

## Department of Surgery Annual Report

July 1, 2005 - June 30, 2006

### R.S. McLaughlin Professor and Chair

Dr. R. K. Reznick

### Associate Chair and Vice-Chairs

Dr. B.R. Taylor - Associate Chair

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

Dr. R. Richards - Vice Chair, Clinical

Dr. B. Alman - Vice-Chair, Research

### Surgeons-in-Chief

Dr. J. Wright - The Hospital for Sick Children

Dr. Z. Cohen - Mount Sinai Hospital

Dr. L. Smith - St. Joseph's Health Centre

Dr. O. Rotstein - St. Michael's Hospital

Dr. R. Richards - Sunnybrook & Women's College Health Sciences Centre

Dr. L. Tate - Toronto East General Hospital

Dr. B.R. Taylor - University Health Network

### University Division Chairs

Dr. M. Wiley - Anatomy

Dr. R. Weisel - Cardiac Surgery

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

Dr. J. Rutka - Leslie Dan Professor and Chair of Neurosurgery

Dr. J. Waddell - A.J. Latner Professor and Chair of Orthopaedic Surgery

Dr. P. Neligan - Wharton Chair in Reconstructive Plastic Surgery

Dr. S. Keshavjee - Thoracic Surgery

Dr. S. Herschorn - Urology

Dr. T. Lindsay - Vascular Surgery

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

It has now been four years that I have had the privilege of serving as Chair of this department. It has been a mixture of a marathon and a scrum. For the most part this job has been filled with enormous highs. Despite the hard work, I feel more energized than ever before and have a feeling of indebtedness for having been given the opportunity to lead this department. In doing this, I have had the distinct benefit of accepting the collective wisdom of a broad array of talented and committed surgeons. I am extremely grateful to our department's leaderships, our division chairs, our surgeons-in-chiefs, our education directors, and many others who have taken on leadership roles in this department.

We have tried to live up to our commitment to changing our surgical workplace. I'm pleased that two new programs that focus on improving the quality of this workplace are up and running. The first offers day care to any of our faculty, and the second offers a benefits package to our new recruits who would otherwise not be eligible through university or hospital arrangements.

This past year saw the introduction of the clinical faculty policy. We have worked extremely hard to ensure that all thirty-one of our divisions have viable functioning practice plans. I'm pleased to report that, after multiple summits, many meetings and a lot of hard work by many people, we have all thirty-one of our divisions engaged in practice plans. This is an achievement that we all can be proud of.

We have a faculty that is very rich in talent. One of the manifestations of that talent is rising through the academic ranks. Promotion in our faculty is difficult to achieve, a reflection of the high standards we have at the University of Toronto. This past year Christopher Forrest, Keith Jarvi, Michael Johnston, David Rowed, and John Semple were promoted to the rank of full professor. Michael Berger, Mitch Brown, Walid Farhat, Robert Maggisano, and John Phillips were promoted to the rank of associate professor. Anne Agur was promoted to Associate Professor with tenure. Chris Compeau, Mary Keith, and Kirk Lo were promoted to the rank of assistant professor. All of these surgeons and scientists should be justifiably proud of this accomplishment.

It is often said that the only real effect leaders have is the hiring of new individuals. In this regard our department has a lot to be proud of this past year. We have recruited five women and ten men to our department. We welcome to our faculty Erin Kennedy, Allan Okrainec, George Oreopolous, Anna Gagliardi, Armando Lorenzo, Khalid Sayed, Nancy Baxter, Andrew Mathew, Melinda Musgrave, May Lynn Quan, Homer Tien, Henry Ahn, Danny Whelan, Alex Zlotta, and Avery Nathens.

This past year we lost a respected colleague, Dr. W. R. Harris. Dr. Harris was an orthopaedic surgeon at Toronto General Hospital and Chief of that service from 1976 – 1986. He made many outstanding contributions throughout his academic career culminating with his election as President of the Canadian Orthopaedic Association in 1976.

This department has become involved in two very important issues in the last year. The first is the sustainability of academic excellence in the arena of cardiac surgery. There are many pressures that face this discipline including diminishing clinical volumes, the advent of drug eluting stents, and the establishment of three peripheral cardiac surgical sites. These and other factors threaten our ability to carry on with our magnificent track record of discovery, our abilities to recruit top talent, and our desire to train the very best for the future. The department, along with our entire cardiac surgical community, is poised to table a plan with the new Toronto academic local health integration network. This plan will call for greater academic and clinical integration.

Another area of intense activity has been the preparation of a surgical plan for the New Women's College Hospital. This plan calls for a dramatic upgrading of the surgical resources at Women's as it moves to establish itself as a state of the art surgical ambulatory care centre. We are hopeful that this plan will take hold and enrich our surgical community with a much-needed resource. We are also grateful to John Semple who takes on the new job as surgeon-in-chief of that hospital.

The merger and de-merger of Sunnybrook and Women's should give us reason to pause and reflect. The province established the Health Services Restructuring Commission (HSRC) in 1996. The HSRC, which initiated the changes that resulted in the merger, consisted in the group of well-intentioned and knowledgeable individuals. The HSRC was mindful of many redundancies in our system and faced with finding solutions to tough fiscal realities. There were many competing political agendas and compromises that had been made. It was given sweeping powers to re-arrange Ontario's hospital systems. In March 1997, it released its plan for Toronto calling for the closing of eleven of forty-two hospitals in this city and the amalgamation of others. A total of \$123,000,000 of savings per year was projected. Three years later the HSRC was disbanded and health care professionals were left to make sense of a new reality.

One of the major recommendations was the creation of Sunnybrook and Women's Health Science Centre, amalgamation of Sunnybrook, Orthopedic and Arthritic Hospital, and Women's College Hospital. While this may have looked good on paper, and indeed some good has happened, it is now evident to all that the merger by all dimensions has not achieved its goals. Recently the separation of Women's College Hospital has been announced and the New Women's College Hospital has been formally established.

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There are many reasons for failed mergers. They include; inappropriate estimates of financial savings, turmoil in the ranks of management, lack of appropriate communications strategies, and lack of clear governance structures. And there are other negative by-products of turbulent mergers; lack of easy access to certain services, insecurity of human resources, loss of managerial and organizational identity, and disruption of routines at the clinical and organizational levels. However, I would propose that a fundamental flaw of this merger was a miscalculation or, more pointedly, a disregard for the social and political costs of trying to merge two cultures. It has been said that corporate culture is like an interwoven organic system of beliefs, values, rituals, personalities and mythology that creates meaning for people at work. How many thousands of hours were wasted in endless committee meetings trying to combine the immiscible? How many fights, both public and private, were fought in the name of progress? How much great talent was lost in Toronto as individuals, who have better ways to spend their time, decided to leave rather than get embroiled in a battle that they perceived to be endless. And how much money was spent on the unpredictable and intangible costs of shuffling the deck in the name of progress?

This past year saw an important initiative on the educational front. We have a huge and vibrant fellowship program. Across our eight clinical divisions we have over two hundred fellows. We are proud that these fellows come from over forty countries to train with our faculty. This program enriches us all and helps define our department. Over the last year David Latter led a task force to look at department-wide policies for the oversight of the fellowship program. David's task force tabled a series of principles, which he will operationalize as inaugural director of the new office of fellowship affairs. These principles include: creating goals and objectives for each fellow, developing explicit letters of offer, enunciating work conditions for fellows, developing an evaluation system for fellows, monitoring of fellow-resident issues, and monitoring of fellowship growth.

In this past year we celebrated the successes of leaders who have stepped down from their positions and welcomed their replacements. In particular, we congratulate Jim Waddell for ten years of spectacular leadership in the division of orthopaedic surgery and welcome Ben Alman as the new chair of that division. We also celebrate the remarkable success of Peter Neligan in his two terms as chair of the division of plastic surgery, and welcome his successor Dimitri Anastakis. Zane Cohen has been surgeon-in-chief at Mount Sinai Hospital for sixteen years. He has transformed that hospital in so many ways. Zane carries on in his leadership role as the chair of the division of general surgery, and we welcome Jay Wunder as the new surgeon-in-chief at Mount Sinai Hospital. Finally, Sender Herschorn has led the department's continuing medical education initiatives for a decade. We welcome Joao Pippi Salle who is starting as the new director of CME in our department. We also congratulate Bill Kraemer as the new program director in the division of orthopaedic surgery, Jim Waddell on his new appointment as the director of the Holland Centre, and Eric Massicotte for becoming head of the undergraduate education committee in the division of neurosurgery.

