Gentili F: The Society of University Neurosurgeons Meeting, London, England, June 2007. Endoscopic approaches to non-pituitary skull base lesions, indications, limitations and outcome.

Gentili F: The Southern Neurosurgical Society, Sealand, Georgia, March 2007. Lecture: The surgical management of tuberculum sellae meningiomas.

Gentili F: Extended Approaches Mini-Symposium (Moderator), Bi-Annual Meeting, International Society of Pituitary Neurosurgeons, Bariloche, Argentina, October 2006. Lectures: (1) The use of expanded transsphenoidal procedures in the treatment of skull base meningiomas, (2) Surgical management of tuberculum sellae meningiomas including expanded transsphenoidal procedures, (3) Reconstructive techniques in open and endoscopic skull base surgery.

Gentili F: Invited Speaker, Educational Course, World Federation of Neurosurgical Societies, The Chinese University of Hongkong, Hongkong, May 2007. Minimally invasive techniques.

Gentili F: Breakfast Seminar, Annual Meeting, The American Association of Neurological Surgeons, Washington, DC, April 2007. Open vs. endoscopic strategies and approaches to the anterior skull base.

Gentili F: Advisory Board Member, 8th Congress of the European Skull Base Society, Prague, Czech Republic, May 2007. Papers presented: (1) New approaches to the surgical management of tuberculum sellae meningiomas, (2) The management of jugular foramen lesions, (3) Expanded endoscopic endonasal approach to non-pituitary skull base lesions: One year's experience in 22 consecutive cases, (4) Expanded endoscopic transnasal approach for the treatment of clival chordomas.

Gentili F: Pituitary/Endoscopy Session (Distinguished Guest and Moderator), The 8th Asian Oceanic International Congress on Skull Base Surgery, Dubai, United Arab Emirates, November 2006. (1) Expert Panel on anterior skull base lesions, (2) Presentations: (a) Evolution to a purely endoscopic removal of pituitary adenomas, (b) Endoscopic removal of clival chordomas, (c) Skull base surgery: 20 years later, lessons learned and future directions, (d) Skull base surgical approaches workshop: The use of the orbito-zygomatic osteotomy approach in skull base surgery.

Gentili F: Orbital Meningiomas; Member of the Organizing Committee and Panel Moderator, The Fifth International Congress on Meningiomas and the Cerebral Venous System, Fujiyoshida, Japan, November 2006. Speeches: (1) The surgical management of anterior skull base meningiomas, (2) The management of optic nerve sheath meningiomas.

Guha A: American Association for Cancer Research (AACR), Los Angeles, CA, April 2007. (1) Differential role of Neuropilin1 in regulating angiogenesis vs. invasion in the center vs. periphery of human glioblastoma multiforme (GBM), (2) Dimerization of wild-type and mutant epidermal growth factor receptors prevalent in glioblastoma multiforme, using Bioluminescence Resonance Energy Transfer (BRET), (3) The role of GATA4 and GATA6 as putative tumor suppressors and co-modulators in astrocytes, (4) Discovery of cancer biomarkers by mass-tagging with iTRAQ and multidimensional LC-MS/MS and verification by immunocytochemistry, (5) The role of GATA4 and GATA6 as putative tumor suppressors and co-modulators in astrocytes.

Guha A: Childhood Tumor Foundation (CTF), Park City, UT, June 2007. (1) Identification of genetic alterations in schwann cells isolated from varying subtypes of NF1 associated peripheral nerve tumors, (2) The SMARCB1 (INI1) tumor suppressor in familial schwannomatosis, (3) Principles of surgical management of dermal, plexiform & MPNST neurofibromas.

Guha A: Cold Spring Harbour Course, Cold Spring, NY, July 2006. (1) Organizer of mechanism of neural differentiation and brain tumors, (2) Study of genetic interactions and gene discovery.

Guha A: Fulford Continuing Medical Education (CME), Kolkata, India, February 2007. Current concepts in management of gliomas.

Guha A: Fulford Continuing Medical Education (CME), New Delhi, India, February 2007. Current concepts in management of gliomas.

Guha A: National Brain Research Center, Gurgaon, India, February 2007. Genetic engineered mouse glioma models.

Guha A: Research Seminar, Montreal Children's Hospital, Montreal, PQ, June 2007. Glioma models as a gene discovery tool.

Guha A: Tango in Brain Tumors, Cordoba, Argentina, February 2007. Glioma models as gene discovery tool.

Guha A: American Society of Pediatric Nephrology, San Juan, Puerto Rico, January 2007. Management of malignant peripheral nerve sheath tumor (MPNST).

Guha A: Visiting Professor, Division of Neurosurgery, University Hospital, Geneva, Switzerland, March 2007. Management of peripheral nerve tumors.

Guha A: National Cancer Institute, Singapore, February 2007. Molecular biology of astrocytomas.

Guha A: Keynote Speaker, Annual Meeting, National Cancer Center, Lausanne, Switzerland, March 2007. Mouse glioma models.

Guha A: University of Barcelona, Barcelona, Spain, June 2007. Mouse models in gliomas.

Guha A: BioSymposia on Stem Cells and Central Nervous System (CNS) Regeneration, Boston, MA, May 2007. Signaling pathways in gliomagenesis.

Guha A: Annual Meeting, Childhood Tumor Foundation, Park City, UT, June 2007. Surgical management of dermal, plexiform and malignant peripheral NF1 associated nerve tumors.

Guha A: Canadian Virtual Nervous System Tumor Bank, Vienna, Austria, September 2006. Temadar Update.

Guha A: Meeting, National Cancer Institute, Los Angeles, CA, April 2007. The Cancer Genome Atlas (TCGA) initiative in glioblastoma (GBMs).

Guha A: Lecturer in Neurooncology, Siteman Cancer Center, Washington University, St. Louis, WA, March 2007. Transgenic glioma models as gene discovery tool.

Guha A: Society of Neurooncology, Orlando, FL, November 2006. What is the best pre-clinical animal model of brain tumors?

Guha A: South Asian Neurological Congress (SANC) 2007, All India Institute for Medical Sciences (AIIMS), New Delhi, India, February 2007. What mouse models have taught us about bliomas.

Hodaie M: Gamma Knife Radiosurgery Update Course, All India Institute of Medical Sciences, New Delhi, India, April 2007. Gamma knife radiosurgery for movement disorder.

Hodaie M: Iranian Cancer Support Group, Toronto, ON, April 2007. Presentation and management of brain tumours.

Johnston K: The Concussion Road Show, Dr. Tom Pashby Sports Safety Fund/ThinkFirst Canada, Toronto, ON, November 2006.

Johnston K: The Concussion Road Show, Safe Communities Whitehorse/ThinkFirst Foundation of Canada, Whitehorse, YT, October 2006.

Johnston K: The Concussion Road Show, ThinkFirst Edmonton, Edmonton, AB, April 2007.

Johnston K: The Concussion Road Show, ThinkFirst Saskatoon, Saskatoon, SK, May 2007.

Lozano AM: 11th International Congress Scientific Program, Movement Disorder Society, Istanbul, Turkey, June 2007. (1) Invited Speaker: Early surgery for PD vs. late? Early?, (2) Chair, Parallel Section: Movement disorders surgery meets psychiatry.

Lozano AM: Joint Meetings of the 30th Annual Meeting of the Epilepsy Surgery Society of Japan and the 46th Annual Meeting of Japan Society for Stereotactic and Functional Neurosurgery, Fukuoka, Japan, January 2007. (1) Advances in Epilepsy Surgery: Localization and deep brain stimulation, (2) Advances in functional neurosurgery.

Lozano AM: Speaker, Shanghai Meeting, World Society for Stereotactic and Functional Neurosurgery (WSSFN), Pudong, Shanghai, China, July 2006. (1) Central Procedures for dystonia, (2) Patient selection and post-op management for DBS, (3) Imaging and microelectrode recordings, (4) DBS for depression, (5) DBS for epilepsy.

Lozano AM: Invited Speaker, European Association of Neurosurgical Societies (EANS) Research Course, Lisbon, Portugal, June 2007. (1) Neurostimulation in movement disorders, (2) The future of functional neurosurgery.

Lozano AM: Invited Speaker, Congress of Canadian Neurological Sciences Federation (CCNS), Edmonton, AB, June 2007. (1) Surgery of hyperkinetic movement disorders, (2) Contemporary neurosurgical approaches to the treatment of psychiatric disorders.

Lozano AM: American Association for Neurological Surgeons Annual Meeting, Washington, DC, April 2007. (1) Update in psychosurgery, (2) DBS for depression: Area 25 target.

Lozano AM: Invited International Speaker, European Society for Stereotactic and Functional Neurosurgery., Montreux, Switzerland, October 2006. (1) What have we learned from single cell recordings in the operating room, (2) Clinical trials in functional neurosurgery.

Lozano AM: Invited Speaker, 50th Anniversary Meeting, Yonsei University, Korea, May 2007. Advances in functional neurosurgery.

Lozano AM: Invited Speaker, 2007 Annual Meeting for American Neuropsychiatric Association, Tucson, AZ, February 2007. Brain stimulation for epilepsy and movement disorders.

Lozano AM: Invited Speaker, Univerity Health Network, Toronto, ON, September 2006. Celebrating Our Stars event.

Lozano AM: Invited Speaker, 2006 Brazilian Congress of Neurosurgery, Florianopolis, Brazil, September 2006. DBS for movement disorders; Surgery for dystonia.

Lozano AM: 1st Annual Meeting of the Canadian Neuromodulation Society, Niagara Falls, ON, May 2007. DBS for psychiatric disorder.

Lozano AM: Michael J. Fox Foundation, Houston, TX, February 2007. DBS-current state of the field and new horizons.

Lozano AM: Invited Speaker, Grand Rounds, University of California, Department of Neurology, Los Angeles, CA, May 2007. Modulating motor and limbic circuits with deep brain stimulation.

Lozano AM: Invited Speaker, The Speakman Lecture, University of Alberta, Province of Alberta, December 2006. Modulating motor and limbic circuits: Neurosurgery to improve brain function.

Lozano AM: Invited Speaker, 10th International Congress, Kyoto Movement Disorder Society, Japan, October 2006. Motor cortex stimulation in the PPN.

Lozano AM: Invited Speaker, Human Neuroanatomy Course, St. Louis University, St. Louis, MO, September 2006. Neurosurgical circuits in psychiatric disorders.

Lozano AM: Invited Speaker, 6th Congress of the Asian Society for Stereotactic and Computer Assisted Neurosurgery, Tokyo, Japan, May 2007. New frontiers in functional neurosurgery.

Lozano AM: Invited Speaker, International Workshop on Functional Neurosurgery for Movement Disorders and Psychiatric Illness, London, England, February 2007. Surgery for depression and its results.

Lozano AM: Sally Harrington Goldwater Visiting Professor, Barrow Neurological Institute, St. Joseph's Hospital and Medical Center, Phoenix, AZ, April 2007. Surgery for depression: Modulation of pathological brain circuits.

Lozano AM: Invited Speaker, 58th Annual Meeting of the Scandinavian Neurosurgical Society, Copenhagen, Denmark, August 2006. The future of DBS surgery.

Lozano AM: King's College, United Kingdom, October 2006. The future of deep brain stimulation.

Lozano AM: Invited Speaker, Sutcliff Lecture, University of Liverpool, Liverpool, UK, October 2006. The future of neurosurgery.

Lozano AM: Invited Speaker, European College of Neuropsychopharmacology (ECNP) Congress, Paris, France, September 2006. The new neurosurgery for depression.

Lozano AM: Invited Speaker, Bachmann-Strauss Dystonia & Parkinson's Foundation, New York, NY, November 2006. The responsiveness of dystonia to DBS surgery as a function of etiology.

Massicotte EM: Association for Osteosynthesis (AO) North America Fellowship Conference, AO North America Spine, Banff, AB, March 2007.

Massicotte EM: Degenerative Spine Symposium, Association for Osteosynthesis (AO) Spine North America, Montreal, PQ, July 2006.

Massicotte EM: Faculty Development Forum, Association for Osteosynthesis (AO) Spine North America, Southampton, Bermuda, August 2006.

Massicotte EM: Visiting Professor (teaching and operating), First Hospital of Xinxiang Medical College, Xinxiang, Henan, China, March 2007.

Massicotte EM: Canadian Neurological Sciences Federation, Edmonton, AB, June 2007. (1) Chaired the Spine Section of Platform Session, (2) Spine course - The triage and management of cervical spondylotic myelopathy patient.

Massicotte EM: Congress of Neurological Surgeons, Chicago, IL, October 2006. Adult and pediatric spinal trauma surgery.

Massicotte EM: University of Los Angeles, Los Angeles, CA, May 2007. Cauda equina injury and repair: Role of translational research.

Massicotte EM: American Association of Neurological Surgeons, Washington DC, April 2007. Indications for lumbar fusion: Minimally invasive techniques.

Tator CH: ThinkFirst Trauma Prevention Training, Ontario Road Safety Symposium, Toronto, ON, September 2006.

Tator CH: Keynote Address, AO Spine North America Fellows Forum, Banff, AB, March 2007. An overview of the past, present and future management of spinal cord injury.

Tator CH: The Dr. Tom Pashby Sports Safety Fund Lectureship, SportMed 2007, Toronto, ON, January 2007. Breaking the neck of neck injuries in ice hockey in Canada.

Tator CH: ThinkFirst Concussion Road Show, Toronto, ON, November 2006. Concussion management in sport: Diagnosis, treatment and return to play.

Tator CH: Keynote Address, "Brain Injury and Beyond: Looking Back, Thinking Forward," Toronto ABI (Acquired Brain Injury) Network Conference, Toronto, ON, November 2006. Epidemiology and prevention of head injuries in sports and recreation.

Tator CH: Guest Lecturer, British Cervical Spine Society, Glasgow, Scotland, November 2006. (1) Return to play guidelines for athletes with spinal injuries or other spine conditions, (2) Review of experimental and clinical strategies to enhance recovery and regeneration of the injured spinal cord, (3) Sport and cervical spine injury

Tator CH: Keynote Speaker, American Association of Neurological Surgeons, Washington, DC, April 2007. Spinal cord injury research - Lessons from history and the promise of the future.

Tator CH: Invited Speaker, Knowledge Mobilization Seminar Series, Canadian Paraplegica Association, Toronto, ON, November 2006. Stem cells for repair of the injured spinal cord.

Tator CH: Keynote Presentation, 2nd National Spinal Cord Injury Conference, Toronto Rehabilitation Institute, Toronto, ON, October 2006. What regenerative strategies exist and are in development that will be applicable for chronic spinal cord injury patients.

Tymianski M: Invited Plenary Speaker, 6th International Conference on Zinc Signals, Siena, Italy, September 2006. “TRPM7 and PSD proteins in ischemic CNS injury.”

Tymianski M: Presenter, American Association of Neurological Surgeons/Congress of Neurological Surgeons (AANS/CNS) Cerebrovascular Section and the International Stroke Conference 2007, San Francisco, CA, February 2007. A Phase 1, randomized, double-blind, placebo-controlled, safety, tolerability, and pharmacokinetic study of intravenous NA-1 in HEALTHY subjects.

Research and Investigations

Senior Investigator's Name Appears in Italics

Activation of cognitive compensatory circuits in Parkinson's disease. *St. Cyr J: Parkinson's Disease Foundation of Canada.* (\$45,000 2005 – 2007.)

Advanced tissue engineering strategies for spinal cord injury repair. *Shoichet MS, Tator CH: Natural Sciences and Engineering Research Council of Canada.* (\$628,391 2004 - 2007.)

Association for Osteosynthesis (AO) Spine North America Fellowship Program, 3-year merit award. *Fehlings MG, Massicotte EM, Rampersaud YR, Lewis S: AOSpine North America.* (\$270,000 2004 - 2007.)

Attenuated NMDA receptor development in MeCP2-deficient mice: Relevance to Rett Syndrome. *Eubanks JH, Zhang L, Brotchie J: Canadian Institutes of Health Research.* (\$610,225 2006 - 2011.)

Balancing the risk of thromboembolism with hemorrhage in trauma and non-trauma patients with Central Nervous System hemorrhage and a strong indication for anticoagulation. *Hawryluk G, Fehlings MG: Association for Osteosynthesis (AO) North America.* (\$5,860 2005 - 2006.)

Brain serotonin transporter in ecstasy and MDA users. *Kish SJ, Guttmann M, Houle S, Warsh J, Wilkins D, Mundo E, Wilson A, Saint-Cyr J, Meyer J: National Institutes of Health – National Institute on Drug Abuse.* (\$911,250 2005 – 2008.)

Canada Research Chair in Neuroscience Tier 1. *Lozano AM: Canada Institutes of Health Research.* (\$1,400,000 2005 - 2012.)