Our research mission continues to flourish. Under Vice-Chair Ben Alman's leadership we have reached an incredible amount of external funding, this year's total being in excess of \$40,000,000. Our surgical scientist program continues to thrive. We have twenty-seven residents in the surgical scientist program, 92% of which receive external salary support.

This year we expanded the program to broaden our concept of scholarship. We have started the Scholarship in Surgery Program and there are three residents who are currently enrolled pursuing their MBA degrees.

We continue to work hard in the area of advancement. This year we will see the instillation of Sender Herschorn as the Barkin Chair, Hans Kreder was installed as the Tile Chair, and the orthopedic faculty established the Waddell fund. George Hiraki initiated a fellowship in honour of his parents. The surgical alumni pledged \$250,000 to the graduate student education fund. University Health Network donated \$1,000,000 to the University of Toronto from the Dunn fund in colorectal oncology, an amount that was doubled through the Ontario Student Opportunities Trust Fund. Finally, a generous donation was made from the Sunnybrook Foundation as part of the magnificent gift from the Mr. Holland. Six hundred thousand dollars of the \$20,000,000 Holland gift will be donated to the University of Toronto in support of orthopaedic training through the graduate student education fund.

Individuals in this department have received many honours in this past year, too many to name all of them. However, six stand out and deserve special mention in this report. The first two are in honour of Dr. Robert Salter and Dr. Wilfred (Bill) Bigelow. Both Drs. Salter and Bigelow were recently honoured by the University of Toronto as two of ten giants in biomedical research in the history of this great institution. Tirone David was named a University Professor, the highest honour an individual can be given in our university. John Wedge was made an Officer of the Order of Canada. Allan Gross was made an Officer of the Order of Ontario. Sandro Rizoli won the Royal College medal in surgery.

Under John Bohnen's leadership we continue to flourish in the education arena. This past year we hosted as a visiting scholar, Dr. Milliard Debrew, a paediatric surgeon from Addis Ababa. As a result of his visit a team of staff from our department will be helping the medical school in Addis establish a skills lab. Our own skills lab, under Helen MacRae's leadership has recently expanded by doubling its size. David Backstein has successfully implemented a new curriculum for our clinical clerks. This included David's "crash course in surgery", five days of a centralized curriculum including seminars and integrated skills sessions.

In summary, it has been an outstanding year for our department. It has certainly been gratifying to see our strategic plan grow into action as we attempt to break the boundaries. We have an absolutely wonderful faculty. I'm indebted to all of them for the incredible support I have received as Chair.



**David Backstein** - Director, Surgical Clerkship

The 2005-06 academic year in Surgical Undergraduate Education was one of significant curricular modification instituted by our Department. It was also a year which saw the initiation of major changes at the University of Toronto's, Faculty of Medicine, which will certainly provide opportunities as well as challenges to the Department of Surgery in the months to come.

A major curricular overhaul of our surgical clerkship commenced this year. In the fall of 2005 we implemented the "Crash Course in Surgery" for Phase I students at the Surgical Skills Centre at Mount Sinai Hospital and the Patient Simulation Centre at St. Michael's Hospital. This five-day course provides a foundation of knowledge and skills, upon which our students can build when they are in the ER, the OR and out on the wards. Student feedback so far has been excellent. The early exposure to fundamental technical skills has been much appreciated by our undergraduates and there is early evidence that this new training has translated into improved confidence and performance during the remainder of the rotation. The teaching contributions of the surgical faculty is greatly appreciated and there is no doubt that this program could not run without their dedication. In particular, Dr. Jameel Ali must be recognized for his contributions to the trauma component of the week and the enormous administrative contribution of Carmela Calorendi must be highlighted.

Dr. John Murnaghan successfully ran the annual Residents as Teachers Day in July 2005, and the initiative was expanded by adding a second session in February 2006. These two days were focused on optimizing undergraduate teaching by our junior and intermediate level surgical trainees.

Our surgical education administrative staff was pivotal in many of the changes implemented this year. Our thanks go to Michelle Dominey (SMH), Liz Doherty (UHN) and Esther Williams (Sunnybrook) for their efforts.

Congratulations were extended at Gallie Day this year to Dr. Robin Richards (Division of Orthopaedic Surgery), as he was awarded the E. Bruce Tovee Award for excellence in undergraduate teaching. Dr. Sundeep Rai, (General Surgery resident) won the D.R. Wilson award for outstanding teaching by a resident.

On the horizon there are several challenges and opportunities for surgical undergraduate education. Curricular renewal for Phase I and II Clerkship is under consideration by the Faculty of Medicine and the planning for expansion to a Mississauga campus, is well underway. Our Department is committed to taking a leadership role in these endeavours, in order to maintain our position in undergraduate education for years to come.



**John M.A. Bohnen** - Vice-Chair, Education

The Department of Surgery postgraduate enterprise had an outstanding year in 2005-2006, rich with accomplishments and change.

Our entry-level programs filled all of our first year positions in July 2005 through the Canadian resident match. In all, 254 residents trained in all of our 11 Royal College of Physicians and Surgeons (RCPSC) programs (Cardiac Surgery, General Surgery, Neurosurgery, Orthopaedic Surgery, Plastic Surgery, Thoracic Surgery, Urology and Vascular Surgery residencies; and Colorectal Surgery, Paediatric General Surgery and Surgical Oncology residency/fellowship programs.) In addition to those residency positions, 196 clinical fellows and 32 elective residents came from many countries to seek further clinical training. Thirty residents received research training within the Surgeon-Scientist Program, led by Dr. Ben Alman, Vice-Chair, Research.

Residents finishing Core Surgery (years one and two) and final-year residents were highly successful in RCPSC Principles of Surgery and fellowship exams, respectively. Thirty of thirty-two residents passed their fellowships.

Residents took in a broad variety of educational events that complement patient care. Each divisional program put on education sessions at the hospitals and, centrally, taught half-day per week, seminars and skills. At the department level, Core Surgery residents attended a number of educational series that build practice foundations. Dr. Bob Mustard runs the highly-rated Principles of Surgery (POS) Lectures and provides a practice POS exam from the lectures and literature. Twice yearly, Core Surgery residents attend the Resident Forum to give feedback on their education and work conditions. In July, Core Surgery residents attended the annual half-day program "The Surgeon in Society;" this year's theme was "professionalism". On the same day, first year residents got "oriented" with their teachers over food and drink. Several residents volunteered, to promote their specialties at "Career Night" for medical students interested in Surgery. First and third year residents attended "Residents as Teachers" workshops led by Drs. John Murnaghan and Nicole Woods, supporting their missions to provide patient care, learn the craft and train other learners effectively. Dr. Jameel Ali led the department's Advanced Trauma Life Support courses for Core Surgery residents.

This year, at Gallie Day, Jay Wunder was presented the E. Bruce Tovee Award for outstanding teaching in postgraduate education and Thomas Lindsay was presented the Surgical Skills Centre Distinguished Education Award.



**Benjamin Alman** - Vice Chair, Research

Over the years, research from Toronto surgeons has had a major impact on science and medicine, world-wide. This year, the University of Toronto unveiled statues of ten leading biomedical researchers or builders who got their start or made their mark at the University, in the main lobby of the Terrence Donnelly Centre for Cellular and Biomolecular Research. Three of the ten were surgeons: Robert Salter, innovator in orthopaedic surgery; Wilfred Bigelow, innovator in cardiac surgery; and Frederick Banting, Nobel laureate and discoverer of insulin. This is an amazing accomplishment, and illustrates the importance and reach of our department's research work.