Cell signalling in mucosal inflammation and pain - a CIHR strategic training initiative. *Ellen R, David KD, Sessle B, Overall C, McCulloch C, Roberts C, Locker D, Cvitkovich D, Maksym G, Guyatt G, Downey G, Lawrence H, Tenenbaum H, Lee JM, Santerre JP, Sodek J, Glogauer M, Salter M, Manolson MF, Jones NL, Sherman P, Ellen R, Kandel R, Casper R, Labow R: Canadian Institutes of Health Research Strategic Training Initiative.* (\$1,245,906 2002 - 2008.)

Characterization and prediction of long-term neuropsychological effects of bilateral subthalamic deep brain stimulation (STN-DBS) in Parkinson's disease patients. *Duff Canning S, Lozano A, Hodaie A, Moro E, Lang AE: Allied Health Research Committee.* (\$2,250 2006.)

Childhood Tumor Foundation: Validation of rapamycin as an effective therapy for human NF1-associated MPNST. *Guha A: Management of Malignant Peripheral Nerve Sheath Tumor.* (\$26,443 2007.)

Cleveland Clinic Foundation: Finding cures for glioblastomas: Characterization of a mouse transgenic astrocytoma model as a therapeutic testing platform. *Guha A: Cleveland Clinic Foundation.* (\$95,000 2002 - 2007.)

Development and characterization of transgenic mouse models of astrocytomas. *Guha A: National Cancer Institute of Canada (NCIC).* (\$125,500 2002 - 2007.)

Engineering healing for spinal cord injury repair. *Shoichet MS, Tator CH: National Sciences and Engineering Research Council of Canada.* (\$676,391 2004 - 2007.)

Enhancing axonal regeneration following spinal cord injury by localized delivery of neuroregenerative factors. *Shoichet M, Tator CH: Canadian Institutes of Health Research.* (\$432,000 2004 - 2008.)

Evaluation of effective stimulation parameters for seizure control in rats with thalamic deep brain stimulation using a pilocarpine seizure model. *Hodaie M, Lozano A: Medtronic Neurological.* (\$62,894 2005 - 2007.)

Evaluation of effective stimulation parameters for seizure control in rats with thalamic deep brain stimulators, using a pilocarpine seizure model. *Hodaie M, Lozano A: Dean's Fund New Staff Grant.* (\$9,800 2005 - 2010.)

- Examination of the therapeutic potential of an engineered transcription factor promoting activation of vascular endothelial growth factor in spinal cord injury. *Fehlings MG: Sangamo BioSciences, Inc.* (\$178,000 2006 - 2007.)
- Expression profile of NF1 deficient Schwann cells. *Guha A: US Army Department of Defense (DOD) Concept Award.* (\$71,925 2007 - 2008.)
- Functional analysis of GATA6 in human gliomas: A novel tumor suppressor gene identified from Genetically Engineered Murine (GEM) glioma model by gene-trapping. *Guha A: National Cancer Institute of Canada.* (\$135,000 2006 - 2009.)
- Functional magnetic resonance imaging and cognitive functions following mild traumatic brain injury. *Ptito A, Johnston K: Canadian Institutes of Health Research.* (\$559,000 2006 - 2011.)
- Gender differences in child development: Vulnerability to chronic pain. *Davis KD, McGrath PA, Katz J, Brown SC, Geist R: Canadian Institutes of Health Research.* (\$1,478,735 2003 - 2008.)
- Human studies of pain perception. *Davis KD, Tenenbaum HC, Diamant NE: Canadian Institutes of Health Research.* (\$656,502 2007 - 2012.)
- Human studies of pain perception. *Davis KD, Diamant NE: Canadian Institutes of Health Research.* (\$539,925 2002 - 2007.)
- In-vivo suppression of TRMP7 expression using siRNA. *Tymianski M: Krembil Seed Fund.* (\$100,000 2006 - 2007.)
- Investigation and treatment of traumatic axonal dysfunction after spinal cord injury (MOP-14459). *Fehlings MG: Canadian Institutes of Health Research.* (\$392,319 2003 - 2006.)
- Investigation and treatment of traumatic axonal dysfunction after spinal cord injury (MOP-82782). *Fehlings MG: Canadian Institutes of Health Research.* (\$572,015 2007 - 2012.)
- Methyl DNA-binding factor complexes and neurodegeneration. *Eubanks JH: Heart and Stroke Foundation of Ontario.* (\$255,036 2006 - 2009.)
- Microenvironment induced molecular heterogeneity in glioblastoma multiforme (GBM). *Guha A: Canadian Institutes of Health Research.* (\$125,000 2007 - 2012.)
- Molecular mechanisms of neuronal injury. *Tymianski M, Twelve Investigators Across Canada: Canadian Stroke Networks.* (\$91,000 2006 - 2008.)
- Neurophysiological studies of human subthalamic nucleus. *Dostrovsky JO, Lozano AM, Hutchison WD: Canadian Institutes of Health Research.* (\$475,265 2004 - 2009.)
- Neuroprotection of the injured spinal cord through inhibition of FAS-mediated apoptosis. *Fehlings MG: Physicians' Services Incorporated Foundation.* (\$134,500 2006 - 2008.)
- Neuroprotection: Preventing cell death and neuronal damage from stroke. *Tymianski M: Canadian Stroke Networks.* (\$71,430 2006 - 2008.)
- New emerging team in spinal cord injury research. *Fehlings MG: Krembil Foundation.* (\$1,500,000 2006 - 2011.)
- North American Clinical Trials Network for the treatment of spinal cord injury (CTN2-2006 F/T). *Fehlings MG, Tator CH: Christopher Reeve Foundation.* (\$164,760 2006.)
- North American Clinical Trials Network for the treatment of spinal cord injury (CTN3-2007 F/T). *Fehlings MG, Tator CH: Christopher Reeve Foundation.* (\$160,000 2007.)
- Ontario Spinal Cord Injury Research Network - Acutecare infrastructure support (2006-SCI-RNACUTE-471). *Fehlings MG: Ontario Neurotrauma Foundation.* (\$400,000 2007 - 2009.)
- Pain research from molecules to community - Collaborative national training program. *Salter MW, Davis KD, Bushnell MC, Choiniere M, Coderre T, Collet J-P, De Koninck Y, Dostrovsky JO, Henry JL, Lavigne G, Mogil JS, Ribeiro-Da-Silva A, Seguela P, Sessle BJ, Stevens B, Wilson-Pauwels L: Canadian Institutes of Health Research.* (\$1,681,200 2002 - 2008.)
- Pathological oscillations in basal ganglia and synaptic plasticity. *Hutchison W, Lozano AM, Hodaie M, Dostrovsky J: Parkinson Society Canada.* (\$42,000 2006 - 2008.)
- Phase III, International Study of Unruptured Intracranial Aneurysms (ISUIA). *Wiebers D, Gentili F, Wallace C, Tymianski M, Willinsky R: National Institute of Neurological Disorders and Stroke.* (\$25,000 2004 - 2008.)
- Preclinical evaluation of polyethylene glycol (PEG) as a neuroprotective strategy for acute spinal cord injury. *Fehlings MG: Ontario Neurotrauma Foundation.* (\$60,000 2005 - 2007.)

Promotion of spinal cord repair and regeneration in cervical spondylotic myelopathy by targeting the Fas pathway. *Yu W, Fehlings MG: Cervical Spine Research Society.* (\$33,149 2005 - 2006.)

Protein nitration in traumatic and ischemic brain damage. *Tymianski M: Canadian Institutes of Health Research.* (\$668,710 2006 - 2011.)

Protein nitration in traumatic brain injury. *Tymianski M, Lau A: Canadian Institutes of Health Research/Institute of Neurosciences, Mental Health and Addiction.* (\$61,500 2006 - 2008.)

Regenerative medicine strategies for spinal cord injury repair: Integration of stem cell biology, nanotechnology, bioengineering approaches and neurosurgical application (RMF-72552). *Fehlings MG, Morshead C, Shoichet M, Stanisz G, Tator CH, van der Kooy D: Canadian Institutes of Health Research.* (\$1,500,000 2004 - 2009.)

Regional variation in inhibitors of apoptosis (IAPs) in GBMs and their role in apoptosis and therapeutic resistance. *Guha A: National Brain Tumor Foundation.* (\$52,886 2007 - 2008.)

Role of angiopoietins in human astrocytomas. *Guha A: National Cancer Institute of Canada.* (\$420,000 2004 - 2007.)

Role of TRP channels in anoxic neuronal damage. *Tymianski M: Canadian Institutes of Health Research.* (\$363,759 2004 - 2007.)

Spinal cord injury research. *Tator CH: Canadian Paraplegic Association.* (\$41,000 2006 - 2007.)

Spinal cord repair. *Fehlings MG, Morshead C, Shoichet M, Tator C, van der Kooy D: McLaughlin Centre for Molecular Medicine.* (\$150,000 2005 - 2006.)

States of mind: Emerging issues in neuroethics. *Baylis F, Bernstein M, Fine A, Glannon W, Kimmelman J, Reid L: Canadian Institutes of Health Research.* (\$1,375,000 2006 - 2011.)

Targeting postsynaptic density proteins in the treatment of CNS injury. *Tymianski M: National Institutes of Health of the United States of America.* (\$1,610,000 2004 - 2009.)

The ischemic axon: Cross-talk with myelin in K⁺ channel terms. *Fehlings MG, Velumian AA: Heart and Stroke Foundation.* (\$158,178 2006 - 2008.)

The oscillation model of the basal ganglia. *Chen R, Lozano AM, Moro E, Lang A: Michael J. Fox Foundation for Parkinson's Disease.* (\$548,427 2006 - 2009.)

The Regenerative Medicine Project (REMEDY). *Weisel R, Fehlings MG, Jaffray J, Keating A, Keller G, Kotra L, Li R, Liu P, Sefton M, Wright G: Canada Foundation for Innovation.* (\$7,200,000 2007 - 2011.)

The risk of injury associated with body checking among pediatric ice hockey players. *Emery C, Johnston K, Meeuwisse W, Benson B, Hagel B, Goulet C, Shrier I: Canadian Institutes of Health Research.* (\$283,300 2006.)

The role of TRP channels in the cellular mechanism of stroke and aging. *Tymianski M, MacDonald JF: Canadian Institutes of Health Research.* (\$750,000 2004 - 2009.)

Therapeutic hopes and ethical concerns: Clinical research in the neurosciences. *Baylis F, Bernstein M, Fine A, Kimmelman J, Reid L: Canadian Institutes of Health Research.* (\$604,032 2005 - 2009.)

Towards the correction of Rett phenotype by exogenous gene delivery. *Eubanks JH, Burnham WM, Snead III OC: Canadian Institutes of Health Research.* (\$585,685 2004 - 2009.)

Transforming neuropathic pain research in Canada. *Salter MW, Davis KD, De Koninck Y, Mogil J, Zhuo M, Kapur S: Neuroscience Canada- Brain Repair Program.* (\$1,500,000 2004 - 2007.)

Translating the promise of cellular-based strategies for repair of spinal cord injury: Impact of a combined therapy with neural precursor cells, inhibition of glial scar formation and exercise induced plasticity. *Karimi S, Fehlings MG: Young Investigator Research Grant Award to Soheila Karimi, Association for Osteosynthesis (AO) Spine North America.* (\$30,000 2007 - 2008.)

Transplantation of neural stem cells and tissue engineering approaches to repair chronic, severe spinal cord injury. *Fehlings MG, Hawryluk G: Craig H. Neilsen Foundation.* (\$132,000 2007 - 2008.)

Treatment of stroke with peptide and small molecule inhibitors of NMDA receptor-PSD95 interaction. *Tymianski M: Canadian Stroke Networks.* (\$329,000 2006 - 2008.)

Honours Received

Fehlings MG: 2007 Lister Award in the Department of Surgery, University of Toronto. May 2007.

Gentili F: Distinguished Guest, The 8th Asian Oceanic International Congress on Skull Base Surgery, Dubai, United Arab Emirates. November 2006.

Gentili F: Invited Member, Organizing Committee, The Fifth International Congress on Meningiomas and The Cerebral Venous System, Fujiyoshida, Japan. November 2006.

Gentili F: Invited to Advisory Board, 8th Congress of the European Skull Base Society, Prague, Czech Republic. May 2007.

Lozano AM: Elected to German Academy of Neurosurgery - Deutsche Akademie fuer Neurochirurgie 2006. September 2006.

Lozano AM: Inventor of the Year Award. University Health Network, Toronto 2006. September 2006.

Massicotte EM: Alan R. Hudson Neurosurgery Faculty Teaching Award. May 2007.

DIVISION OF ORTHOPAEDIC SURGERY

Dr. J.R. Davey – Associate Professor (Division Head)

Dr. M. Erwin – Assistant Professor

Dr. B.A. Graham – Assistant Professor

Dr. J. Lau – Assistant Professor

Dr. S.J. Lewis – Assistant Professor

Dr. N.N. Mahomed – Associate Professor

Dr. K.W. Marshall – Assistant Professor

Dr. D.J. Ogilvie-Harris – Associate Professor

Dr. Y.R. Rampersaud – Assistant Professor

Dr. H.P. von Schroeder – Associate Professor

Publications

Anand N, Vaccaro AR, Lim M, Lee J, Arnold P, Harrop J, Ratliff J, Rampersaud YR, Bono C, Spine Trauma Study Group: Evaluation of thoracolumbar trauma classification systems: Assessment of conflict between mechanism of injury and injury morphology. *Topics in Spinal Cord Injury Rehabilitation*: July 2006: 31: pp 70-78.

Barrett J, Baron JA, Losina E, Wright J, Mahomed NN, Katz JN: Bilateral total knee replacement: Staging and pulmonary embolism. *Journal of Bone and Joint Surgery (American)*: October 2006: 88(10): pp 2146-2151.

Fehlings MG, Furlan J, Massicotte EM, Arnold P, Harrop J, Anderson DG, Bono CM, Dvorak M, Fisher C, France J, Hedlund R, Madrazo I, Nockels R, Rampersaud YR, Rechtine G, Vaccaro AR, Spine Trauma Study Group: Interobserver and intraobserver reliability of maximum canal compromise and spinal cord compression for evaluation of acute traumatic cervical spinal cord injury. *Spine* 2006: July 2006: 31: pp 1719-1725.

Israelowitz M, Rizvi SHW, von Schroeder HP: Fluorescence of the “fire-chaser” beetle *Melanophila acuminata*. *Journal of Luminescence*: July 2006.

Lee GY, Massicotte EM, Rampersaud YR: Clinical accuracy of cervicothoracic pedicle screw placement: A comparison of the “open” foraminotomy and computer-assisted techniques. *Journal of Spinal Disorders & Techniques*: February 2007: 20(1): pp 25-32.

Leroux T, Perez-Ordóñez B, von Schroeder HP: Osteolysis following the use of a silicon-stabilized tricalcium phosphate-based bioceramic in a radius fracture. *Journal of Hand Surgery*: April 2007: 32(4): pp 497-500.

Marshman LA, Friesem T, Rampersaud YR, Le Huec JC, Krishna M: Subsidence and malplacement with the oblique maverick lumbar disc arthroplasty: Technical note. *Spine*: May 2007.

Ochotny N, Van Vliet A, Chan N, Yao Y, Morel M, von Schroeder HP, Heersche JNM, Manolson MF: Effects of human a3 and a4 mutations that result in osteopetrosis and distal renal tubular acidosis on yeast V-ATPase expression and activity. *Journal of Biological Chemistry*: July 2006: 281(Sep): pp 26102-26111.

Rampersaud YR, Fisher C, Arnold P, Anand N, Bono C, Dailey AT, Marcel D, Fehlings MG, Harrop JS, Oner FC, Vaccaro AR: Agreement between orthopaedic surgeons and neurosurgeons regarding a new algorithm for the treatment of thoracolumbar injuries: A multicenter reliability study. *Journal of Spinal Disorders and Techniques*: October 2006: 19: pp 477-482.

Rampersaud YR, Lee KS: Fluoroscopic computer-assisted pedicle screw placement through a mature fusion mass: An assessment of 24 consecutive cases with independent analysis of computer tomography and clinical data. *Spine*: January 2007: 32(2): pp 217-222.

Rampersaud YR, Moro ERP, Neary MA, White K, Lewis SJ, Massicotte EM, Fehlings, MG: Intraoperative adverse events and related postoperative complications spine surgery: Implications for enhancing patient safety founded on evidence-based protocols. *Spine* 2006: July 2006: 31: pp 1503-1510.

von Schroeder HP, et al: Orthopaedics. In: *The Toronto Notes*: TTNMS Inc., Toronto, 2007: pp OR 1-45.

Invited Visits to Other Hospitals/Universities

Davey JR: Emerging Trends, Whistler, BC, March 2007. (1) Long term results of HA in primary THA, (2) Importance of femoral offset, (3) Soft - tissue balance in primary TKA.

Davey JR: 2006 Comprehensive Team Approach for Reconstruction of the Hip and Knee, Orlando, FL, December 2006. (1) Posterior cruciate ligament: Save it or let it fly, (2) Total knee arthroplasty after high tibial osteotomy, (3) Role of hydroxyapatite in long-term fixation of total hip arthroplasty, (4) Indications and results with the Mallory/Head Calcar system.