Our current faculty is following in this tradition, undertaking ground-breaking research in areas such as the neurosciences, cardiac surgery, transplantation, stem-cell research, cancer, education research, and clinical outcomes research. Our faculty continues to draw on the strengths of the University and the ability to develop collaborative programs, to generate high quality, in-depth fundamental research, and develop this knowledge into improved clinical care. The Department continues to work on its goal of building infrastructure to increase the depth and breadth of our academic activities, with the ultimate aim of translating fundamental research into improved outcomes for our patients.

Many advances in medicine come from the application of knowledge from areas initially unrelated to medicine. 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 (SIS) program was initiated this year to provide graduate level training in non-traditional streams. The first three residents have entered this program and these individuals will undoubtedly bring new areas of scholarship to our specialty.

Despite the increased competitiveness of research funding, especially at the Canadian Institutes for Health Research, the department continues to have fantastic research funding, with our total research funding exceeding \$40,000,000. Our faculty continues to be recognized for research not only locally and nationally, but internationally as well. This was confirmed in our peer-reviewed publications.

Surgeon-Scientist Program (SSP) residents had an unparalleled year. Over 90% of our SSPs were successful in receiving full or partial salary support from external granting agencies. Five new residents entered the SSP, giving the Program 15 MSc, 1 MEd, 10 PhD and one PDF resident involved in full-time research. The Johnson & Johnson Medical Products Surgeon-Scientist Fellowship Program's sixth year of commitment allowed us to support four SSPs. They are: Ivan Diamond (supervisors: Paul Wales & Brian Feldman), Anand Govindarajan (supervisor: Calvin Law), Mandeep Tamber (supervisors: John McLaughlin & James Rutka), and Gilbert Tang (supervisor: Richard Weisel.)

The theme for the 32nd Gallie Day was nanotechnology in surgery. In the coming decades, new technologies will likely change the way we practice surgery. Miniaturized manufacturing, small particles to enhance imaging, and smaller biologic devices to treat diseases are all possibilities. This year's Gallie Day focused on these new advances. In a departure from previous years, the participants in the symposium entitled: Size Matters: Nanotechnology in Surgery, were primarily from the engineering department. Ted Sargent, Warren Chan, and Paul Chow each spoke on different aspects of nanotechnology, including miniaturized manufacturing, novel imaging techniques and a process to enhance commercialization of new high technology devices. Abdallah Daar, from our department, spoke on the promise of nanotechnology in the third world, pointing out that multiple ways in which miniaturized devices and low cost miniaturized manufacturing, have tremendous potential to improve the quality of life in less-developed countries. The theme was continued by Michael Apuzzo, University of California Los Angeles, the Gordon Murray Lecturer, who presented a multi-media presentation on the potential of nanotechnology in surgery, using current ongoing patient based research as illustrations. He presented intriguing clinical research on topics such as the development of novel nanotechnology based imaging techniques, to localize brain tumors and small devices to target neoplastic cells. The symposium and Dr. Apuzzo's lecture provided a fascinating glimpse into what is possible for surgery, in the near future.

The Gallie-Bateman Prize was presented to Bradley Jacobs; and Alexandra Mihailovic and Danny Ramzy received a tie for second place. The McMurrich Award for best bench science work went to Karim Mukhida (I. Mendez, Dalhousie), and there was a tie for second place, with awards going to Deepak Kamnasaran (A. Guha), Yan Chen (B. Alman), Christopher Kim (T. Yau), Ann Parr (C. Tator), and Danny Ramzy (V. Rao.) There was a tie for first place for the Wyeth Award for best non-bench research between Cornelia M. Borkhoff (J. Wright) and Carol-Anne Moulton (R. Reznick.) The second place award went to Timothy Cheang (CHL Law) and Veena Guru (S. Fremes.)



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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: Robert Nam, who received the Langer Surgeon Scientist Award (given to the most outstanding graduate of the Surgeon-Scientist Program), for his work in urologic oncology; David Urbach, who received the George-Armstrong Peters Prize (awarded to a young investigator), for his work in clinical outcomes and minimally invasive surgery; Jim Rutka, who received the Tator Surgeon Scientist Mentoring Award; and Ben Alman, who received the Lister Award (awarded to a senior investigator), for his work in developmental biology in orthopaedics.

Departmental members received a large number of grants this year, but of note, 18% (nine out of 49) 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. The non-clinician scientists continue to be highlighted in the monthly Department of Surgery Newsletter.

Finally, 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, which are improving patient care. Our current faculty members will likely follow in the footsteps of the three surgeons recognized by the University as leading biomedical researchers, and will make major advances in medical research.



**Richard Weisel** - Chair

The Division of Cardiac Surgery received recognition for impressive clinical outcomes for cardiac surgical procedures as well as outstanding academic achievement. In addition, the Division instituted a new program for Clinical Fellows.

## **Clinical**

This year the report from the Cardiac Care Network of Ontario indicated that the three adult cardiac surgical units provided outstanding clinical outcomes, which after adjustment for case complexity, equaled or exceeded the results from most other units in North America. Congratulations to the Surgeons and their dedicated teams of care providers. The waiting lists have stabilized and the number of cases performed in each of the units has remained constant. The Division and the Department of Surgery have approached the Toronto Central LHIN to explore a new funding arrangement for Cardiac Surgery at the University.

## **Cardiac Surgical Residency**

The Residency Program under the direction of Dr. David Latter continues to provide individualized training of the highest caliber for the residents. Each of the residents has completed not only the Royal College program, but also the Clinical Investigator Program at the University. The residents have been cognizant of the decreased availability of staff positions in the United States and they have attempted to acquire new skills and new surgical capabilities. Dr. Shafie Fazel spent six months at Stanford University learning transvenous as well as surgical approaches to diseases of the thoracic aorta. Dr. Mark Peterson has joined the Arizona Heart Institute to learn transvenous approaches to aortic diseases. The residents and staff participated in the Coach House series of seminars and the visiting professor activities of the Division.

## **Clinical Fellows Program**

Dr. David Latter was appointed the Departmental Co-ordinator of Fellowship Affairs. In the Division, each institution has a large and successful Clinical Fellows Program which will be enhanced with the new Departmental initiative. The program will provide on line evaluations and feedback to fellows and their mentors. The new guidelines will provide greater transparency to the selection process and the requirements for the position.

## **Academic Achievements**

Each of the institutions made outstanding contributions and achieved academic excellence in the last year. The Division continues to support exceptional basic research, clinical epidemiology and unique clinical programs. Drs. Desai, Fazel and Fedak were finalists for the Lillehei Young Investigator Awards at the American Association of Thoracic Surgeons, and Dr. Fazel was a finalist for the Vivien Thomas Young Investigator Award at the American Heart Association meeting in Dallas, Texas.

## **Sunnybrook and Women's Health Sciences Centre**

The Cardiovascular Surgical Division focused on clinical trials. The results of the radial artery trial were published in the New England Journal of Medicine with Dr. Nimesh Desai as the first author and Dr. Stephen Fremes as the senior author. Dr. Fremes was the principal investigator for an NIH clinical trials application, from the University of Toronto.

## **St. Michael's Hospital**

Dr. Lee Errett and his colleagues provided outstanding clinical outcomes for complex cardiac surgical procedures. Dr. Yves LeClerc recently left St. Michael's Hospital and Dr. Subodh Verma has been recruited as a new staff surgeon. Dr. Mary Keith received grant funding to evaluate nutritional preconditioning to improve outcomes. All Canadian cardiac surgical residents, attended the Terrence Donnelly Residents Research Day this spring, sponsored by St. Michael's Hospital.

## **Toronto General Hospital**

Dr. Tirone David continued his innovations in valvular heart surgery. Dr. Michael Borger left the institution to assume a staff position in Leipzig, Germany. Dr. Viv Rao continued as the principle investigator of the NIH-funded STICH trial evaluating ventricular remodeling surgery. Dr. Rao and Dr. Heather Ross continued to provide a unique service with the left ventricular assist and cardiac transplant programs. Dr. Rao also received funding for laboratory and clinical investigations of organ protection to prevent transplant arteriopathy. Dr. Terry Yau received funding to continue his investigations into gene and cell therapy, to induce angiogenesis. Dr. Ren-Ke Li was awarded a Canada Research Chair in Cardiac Regeneration.