Davey JR: Surgical Advances in Orthopaedics, Westin Trillium Blue Mountain Resort, Collingwood, ON, September 2006. (1) Posterior cruciate retaining vs. posterior cruciate sacrificing, (2) Use of spacers in infected total knee replacement, (3) Navigation--too much time.

Davey JR: Young President's Organization, Toronto Western Hospital, Toronto, ON, February 2007. Arthritis and joint replacement.

Davey JR: Janssen-Ortho Sales Meeting, Toronto, ON, May 2007. Day-in-the-life of an orthopaedic surgeon.

Davey JR: 47th Annual Dewar Society Meeting, Toronto, ON, November 2006. Infected total joint arthroplasty.

Davey JR: Niagara-on-the-Lake Hip and Knee Symposium, Niagara-on-the-Lake, ON, May 2007. Modular revision total hip.

Davey JR: Contemporary and Future Concepts of Orthopaedics. Fairmont Chateau Whistler, Whistler, BC, February 2007. Treating osteolysis. MIS - knee - a balanced view.

Lau JTC: Ontario Orthopaedic Association, 29th Annual General Meeting, Toronto, ON, November 2006. Hallux rigidus - fusion or replacement?

Lau JTC: Saint Louis University, St. Louis, MI, April 2007. Latest techniques in foot and ankle surgery - Oblique bunionette 5th MT osteotomy - Hammertoe Correction.

Lau JTC: 29th Annual General Meeting, Ontario Orthopaedic Association, Toronto, ON, November 2006. Update on total ankle arthroplasty.

Lewis SJ: Guest Speaker, Complex Spine Update, Didactic and Cadaveric Sessions, Detroit, MI, March 2007.

Lewis SJ: European Pediatric Orthopaedic Meeting, Sorrento, Italy, April 2007. How to manage complex spinal deformities with vertebral resection.

Lewis SJ: 2nd National Spinal Cord Injury Conference, Toronto Rehabilitation Institute, Toronto, ON, October 2006. Spinal deformities: Post traumatic and others.

Mahomed NN: Canadian Orthopaedic Association, Halifax, NS, June 2007. Patient-reported outcomes as a quality indicator of standardized care plans for total joint replacement.

Mahomed NN: Stryker CAOS (Computer Assisted Orthopaedic Surgeons) Meeting, Montreal, PQ, May 2007. Participant.

Mahomed NN: American Orthopaedic Association, Asheville, NC, June 2007. Patient-reported outcomes as a quality indicator of standardized care plans for total joint replacement.

Mahomed NN: GTA (Greater Toronto Area) Rehab Network - Best Practices Day 2007, Toronto, ON, March 2007. "Patient-reported outcomes: Quality indicators of care plans for joint replacement."

Mahomed NN: Session 1 - Round Table Panel Discussion (Moderator: James P. Waddell), Emerging Technologies in Hip and Knee Replacement Surgery, Pillar & Post Inn, Niagara-on-the-Lake, ON, May 2007. Addressing wait lists in orthopaedic surgery.

Mahomed NN: Interim Meeting, The Knee Society Alexandria, VA, September 2006. Association of hospital and surgeon procedure volume with patient centered outcomes of total knee replacement in a population based cohort.

Mahomed NN: Emerging Technologies in Hip and Knee Replacement Surgery, Niagara-on-the-Lake, ON, May 2007. (1) The role of arthroscopic debridement (Session I - Surgical Treatment of Severe Knee Arthritis), (2) Computer assisted TKR (Session III - Emerging Technologies in TKR.)

Mahomed NN: Orthopaedic Grand/Resident Rounds at Resident Research Day, Calgary, AB, April 2007. (1) Computer navigation, (2) Pattern of orthopaedic service delivery in Ontario.

Mahomed NN: Summer Meeting, Hip Society, Iowa City, IA, September 2006. Patient reported outcomes as a quality indicator of standardized care plans for total joint replacement.

Mahomed NN: Visiting Professor, Alberta Resident Research Day, Calgary, AB, April 2007. Total Joint Network.

Mahomed NN: New England Baptist Hospital, Boston, MA, October 2006. Total Joint Network: Early results of an integrated model of care.

Marshall KW: The State of Innovations in Orthopaedics Summit. State of Indiana and University of Indiana, Bloomington, IN, November 2006. The future of orthopaedics: The biotech perspective.

Rampersaud YR: 62nd Annual Meeting, The Canadian Orthopaedic Association Halifax, NS, June 2007. Clinical accuracy of fluoroscopic computer-assisted percutaneous pedicle screw placement: A CT analysis.

Rampersaud YR: Cleveland Spine Review, Cleveland Clinic, Cleveland, OH, July 2006. Minimally invasive surgery: Results, tricks and pearls.

Rampersaud YR: Cleveland Spine Review, Cleveland Clinic, Cleveland, OH, July 2006. Pedicle screws, ALIF / PLIF/ TLIF: Techniques, tricks and pearls.

Research and Investigations

Senior Investigator's Name Appears in Italics

A randomized controlled clinical trial of 1st MTPJ arthrodesis compared to 1st MTPJ hemiarthroplasty in severe hallux rigidus. *Lau J, Daniels T, Mahomed N: Physicians' Services Incorporated Foundation.* (\$73,000 2004 - 2006.)

A randomized controlled trial of 1st MTPJ fusion compared to 1st MTPJ hemiarthroplasty in severe hallux rigidus. *Lau J, Daniels T: American Orthopaedic Foot and Ankle Society.* (\$10,000 2005 - 2006.)

Alternative role of physiotherapists in improving access to total joint replacement. *Badley E, Mahomed N, Davis A, Mackay C: Canadian Institutes of Health Research.* (\$98,250 2007 - 2008.)

An integrated model of care for total joint replacements. *Mahomed N, Davis A: Ontario Ministry of Health and Longterm Care.* (\$700,000 2005 - 2007.)

Cell-based VEGF gene transfer to promote fracture healing. *Schemitsch EH, Li R, Stewart DJ, von Schroeder HP: Physicians' Services Incorporated Foundation.* (\$86,000 2005 - 2006.)

Centre for Research Expertise in Improved Disability Outcomes (CREIDO). *Cassidy JD, Cote P, Carette S, Mahomed N, Hamer H, Inman R, von Schroeder HP, Gignac M, Evans M, Bombardier C, Ammendolia C, Franche RL, Cole D, Reardon R, Guzman J, Flannery J, Davis A, Anderson J, Loisel P, Wells R: Workers Safety and Insurance Board.* (\$3,750,000 2006 - 2011.)

Determinants and consequences of pain and fatigue in osteoarthritis (OA), Using a biopsychosocial approach. *Hawker G, Badley E, Gignac M, Davis A, Romans S, Gordan A, Murray B, Benazon N, Grigoriadis S, Mahomed N, Sale J, Juurlink D, Gagliese L, Steele L, Henry J: Canadian Institutes of Health Research.* (\$1,495,170 2004 - 2009.)

Efficacy of intraoperative topical application of tranexamic acid in reducing perioperative bleeding in total knee arthroplasty. *Wong J, Chung F, Mahomed N, Rod Davey R, Khal Syed K: Physicians' Services Incorporated Foundation.* (\$116,500 2007 - 2009.)

Gait symmetry and knee arthroplasty: Before and after surgery, and implications for rehabilitation. *Mahomed N, Gage W, McIlroy W, Flannery J, McGlynn M, Davis A: Canadian Orthopaedic Foundation.* (\$9,995 2006 - 2007.)

Minimally invasive surgical management of neurogenic claudication - Diam pilot study. *Rampersaud R: Medtronic - Sofamor Danek.* (\$54,867 2007 - 2008.)

Outcome measurement: The importance of time. *Davis A, Badley E, Beaton D, Cote P, Flannery J, Gignac M, Hogg-Johnson S, Mahomed N, Schemitsch E, Streiner D: Canadian Institutes of Health Research.* (\$162,398 2005 - 2009.)

Predictors of disability following revision knee arthroplasty. *Davis A, Garbuz D, Gignac M, Kiss A, Mahomed N, Gross A, Schemitsch E: Canadian Institutes of Health Research.* (\$74,132 2005 - 2010.)

Tooling up for early OA: Measuring what matters. *Esdaile J, Fortin P, Hawker G, Wright J, Abrahamowicz M, Backman C, Badii M, Bombardier C, Bourne R, Chesworth B, Cibere J, Davis A, Greidanus N, Koehn C, Leffondre K, Mahomed N, Marra C, Sale J, Sebalt R: New Emerging Team.* (\$1,495,170 2004 - 2009.)

Total Joint Network II: An integrated model of care for hip fractures. *Mahomed N, Flannery J, Brien H, McGlasson R, Davis A: Innovations Fund Ministry of Health and Long Term Care.* (\$373,000 2006 - 2008.)

Honours Received

Rampersaud YR: Ross Fleming Surgical Educator Award Presented for Excellence in Surgical Education. May 2007.

DIVISION OF PLASTIC SURGERY

Dr. D.J. Anastakis – Associate Professor

Dr. T. Bell – Lecturer

Dr. P. Bray – Assistant Professor

Dr. L.T. Dvali – Assistant Professor

Dr. B. Graham – Assistant Professor

Dr. S. Hofer – Associate Professor (Division Head)

Dr. J.E. Lipa – Assistant Professor

Dr. R.T. Manktelow – Professor

Dr. H.P. von Schroeder – Associate Professor

Publications

Bordeleau LJ, Lipa JE, Neligan PC: Management of the BRCA mutation carrier or high risk patient. *Clinics in Plastic Surgery*: January 2007: 34(1): pp 15-27.

DiMarco C, Bray P, Covvey D, Cowan D, Diccio V, Hovy E, Lipa J, Yang C: Authoring and generation of individualized patient education materials. *American Medical Informatics Association (AMIA) Annual Symposium Proceedings*: November 2006: pp 195-199.

Dvali LT, Mackinnon SE: The role of microsurgery in nerve repair and nerve grafting. *Hand Clinics*: February 2007: 23: pp 73-82.

Hendren SK, Swallow CJ, Smith A, Lipa JE, Cohen Z, MacRae HM, Gryfe R, O'Connor BI, McLeod RS: Complications and sexual function after vaginectomy for anorectal tumors. *Diseases of the Colon and Rectum*: February 2007: 50(6): pp 810-816.

Howell BG, Lipa JE, Ghazarian DM: Intracapsular melanoma: A new pitfall for sentinel lymph node biopsy. *Journal of Clinical Pathology*: August 2006: 59(8): pp 891-892.

Lipa JE: Breast reconstruction with free flaps from the abdominal donor site - TRAM, DIEAP, and SIEA flaps. *Clinics in Plastic Surgery*: January 2007: 34(1): pp 105-121.

Lipa JE, Neligan PC: *Clinics in Plastic Surgery - Post-Surgical Breast Reconstruction*: (Barth S, ed.) W.B. Saunders Company: Philadelphia, 2007: pp 166.

Martou G, O'Blenes CAE, Huang N, McAllister S, Neligan PC, Ashrafpour H, Pang CY, Lipa JE: Development of an in vitro model for study of the efficacy of ischemic preconditioning in human skeletal muscle against ischemia/reperfusion injury. *Journal of Applied Physiology*: November 2006: 101(5): pp 1335-1342.

Novak CB, Young DS, Lipa JE, Neligan PC: Evaluation of sun protection behavior in patients following excision of a skin lesion. *The Canadian Journal of Plastic Surgery*: March 2007: 15(1): pp 38-40.

Toms AP, Anastakis D, Bleakney RR, Marshall TJ: Lipofibromatous hamartoma of the upper extremity: A review of the radiologic finding for 15 patients. *American Journal of Roentgenology*: March 2006: 186(3): pp 805- 811.

Wanzel KR, Anastakis DJ, McAndrews MP, Grobert ED, Sidhu RS, Taylor K, Mikulis DJ, Hamstra SJ: Visual-spatial ability and fMRI cortical activation in surgery residents. *American Journal of Surgery*: April 2007: 193(4): pp 507-510

Wells BJ, Stotland P, Ko MA, Al-Sukhni W, Wunder J, Ferguson P, Lipa J, Last L, Smith AJ, Swallow CJ: Results of an aggressive approach to resection of locally recurrent rectal cancer (LRRCC). *Annals of Surgical Oncology*: February 2007: 14(2): pp 390-395.

Invited Visits to Other Hospitals/Universities

Anastakis DJ: Co-Chair, Scientific Program, Residents Corner, Annual Meeting, Canadian Society of Plastic Surgeons, Banff, AB, May 2007; June 1, 2007.

Anastakis DJ: IVth Congress, The World Society for Reconstructive Microsurgery, Athens, Greece, June 2007. Adult brachial plexus palsy; quality of life and disability. Panel member.

Anastakis DJ: 2007 Surgical Education Week, Association for Surgical Education. Washington, DC, April 2007. ASE Panel. Promoting an adaptive culture for surgical education. Moderator.

Anastakis DJ: 37th Annual Meeting, American Association for Hand Surgery, Rio Grande, Puerto Rico, January 2007. Cortical reorganization.

Anastakis DJ: Education Grand Rounds, Northwestern University, Feinberg School of Medicine, Department of Surgery, Chicago, IL, September 2006. Cortical plasticity - What you need to know when teaching surgeons technical skills.

Bell T: 33rd Annual Meeting, Canadian Society of Aesthetic (Cosmetic) Plastic Surgery (CSAPS), Toronto, ON, September 2006. Moderator.

Bell T: Invited Course Teacher, American Society of Aesthetic Plastic Surgery (ASAPS), New York, NY, April 2007. Anatomic approach to face and necklift.

Bell T: Invited Talk, Postgraduate Network Advanced Workshop, Connell Aesthetic Cosmetic Surgery, Las Vegas, NE, June 2007. Foreheadplasty, anatomical considerations and endoscopic techniques.

Bell T: Invited Talk, Dr. F. Bruce Connell Society, New York, NY, April 2007. Things I've learned in my first 20 years of practice.

Lipa JE: IVth Congress of The World Society for Reconstructive Microsurgery, Athens, Greece, June 2007. (1) Free Paper Session: Breast reconstruction. (Moderator), (2) Microsurgical Breast Reconstruction Panel: Deep inferior epigastric artery perforator selection in the presence of abdominal scars: Preoperative planning and operative decision-making.

Lipa JE: Scientific Session C-1, American Society for Reconstructive Microsurgery, Rio Grande, Puerto Rico, January 2007. Moderator.

Lipa JE: Visiting Professor, University of Manitoba, Division of Plastic Surgery, Winnipeg, MB, July 2006. Sentinel lymph node biopsy in head and neck melanoma.

Research and Investigations

Senior Investigator's Name Appears in Italics

Gene expression profiles of prophylactic mastectomy specimens in women at hereditary high risk of breast cancer. *Bordeleau L, Andrulis I, Glendon G, Leong W, Lipa J, McCready D, Mulligan AM, O'Malley F, Youngson B: Canadian Breast Cancer Foundation. (\$147,590 2007 - 2009.)*

Lipofibromatosis of the brachial plexus. *Arruda EJ, Anastakis DJ: The Toronto Hospital Research Institute. (\$4,000 2006.)*

Natural language generation systems for creation of tailored patient education materials (Renewal). *DiMarco C, Bray P, Covvey HD, Cowan D, DiCiccio V, Hovy E, Lipa J: Bell University Laboratories. (\$40,000 2006 - 2007.)*

Natural language generation tools and methodologies for creation of personalized health education (CRDPJ 321637-05). *DiMarco C, Cowan DD, Covvey HDJ, DiCiccio V, Bray PW, Lipa JE: Natural Sciences and Engineering Research Council of Canada. (\$100,000 2005 - 2007.)*

Pathogenesis of radiation-induced capsular contracture (US Funds). *Lipa JE, Pang CY: Plastic Surgery Educational Foundation. (\$4,000 2006 - 2007.)*

The impact of upper limb musculoskeletal trauma on perceived disability and quality of life. *Ng WKY, Anastakis DJ: Canadian Institutes of Health Research. (\$5,961 2006 - 2007.)*

Honours Received

Dvali LT: Wightman-Berris Academy Teaching Award. May 2007.

Lipa JE: Arnis Freiberg Teaching Excellence Award for Outstanding Contributions to Plastic Surgery Resident Education, University of Toronto. March 2007.

DIVISION OF THORACIC SURGERY

Dr. G.E. Darling – Associate Professor

Dr. M. de Perrot – Assistant Professor

Dr. S. Keshavjee – Professor (Division Head)

Dr. M. Liu – Professor

Dr. M.F. McKneally – Professor

Dr. A.F. Pierre – Assistant Professor

Dr. T.K. Waddell – Associate Professor

Publications

Andrade CF, Kaneda H, Der S, Tsang M, Lodyga M, Dos Santos C, Keshavjee S: Toll-like receptor and cytokine gene expression in the early phase of human lung transplantation. *The Journal of Heart and Lung Transplantation*: November 2006: 25(11): pp 1317-1323.

Andrade CF, Wong AP, Waddell TK, Keshavjee S, Liu M: Cell-based tissue engineering for lung regeneration. *American Journal of Physiology and Lung Cell Molecular Physiology*: February 2007: 292(2): pp L510-L518.

Anraku M, Waddell TK: Surgery for small cell lung cancer. *Seminars in Thoracic and Cardiovascular Surgery*: October 2006: 18: pp 211-216.

Cameron MJ, Ran L, Xu L, Danesh A, Bernejo-Martin JF, Cameron CM, Muller MP, Gold WL, Richardson SE, Poutanen SM, Willey BM, Devries ME, Fang Y, Senevirante C, Bosinger SE, Persad D, Wilkinson P, Greller LD, Somogyi R, Humar A, Keshavjee S, Louie M, Loeb MB, Brunton J, McGeer AJ, Kelvin DJ: Interferon-mediated immunopathological events are associated with atypical innate and adaptive immune responses in severe acute respiratory syndrome (SARS) patients. *Journal of Virology*: May 2007.

D'Ovidio F, Keshavjee S: Gastroesophageal reflux and lung transplantation. *Diseases of the Esophagus*: September 2006: 19(5): pp 315-320.

D'Ovidio F, Mura M, Ridsdale R, Takahashi H, Waddell TK, Hutcheon M, Hadjiliadis D, Singer LG, Pierre A, Chaparro C, Gutierrez C, Miller L, Darling G, Liu M, Post M, Keshavjee S: The effect of reflux and bile acid aspiration on the lung allograft and its surfactant and innate immunity molecules SP-A and SP-D. *American Journal of Transplantation*: August 2006: 6(8): pp 1930-1938.

Dahele M, Darling G, Tsao M, Hwang D, Yaffe M, Ehrlich L, Mah K, Miller H, Raphae SI, Ung Y: Is imaging with co-registered Positron Emission Tomography and Computed Tomography (PET-CT) superior to Computed Tomography (CT) alone for determining the Gross Tumor Volume (GTV) and Clinical Target Volume (CTV) in radical conformal radiotherapy for Non-Small Cell Lung Cancer (NSCLC). *Radiotherapy and Oncology*: September 2006: 80(Suppl 1): pp S54-S55.

Darling GE, Eton D, Sulman J, Casson A, Cella D: Validation of the functional assessment of cancer therapy esophageal cancer subscale (FACT-E). *Cancer*: August 2006: 107(4): pp 854-863.

de Perrot M, Fadel E, Mercier O, Farhamand P, Fabre D, Mussot S, Dartevelle P: Surgical management of mediastinal goiters: When is a sternotomy required? *Thoracic and Cardiovascular Surgeon*: February 2007: 55: pp 39-43.

de Perrot M, Keshavjee S: Donor evaluation and lung preservation. In: *Lung Transplantation Manual*: (Chaparro-Mutis C, Hutcheon M, Singer L, Keshavjee S, eds.) Elsevier: Canada, 2007: pp 10-11.

de Perrot M, Uy K, Anraku M, Tsao MS, Darling G, Waddell TK, Pierre AF, Bezjak A, Keshavjee S, Johnston MR: Impact of lymph node metastasis on outcome after extrapleural pneumonectomy for malignant pleural mesothelioma. *Journal of Thoracic and Cardiovascular Surgery*: January 2007: 133(1): pp 111-116.

de Perrot M, Waddell TK, Shargall Y, Pierre AF, Fadel E, Uy K, Chaparro C, Hutcheon M, Singer LG, Keshavjee S: Impact of donors aged 60 years or more on outcome after lung transplantation: Results of an 11 year single center experience. *Journal of Thoracic and Cardiovascular Surgery*: February 2007: 133(2): pp 525-531.

Ding Z, Jia S, Marshall J, Downey GP, Waddell TK: Up-regulation of functional CXCR-4 expression on human lymphocytes in sepsis. *Critical Care Medicine*: December 2006: 34: pp 3011-3017.

Fischer S, Bohn D, Rycus P, Pierre AF, de Perrot M, Waddell TK, Keshavjee S: Extracorporeal membrane oxygenation for primary graft dysfunction after lung transplantation: Analysis of the Extracorporeal Life Support Organization (ELSO) registry. *Journal of Heart and Lung Transplantation*: May 2007: 26(5): pp 472-477.

- Gutierrez C, Al-Faifi S, Chaparro C, Waddell TK, Hadjiliadis D, Singer L, Keshavjee S, Hutcheon M:** The effect of recipient's age on lung transplant outcome. *American Journal of Transplantation*: May 2007: 7(5): pp 1271-1277.
- Hyduk SJ, Chan JR, Duffy ST, Chen M, Peterson MD, Waddell TK, Digby GC, Szaszi K, Kapus A, Cybulsky MI:** Phospholipase C, calcium, and calmodulin are critical for alpha4beta1 integrin affinity up-regulation and monocyte arrest triggered by chemoattractants. *Blood*: January 2007: 109(1): pp 176-184.
- Jin R, Greenwald A, Peterson MD, Waddell TK:** Human monocytes recognize porcine endothelium via the interaction of galectin 3 and alpha-GAL. *Journal of Immunology*: July 2006: 177(2): pp 1289-1295.
- Kassam F, Johnston M, Visbal A, Feld R, Shepherd F, Darling G, Keshavjee S, Pierre A, Waddell T, Leigh NB:** Referral patterns for adjuvant chemotherapy in patients with completely resected non-small cell lung cancer (NSCLC.) *Journal of Thoracic Oncology*: January 2007: 2(1): pp 39-43.
- Keshavjee S:** Retransplantation of the lung comes of age. *Journal of Thoracic and Cardiovascular Surgery*: August 2006: 132(2): pp 226-228.
- Liu M:** Innate immunity and lung transplantation. In: *Contributions in Transplantation Innate Immunity in Organ Transplantation (Volume 1)*: (Catalan Transplantation Society, ed.) Prous Science: Barcelona, 2006: pp 3-13.
- Maimon N, Chan C, Marras T, Hwang D, Narinder P, Keshavjee S, Lee P:** A 46 year old woman with dyspnea, stridor and chronic cough. *European Journal of Cardiothoracic Surgery*: September 2006: 13: pp 666-669
- McKneally MF:** Beyond disclosure: Managing conflicts of interest to strengthen trust in our profession. *Journal of Thoracic and Cardiovascular Surgery*: February 2007: 133: pp 300-302.
- McKneally MF:** Managing expectations and fear: Invited Commentary on "Indecency in Cardiac Surgery: A Memoir of My Education at a Super-Esteemed Medical Place" by Dr. Edmund Erde. *Journal of Cardiac Surgery*: January 2007: 22: pp 49-50.
- Mura M, Andrade CF, Han B, Seth R, Zhang Y, Bai XH, Waddell TK, Hwang D, Keshavjee S, Liu M:** Intestinal I/R-induced acute lung injury and oncotic cell death in multiple organs. *Shock*: May 2007: 12: pp 227-238
- Mura M, Han B, Andrade CF, Seth R, Hwang D, Waddell TK, Keshavjee S, Liu M:** The early responses of VEGF and its receptors during acute lung injury: Implication of VEGF in alveolar epithelial cell survival. *Critical Care Medicine*: September 2006: 10(5): pp R130.
- Ng R, Baktiar H, Mittmann N, Florescu M, Shepherd F, Keyue D, Butts C, Cormier Y, Darling G, Goss G:** A report of the Working Group on Economic Analysis, and the Lung Disease Site Group, National Cancer Institute of Canada Clinical Trials Group (NCIC CTG); Economic analysis of NCIC CTG JBR.10: A randomized trial of adjuvant vinorelbine plus cisplatin versus observation in early stage non-small cell lung cancer. *Journal of Clinical Oncology*: June 2007: 25(16): pp 2256-2261.
- Okutani D, Han B, Mura M, Waddell TK, Keshavjee S, Liu M:** High-volume ventilation induces pentraxin 3 expression in multiple acute lung injury models in rats. *American Journal of Physiology and Lung Cell Molecular Physiology*: January 2007: 292(1): pp L144-L153.
- Patsios D, de Perrot M, Tsao MS, Weisbrod G:** Epithelioid angiosarcoma of the lung: A rare late complication of lucite plombage. *British Journal of Radiology*: July 2006: 79: pp 36-39.
- Pierre A, Keshavjee S, de Perrot M, McRae K:** Surgical procedure. In: *Lung Transplantation Manual*: (Chaparro-Mutis C, Hutcheon M, Singer L, Keshavjee S, eds.) Elsevier: Canada, 2007: pp 12-28.
- Pisters K, Darling G:** Editorial: The International Association for the Study of Lung Cancer (IASLC) Staging Project: The nodal zone. *Journal of Thoracic Oncology*: January 2007: pp 583-584
- Privitera S, Hwang D, Darling G:** Inflammatory myofibroblastic tumor of the left main stem bronchus. *Journal of Thoracic Oncology*: September 2006: 1(7): pp 726-728.
- Sato M, Keshavjee S, Liu M:** Gene therapy in lung transplantation. *Journal of Biology*: September 2006: 2(3): pp 34-38.
- Tang PS, Tsang ME, Lodyga M, Bai XH, Miller A, Han B, Liu M:** Lipopolysaccharide accelerates caspase-independent but cathepsin B-dependent death of human lung epithelial cells. *Journal of Cell Physiology*: September 2006: 209: pp 457-467.
- Ung Yee C, Yu E, Falkson C, Haynes A, Stys-Norman D, Evans William K, The Lung Cancer Disease Site Group of Cancer Care Ontario in Evidence Based Care:** The role of radiation therapy in malignant pleural mesothelioma: A systematic review. *Radiotherapy and Oncology*: July 2006: 8(issue 1): pp 13-18.

Uy K, Bedard E, Keshavjee S: Post-pneumonectomy syndrome: A spectrum of clinical presentations. *Annals of Thoracic Surgery*: January 2007: 2(1): pp 39-43.

Uy K, Keshavjee S: Extrapericardial Middle Mediastinal Phechromocytoma. *Annals of Thoracic Surgery*: December 2006: 82(6): pp 2304.

Uy K, Waddell TK: Role of mediastinoscopy in management of T1 lung cancer. In: *Difficult Decisions in Thoracic Surgery; An Evidence-Based Approach*: (Ferguson MK, ed.) Springer: New York, 2006: pp 68-74.

Vanden Eynden F, Fadel E, de Perrot M, de Montpreville V, Mussot S, Darteville P: Role of surgery in the treatment of primary pulmonary B cell lymphoma. *Annals of Thoracic Surgery*: January 2007: 83: pp 236-240.

Xu J, Bai XH, Lodyga M, Han B, Keshavjee S, Hu J, Yang BB, Liu M: XB-130: A novel adaptor protein for signal transduction. *Journal of Biological Chemistry*: June 2007: 282: pp 1640-1712.

Zeller M, Perruzza E, Austin L, Vohra S, Stephens D, Abdollel M, McKneally MF, Levin A: Parental understanding of the role of trainees in the ophthalmic care of their children. *Ophthalmology*: December 2006: 113: pp 2292-2297.

Invited Visits to Other Hospitals/Universities

Darling GE: Mexican Pulmonary and Thoracic Surgery Society, Guanajuato, Mexico, April 2007. (1) Complications of esophageal surgery, (2) Lung cancer: Adjuvant therapy for early state disease, (3) Endobronchial ultrasound, (4) Lung cancer: Utilization of PET scan, (5) Vertebral tumor resection in T4 lesions, (6) Surgery for satellite lesions.

Darling GE: Introduction to Respirology Course, Department of Medicine, University of Toronto, Toronto, ON, July 2006. Lung cancer.

Darling GE: Lecture, Cardiorespiratory Physiotherapy, University Health Network, Toronto, ON, October 2006. Lung cancer: Epidemiology and surgical management.

Darling GE: Society for Thoracic Surgeons/American Association for Thoracic Surgery (STS/AATS) Tech-Con 2007, San Diego, CA, January 2007. Lymph node dissection.

de Perrot M: 27th Annual Meeting, International Society for Heart and Lung Transplantation, San Francisco, CA, April 2007. A perspective on pre-existing cancer in the donor and the recipient.

de Perrot M: Canadian Pulmonary Hypertension Forum, Toronto, ON, June 2007. Surgical therapies for pulmonary arterial hypertension.

Keshavjee S: New Developments in Cancer Management, 2006 Princess Margaret Hospital Conference, Toronto, ON, October 2006. Advanced surgery for advanced lung cancer.

Keshavjee S: 2nd Protective Ventilation Summit, Frankfurt, Germany, November 2006. Artificial lung as a bridge to lung transplantation.

Keshavjee S: 7th International Congress on Lung Transplantation, Paris, France, August 2006. The lung gene allograft observational study.

McKneally MF: Head and Neck Surgery Annual Meeting, American Association for Otolaryngology, Toronto, September 2006. "Doing the Right Thing in Otolaryngology - Head and Neck Surgery."

McKneally MF: National Council on Ethics in Human Research, Toronto, February 2007. Managing institutional conflicts of interest: Approaches in the US.

McKneally MF: "Principles of Innovation. Ethical Issues in Innovation," Harvard Medical International, University of Lausanne, Lausanne, Switzerland, May 2007.

McKneally MF: Responding to Trust: Perspectives of Surgeons on Informed Decision-Making and Consent, Annual Meeting, Canadian Bioethics Society, Toronto, ON, June 2007.

McKneally MF: The Novalung Summit, Frankfurt, November 2006. Ethical issues in surgical innovation: The artificial lung.

McKneally MF: Trillium Health Sciences Centre, Toronto, ON, December 2006. Research and innovation in surgery.

Waddell TK: 47th Annual Congress, Japanese Lung Cancer Society, Kyoto, Japan, December 2006. EGFR inhibition in early lung cancer.

Research and Investigations

Senior Investigator's Name Appears in Italics

A randomized comparison of laparoscopic myotomy and pneumatic dilatation for achalasia. *Urbach D, Diamant N, Kortan P, Darling G, Tomlinson G, Laporte A, Deitel W: Canadian Institutes of Health Research. (\$445,410 2005 - 2010.)*

Adjuvant sunitinib following chemoradiotherapy and surgery for esophageal cancer. A phase II trial (ASSET). *Knox J, Visbal A, Guindi M, Darling G, Wong R: Pfizer. (\$232,824 2006.)*

Airway remodelling in bronchiolitis obliterans after lung transplantation: The role of matrix metalloproteinases. *Keshavjee S: Canadian Fibrosis Foundation. (\$270,000 2006 - 2009.)*

CF transplant centre grant. *Keshavjee S, Singer L: Canadian Cystic Fibrosis Foundation. (\$63,213 2006 - 2007.)*

Ex-vivo lung perfusion systems for gene repair of donor lungs. *Keshavjee S: Astellas. (\$250,000 2005 - 2006.)*

Gene therapeutic strategies for transplant related lung injury. *Keshavjee S: Canadian Institutes of Health Research. (\$654,290 2003 - 2008.)*

High risk seed grant - Regenerative medicine: The role of marrow stromal cells in prevention of chronic lung allograft rejection. *Waddell TK: Canadian Institutes of Health Research. (\$150,000 2004 - 2006.)*

PTX3 a novel mediator of acute lung injury. *Liu MY, Han B: Ontario Thoracic Surgery. (\$45,000 2006 - 2007.)*

Repair of damaged lungs for transplantation using an ex-vivo gene therapeutic strategy. *Keshavjee S: Center for Gene Therapy of Cystic Fibrosis and Other Genetic Diseases, University of Iowa/National Institute of Health. (\$34,560 2006 - 2008.)*

Role of regulatory T cells in ischemia-reperfusion injury induced lung injury. *de Perrot M: American Association for Thoracic Surgery Second Andrew G. Morrow Research Scholarship. (\$150,000 2005 - 2007.)*

Signal cross-talk in acute lung injury. *Liu MY: Canadian Institutes of Health Research. (\$655,000 2003 - 2008.)*

The effect and mechanisms of a novel adoptive immunotherapy for lung cancer using ex vivo expanded human DNT cells. *Zhang L, de Perrot M, Tsao M, Johnston M: National Cancer Institute of Canada. (\$705,000 2006 - 2011.)*

The impact of PET imaging in staging potentially surgically resectable NSCLC: A prospective, multicenter randomized clinical trial. *Maziak DE, Darling GE, Evans WK, Levine MN, Miller JD, Inculet RI, Paul NS, Drieger AA, Roberts RS, Tamber MS, Ung YC: Canadian Institutes of Health Research. (\$434,700 2006 - 2008.)*

Ventilator-induced acute lung injury: From mechanotransduction to molecular therapies. *Liu MY, Chen P, Han B: Canadian Institutes of Health Research. (\$785,000 2006 - 2007.)*

Honours Received

Darling GE: Robert Ginsberg Award for Best Postgraduate Teaching. June 2007.