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## **The Hospital for Sick Children**

Dr. Glen Van Arsdell and his colleagues continue to be world leaders in surgery for congenital heart disease in neonates. Their outcomes reflect the dedication of the surgeons to the care of these critically-ill newborn babies. The cardiac surgeons at Hospital for Sick Children have established extensive and clinically relevant laboratory investigations. Dr. William Williams retired, but he will continue to participate in the Congenital Cardiac Surgery Database and to supervise Fellows using the database for academic endeavors.

### **Summary**

The Division of Cardiac Surgery continues to be one of the leading academic and innovative centres in the world. The focus of the Division is to provide outstanding outcomes and to excel at academic productivity.



**Zane Cohen** - Bernard and Ryna Langer Chair

## Resident Training

This past year, resident issues have once again been a central part of this job, as well as a continuing challenge. In the past we have had a number of issues related to resident attrition from the General Surgery Program. I am both happy and proud to mention that we have had no resident attrition this past year. This represents a great success and reflects well on our residents and on our program. In fact, we have had four residents express an interest in transferring into our General Surgery Program. For this upcoming academic year July 2006-June 2007, 11 PGY residents have entered our program, as well as an additional three IMG residents. We have been very successful for the second year in a row, in obtaining very top quality residents into our program. We were able to fill all of our positions with our top 18 choices in the CARMS match.

The following general surgical residents were successful in completing the General Surgical Training Program for 2005-2006. They are; Jonathan Caulfeld, Jeannie Choi, Anand Ghanekar, Quoc Huynh, Marianna Kapala, Kouros Moozar, Laura Musselman, and Ajay Sahajpal.

Congratulations go out to our graduating class!

## New Faculty

There has been a great deal of recruitment for 2006-2007. These new faculty members include; Homer Tien to Sunnybrook Hospital, Nancy Baxter to St. Michael's Hospital, Avery Nathens to St. Michael's Hospital in August of 2006, Erin Kennedy to Toronto General Hospital in July 2006, Carol Ann Moulton to Toronto General Hospital in July 2006, Allan Okrainec to the Toronto Western Hospital, and Jamie Cyriac to Toronto East General Hospital in July 2006.

## Research Funding

Research funding has continued to increase year after year. In the academic year, 2005-2006, research funding totalled over 8 million dollars. Once again, there is even a slight increase from the record 8.35 million dollars of the last academic year.

## Faculty and Resident Grants

The following individuals received fellowship/grants during this academic year:

Najma Ahmed, Nancy Baxter, John Bohnen, Mark Cattral, Alexandra Mihailovic, Annie Fecteau, Steve Gallinger, Lynn Mikula (supervised by Steve Gallinger), George Zogopoulos (supervised by Steve Gallinger), Reg Gorczynski, Rob Gryfe, David Grant, Claire Holloway, E. Rakovitch (supervised by Claire Holloway), Andras Kapus, Peter Kim, Jarley Koo, Calvin Law, Timothy Chang (supervised by Calvin Law), Michael Ko (supervised by Carol Swallow), David Urbach, Steve Lopushinsky (supervised by David Urbach), Frances Wright, Gergely Lukacs, Andrea McCart, John Marshall, Glen Regehr, Ori Rotstein, Patrick Tawadros (supervised by Ori Rotstein), and Katalin Saszi (supervised by Ori Rotstein.)

These individuals received grants from various peer-reviewed granting agencies, including: the Dean's Excellence Fund, Lance Armstrong Foundation, CIHR, PSI, the Genesis Foundation, NCIC, GENOME Canada, Ontario Cancer Research Network, NCI, NIH, Society of University Surgeons, Public Works and Government Services of Canada, Hospital for Sick Children Foundation, Ontario Clinical Oncology Group, Breast Cancer Alliance, NSERC, MOHLTC, Canadian Breast Cancer Foundation, McLaughlin Centre for Molecular Biology, and Surgical Infection Society. This represents an outstanding variety of peer-reviewed grants for over 50% of our General Surgical faculty and our surgical scientists.

In addition, there were numerous awards received by our faculty and residents. To name a few: Calvin Law received a Career Scientist Award; David Urbach received a Career Scientist Award from MOHLTC, as well as the Eugene Stewart Award for Excellence in Teaching from HPME. David also received the 2006 George Armstrong Peters Prize; Sundeep Rai received the 2006 D.R. Wilson Award for Excellence in Teaching by a Resident; Alexandra Mihailovic won 2<sup>nd</sup> Prize in the Gallie Bateman Competition; Danny Ramzy won 2<sup>nd</sup> Prize, McMurrich Award; and Carol-Anne Moulton won the 1<sup>st</sup> Prize Wyeth Award, and Timothy Chang who was co-winner of the 1<sup>st</sup> Prize for the Wyeth Award for a Poster Presentation in the Epidemiology/ Education section.

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Lorne Rotstein won the Wightman Berris Academy-John Bradley Anderson Award for Administration; Peter Kim, the 2006 Mackenzie-Scotiabank Prize; Ian McGilvray and Allan Bruce Robertson, the Junior Investigator Award for the IMS Scientific Day; Ahmed Nasser (supervised by Jack Langer) won the 2nd Prize HSC Research Award; Richard Reznick won the 2006 President's Inaugural Teaching Award – U of T; Sandro Rizoli, the 2006 RCPSC Medal in Surgery; Ori Rotstein, Renewal as Director IMS; Angel Arnaout (supervised by Claire Holloway), the Novartis Oncology Young Investigator Award; Simon Birch (supervised by Ori Rotstein) won 1st Prize in the Basic Science, Alan Wu Poster Competition at the IMS Scientific Award Day 2006; John Bohnen, the 2006 Canadian Association of Medical Education - Certificate of Merit for U of T and the 2006 Lois H. Ross Resident Advocate Award from PAIRO; Fred Brenneman won an Award for Continuing Education and Training from the Peters-Boyd Academy; and David Grant was named the Incoming President – International Intestine Transplant Society.

This indeed is a very impressive list of awards and prizes in recognition of our faculty.

## Events

Our 45<sup>th</sup> Annual Update Course for General Surgeons and Residents was held from April 20-27<sup>th</sup>, 2006. Again, there was a record turn out of over 450 registrants. The guest lecturer was Dr. David Linehan from Washington University in St. Louis, and approximately 88% of our General Surgical faculty presented at that major CME event. The General Surgical staff at the University of Toronto was highly evaluated during the entire update meeting. Our update course was simulcast to the Tec de Monterrey, in Monterrey, Mexico, via an internet platform and a simulcast was seen around the world both live and archived.

Once again, the Update in General Surgical Oncology was held in the fall of 2005 at the Granite Club. There were over 100 registrants. The course was very highly evaluated and will continue at that site in the fall of 2006.

In addition this year, Jaime Escallon was involved in organizing a review course for residents from around Canada. This was done in the early part of April, 2006 and was attended by General Surgery residents from all over Canada. It was done in conjunction with McMaster University, and it is planned again for early spring of 2007.

The major academic event for the General Surgeons was, once again, our Annual Assembly of General Surgeons and Residents. This took place on June 8, 2006. The E.B. Tovee Lecturer on that day was Dr. Monica Bertagnolli from Harvard. During the Annual Assembly Dr. Cohen mentioned four initiatives which are to come out of the Bernard and Ryna Langer Chair Fund for 2006-2007, namely: four \$15,000 research grants that will be distributed as start-up funds for innovative research; \$30,000 for faculty development; three \$1000 teaching awards to recognize outstanding resident teachers over a two-year period of time; and funding for residents' presentations at scientific meetings to help the individual division and supervisors who are taking this burden on at the present time.

Awards were also distributed at the Annual Assembly. The award for best podium presentation went to George Zogopoulos while the best poster awards went to Jensen Tan and Stev Lopushinsky.