DIVISION OF UROLOGY

Dr. A. Finelli – Assistant Professor

Dr. N.E. Fleshner – Associate Professor (Division Head)

Dr. M.M. Hassouna – Associate Professor

Dr. M.A.S. Jewett – Professor

Dr. A.G. Matthew – Assistant Professor

Dr. S.B. Radomski – Associate Professor

Dr. M. Robinette – Associate Professor

Dr. J. Trachtenberg – Professor

Publications

Al-Azab R, Toi A, Lockwood G, Kulkarni G, Fleshner N: Prostate volume is strongest predictor of cancer diagnosis at transrectal ultrasound-guided prostate biopsy with prostate-specific antigen values between 2.0 and 9.0 ng/mL. *Urology*: January 2007: 69(1): pp 103-107.

Alibhai S, Leach M, Tomlinson G, Krahn MD, Fleshner N, Naglie G: Rethinking 30-day mortality risk after radical prostatectomy. *Journal of Urology*: November 2006: 68(5): pp 1057-1060.

Alibhai SM, Rahman S, Warde PR, Jewett MA, Jaffer T, Cheung AM: Prevention and management of osteoporosis in men receiving androgen deprivation therapy: A survey of urologists and radiation oncologists. *Urology*: July 2006: 68: pp 126-131.

Brown L, Ritvo P, Howlett R, Cotterchio M, Matthew AG, Rosen B, Murphy J, Mai V: Attitudes toward Human Papillomavirus (HPV) testing: Interview findings from a random sample of women in Ontario, Canada. *Health Care for Women International*: July 2006.

Elkellini M, Hassouna M: Safety of MRI in patients with implantable neurostimulators for voiding dysfunction. *European Urology*: August 2006: 50: pp 311-316.

Evans AJ, Russell RC, Roche O, Burry TN, Fish JE, Chow VW, Kim WY, Saravanan A, Maynard MA, Gervais ML, Sufan RI, Roberts AM, Wilson LA, Betten M, Vandewalle C, Berx G, Marsden PA, Irwin MS, Teh BT, Jewett MA, Ohh M: VHL promotes E2 box-dependent E-cadherin transcription by HIF-mediated regulation of SIP1 and snail. *Molecular Cellular Biology*: January 2007: 27: pp 157-169.

Finelli A: Laparoscopic lymphadenectomy for prostate and bladder cancer. In: *Textbook of Laparoscopic Urology*, 1st edition: (Gill IS, ed.) Marcel Dekker, Inc.: 2006: pp 617-623.

Finelli A, Gill IS: Laparoscopic partial nephrectomy. In: *Laparoscopic Urologic Oncology*, 1st Edition: (de la Rosette JJ, Gill IS, eds.) Springer-Valley, 2006: pp 49-58.

Finelli A, Kaouk JH: Pneumoretroperitoneum. In: *Smith's Textbook of Endourology*, 2nd Edition: (Smith AD, Badlani G, Bagley D, Clayman R, Jordan G, Kavoussi L, Lee B, Lingeman J, Preminger G, Seguar J, eds.) Quality Medical Publishing: 2006.

Fleshner N, Gomella LG, Cookson MS, Finelli A, Evans A, Taneja SS, Scott Lucia M, Wolford E, Somerville MC, Rittmaster R (for the REDEEM Study Group): Delay in the progression of low-risk prostate cancer: Rationale and design of the reduction by dutasteride of clinical progression events in expectant management (REDEEM) trial. *Contemporary Clinical Trials*: May 2007. E-published ahead of print.

Fleshner N, Kulkarni G: Should finasteride be used to prevent prostate cancer? *Current Treatment Options in Oncology*: September 2006: 5: pp 346-354.

Gleave M, Qian J, Andreou C, Pommerville P, Chin J, Casey R, Steinhoff G, Fleshner N, Bostwick D, Thomas L, Rittmaster R: The effects of the dual 5alpha-reductase inhibitor dutasteride on localized prostate cancer-results from a 4-month pre-radical prostatectomy study. *The Prostate*: August 2006.

Grober ED, Jewett MAS: The concept and trajectory of "operative competence" in surgical training. *Canadian Journal of Surgery*: August 2006: 49: pp 238-240.

Haddad AQ, Venkateswaran V, Viswanathan L, Teahan SJ, Fleshner NE, Klotz LH: Novel antiproliferative flavonoids induce cell cycle arrest in human prostate cancer cell lines. *Prostate Cancer Prostatic Disease*: September 2006: 9(1): pp 68-76.

- Haider MA, Davidson SR, Kale AV, Weersink RA, Evans AJ, Toi A, Gertner MR, Bogaards A, Wilson BC, Chin JL, Elhilali M, Trachtenberg J:** Prostate gland: MR Imaging appearance after vascular targeted photodynamic therapy with palladium-bacteriopheophorbide. *Radiology*: June 2007: 244: pp 196-204.
- Hamilton RJ, Finelli A:** Laparoscopic retroperitoneal lymph node dissection for nonseminomatous germ-cell tumors: Current status. *Urologic Clinics of North America*: May 2007: 34(2): pp 159-169.
- Hamilton RJ, Jewett MA, Finelli A:** An efficient solution to the retained Foley catheter. *Urology*: November 2006: 68(5): pp 1109-1111.
- Hassouna M, Elkelini M:** Overactive bladder: A brief review. *US Genitourinary Diseases*: August 2006: 2006: pp 42-44.
- Jewett MA, Klotz LH, The University of Toronto Uro-Oncology Program:** Advances in the medical management of benign prostatic hypertrophy. *Canadian Medical Association Journal*: June 2007: 176: pp 1850-1851.
- Jewett MAS, Groll RJ:** Nerve-sparing retroperitoneal lymphadenectomy. *Urology Clinics of North America*: May 2007: 34: pp 149-158.
- Klotz L, Saad F, the Prostate Cancer Prevention Trial/Medical Therapy of Prostatic Symptoms (PCPT MTOPS) Consensus Panel:** PCPT, MTOPS, and the use of 5ARIs: A Canadian consensus regarding implications for clinical practice. *Canadian Urological Association Journal*: March 2007: 1: pp 17-21.
- Kulkarni G, Lockwood G, Evans A, Toi A, Trachtenberg J, Jewett MA, Finelli A, Fleshner N:** Clinical predictors of Gleason score upgrading: Implications for patients considering watchful waiting, active surveillance, or brachytherapy. *Cancer*: June 2007: 109(12): pp 2432-2438.
- Lane BR, Finelli A, Moinzadeh A, Sharp DS, Ukimura O, Kaouk JH, Gill IS:** Nerve-sparing laparoscopic radical cystectomy: Technique and initial outcomes. *Urology*: October 2006: 68(4): pp 778-783.
- Lee J, Hersey K, Lee CT, Fleshner N:** Climacturia following radical prostatectomy: Prevalence and risk factors. *Journal of Urology*: December 2006: 176(6pt): pp 2562-2565.
- Lukka H, Kirchner TS, Klotz L, Winquist E, Trachtenberg J:** Maximal androgen blockade for the treatment of metastatic prostate cancer - A systematic review. *Currency Oncology*: July 2006: 13: pp 83-91.
- Mattar K, Finelli A:** Expanding the indications for laparoscopic radical nephrectomy. *Current Opinion in Urology*: March 2007: 17(2): pp 88-92.
- Matthew AG, Currie KL, Ritvo P, Nam R, Nesbitt ME, Kalnin RW, Trachtenberg J:** Personal digital assistant data capture: The future of quality of life measurement in prostate cancer treatment. *Journal of Oncology Practice*: May 2007: 3: pp 116-119.
- Nam RK, Zhang WW, Klotz LH, Trachtenberg J, Jewett MA, Sweet J, Toi A, Teahan S, Venkateswaran V, Sugar L, Loblaw A, Siminovitch K, Narod SA:** Variants of the hK2 protein gene (KLK2) are associated with serum hK2 levels and predict the presence of prostate cancer at biopsy. *Clinical Cancer Research*: November 2006: 12: pp 6452-6458.
- Neill MG, Lockwood G, McCluskey SA, Fleshner N:** Pre-operative evaluation of the "hostile pelvis" in radical prostatectomy with computed tomographic pelvimetry. *British Journal of Urology*: March 2007: 99(3): pp 534-538.
- Neill M, Warde P, Fleshner N:** Management of low-stage testicular seminoma. *Urology Clinics of North America*: May 2007: 34(2): pp 127-136.
- Pianezza ML, Joffe R, Chugh T and Radomski SB:** Long-term patient satisfaction following cadaveric pubovaginal sling incontinence surgery. *Neurourology and Urodynamics*: April 2007: 26: pp 185-189.
- Pinthus JH, Witkos M, Fleshner N, Sweet J, Evans A, Jewett MA, Krahn MD, Allibhai S, Trachtenberg J:** Prostate cancers scored as gleason 6 on prostate biopsy are frequently gleason 7 tumors at radical prostatectomy: Implication on outcome. *Journal of Urology*: September 2006: 176(3): pp 979-984.
- Punnen S, Haider MA, Lockwood G, Moulding F, O'Malley ME, Jewett MA:** Variability in size measurement of renal masses smaller than 4 cm on computerized tomography. *Journal of Urology*: December 2006: 176: pp 2386-2390.
- Rowell C, Fleshner N, Marrano P, Squire J, Evans A:** Papillary renal cell carcinoma within a renal oncocytoma: Case report of an incidental finding of a tumour within a tumour. *Journal of Clinical Pathology*: April 2007: 60(4): pp 426-428.
- Shin EJ, Chappell E, Pethe V, Hersey K, van der Kwast T, Fleshner N, Bapat B:** MYH mutations are rare in prostate cancer. *Journal of Cancer Research and Clinical Oncology*: June 2007: 133(6): pp 373-378.

Singh D, Finelli A, Rubinstein M, Desai MM, Kaouk J, Gill IS: Laparoscopic partial nephrectomy in the presence of multiple renal arteries. *Urology*: March 2007: 69(3): pp 444-447.

Sotelo R, Sanchez-Salas R, Carmona O, Garcia A, Mariano M, Neiva G, Trujillo G, Novoa J, Cornejo F, Finelli A: Endoscopic lymphadenectomy for penile carcinoma. *Journal of Endourology*: April 2007: 21(4): pp 364-367.

Toi A, Neill MG, Lockwood GA, Sweet JM, Tammalu LA, Fleshner N: The continuing importance of transrectal ultrasound identification of prostatic lesions. *Journal of Urology*: February 2007: 177(2): pp 516-520.

Volpe A, Jewett MAS: The role of surveillance for small renal masses. *Nature Clinical Practice Urology*: January 2007: 4: pp 2-3.

Volpe A, Kachura JR, Geddie WR, Evans AJ, Gharajeh A, Saravanan A, Jewett MAS: Techniques, safety and accuracy of sampling of renal tumors by fine needle aspiration and core biopsy. *Journal of Urology*: June 2007: 178: pp 379-386.

Wallace K, Fleshner N, Jewett M, Basuk J, Crook J.: Impact of a multi-disciplinary patient education session on accrual to a difficult clinical trial: The Toronto experience with the surgical prostatectomy versus interstitial radiation intervention trial. *Journal of Clinical Oncology*: September 2006: 24: pp 4158-4162.

Invited Visits to Other Hospitals/Universities

Finelli A: GUROC (GenitoUrinary Radiation Oncologists of Canada) Prostate Cancer Radiotherapy Meeting, Toronto, ON, January 2007. HIFU for prostate cancer.

Finelli A: Issues and Controversies in Prostate Care, Cancun, Mexico, January 2007. (1) HIFU for prostate cancer, (2) Laparoscopic partial nephrectomy.

Finelli A: World Congress of Endourology, Cleveland, OH, August 2006. Laparoscopic extended pelvic lymphadenectomy for bladder cancer.

Finelli A: Alexander and King Visiting Professor, Baylor Urology Update, Dallas, TX, March 2007. (1) Laparoscopic partial nephrectomy: Comparison to open surgery, (2) Pushing the envelope: The cutting edge of laparoscopy.

Finelli A: Kidney Cancer Podium Session, European Association of Urology, Berlin, Germany, March 2007. Moderator.

Fleshner NE: American Society of Clinical Oncology, Orlando, FL, February 2007. Is active surveillance an opportunity for tertiary prevention?

Fleshner NE: Annual Meeting, Canadian Urological Association, Quebec City, PQ, June 2007. Management of high risk localized and locally advanced prostate cancer.

Fleshner NE: Canadian Urological Association, Quebec City, PQ, July 2006. Management of high risk localized and locally advanced prostate cancer.

Fleshner NE: 6th International Prostate Cancer Congress, Boca Raton, FL, July 2006. Prostate cancer prevention strategies.

Hassouna MM: Chaired, Podium Session, Society of Urodynamics and Female Urology, San Diego, CA, February 2007. Neuromodulation Basic Sciences.

Hassouna MM: Canadian Neuromodulation Society, Toronto, ON, May 2007. Pelvic neuromodulation in voiding dysfunction: What we have learned in 20 years.

Jewett MAS: Education Forum, Annual Meeting, Canadian Urological Association Quebec City, PQ, June 2007. Combined modality management of locally advanced and metastatic RCC.

Jewett MAS: 24th World Congress of Endourology, Cleveland, OH, August 2006. Defining "success" in probe-ablative renal therapy.

Jewett MAS: Kelowna Urological Group, Kelowna, BC, October 2006. Issues in the management of high risk superficial bladder cancer, (3) Management of testis cancer: Stage by stage.

Jewett MAS: Scott Department of Urology, Baylor College of Medicine, Houston, TX, September 2006. (1) Issues in the management of high risk superficial bladder cancer, (2) Management of early stage kidney cancer, (3) Management of testis cancer: Stage by stage.

Jewett MAS: The 19th Saudi Urological Conference, Riyadh, Saudi Arabia, February 2007. (1) Issues in the management of high risk superficial bladder cancer, (2) Management of early stage kidney cancer.

Jewett MAS: Vancouver Island Urological Group, Victoria, BC, October 2006. Issues in the management of high risk superficial bladder cancer.

Jewett MAS: Visiting Professor, Urological Society of South Africa, Capetown, South Africa, Cape Town, South Africa, November 2006. Management of early stage kidney cancer.

Jewett MAS: 7th International Symposium on von Hippel-Lidau (VHL) Disease & Hereditary Kidney Cancers, London, ON, October 2006. Management of sporadic small renal masses.

Jewett MAS: Annual Meeting, British Association of Urological Surgeons, Glasgow, Scotland, June 2007. Management of the small renal mass.

Jewett MAS: 2nd European Germ Cell Cancer Consensus Group Meeting, Amsterdam, Holland, November 2006. Non-risk adapted surveillance of stage 1 nonseminoma testis cancer.

Jewett MAS: Clinical Based Urology, 1st International Urology Forum Meeting, Interlaken, Switzerland, February 2007. Non-surgical treatment of small renal tumours.

Jewett MAS: Bladder Cancer Study Group, Aspen, CO, August 2006. Prostate sparing cystectomy.

Jewett MAS: Second Global Genito Urinary (GU) Oncology Conference, Cape Town, South Africa, November 2006. Role of biopsy in management of renal masses.

Jewett MAS: “Man to Man” Prostate Cancer Survivor Group, Toronto, ON, September 2006. Should we change the way we manage prostate cancer in aging men?

Jewett MAS: Course Director, 28th Congress of the Societe Internationale d’Urologie, Cape Town, South Africa, November 2006. Testis cancer: Making sense of the international differences in management.

Matthew AG: Us Too!, Brampton, ON, September 2006. Navigating the emotional side-effects of prostate cancer.

Matthew AG: Canadian Prostate Cancer Research Initiative, Niagara-on-the-Lake, ON, May 2007. Prostate cancer survivorship: Adaptation to sexual dysfunction after radical prostatectomy.

Matthew AG: Saskatoon Regional Cancer Centre, Saskatoon, SK, March 2007. Prostate cancer survivorship: Adapting to sexual dysfunction.

Matthew AG: Regina Regional Cancer Centre, Regina, SK, March 2007. Prostate cancer survivorship: Adapting to sexual dysfunction.

Robinette M: Canadian Transplant Fellows Symposium, Toronto, ON, November 2006. Laparoscopic vs. mini-incision donor nephrectomy.

Trachtenberg J: VTP Symposium, Weizmann Institute of Science and Steba Biotech, Paris, France, June 2007.

Trachtenberg J: European Association of Urology, Berlin, Germany, March 2007. Photodynamic therapy as focal therapy for prostate cancer.

Research and Investigations

Senior Investigator’s Name Appears in Italics

A randomized, double-blind placebo controlled Detrol LA “add on” to alpha-blocker study in men with persistent overactive bladder symptoms of urinary frequency and urgency with/without urgency incontinence after previous monotherapy with alpha-blocker. *Radomski SB: Pfizer Canada.* (\$24,000 2005 - 2007.)