The General Surgical Division at the University of Toronto is outstanding in breadth and depth. In the coming year, a most important responsibility will be the accreditation process across the University of Toronto. The General Surgical Division, in addition to the General Surgery Residency Training Program, is responsible for programs in Colorectal Surgery, Surgical Oncology, and Paediatric Surgery. All of the latter three programs will be assessed by the accreditation process in April 2007.

Passing with full accreditation for all of our programs is essential. We will certainly focus on the process for accreditation for this upcoming academic year. In order to help us identify and help solve some of the outstanding issues, the Division of General Surgery at the University of Toronto will hold a retreat at the Vaughan Estates on Friday, September 29, 2006. It is hoped that there will be full and open discussion of outstanding issues at that time, and a timeline set for the correction of any deficiencies. Certainly, one of the main issues to be addressed is the canMEDS Competencies as the Royal College Accreditors will have expected some progress in this area by then.



**James T. Rutka** - Leslie Dan Professor and Chair

## Resident Achievements

### Royal College Examinations

Fellows of the Royal College of Physicians and Surgeons of Canada (FRCSC): Drs. Gelareh Zadeh and Nicolas Phan.

### Resident Research Awards (International/National):

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

**Ratan Bhardwaj** has been granted post-doctoral research fellowship awards from CIHR and the Heart and Stroke Foundation.

**Greg Hawryluk** received an AO Trauma grant; is the recipient of this year's Codman Fellowship in Neurotrauma and Critical Care; received full approval for funding of a McLaughlin Centre for Molecular Medicine Scientist training fellowship.

**Brad Jacobs** won the Canadian Society for Clinical Investigation Resident Research Award; won this year's K.G. McKenzie Memorial Prize for Basic Neuroscience Research; has been awarded the 2006 Canadian Research Award for Specialty residents; received a BrainStar Award from the CIHR/Institute of Neuroscience, Mental Health and Addiction.

**Adrian Laxton** was awarded the 2006 NREF/Medtronic Research Fellowship from the AANS.

**Cian O'Kelly** received an AO Trauma grant.

**Ann Parr** received a CIHR Research Fellowship for her research work.

**Mandeep Tamber** received a Surgeon Scientist Program Fellowship, J&J Products Company.

**Sarah Woodrow** received a Medical Education Grant awarded by the Royal College of Physicians and Surgeons; received a CSCI award for a poster presentation at the RCPSC meeting; won this year's K.G. McKenzie Memorial Prize for the best Clinical Neuroscience paper.

**Gelareh Zadeh** was awarded a fellowship salary from Cancer Care Ontario; was awarded the 2006 PAIRO Trust Fund Resident Teaching Award.

### Resident Research Awards (University of Toronto)

**Frank Farhadi** was awarded a Joseph M. West Family Memorial Award.

**Gregory Hawryluk** was awarded a Joseph M. West Family Memorial Award.

**Bradley Jacobs** won the Joseph M. Family West Memorial Fund Award from Postgraduate Medicine, U. of T.; was the recipient of the first place award for the Gallie-Bateman prize for surgical research.

**Paul Kongkham** received the 2005-2006 Dr. Thomas Friedlich Fellowship Award in Neuro-oncology Research.

**Adrian Laxton** received the 2006 Warren Ho Memorial Scholarship; was awarded a Joseph M. West Family Memorial Award and the William Fenwick Fellowship.

**Todd Mainprize** was awarded a U. of T. Fellowship through the Department of Laboratory Medicine and Pathobiology.

**Charles Matouk** was awarded a McLaughlin Centre for Molecular Medicine Medical Scientist Training Fellowship; was awarded a Joseph M. West Family Memorial Fund/Postgraduate Medicine Award.

**Karim Mukhida** won McMurrich Frist Prize Award for the best poster presentation, Gallie Day.

**Cian O'Kelly** won the 1<sup>st</sup> place Horsey Prize.

**Ann Parr** received the McMurrich 2<sup>nd</sup> prize award for her poster presentation at Gallie Day; was awarded a Joseph M. West Family Memorial Fund and the Mirian Neveran Memorial Award.

**Nicolas Phan** was the recipient of the 2006 Alan Hudson Teaching Award.

**Demitre Serletis** was awarded a Joseph M. West Family Memorial Award.

**Scellig Stone** was awarded a Joseph M. West Family Memorial Award and the William Cron & Jean Harris Memorial.

**Mandeep Tamber** won 2<sup>nd</sup> place for the Horsey Award.

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## Faculty Achievements

### Honours and Awards

**Mark Bernstein** received a CIHR grant (2005-2009.)

**Karen Davis** was awarded a renewal of her Tier II Canada Research Chair in Brain and Behaviour; has been elected to the School of Graduate Studies Education Council

**Peter Dirks** was awarded 1 of 3 grants from the Pediatric Brain Tumor Foundation (PBTF) of the United States; has become a member of the American Society of Pediatric Neurosurgeons; received a 3 year NCIC grant award.

**Jim Drake** was elected a Member of the American Academy of Neurological Surgery.

**Michael Fehlings** received a Proof of Principle award, Ontario Neurotrauma Foundation; received an AO Foundation grant; received a Cervical Spine Research Society Award; has been appointed as Chair-Elect for the Section on Neurotrauma and Critical Care of the American Association of Neurological Surgeons/Congress of Neurological Surgeons; has been appointed as a committee member on the Cervical Spine Research Society Editorial Committee (3 years); appointed Chairman of the AO Spine North America Scientific Committee; received a Heart and Stroke Grant; has become a member of the Society of Neurological Surgeons.

**Fred Gentili** was cross-appointed to the Department of Otolaryngology, U. of T.; received a Presidential Citation from the American Head & Neck Society.

**Ab Guha** received a grant from Schering-Plough Virtual National Tumor Bank; elected President, Society of Neuro-oncology; received a NCIC grant.

**Moji Hodaie** received a grant from Medtronic Neurological.

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

**Abhaya Kulkarni** received a CIHR grant; has been appointed as an Advisory Board Member of Think First Canada; appointed to the AANS/CNS Joint Guidelines Committee (3 years.)

**Andres Lozano** has been elected to the German Academy of Neurosurgery; has been appointed to the Editorial Board of the Journal of Neurosurgery.

**Richard Perrin** was appointed as Secretary of the World Federation of Neurosurgical Societies 2005-2009.

**Jim Rutka** was appointed as Secretary-Treasurer of the World Academy of Neurological Surgery; elected as Secretary, the American Association of Neurological Surgeons; received the 2006 Royal College Janes Visiting Professorship; was appointed to the Advisory Board for Neurosurgical Review; was awarded 1 of 3 grants from the Pediatric Brain Tumor Foundation (PBTF) of the United States; received the 2006 Charles Tator Mentoring Award; was made a Knight of the Order of Smile.

**Charles Tator** was presented with the Injury Prevention and Safety Promotion Award of Recognition at the Canadian Injury Prevention and Safety Promotion Conference; received full approval for funding of a McLaughlin Centre for Molecular Medicine Scientist training fellowship.

**Michael Taylor** received the Schweisguth Award for best research paper submitted to the SIOP meeting; received a Fellowship from the Emily Dorfman Foundation for Children/ABTA; is the recipient of the Connaught Award, U. of T.; received a 2 year CIHR grant; was awarded 1 of 3 grants from the Pediatric Brain Tumor Foundation (PBTF) of the United States; received 2 different grants from Brainchild; won the Neurosurgery Research and Education Foundation Young Clinician Investigator Award; was awarded a Neurosurgical Research and Education Foundation/Medtronic Research Fellowship from the American Association of Neurological Surgeons; received a grant from the National Brain Tumor Foundation.

**William Tucker** has been elected as a neurosurgery specialist for the Canadian Medical Protective Association.

**Michael Tymianski** received an Early Researcher Award from the Ministry of Research and Innovation; received a 5 year CIHR Grant.

**Taufik Valiante** was the recipient of the 2006 Alan Hudson Teaching Award; received the 2006 Ross Fleming Surgical Educator Award, UHN.