A multi-center, parallel group, flexible dose trial with a double-blind, randomized placebo-controlled phase followed by an open-label phase to assess the impact of viagra on the sexual satisfaction of men with mild erectile dysfunction. *Radomski SB: Pfizer Canada.* (\$22,400 2005 - 2007.)

A phase II trial of vascular targeted phototherapy (Tookad) in patients with recurrent prostate cancer after radiation. *Trachtenberg J, Elhilali M, Wilson B: Steba Biotech.* (\$300,000 2006 - 2007.)

A phase II, single arm, prospective study of neoadjuvant sunitinib for patients with renal cell carcinoma. *Finelli A, Knox A, Evans A, Fleshner N, Haider M, Jewett M: Pfizer Canada.* (\$384,175 2007 - 2010.)

A phase III, randomized, double-blind, placebo controlled trial of PROSCAR in men with initial negative prostate biopsies. *Finelli A, Fleshner N, Jewett M, Toi A, Trachtenberg J, Zlotta A: Merck Frosst.* (\$198,915 2007 - 2008.)

A prospective longitudinal study to examine health effects of androgen deprivation therapy in older men with prostate cancer. *Allibhai S, Duff-Canning S, Fleshner N, Krahn MD, Nagliel G, Tannock I, Tomlinson G: National Cancer Institute of Canada.* (\$441,831 2003 - 2006.)

- A randomized, prospective parallel group study to investigate the frequency of urinary tract infections comparing hydrophilic-coated catheters with uncoated catheters for intermittent catheterization. *Hassouna M: Coloplast Incorporated.* (\$45,000 2006 - 2007.)
- A transgenic model of antioxidant prostate cancer prevention. *Klotz L, Fleshner N, Rao V, Sugar L, Venkateswaran V: National Cancer Institute of Canada.* (\$210,308 2005 - 2007.)
- Advanced articulating patient support system for image guided therapeutics. *Fernie G, Jewett MAS (Co-PI), Menard C, Finelli A, Kucharczyk W: Ontario Research Commercialization Program (ORCP) 'BioDiscover' Stage I Business and Development Project.* (\$130,000 2007 - 2008.)
- Advanced molecular diagnostics of prostate cancer using ETS fusion gene. *Squire J, Evans A, Fleshner N, Zielenska M, Sweet J, Anthony J, Salomon M: Prostate Cancer Research Foundation of Canada.* (\$60,000 2006 - 2007.)
- Analysis of VHL gene mutation in sporadic renal cell carcinoma. *Jewett MAS, Gallie BL, Ohh M, Evans A: Canadian Urologic Association/Canadian Urologic Oncology Group/Bayer Kidney Cancer Fellowship Award.* (\$40,000 2007.)
- Comparison between 2 of M3Receptors antagonists on detrusor overactive bladder in spinal cord injured patients. *Hassouna M: Ontario Neurotrauma Foundation.* (\$10,000 2007.)
- Cross-Canada assessment of a new nomogram prediction tool for prostate cancer screening. *Nam RK, Narod S, Klotz L, Trachtenberg J, Jewett M, Izawa J, Chin J, Bell D, Aprikian A, So A, Toi A: National Cancer Institute of Canada.* (\$462,084 2006 - 2009.)
- Development of a prostate cancer prevention clinic. *Trachtenberg J, Ritvo P, Paterson A, Squire J, Yue C, Matthew AG: Princess Margaret Hospital Foundation.* (\$1,000,000 2000 - 2009.)
- Development of novel minimally invasive surgical techniques. *Trachtenberg J: Princess Margaret Hospital Foundation.* (\$2,500,000 2003 - 2008.)
- Dietary heterocyclic amines, polymorphisms in metabolism genes and risk of prostate cancer. *Birkett N, Fleshner N, Malone S, Morash C: Department of Defense.* (\$250,000 2004 - 2008.)
- Effect of a low carbohydrate diet on prostate cancer in vivo: Alternates in biochemical mechanisms involving the insulin and IGF axis. *Venkateswaran V, Pollak M, Fleshner N, Klotz L, Sugar L: Prostate Cancer Research Foundation of Canada.* (\$110,138 2006 - 2008.)
- Effects of Botulinium-A toxin versus sacral neuromodulation on voiding dysfunction in rats following spinal cord injury: Role of C-afferent fibers in the mechanism of action in both treatment modalities. *Hassouna M: Medtronic Incorporated.* (\$20,000 2006 - 2008.)
- Effects of photodynamic therapy on urinary symptoms due to benign prostatic hyperplasia. *Trachtenberg J: QLT Incorporated.* (\$157,200 2005 - 2007.)
- Epigenomics-based strategies for prediction of prognosis and therapeutic outcome of prostate cancer. *Bapat B, Van der Kwast T, Fleshner N, Briollais L: Canadian Institutes of Health Research.* (\$142,936 2006 - 2009.)
- Establishment of a registry for patients treated with HIFU for Localized Prostate cancer in North America. *Hassouna M: HIFU Incorporated, U.S.* (\$30,000 2006 - 2007.)
- Facilitating informed treatment decision-making through a professional/Peer Led Decision-Aid Group Educational Program (PLEDGE): A feasibility study in a prostate cancer clinical setting. *Matthew AG, Taube-Shiff M, Devins G, Rodin G: Princess Margaret Hospital Foundation.* (\$3,000 2007 - 2008.)
- Focal therapy of prostate cancer. *Trachtenberg J, Wilson B, Haider M, Weersink R, Goldenberg A: Princess Margaret Hospital Foundation.* (\$500,000 2006 - 2009.)
- Identification and characterization of genetic alterations at the stromal-epithelial interface in prostate cancer. *Fleshner N, Brown T, Done S, Jurisica I, Lockwood G, Sweet J: Ontario Institute for Cancer Research.* (\$544,993 2007 - 2010.)
- Impact of combination antioxidants on MRI markers of cell proliferation and hypoxia among men on active surveillance with early stage prostate cancer. *Fleshner N, Haider M, Venkateswaran V: Canadian Urologic Association/Canadian Urologic Oncology Group.* (\$25,000 2007 - 2008.)
- Impact of combination antioxidants on MRI markers of cell proliferation and hypoxia among men on active surveillance with early stage prostate cancer. *Fleshner N, Haider M, Venkateswaran V: Prostate Cancer Research Foundation of Canada.* (\$60,000 2007 - 2008.)
- In bore robotic assisted image guided focal ablation of prostate cancer. *Trachtenberg J, Haider M, Goldenberg A, Kucharczyk W: Princess Margaret Hospital Foundation.* (\$160,000 2006 - 2007.)

Micronutrients and prostate cancer: Prevention to treatment. *Venkateswaran V, Fleshner N, Klotz L, Sugar L, Teahan S: Canadian Institute of Health Research.* (\$315,176 2006 - 2009.)

NIR imaging and photodynamic therapy of prostate cancer using aptamer-directed lipoprotein nanoplatform. *Zheng G, Wilson B, Trachtenberg J: Canadian Institutes of Health Research.* (\$365,000 2007 - 2010.)

Photodynamic therapy - Basic science studies. *Zheng H, Hetzel FW, Chen Q, Trachtenberg J, Wilson BC: National Institutes of Health.* (\$6,077,500 2004 - 2009.)

Population-based estimates and quality of life in prostate cancer survivors. *Krahn M: Canadian Institutes of Health Research.* (\$520,474 2006 - 2009.)

Pre-operative administration of sorafenib in patients with metastatic renal cell carcinoma undergoing cytoreductive nephrectomy. *Finelli A, Knox J, Evans A, Fleshner N, Jewett M, Kim TK: Bayer Incorporated.* (\$207,155 2007 - 2009.)

Prevalence and age distribution of prostate carcinoma and its precursor lesions in African, Asian and caucasian men in autopsy specimens: A prospective comparative international study with central pathology review. *Zlotta A, Finelli A, Fleshner N, Jarvi K, Van der Kwast T: Prostate Cancer Research Foundation of Canada.* (\$59,000 2007 - 2008.)

Program project grant: Photodynamic therapy-basic science studies: Project 3-prostate preclinical. *Hetzel FW, Chen Q, Wilson BC, Trachtenberg J: National Institutes of Health.* (\$1,000,000 2002 - 2009.)

Prospective evaluation of prostate biopsies for prostate cancer detection. *Nam RK, Narod S, Trachtenberg J, Klotz L, Fleshner N, Jewett M, Sugar L, Toi A, Diamandis E: National Cancer Institute of Canada.* (\$410,070 2004 - 2007.)

Prospective randomized double-blind trial of intravesical injection of botulinum toxin A versus saline for neurogenic detrusor overactivity and urinary incontinence related to spinal cord injury or multiple sclerosis. *Herschorn S, Radomski SB: Allergan Canada.* (\$39,000 2006 - 2007.)

Prostate Cancer Prevention Clinic. *Trachtenberg J, Matthew AG, Horsburgh S: Princess Margaret Hospital Foundation.* (\$1,000,000 2005 - 2011.)

Prostate cancer survivorship: Adaptation following radical prostatectomy. *Matthew AG, Currie K, Jamnick L, Ritvo P, Trachtenberg J: Princess Margaret Hospital Foundation.* (\$31,000 2007 - 2008.)

Randomized study to investigate the efficacy and safety of treatment with Dutasteride and Tamsulosin once daily for 4 years on the improvement of symptoms and outcome of benign prostatic hyperplasia. *Hassouna MM, Radomski S: Glaxo-Smith-Kline Pharmaceutical.* (\$15,000 2004 - 2008.)

Randomized trial of the effects of cholecalciferol on prostate cancer associated lesions and on cholecalciferol metabolites in prostate tissue. *Veith R, Van der Kwast T, Fleshner N, Klotz L: Canadian Institutes of Health Research.* (\$262,730 2006 - 2008.)

Reduction in progression among men on watchful waiting using dutasteride. *Fleshner N, REDEEM STUDY GROUP: Glaxo Smith Kline.* (\$8,000,000 2006 - 2011.)

Retreatment of patients with vascular targeted phototherapy (Tookad) after recurrence of prostate cancer following definitive radiation therapy. *Trachtenberg J, Elhilali M, Wilson B: Steba Biotech.* (\$180,000 2006 - 2007.)

Safety and effectiveness of denosumab in patients with hormone refractory non metastatic prostate cancer. *Trachtenberg J: Amgen.* (\$50,000 2006 - 2007.)

Safety and effectiveness of Lapatinib in the treatment of hormone resistant prostate cancer. *Trachtenberg J, Moore M: National Cancer Institute.* (\$20,000 2005 - 2006.)

Sexual dysfunction and adaptation in couples affected by prostate cancer surgery: Steps towards a biopsychosocial model of treatment. *Matthew A, Ritvo P, Irvine J, Trachtenberg J, Jewett M, Fleshner N, Radomski S, Tsihlias J, Shaw B, Katz J, Weitzman E: Canadian Institutes of Health Research.* (\$120,000 2005 - 2008.)

Telomere erosion as an early marker of prostate cancer. *Squire J, Fleshner N, Macgregor P, Trachtenberg J, Evans A, Minkin S, Srigley J: National Cancer Institute of Canada.* (\$383,482 2004 - 2007.)

The impact of neural network technology on the prediction of prostate cancer. *Lockwood G, Fleshner N, Davies P, Toi A: Prostate Cancer Research Foundation.* (\$36,000 2006 - 2007.)



The natural history of small renal masses. *Jewett M, Panzarella T, Haider M, Evans A, Rendon R, Fleshner N, Klotz L, Nam R, Wilson S, Macgregor P, Gallie B: Kidney Foundation of Canada. (\$100,000 2004 - 2006.)*

The SELECT Trial. *Trachtenberg J, Jewett M, Tshilias J: National Cancer Institute (USA), Southwest Oncology Group. (\$250,000 2000 - 2009.)*

Translational companion study to PRP.1. *Fleshner N, Evans A, Gleave M, Nelson C, Minkin S, Nam R, Pollak M, Saad F, Shepherd L, Squire J, Sweet J: Ontario Cancer Research Network. (\$641,038 2005 - 2008.)*

Two-year follow-up study of the health effects of androgen deprivation therapy in men with non-metastatic prostate cancer. *Allibhai S, Canning DS, Fleshner N, Krahn MD, Naglie G, Tannock I, Tomlinson G: Canadian Institutes of Health Research. (\$339,000 2007 - 2010.)*

Honours Received

Jewett MAS: Scientific Advisory Board, US Bladder Cancer Advisory Network. June 2007.

Jewett MAS: A.W. Bruce Undergraduate Teaching Award for the Best Student Teacher, University of Toronto, Division of Urology, June 2007.

Trachtenberg J: Surgeons' Lounge at The Toronto General Hospital named in honour of John Trachtenberg, MD. June 2007.

Trachtenberg J: Whole mount histological registration and validation of hierarchical clustering for segmentation of tumor and normal prostate using multi-parametric MRI ISMRM Bronze Award. February 2007.

DIVISION OF VASCULAR SURGERY

Dr. K.W. Johnston – Professor

Dr. T.F. Lindsay – Associate Professor

Dr. G.D. Oreopoulos – Assistant Professor

Dr. B.B. Rubin – Associate Professor (Division Head)

Dr. D. Wooster – Associate Professor

Publications

Al-Omran M, Major J, Jawas A, Lindsay TF: Perceptions of Canadian vascular surgeons toward pharmacological risk reduction in patients with peripheral arterial disease. *Annals of Vascular Surgery*: July 2006: 20(5): pp 555-563.

Lindsay TF, Dueck A: Commentary on “Vascular viewpoint: Is duplex surveillance of value after leg bypass grafting?” *Circulation*: November 2006: 11(2): pp 137-138.

Lindsay TF, Papia G, Klein D: Intensive care of the patient following open abdominal aortic surgery. *Critical Care Medicine*: August 2006: 12(4): pp 340-345.

Lu Z, Serghides L, Patel SN, Degousse N, Rubin BB, Krishnegowda G, Gowda DC, Karin M, Kain KC: Disruption of JNK2 decreases the cytokine response to *Plasmodium falciparum* glycosylphosphatidylinositol in vitro and confers protection in a cerebral malaria model. *Journal of Immunology*: November 2006: 177 (9):6344-6352.

Degousse N, Angoulvant D, Fazel S, Stefanski E, Saha S, Ilescu K, Lindsay TF, Fish JE, Marsden PA, Li RK, Audoly LP, Jakobsson PJ, Rubin BB: c-Jun N-terminal kinase-mediated stabilization of microsomal prostaglandin E2 synthase-1 mRNA regulates delayed microsomal prostaglandin E2 synthase-1 expression and prostaglandin E2 biosynthesis by cardiomyocytes. *Journal of Biology and Chemistry*: January 2006: 281(24): 16443-16452. E-published April 19, 2006.

Yu ACH, Johnston KW, Cobbold RSC: Frequency-based signal processing for ultrasound color flow imaging. *Canadian Acoustics (special issue on biomedical Acoustics)*: June 2007: 35: pp 11-23.

Invited Visits to Other Hospitals/Universities

Johnston KW: Veith Symposium, New York, NY, November 2006. Current and future roles of various SVS publications and outlets: Vascular web, vascular specialist, *JVS* - What they mean for vascular surgeons.

Lindsay TF: Symposium on Advanced Aortic Therapies, COOK Canada, London, ON, October 2006. “Challenges with urgent endovascular interventions.”

Lindsay TF: Division of Thoracic Surgery, Toronto, ON, November 2006. Alternate funding plan for thoracic surgeons.

Lindsay TF: Symposium on Critical Issues in Endovascular Stent-grafting, Groningen, The Netherlands, May 2007. An overview of screening for abdominal aortic aneurysms.

Lindsay TF: 11th International Symposium on Critical Issues in Endovascular Stent-grafting, University Medical Center, Groningen, The Netherlands, May 2007. Critical issues in vascular surgery.

Lindsay TF: Sanofi-Aventis, Oshawa, ON, January 2007. Diagnosis and management of peripheral arterial disease - What family MDs need to know.

Lindsay TF: Winnipeg Vascular Symposium, Winnipeg, MB, April 2007. Political action and advocacy in vascular surgery. Session Moderator.

Lindsay TF: Visiting Speaker, Collins Surgical Day, University of Ottawa, Ottawa, ON, May 2007. (1) Political action and advocacy raising the awareness of “Vascular Issues,” (2) Ruptured abdominal aortic aneurysms: Paradigm shifts towards improved outcomes.

Lindsay TF: Sigvaris, Sedona, AZ, April 2007. Treatment of vein diseases.

Oreopoulos GD: Canadian Society for Vascular Surgery, Calgary, AB, September 2006. Staged approach for brachio basilic AV fistula.

Wooster D: Vascular Imaging Toronto, Toronto, ON, March 2007. (1) Aortic screening protocols, (2) Carotid duplex challenges, (3) Incidental findings during leg duplex studies, (4) Interactive interpretation seminar, (5) Interpretation reports audit for ultrasound QA, (6) Renal artery duplex studies, (7) Vascular imaging self-assessment program, (8) Venous ultrasound studies.