**Chris Wallace** received the Wightman-Berris Academic Postgraduate Teaching Award.

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### **University of Toronto Neurosurgery Lectureships**

**Botterell** – Dr. Ed Laws, University of Virginia, Charlottesville.

**Keith** – Dr. Webster Pilcher, Chairman of the Department of Neurological Surgery, University of Rochester.

**Hendrick** – Dr. Robert Sanford, Semmes-Murphy Clinic and St. Jude’s Children’s Research Hospital.

**Lougheed** – Dr. John Hurlbert, University of Calgary; and Dr. Steve Lownie, Chair of Neurosurgery, University of Western Ontario.

**Marshall** – Dr. Eelco Wijdicks, Chair, Division of Critical Care Neurology, Mayo College of Medicine.

### **City-Wide Rounds**

Sunnybrook and Women’s College Health Sciences Centre, Dr. Amin Kassam, University of Pittsburgh.

St. Michael’s Hospital, Professor Michael Bliss, Professor Emeritus, University of Toronto.

The Hospital for Sick Children, Dr. John Popp, Albany, New York; Dr. Necmettin Pamir, Professor and Chairman of Marmora University, Istanbul, Turkey.

### **Courses Offered at the Surgical Skills Centre**

Neuro-endoscopy Course, January 21<sup>st</sup>, 2006. Course instructor was Jim Drake with the assistance of Dr. Giuseppe Cinalli from Naples, Italy, Dr. Peter Dirks and Dr. Abhaya Kulkarni.

Thoracic and Lumbar Spine Fixation Course, February 17<sup>th</sup>, 2006. Eric Massicotte was course instructor.

### **Promotions**

Full Professor – Dr. David Rowed

### **Retirement:**

Dr. Harley Smyth

**Publications by neurosurgery faculty and residents:** 158

**Visiting Professorships by U of T Faculty:** 124





**Michael J. Wiley** - Chair

The academic programs in the Anatomy Division remain strong and the numbers of students registered in our courses continue to grow. Renovations are currently underway to create more teaching laboratory space to accommodate the larger numbers of students. While much of this growth has resulted from enrolment expansion in the professional faculties, there has also been a 50% increase in the number of students registered in Anatomy courses from the Faculty of Arts and Science.

With an award from the Academic Incentives Fund, Dr. Barbara Ballyk was able to increase the amount of laboratory time and improve the laboratory learning experience for students in the Faculty of Physical and Health Education.

The Division implemented a new innovation for teaching histology to the medical class this year. The traditional 'microscope' laboratories were eliminated and replaced with web-based, annotated, high resolution scans of tissue sections, which allow a personal computer to emulate a microscope. Students can now study their slides anywhere they have access to a high speed internet connection. The new approach creates a more student-centered approach to learning histology and greater opportunity for study and review.

Three new Ph.D. students have joined the Division this year: Jamie Doherty (Cindi Morshead, Supervisor) Alessandro Rossatelli and Kim Soo (Anne Agur, Supervisor.)

Dr. Paulo Koeberle has recently joined the Division as Assistant Professor in the Tenure Stream. Dr. Koeberle's research focuses on the molecular mechanisms of neuronal degeneration and regeneration after traumatic CNS injury or stroke.

Dr. Anne Agur successfully underwent tenure review and became an Associate Professor with Tenure as of July 1, 2006

Dr. Cindi Morshead was appointed to the faculty of the Terrence Donnolly Centre for Cellular and Biomolecular Research and has relocated her research laboratory from the Medical Sciences Building to the new CCBR facility. Cindi has also been appointed to the editorial board of Current Stem Cell Research and Therapy and to CIHR grant review panels for Development and for Regenerative Medicine and Nanomedicine: Innovative Approaches to Health.

At the Faculty's annual Educational Achievement day, Dr. Ian Taylor was awarded the E. Mary Hollington Award for teaching with distinction in the preclinical curriculum of the medical program and Dr. Michael Wiley was awarded the Harry Whittaker Memorial Teaching Award.



**James P. Waddell** - A.J. Latner Professor and Chair

The 2005-06 academic year was a dynamic time for the Division of Orthopaedic Surgery. Dr. James Waddell (St. Michael's Hospital) completed a successful second term as A.J. Latner Professor and Chair of Orthopaedic Surgery. His tenure was marked by several events including the hospital consolidation, an expansion in the residency program, and the start of the local health integration network. Jim used each of these changes as an opportunity to strengthen the clinical and academic activity of the division members. He left us with a strong and vibrant division and he will continue to play a leadership role in orthopaedics in Toronto as the inaugural Chair of the Holland Centre. The Orthopaedic faculty and staff thank him for his leadership over the years and wish him well in his new position.

Four new faculty members were appointed this academic year: Daniel Whelan (arthroscopic and sports surgery) and Henry Ahn (spine surgery) to the division at St. Michael's Hospital; Khalid Syed (reconstructive surgery) to the division at the University Health Network; and Reinhard Zeller (paediatric spine surgery) to the division at the Hospital for Sick Children. Danny, Henry, and Khalid trained in Toronto, and are well known in our division. Reinhard comes to us from Paris, France, where he has worked as an academic pediatric orthopaedic surgeon for the past fifteen years. All four of these individuals bring graduate academic training, demonstrated teaching excellence, and specialized clinical skills to our faculty.

Several of our current faculty members have taken new leadership roles in their hospitals or at the University. Two of our divisional members were appointed to leadership roles in the Department of Surgery. David Backstein (Mount Sinai Hospital) was appointed Director of Undergraduate Education and Andrew Howard (Hospital for Sick Children) was named the Director of the Office of International Surgery. Hans Kreder became the Head of Orthopaedic Surgery at Sunnybrook Hospital, and the inaugural holder of the Marvin Tile Chair in Orthopaedic Surgery. Jay Wunder was appointed Surgeon-in-Chief of Mount Sinai Hospital, bringing three of our fully affiliated hospitals under the leadership of an orthopaedic surgeon as Surgeon-in-Chief.

The Canadian Orthopaedic Association meeting was held in Toronto last June 2006. Emil Schemitsch (St. Michael's Hospital) was the Program Chair and Stewart Wright (Sunnybrook) chaired the local arrangements committee. The Presidential Award for Excellence was presented to Robert Bell (University Health Network.) The Canadian Orthopaedic Residents' Association meeting was also held in Toronto, and hosted by two of our residents, Daniel Penello and Anna Kulidjian. Over 90 residents from 14 orthopaedic training programs in Canada attended the event.

Our faculty continues to provide an exceptional educational experience for our trainees, and two of our members received departmental teaching awards. Jay Wunder (Mount Sinai Hospital) received the E. Bruce Tovee Postgraduate Teaching Award and Robin Richards (Sunnybrook) received the E. Bruce Tovee Undergraduate Teaching Award. In addition, Daniel Penello (PGY4 resident) received the Harrison Teaching Award.

The division continues to excel in publications and presentations, and faculty members had over 250 publications or presentations this academic year. Research funding remains steady, but given the current realities of CIHR funding, our divisional members are continuing to seek alternative funding sources. Our faculty members or trainees supervised by our faculty received three of the research awards presented on Gallie Day. Cornelia Borkhoff (supervisor Jim Wright, Hospital for Sick Children) received the Wyeth Award for clinical research, Yan Chen (supervisor Ben Alman, Hospital for Sick Children) received second place in the McMurrich Award for basic science research, and Ben Alman (Hospital for Sick Children) received the Lister Prize for his work in developmental biology in orthopaedics. Bill Cole (Hospital for Sick Children) and Cari Whyne (Sunnybrook) were appointed as the co-chairs of our research committee. This committee will play an important role in our division in upcoming years as we incorporate research training into the residency program, and work to enhance faculty participation in research. Marvin Tile became Chair of Governing Council at Sunnybrook Foundation.

The 2005 Kennedy Visiting Professor was Robert Turcotte, McGill University. He spent several days with the faculty and residents, giving a fascinating glimpse into new advances in musculoskeletal neoplasia management. Graduating residents presented their research work to him during the main Kennedy Day activities.

The R.I. Harris Postgraduate Award was presented to Jubin Payandeh 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 Sam Bederman and Hamid Nourhosseini.

The 2006 Orthopaedic Research Day Visiting Professor was Dr. Suneel Apte from Lerner Research Institute, Cleveland Clinic Foundation. He spoke on the role of enzymes that degrade matrix in orthopaedic pathology, and presented data on how modifying these enzymes could be used to treat a wide variety of patient problems.

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Our staff members received numerous other awards and honors this year. There are too many to list here but a comprehensive record is included in this annual report. One noteworthy honour is John Wedge's (Hospital for Sick Children) appointment as a member of the Order of Canada, recognizing his work promoting healthcare in children.

This year Bill Kraemer (Toronto East General) was appointed as the Program Director for Orthopaedic Surgery. He has revamped the administrative and educational aspects of the residency program, and instituted an office at the Banting Institute. Under his leadership, there is renewed excitement and interest in establishing an improved training program, and I expect that we will see many more improvements in the coming years. We now have more clinical fellows training in the division than residents, and as such the department will be working to ensure that we have viable and educational fellowship programs. Nizar Mahomed (University Health Network) has been appointed as the division's representative in this effort. I am sure that there will be substantial improvements in our fellowship programs under his leadership.

The University of Toronto's Division of Orthopaedic Surgery embraces its long history of excellence in clinical care, teaching, and research led by exceptional individuals over the years starting with R.I. Harris and F.P. Dewar. In the upcoming years, the division is working towards increasing participation in research activities by its faculty and trainees.

*Report written by Benjamin Alman (incoming A.J. Latner Professor and Chair of Orthopaedic Surgery)*



**Peter Neligan** - Wharton Chair in Reconstructive Surgery

## Visiting Professors

This year's Hoyle Campbell Visiting Professor was Dr. William Kuzon from the University of Michigan in Ann Arbor, Michigan. Dr. Kuzon's visit was particularly gratifying since he is an alumnus of our training program. Dr. Richard Warren from the University of British Columbia was Visiting Professor for the annual resident aesthetic Symposium held on April 3rd.

## Promotions

Drs. Chris Forrest and John Semple were promoted from Associate to Full Professor. Drs. John Phillips and Mitch Brown were promoted from Assistant to Associate Professor.

## Awards

Recipients of divisional awards included Dr. Brent Graham, who was awarded the Arnis Freiberg Teaching Award; and Dr. Peter Neligan, who was awarded the W.K. Lindsay Research Supervisor Award. The resident research presentations are the highlight of the visiting professor's visit. Dr. Selig Krajden was awarded the Mentor Prize for the best clinical paper. Dr. Karen Cross was awarded the John Edward DeToro Scholarship for the best research paper. The Mentor Systems Graduate Scholarship in Plastic Surgery was also awarded to Dr. Karen Cross. Karen is completing a PhD in the Surgeon-Scientist Program, in the field of near-infrared spectroscopy and specifically its application to burn wound assessment. Dr. Rob Cartotto won the 2006 PAIRO Excellence in Clinical Teaching Award. Dr. Cartotto was one of 2 winners chosen from the University of Toronto. Dr. Artur Gevorgyan (Research Fellow, Supervisor Dr. Chris Forrest), won the Shenaq Award at the Plastic Surgery Research Council Annual Meeting held in Dana Point, California in May. Dr. Glyka Martou (PGY2) won the award for best resident research paper presented at the annual meeting of the Canadian Society of Plastic Surgeons in Quebec City in June.

## Academic Achievement

Dr. Dimitri Anastakis completed a Masters in Health Care Management (MHCM) at Harvard University.

## Professional Activity

Dr. Peter Neligan was elected Secretary General of the World Society for Reconstructive Microsurgery, at its bi-annual meeting in Buenos Aires, Argentina in October. Dr. Neligan was also elected as Secretary of the American Society for Reconstructive Microsurgery at its annual meeting in Tucson Arizona.

## Textbook Publication

Dr. Peter Neligan was co-editor of a two volume textbook entitled "Perforator Flaps: Anatomy, Technique and Clinical Applications" published by QMP Publications, St. Louis, Missouri, in October, 2005. Dr. Steven Morris of Dalhousie University, who is an alumnus of the University of Toronto Plastic Surgery Training Program, was another member of the four-member editorial team.

## Meetings

The 32<sup>nd</sup> Annual Aesthetic Surgery Symposium was held at the Sutton Place Hotel, Toronto, Ontario, on March 31st-April 1st. This was preceded by the 5<sup>th</sup> Annual Breast Surgery Symposium on April 30th. Both meetings were well attended.

## Graduating Residents

We had four residents taking the Royal College examinations this year. All four, Drs. Judy Ward, Cory Goldberg, Selig Krajden and Brent Howley, were successful.

## Fundraising

Fund-raising continues to be a priority and in September, 2005, we held our annual golf tournament to support the divisional PREFER fund. This event, held annually, raises approximately \$30,000 to support research and education within the Division. A campaign has also been launched to raise money for a Chair in Plastic Surgery, at the University of Toronto.



**Shaf Keshavjee - Chair**

## **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 the rest of Canada. The Toronto Lung Transplant Program continues to be an international leader in clinical activity and outcomes. 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 advanced 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. Dennis Wigle. The RJ Ginsberg Award for Best Postgraduate Teacher was awarded to Dr. Andrew Pierre. The GE Darling Award for Excellence in Undergraduate Teaching was awarded to Dr. S. Keshavjee. The 2<sup>nd</sup> 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. Masaki Anraku (Supervisor – Keshavjee) and Best Basic Science Paper was awarded to Ms. Amy Wong (Supervisor – Waddell.)

The Thoracic Surgical Research Laboratories continue to be very successful with grant capture and publications. 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 Thoracic Surgery Research Group, at Toronto General Hospital Research Institute. Our laboratory program continues to provide an exciting and productive research training environment for graduate students and residents in the Surgical-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 continued to build 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.

Congratulations to Dr. Michael Johnston who was promoted to the position of full Professor in the Department of Surgery, and to Dr. Christopher Compeau who was promoted to the position of Assistant Professor this year.



**Sender Herschorn** - Chair

## Highlights

**Dr. Keith Jarvi** was promoted to Professor. **Dr. Walid Farhat** was promoted to Associate Professor and **Dr. Kirk Lo** was promoted to Assistant Professor.

## Sick Kids

**Dr. Darius Bagli** continued his work in The Role of Hypoxia in Fibroproliferative bladder Disease for which he was awarded a research grant from the National Institutes of Health. He was an invited speaker to meetings in the U.S. and Bermuda.

**Dr. Walid Farhat** continued his work in tissue engineering and repopulation of acellular matrices for bladder reconstruction with grants from the Hospital for Sick Children CIHR, and the Cleveland Clinic Foundation. He was an invited lecturer to various cities in the U.S. and Kuwait.

**Dr. Tony Khoury** continued as site chief at Sick Kids. He also continued his peer reviewed research and was invited to lecture at various places in Canada and the U.S. Dr. Khoury is one of the editor of the new Kelalis-King-Belman textbook of Clinical Pediatric Urology. He also wrote the chapter in the new Campbell-Walsh Textbook of Urology on reflux.

**Dr. Joao Pippi-Salle** continued his educational project to produce an Interactive Multimedia CD-ROM for teaching operative pediatric urology. He was an invited speaker, surgeon, and visiting professor in Mozambique, South Africa, Turkey, Spain, Brazil, and Poland, in addition to presenting at meetings in Canada and the U.S. Dr. Pippi Salle hosted the second annual Pediatric Urology Conference from Sick Kids on Hypospadias. He also became the Director of Continuing Professional Development for the Department of Surgery.

## Mount Sinai Hospital

**Dr. Keith Jarvi**, site chief at MSH, continued the Male Infertility Program and as Director of the The Murray Koffler Urologic Wellness Centre (MKUWC). He was promoted this year to Professor. Dr. Jarvi again organized the Annual Robson Research Day Resident and Fellow scientific presentation contest and he continued his peer review funded research in Andrology and Infertility.