Wooster D: Winnipeg Vascular Meeting, Winnipeg, MB, April 2007. How I do carotid endarterectomy?

Wooster D: Chair, Advances in Vascular Ultrasound Session, University of Rochester Vascular Ultrasound Meeting, Rochester, NY, May 2007.

Wooster D: Vascular Meeting, University of Rochester, Rochester, NY, May 2007. (1) Future directions in vascular ultrasound testing, (2) Screening protocols in vascular ultrasound, (3) The small AAA: Should it be fixed?

Research and Investigations

Senior Investigator's Name Appears in Italics

Complement activation following ruptured abdominal aortic aneurysm: Combining human observation with animal experimentation to establish a framework for human therapy. *Lindsay TF: Physicians' Services Incorporated Foundation.* (\$161,000 2007 - 2008.)

Fundamental Ultrasound Studies. *Johnston KW, Cobbold RSC: Canadian Institutes of Health Research.* (\$320,880 2003 - 2007.)

Impact of mPGES-1 gene deletion on myocardial ischemia reperfusion injury. *Rubin BB, Degousee N: Heart and Stroke Foundation of Ontario.* (\$154,000 2005 - 2007.)

Molecular regulation of myocardial cyclooxygenase-2-expression and prostaglandin biosynthesis in neonatal rat cardiac myocytes. *Rubin BB: Canadian Institutes of Health Research.* (\$461,000 2002 - 2007.)

Pathophysiologic mechanisms of organ injury after ruptured abdominal aortic aneurysm. *Lindsay TF: Physicians' Services Incorporated Foundation.* (\$168,952 2006 - 2008.)

Honours Received

Lindsay TF: Surgical Skills Centre Distinguished Educator Award. August 2006.

Wooster D: Young Investigator's Award for Best Paper (co-author), Society for Vascular Ultrasound. 2007.

Wooster D: Physician Presenter Award for Best Paper whose main investigator and presenter is a physician. 2007.



In the fall of 2006, Women's College Hospital became an independent hospital. Concomitantly there were needs within the University and Toronto Central LHINs that pointed to opportunities for the surgical services at the New Women's College Hospital. In response to these opportunities, the University of Toronto's Department of Surgery proposed that the New Women's College Hospital develop an **academic ambulatory surgical centre** that is fully integrated with the Hospital's ambulatory programs and services and a designated facility for ambulatory surgery in the Toronto LHIN. This will become a fully academic affiliated site for inter-professional research and education in ambulatory surgery focused on minimally invasive and specialized ambulatory procedures in the subspecialty areas of Urology, Orthopedics, Plastic Surgery and General Surgery.

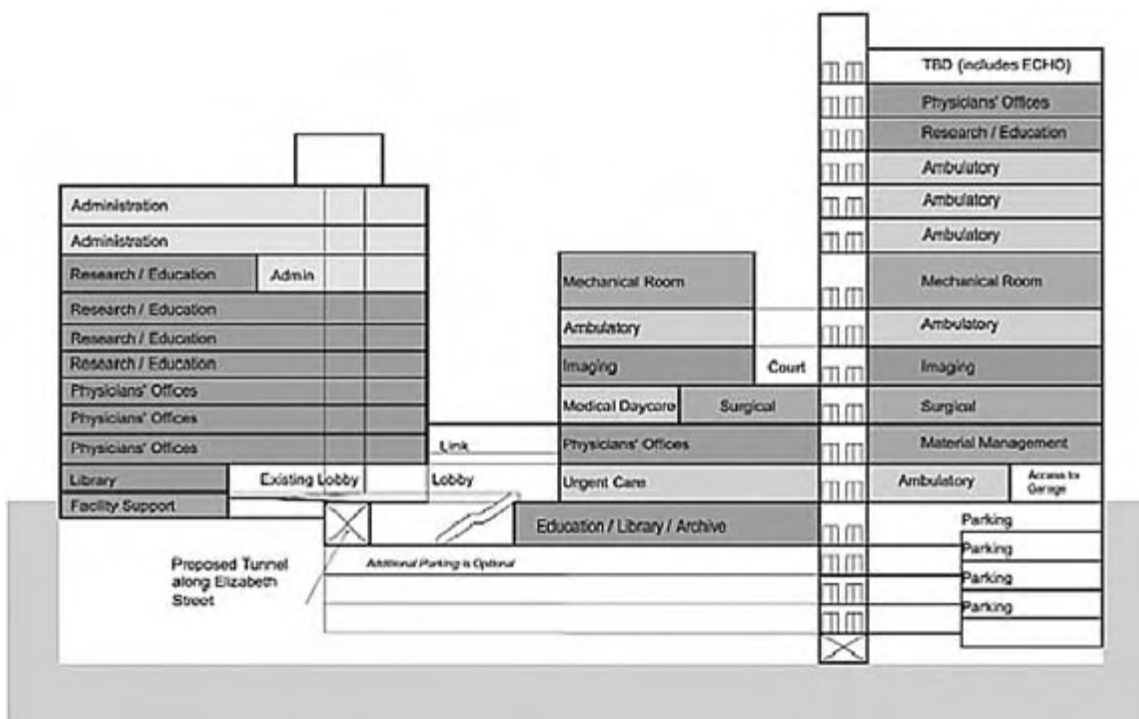
New Staff

Dr. Ethan Grober in Urology joined us in July 2007 in partnership with Mount Sinai Hospital. We are actively recruiting in other surgical specialty areas.

Appointments and Activities

Dr. Mitch Brown and Dr. John Semple co-chaired the 7th Toronto Breast Surgery Symposium held this past May. Dr. Brown was a guest speaker at the Atlanta Breast Surgery Symposium in Atlanta Georgia. Dr. Semple was the Royal College Speaker at the Department of Surgery, McMaster University in Hamilton, November 2006.

At WCH the Department of Surgery is in a developmental phase as we transition into our new role as an Academic Ambulatory Surgical Centre. We plan to position Women's College Hospital as a research and education hub that will provide surgical residents and other health professionals with state of the art ambulatory training and become the provincial benchmark for ambulatory care. More importantly, the Centre will need to build partnerships and integrate with existing ambulatory care programs and services in other hospitals and health organizations to ensure seamless delivery of care across the continuum. There is a Capital Development plan for a new building on this site with construction starting in 2009. The future for the Department of Surgery at WCH is very bright.



Dr. M.H. Brown – Associate Professor

Dr. J.L. Semple – Professor

Publications

Flynn L, Prestwich GD, Semple JL, Woodhouse KA: Adipose tissue engineering with naturally derived scaffolds and adipose-derived stem cells. *Biomaterials*: May 2007.

Flynn L, Semple JL, Woodhouse K: Decellularized placental matrices for adipose tissue engineering. *Journal of Biomedical Materials Research*: November 2006: 79(2): pp 359-369.

Jila A, Kim H, Nguyen VP, Dumont DJ, Semple J, Armstrong D, Seto E, Johnston M: Lymphangiogenesis following obstruction of large postnodal lymphatics in sheep. *Microvascular Research*: May 2007: 73(3): pp 214-223.

Invited Visits to Other Hospitals/Universities

Brown MH: American Society of Plastic Surgical Nurses, San Francisco, CA, October 2006. Cohesive gel breast implants in a plastic surgery practice.

Brown MH: Atlanta Breast Surgery Symposium, Atlanta, GA, January 2007. Cohesive gel implants in aesthetic breast surgery.

Brown MH: Inamed Academy, San Francisco, CA, October 2006. Cohesive gel implants in aesthetic breast surgery.

Brown MH: Breast and Body Contouring Symposium, Plastic Surgery Educational Foundation (PSEF), San Francisco, CA, October 2006. Experience with highly cohesive silicone gel breast implants.

Semple JL: Guest Speaker, Annual General Meeting of the Association of Volunteers, Women's College Hospital, Toronto, ON, May 2007.

Semple JL: Visiting Professor, Annual Residents' Research Day, Royal College of Physicians and Surgeons Visiting Professor, McMaster University, Department of Surgery, Hamilton, ON, November 2006.

Semple JL: Guest Lecturer, 2007 Hypoxia Symposium, Lake Louise, AB, February 2007. Ozone on Mount Everest: Implications for mountaineering.

Research and Investigations

Senior Investigator's Name Appears in Italics

Advanced Regenerative Tissue Engineering Centre (ARTEC). ARTEC program is based at Sunnybrook and Women's College Health Sciences Centre (SWCHSC) in partnership with University of Toronto & APOTEC Research Inc., Rimon Therapeutics, Elastin Specialties and matRegen. Multiple projects and PI's from Engineering, Basic Science and Surgery receive funding. Funds also support new laboratory space at the Sunnybrook site, new hires and network development. *Semple JL, Woodhouse K, Sefton M, Shoichet M, Dumont D, Midha R, Fish J: Ontario Research Development Challenge Fund. (\$12,568,500 2003 - 2008.)*

Psychosocial functioning in women treated with mastectomy with or without breast reconstruction. *Metcalfe K, Semple JL, Narod S, Holloway C: Canadian Breast Cancer Foundation. (\$183,168 2004 - 2007.)*

DIVISION OF ANATOMY

Heads of Divisions

Dr. A. Agur - Professor
Dr. B. Ballyk - Lecturer
Dr. S. Karimi-Abdolrezaee - Assistant Professor
Dr. P. Koeberle - Assistant Professor
Dr. C.M. Morshead - Assistant Professor
Dr. J.A. Saint-Cyr - Professor
Dr. P.A. Stewart - Professor
Dr. I.M. Taylor - Professor
Dr. M.J. Wiley - Professor (Division Head)

Michael J. Wiley
Chair



Publications

- Davidson P, Anaki D, Saint-Cyr J, Chow T, Moscovitch M:** Exploring the recognition memory deficit in Parkinson's disease: Estimates of recollection versus familiarity. *Brain*: July 2006: 129: pp 1768-1779.
- Eftekharpour E, Karimi-Abdolrezaee S, Cheng V, Wang J, El-Beheiry H, Morshead C, Fehlings M:** Myelination of congenitally dysmyelinated spinal cord axons by adult neural precursor cells results in formation of nodes of ranvier and improved axonal conduction. *Journal of Neuroscience*: March 2007: 27(13): pp 3416-3428.
- Erlandson S, Morshead C:** Exploiting the properties of adult stem cells for the treatment of disease. *Current Opinion Molecular Therapeutics*: August 2006: 8: pp 331-337.
- Guttman M, Boileau I, Warsh J, Saint-Cyr J, Ginovart N, McCluskey T, Houle S, Wilson A, Mundo E, Rusjan P, Meyer J, Kish S:** Brain serotonin transporter binding in non-depressed patients with Parkinson's disease. *European Journal of Neurology*: May 2007: 14(5): pp 523-528.
- Kaushal V, Koeberle P, Schlichter L:** The KCNN4 (SK4/IKCA1) channel is involved in inflammation-dependent killing of CNS neurons. *Journal of Neuroscience*: January 2007: 27(1): pp 234-244.
- Kolb B, Morshead C, Gonzalez C, Kim M, Gregg C, Shingo T, Weiss S:** Growth factor-stimulated generation of new cortical tissue functional recovery after ischemic damage to the motor cortex of rats. *Journal of Cerebral Blood Flow and Metabolism*: May 2007: 27(5): pp 983-987.
- Leon L, Liebgott B, Agur A, Norwich K:** Computational model of the movement of the human muscles of mastication during opening and closing of the jaw. *Computer Methods in Biomechanics and Biomedical Engineering*: 9(6): pp 387-398.
- Moro E, Poon Y, Lozano A, Saint-Cyr J, Land A:** Subthalamic nucleus stimulation: improvements in outcome with reprogramming. *Archives of Neurology*: September 2006: 63(9): pp 1266-1272.
- Piboolnurak P, Lang A, Lozano A, Miyasaki J, Saint-Cyr J, Poon Y, Hutchison W, Dostrovsky J, Moro E:** Levodopa response in long-term bilateral subthalamic stimulation for Parkinson's disease. *Movement Disorders*: May 2007: 22(7): pp 990-997.
- Purzner J, Paradiso G, Cunic D, Saint-Cyr J, Hoque T, Lozano A, Lang A, Moro E, Hodaie M, Mazzella F, Chen R:** Involvement of the basal ganglia and cerebellar motor pathways in the preparation of self-initiated and externally triggered movements in humans. *Journal of Neuroscience*: May 2007: 27(22): pp 6029-6036.
- Ramunas J, Illman M, Kam A, Farn K, Kelly L, Morshead C, Jervais E:** Identification of a behavioural phenotype in neural stem cell cultures: Lineage informatics of undifferentiated neurosphere-derived cells. *Cytometry*: December 2006: 69: pp 1202-1211.
- Robinson P, Salehi F, Grainger F, Clemence A, O'Connor P, Agur A:** Cadaveric and MRI study of the musculotendinous contributions to the capsule of the symphysis pubis. *American Journal of Radiology*: May 2007: pp W440-W445.
- Stewart P, Nathan N, Nyhof-Young J:** Design characteristics affect speed of information access and clarity of presentation in an electronic atlas of anatomy. *Clinical Anatomy*: January 2007: 20(1): pp 93-110.
- Willaime-Morawek S, Seaberg R, Batista C, Labbe E, Attisano L, Gorski J, Jones K, Kam A, Morshead C, van der Kooy D:** Embryonic cortical neural stem cells migrate ventrally and persist as postnatal striated stem cells. *Journal of Cell Biology*: October 2006: 175: pp 159-168.

Invited Visits To Other Hospitals/Universities

Morshead C: Gordon Conference, Connecticut College, New London, Connecticut, July 2006. Stem cells: From biology to regenerative medicine.

Morshead C: 8th Annual International Interventional Radiology Symposium, Toronto, ON, September 2006. Stem cells and ischemia.

Morshead C: Lecture, University of Toronto Epilepsy Research Program (UTERP), Department of Physiology, University of Toronto, Toronto, ON, March 2007. Neural stem cells and regenerative medicine.

Morshead C: AMGEN Inc., Thousand Oaks California, May 2007. Cancer stem cells.

Morshead C: Department of Surgery, University of Toronto, May 2007. Neural stem cells: Their properties and potential.

Morshead C: Annual Meeting, Canadian Association of Neuroscience, Toronto, ON, May 2007. Endogenous neural repair strategies.

Morshead C: Debate Panel Member, Regenerative Medicine Day, Tissue Engineering International and Regenerative Medicine Society-North America (TERMIS-NA), June 2007. Exploring the big questions in regenerative medicine.

Morshead C: Teacher Education Program, Tissue Engineering International and Regenerative Medicine Society-North America (TERMIS-NA), June 2007. Stem cells 101.

Morshead C: Advances in Neurorehabilitation, Festival of International Conferences on Caregiving Disability (FICCDAT) Conference, June 2007, Toronto, ON. Cellular and molecular strategies.

Research and Investigations

Senior Investigator's Name Appears in Italics

Activation of cognitive compensatory circuits in Parkinson's Disease. *St. Cyr J: Parkinson's Disease Foundation of Canada.* (\$45,000 2005 – 2007.)

Animating subcellular concepts: Educational or entertaining? *Stewart P, Jenkinson J: Dean's Excellence Fund, Faculty of Medicine, University of Toronto.* (\$9,454 2005-2006.)

Animation of the embryological development of the heart. *Tait G, Hyman A, Jenkinson J, Wiley M: The Provost's Information Technology Development Fund, University of Toronto.* (\$25,000 2006-2007.)

Approaches to self-repair: Characterizing the endogenous responses of neural stem cells following brain injury. *Morshead C: Premier's Research Excellence Award.* (\$100,000 2004 – 2009.)

Brain serotonin transporter in ecstasy and MDA users. *Kish SJ, Guttmann M, Houle S, Warsh J, Wilkins D, Mundo E, Wilson A, Saint-Cyr J, Meyer J: National Institutes of Health/National Institute on Drug Abuse.* (\$911,250 2005 – 2008.)

Building a tissue engineered retina. *Shoichet M, Morshead C, MacDonald J, Boyd S. National Sciences and Engineering Research Council/Canadian Institutes of Health Research, Collaborative Health Research Projects.* (\$650,000 2008-2010.)

Development of an in situ 3D computer model to investigate movement/stability characteristics of lumbar back muscles. *Agur A: Dean's Fund, University of Toronto.* (\$10,000 2004-2009.)

Engineering healing for spinal cord injury repair. *Shoichet M, Morshead C, Tator C: Natural Sciences and Engineering Research Council of Canada.* (\$650,000 2004 – 2007.)

Examining the function and regulation of adult mammalian neural stem cells. *Morshead C: Canadian Institutes of Health Research.* (\$99,399 2005 – 2006.)

Full thickness tears of the supraspinatus tendon: A clinical ultrasonographic study. *Agur A, Boynton E: Canadian Orthopaedic Foundation.* (\$10,000 2006-2007.)

Functional partitioning of the lumbar multifidus: An analysis of muscle architecture, nerve and fiber type distribution using a novel 3D in situ approach. *Agur A: Association for Osteosynthesis/Association for the Study of Internal Fixation Foundation, Switzerland.* (\$68,000 2004-2007.)

In vivo monitoring of neural recovery following stem cell therapies to treat stroke. *Stanisz G, Morshead C, Lobough N, Canadian Institutes of Health Research.* (\$430,000 2007-2010.)

Long term imaging and cell tracking for stem cell lineage analysis. *Morshead CM, Jervis E: Stem Cell Network – Network of Centres of Excellence.* (\$380,000 2005 – 2008.)

Mechanisms of neuronal degeneration after traumatic CNS injury or stroke: *Koeberle P: Canadian Foundation for Innovation (Leadership Opportunity Fund)/Ontario Research Fund.* (\$249,000 2007 – 2008.)

Regenerative medicine strategies for spinal cord injury repair: Integration of stem cell biology, nanotechnology, bioengineering approaches and neurosurgical application. *Fehlings MG, Morshead C, vander Kooy D, Tator C: Canadian Institutes of Health Research.* (\$1,500,000 2004 – 2007.)

Regulating adult neural stem cells using in vivo and in vitro manipulation. *Morshead C: Canadian Institutes of Health Research.* (\$330,000 2005 – 2008.)

Stem cells to treat stroke. *Morshead C, Kolb B, Weiss S, Schuurmans C, Miller F, Corbett D: Canadian Institutes of Health Research - Network for Centres of Excellence - Stem Cell Network.* (\$585,000 2005-2008.)

Stem cells to treat stroke. *Weiss S, Morshead C, Kolb B, Miller F, Corbett D: Canadian Institutes of Health Research – Network for Centres of Excellence – Canadian Stroke Network.* (\$985,000 2005-2008.)

The role of extracellular matrix in adult CNS neurodegeneration. *Koeberle P: Connaught New Staff Grant.* (\$10,000 2007-2008.)

The role of extracellular matrix interactions in adult CNS neuroprotection. *Koeberle P: Dean's Fund, University of Toronto.* (\$10,000 - 2007-2010.)

The role of extracellular matrix interactions in adult CNS neuroprotection. *Koeberle P: Connaught New Staff Matching Grant.* (\$30,000 – 2007 -2009.)

The role of RGMA in retinal cell degeneration. *Koeberle P, Monnier P: Glaucoma Research Society of Canada Pilot Project Grant.* (\$10,000 2006-2007.)

Towards defining a pedagogical framework for the development of interactive learning tools. *Stewart P, Tymianski M, Jenkinson J, Cameron T, Ballyk B: McLaughlin Centre for Molecular Medicine.* (\$10,090 2007-2008.)

Honours and Awards

Agur A: Exceptional Achievement Award (Academic). Department of Physical Therapy. October 2006.

RESEARCH IN EDUCATION

Dr. H. Carnahan – Professor

Dr. A. Dubrowski – Assistant Professor

Dr. G. Regehr – Professor

Dr. N. Woods – Assistant Professor

Publications

- Bogo M, Regehr C, Woodford M, Hughes J, Power R, Regehr G:** Beyond competencies: Field instructors' descriptions of student performance. *Journal of Social Work Education*: September 2006: 42(3): pp 191-205.
- Brydges R, Carnahan H, Backstein D, Dubrowski A:** Application of motor learning principles to complex surgical tasks: Searching for the optimal practice schedule. *Journal of Motor Behavior*: January 2007: 39: pp 40-48.
- Brydges R, Dubrowski A, Carnahan H:** Attentional focus and motor learning: Applications to Health Professions Education. *Bewegung und Training*: January 2007: 1: pp 15-16.
- Carnahan H, McKee P, Chen A:** The influence of orthotic design on grip force. In: *Proceedings of the 2nd International Conference on Technology and Aging (ICTA)*. Toronto, ON, 2007: pp 1-4.
- Dubrowski A, Larmer JC, Leming JK, Brydges R, Carnahan H, Park J:** Quantification of process measures in laparoscopic suturing. *Surgical Endoscopy*: October 2006: 20: pp 1862-1866.
- Espin S, Regehr G, Levinson W, Baker GR, Biancucci C, Lingard L:** Factors influencing OR nurses' error reporting preferences. *International Journal of Radiation Oncology, Biology, Physics*: March 2007: 85(3): pp 527-543.
- Girgenrath M, Bock O, Carnahan H:** Grasping of virtual objects is affected by near-weightlessness of parabolic flight. *Journal of Gravity Physiology*: January 2007: 158: pp 415-420.
- Gonzalez D, Carnahan H, Praamsma M, Dubrowski A:** Control of laparoscopic instrument motion in an inanimate bench model: Implications for the training and the evaluation of technical skills (grasping). *Applied Ergonomics*: March 2007: 38: pp 123-132.
- Gonzalez D, Kowalski K, Dubrowski A, Carnahan H:** Magnification of the visual field and touch perception when exploring surfaces with the index finger and surgical snaps. *Human Factors*: January 2007: 40: pp 679-687.
- Graham B, Regehr G, Naglie G, Wright J:** Development and validation of diagnostic criteria for carpal tunnel syndrome. *Journal of Hand Surgery*: July 2006: 31(6): pp 919-924.
- Grierson L, Carnahan H:** Manual exploration and the perception of slipperiness. *Perception & Psychophysics*: October 2006: 68: pp 1070-1081.
- Hung C, Dubrowski A, Gonzalez D, Carnahan H:** Surface exploration using instruments: The perception of friction. *Studies in Health Technology and Informatics*: January 2007: 125: pp 191-193.
- Leming JK, Dorman K, Brydges R, Carnahan J, Dubrowski A:** Tensiometry as a measure of improvement in knot quality in undergraduate medical students. *Advances in Health Sciences Education*: July 2006: 12: pp 331-344.
- Lingard L, Regehr G, Espin S, Whyte S:** A theory-based instrument to evaluate team communication in the operating room: Balancing measurement authenticity and reliability. *Quality and Safety in Health Care*: December 2006: 15(6): pp 422-426.
- Mali R, Bordman R, Regehr G, Freeman R:** Implementation of an innovative site visit program: A CQI project with individualized community-based faculty development. *Academic Medicine*: May 2007: 82(5): pp 465-468.
- Morgan PJ, Pittini R, Regehr G, Marrs C, Haley MF:** Evaluating teamwork in a simulated obstetrical environment. *Anesthesiology*: May 2007: 106(5): pp 907-915.
- Ni L, Wang DWL, Dubrowski A, Carnahan H:** A user friendly interface for surgeons to create haptic effects in medical simulation. *Studies in Health Technology and Informatics*: January 2007: 125: pp 349-351.
- Regehr G:** National University of Singapore Medical Student Education Conference and Faculty Rounds, Singapore, September 2006. (1) Professionalism in daily life: A framework for a student charter, (2) Student professionalism: The North American experience, (3) Current trends in health professional education research: A conceptual tour of the Wilson Centre, (4) Self-assessment, self-direction and other myths: Implications for the self-regulating professional.
- Regehr G:** Plenary Address, 2nd Annual Best Practices Institute, University of Minnesota Medical School, Minneapolis, MN, May 2007. (1) Self-assessment, self-direction and other myths: Implications for the self-regulating professional, (2) Seeing the world through a student's eyes: Lessons from cognitive psychology.
- Regehr G:** Invited Address, Division 1 Graduate Student Session, American Educational Research Association, Chicago, IL, April 2007. Career paths for theory-based researchers of educational practice.

Regehr G: Plenary Address, Association of American Medical Colleges Group on Educational Affairs Research Session, Seattle, WA, October 2006. Deconstructing self-assessment: Implications for a research agenda.

Regehr G: Co-Presenter, Medical Education Rounds, Peninsula University Medical School,, Plymouth, UK, June 2007. Measuring the social in health professional education: Epistemological and rhetorical issues.

Regehr G: Plenary Address, Annual General Meeting, National Board of Medical Examiners, Philadelphia, PA, March 2007. Representing competence without scales: Matching to standardized vignettes as a model of authentic clinical evaluation.

Regehr G: Invited Address/Co-Presenter, Annual Meeting, Accreditation Council for Graduate Medical Education, Orlando, FL, March 2007. Selecting residents: How to know if you are doing it right.

Regehr G, Bogo M, Regehr C, Power R: Can we build a better mousetrap? Improving the measures of practice performance in the field practicum. *Journal of Social Work Education*: May 2007: 43(2): pp 327-343.

Schneider S, Bruemmer V, Gobel S, Carnahan H, Dubrowski A, Strueder HK: Parabolic flight experience is related to increased release of stress hormones. *European Journal of Applied Physiology*: June 2007: 100: pp 679-687.

Xin H, Zelek JS, Carnahan H: Laparoscopic surgery, perceptual limitations and force: A review. In: Canadian Student Conference on Biomedical Engineering. Kingston, ON, 2006: pp 44-46.

Invited Visits To Other Hospitals/Universities

Carnahan, H: Guest Speaker, Association of Medical Education in Europe, Genoa, Italy, September 2006. The impact of practice schedules on the learning of a complex surgical skill.

Carnahan, H: Guest Speaker, Society for Neuroscience, Atlanta, GA, October 2006. (1) Force scaling as a function of object mass during a precision grasp lift while fatigued, (2) The integration and dissociation of thermal and frictional cues during material identification.

Carnahan, H: Guest Speaker, Canadian Society of Psychomotor Learning and Sport Psychology (SCAPPS), Halifax, NS, November 2006. (1) Full body tilt affects execution of complex manual skills, (2) The effects of practice on adaptation to visual field rotations, (3) The effects of visual field rotation on the performance of a laparoscopic task by novice and expert laparoscopists, (4) Is vision the only afferent system that provides relevant pre-contact cues?

Carnahan, H: Guest Speaker, Medicine Meets Virtual Reality 15, California, January 2007. (1) Surface exploration using a surgical instrument: The perception of friction. (2) A user-friendly interface for surgeons to create haptic effects in medical simulation.

Carnahan, H: Guest Speaker, Ontario Medical Education Network Rounds, Toronto, ON, February 2007. Procedural skills: The Cinderella of medical education.

Carnahan, H: Guest Speaker, Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), Las Vegas, NE, April 2007. (1) Building virtual reality haptic devices: The contributions of operative experience. (2) The effects of practice organization on visuo-motor misalignment adaptation.

Carnahan, H: Guest Speaker, The Ninth International Sensory Aids Conference (ISAC-07), Portland, ME, May 2007. The role of manual dexterity in hearing aid ergonomics.

Carnahan, H: Guest Speaker, The 2nd International Conference on Technology and Aging (ICTA), Toronto, ON, June 2007. (1)The influence of orthotic design on grip force, (2) The role of manual dexterity in hearing aid ergonomics.

Research and Investigations

Senior Investigator's Name Appears in Italics

A fine balance: Patient safety and trainee education on clinical teaching teams. *Kennedy TJ, Baker GR, Lingard LA, Regehr G: Canadian Institutes of Health Research.* (\$230,316 2004 - 2009.)

Application of a way-finding belt to facilitate navigation. *Zelek J, Carnahan H: Alzheimer's Association.* (\$165,000 2007 - 2009.)

Arthroscopy equipment. *Safir O, Carnahan H, Dubrowski A: Liventek Canada.* (\$100,000 2006 - 2007.)

Evaluating social work students' practice competence: Integrating performance assessment and reflective practice dialogues. *Bogo M, Regehr G, Regehr C: Social Sciences and Humanities Research Council of Canada.* (\$95,000 2007 - 2010.)

Evaluation of a flexible sigmoidoscopy for Ontario registered nurses. *Carnahan H, Walsh C, Cooper M, Gayman K: Cancer Care Ontario.* (\$15,500 2006 - 2007.)

Matching trainees to standardized student profiles: Investigation of a scale-free approach to evaluating clinical performance. *Ginsburg S, McIlroy J, Eva K, Hatala R, Imrie K, Regehr G: Medical Council of Canada.* (\$150,000 2006 - 2009.)

Model curriculum development for training rehabilitation specialists using simulation. *Carnahan H, McKee P: Faculty of Medicine Educational Development Fund.* (\$20,000 2006 - 2007.)

Motion analysis system to quantify manual skills. *Carnahan H: National Sciences and Engineering Research Council of Canada.* (\$76,000 2006 - 2007.)

Multi-task jobs: Hazard assessment and job rotation ("Solutions for Workplace Change"). *Carnahan H, Wells R, Potvin J, Moore A, Frazer M: Workplace Safety and Insurance Board Research Advisory Council (WSIBRAC).* (\$28,695 2006 - 2007.)

Role of manual dexterity in hearing aid ergonomics. *Carnahan H, Pichora-Fuller K, Carnahan H, Singh G: Unitron.* (\$3,600 2006 - 2007.)

Self-regulated scheduling of practice of a technical surgical skill. *Safir O, Carnahan H, Dubrowski A, Backstein D: Physicians' Services Incorporated (PSI).* (\$25,300 2006 - 2007.)

The influence of weightlessness on sensorimotor adaptation. *Carnahan H, Schneider S, Struder H, Kleinert J: German Space Agency (DLR).* (\$200,000 2005 - 2007.)

The integration of social science perspectives in health research: Does interdisciplinarity transform knowledge production? *Albert M, Laberge S, Lingard L, Hodges B, Regehr G: Canadian Institutes of Health Research.* (\$194,939 2005 - 2008.)

The role of manual dexterity in hearing aid ergonomics: Part II. *Carnahan H, Pichora-Fuller K, Singh G: Unitron.* (\$4,200 2006 - 2007.)

The role of tongue pressure generations in the oral phase of swallowing. *Carnahan H, Steels CA, Bressman T: Canadian Institutes of Health Research.* (\$244,316 2007 - 2010.)

Touch perception and the control of movement. *Carnahan H: National Sciences and Engineering Research Council (NSERC) of Canada Discovery.* (\$173,725 2007 - 2012.)

Honours Received

Regehr G: National Board of Medical Examiners Hubbard Award (for significant contributions to the pursuit of excellence in the field of evaluation in medicine.) March 2007.

CROSS APPOINTMENTS

Dr. A.J. Baker (Anaesthesia)	Dr. M. Milner (Rehabilitation Sciences)
Dr. B. Bapat (Laboratory Medicine and Pathobiology)	Dr. W. Montanera (Medical Imaging)
Dr. P. Birek (Dentistry)	Dr. J. Mullen (Laboratory Medicine and Pathobiology)
Dr. A. Campbell (Medicine)	Dr. S. Narod (Public Health Sciences)
Dr. J. Carson (Family and Community Medicine)	Dr. C.D. Naylor (Medicine)
Dr. A. Daar (Public Health Sciences)	Dr. M. Ojha (Rehabilitation Sciences)
Dr. A. Damyanovich (Medical Imaging)	Dr. K.P.H. Pritzker (Laboratory Medicine and Pathobiology)
Dr. J.E. Davies (Dentistry)	Dr. P. Ritvo (Public Health Sciences)
Dr. W.A. Demajo (Anaesthesia)	Dr. A. Romaschin (Laboratory Medicine and Pathobiology)
Dr. E. Diamandis (Laboratory Medicine and Pathobiology)	Dr. J. Rutka (Otolaryngology)
Dr. F. Dicosmo (Botany)	Dr. A. Slutsky (Medicine)
Dr. R.J. Eby (Medicine)	Dr. B. Steinhart (Medicine)
Dr. V.L. Fornasier (Laboratory and Pathobiology)	Dr. D. Stewart (Psychiatry)
Dr. A. Fox (Medical Imaging)	Dr. K.G. terBrugge (Medical Imaging)
Dr. J. Freeman (Otolaryngology)	Dr. T. Van Der Kwast (Laboratory Medicine and Pathobiology)
Dr. R. Gilbert (Otolaryngology)	Dr. I. Weller (Public Health Sciences)
Dr. M. Greenberg (Pediatrics)	Dr. L. White (Medical Imaging)
Dr. M.D. Grynpass (Laboratory Medicine and Pathobiology)	Dr. R. Willinsky (Medical Imaging)
Dr. P.J. Gullane (Otolaryngology)	Dr. G.J. Wilson (Laboratory Medicine and Pathobiology)
Dr. B. Harvey (Public Health Sciences)	Dr. I. Witterick (Otolaryngology)
Dr. J. Irish (Otolaryngology)	
Dr. J. Irvine (Psychiatry)	
Dr. G. Jackowski (Laboratory Medicine and Pathobiology)	
Dr. M.G. Johnston (Laboratory Medicine and Pathobiology)	
Dr. R. Kandel (Laboratory Medicine and Pathobiology)	
Dr. W. Kucharczyk (Medical Imaging)	
Dr. J. McGlade (Medical Biophysics)	
Dr. M. Lee (Anatomy)	
Dr. G.A. Levy (Medicine)	
Dr. C. Lumsden (Medicine)	
Dr. A. McDonald (Medicine)	
Dr. D.A.G. Mickle (Laboratory Medicine and Pathobiology)	