**Dr. Kirk Lo** continued his basic infertility research in stem cells. He was promoted to Assistant Professor and is the supervisor of Dr. Samy Heshmat who received an International Society – Canadian Urological Association Scholarship Foundation award.

## Sunnybrook

**Dr. Lesley Carr** continued her work as an investigator in grant to evaluate the efficacy of amitriptyline for the treatment of painful bladder syndrome, funded by the NIH. She also is conducting clinical research on the use of muscle stem cells for stress urinary incontinence. Dr. Carr was in charge of Journal Seminars for Urology residents and directed the Botulinum Toxin Course following Urology Update 2005.

**Dr. Sender Herschorn** completed his 5-year term University Division Chair and was renewed for a second term after an external review conducted by Dr. Larry Goldenberg from UBC. He continued his clinical research in urinary incontinence, neurogenic bladder overactivity, and erectile dysfunction. He was invited speaker and lecturer in various meetings in Australia, Ireland, and the U.S., as well as other cities in Canada. He wrote the Vaginal Surgery chapter in the new Campbell-Walsh textbook of Urology. He also won the Peters-Boyd Academy Undergraduate Clinical Teaching Supervision Award. 2006 and directed the 13<sup>th</sup> annual 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 Canadian Journal of Urology. 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 Korea, Norway, France, and various cities in Canada and the U.S. He was also elected Vice-President of the Canadian Urological Association.

**Dr. Ron Kodama** continued as Program Director and again organized the third Annual Resident Basic Science Course in February. He again organized the Surgical Skills Lab session on TURP and TURBT. He directed the annual Urology Fair 2006.

**Dr. Robert Nam** continued his work in uro-oncology with research in the genetics of prostate cancer. He was an invited speaker at the ASCO prostate cancer session in San Francisco. He received new peer-reviewed NCIC and CIHR grants for prostate cancer research and a CIHR New Investigator Award for Salary Support in 2006. Dr. Nam was also won the Langer Surgeon-Scientist award for the Department and the Tile Distinguished Service award at Sunnybrook.

**Dr. Sharon Sharir** continued her work in studying outcomes in women's and men's experiences when undergoing radical cystectomy for bladder cancer. Dr. Sharir also received a Dean's fund new staff grant study of lymphadenectomy for bladder cancer.

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**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 CPRF awards as PI for prostate cancer research.

### **UHN - TGH and PMH**

**Dr. Neil Fleshner**, site chief at the UHN, continued his clinical and basic research in prostate cancer with major peer-reviewed grants from CIHR, NCIC and CPRF. He was guest speaker at various cities in Canada and the U.S. He spearheaded the Canadian Urological association project on wait-times for cancer surgery in Canada. He also co-chaired the 4<sup>th</sup> Annual Current Problems in Urology meeting in Banff.

**Dr. Michael Jewett** was named the first holder of the Farquarson Chair in Kidney cancer Research at PMH and the University of Toronto. He continued his clinical and research work in many peer-reviewed funded projects in Uro-Oncology. Dr. Jewett completed his term as President of the Canadian Urologic Association. He was also invited speaker and visiting professor in various cities in North America.

**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. He was invited speaker and visiting professor in the U.S. and France. He also co-chaired the 14<sup>th</sup> Annual Issues and Controversies in Prostate Care in Phoenix, AZ.

**Dr. Tony Finelli** continued his work in advancing laparoscopic urologic procedures. He was a guest speaker in various cities in Canada and demonstrated laparoscopic procedures in St. John, NB. He also continued his clinical research studies in renal cell carcinoma.

### **UHN - TWH**

**Dr. Magdy Hassouna** continued his basic and clinical work in neurourology and neuromodulation.

**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.

**Dr. Kenneth Pace** continued his work in clinical epidemiology and Stone disease and Minimally Invasive Surgery. He continued his work on the impact of laparoscopic surgery on renal physiology and patient satisfaction following SWL. Dr. Pace directed the 1<sup>st</sup> Annual Advanced Laparoscopic Urology Course in advance of Urology Update 2005. He continued his work as Chair of the IT committee for the Canadian Urological Association.

**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 March 30. The Visiting Professor was Dr. Craig Peters, Coles Professor of Urology, University of Virginia, Charlottesville, VA. There were over 25 research presentations. Resident winners were Jason Lee, Bryce Weber, Girish Kulkarni, and Ryan Groll. Fellow winners were Luis Braga, Maher, Moazin, Seamus Teahan, and Armando Lorenzo.

The Patrick Harty Award for Excellence in Patient Care was awarded to Dr. Tim Davies.

Drs. Ashis Chawla, Kurt Eeg, Ethan Grober, David Hajek, and Armando Lorenzo passed their Royal College Examinations.

### **Visiting Professors**

Guests this year included Paul Abrams, University of Bristol, Craig Peters, University of Virginia, Jacques Corcos, McGill University, Culley Carson, University of North Carolina, Jihad Kaouk, Cleveland Clinic, Larry Lipshultz, Baylor College of Medicine, James Montie, University of Michigan, Abraham Morgentaler, Harvard University, Ian Thompson, University of Texas, and Eric Winquist, University of Western Ontario.



**Thomas Lindsay - Chair**

## Introduction

Major changes to the structure of the Division of Vascular Surgery have occurred this year. Vascular Surgery has been consolidated at two Centers of Excellence: Toronto General Hospital and St. Michael's Hospital. Drs. Tanner and Campbell moved from the Toronto East General to St. Michael's in early February, while in mid-January Drs. Wooster and Oreopoulos moved to Toronto General Hospital. This represented completion of the work of the Vascular Services GTA Review Steering Committee headed by Mr. Jeff Lozon and the implementation committee headed by Dr. Robert Howard of St. Michael's Hospital.

An infusion of over 11 million dollars of new funding into these Centres by the Ministry of Health and Long Term Care, including resources for Endovascular Aneurysm repair, was critical to the success of this reorganization. In addition, the surgeons at the two centers began an alternate funding compensation model on December 1, 2005 that was negotiated by Drs. Tanner and Lindsay with the Ministry of Health, which required an enhanced surgeon commitment to accept CritiCall patients. The completion of this reorganization has created a critical mass of surgeons to deliver patient care, education and research. At Sunnybrook, there has been a merger between Cardiac and Vascular Surgery into a Division of Cardiovascular Surgery.

## Administration

Drs. Tanner and Lindsay served on the Vascular Services GTA Review Steering Committee, the implementation committee, and were the negotiating team for the Alternate Funding Plan. Dr. Lindsay continued his role as an examiner with the Vascular Surgery Examination Board at the Royal College of Physicians and Surgeons. Dr. Lindsay also became the President of the Canadian Society for Vascular Surgery at the September 2005 meeting.

K.W. Johnston continues as R. Fraser Elliott Chair in Vascular Surgery and Editor-in-Chief of VascularWeb, a consortium of 11 North American Vascular Societies and editor of a new vascular newspaper called the Vascular Specialist. Dr. Johnston was appointed President-Elect of the Society for Vascular Surgery, at the June 2006 meeting, a position that will lead to the Presidency of that organization in June 2007.

Dr. Barry Rubin continues as the Chairman and CEO for both 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 active as a Provincial Representative for the Academic Health Science Centre Alternative Funding Plan Governance Organizations in Ontario, continues to serve as a representative on the AHSC AFP Task Force and is Chair of the Full Time Equivalent working group of the Task Force. Dr. Rubin continues to serve on the Department of Surgery Finance Committee, and was elected to serve on the Research and Education Committee of the Society for Vascular Surgery.

Dr. Tanner continues as the Head of the Section of Vascular Surgery at the Ontario Medical Association, the Head of the Provincial Hospital On-Call Funding Program and as a representative to the Physician Services Committee, which is the interface between the OMA and the MOHLTC for ongoing contractual issues. Dr. Wooster continues as the Chair of the Standards Committee of the Royal College of Physicians and Surgeons Maintenance of Certification Program; this Committee is structuring the next cycle of this CPD program for all Fellows. Dr. Kucey was nominated to become the President-elect of the Canadian Society of Vascular Surgery at the Annual meeting in September 2005.

## Graduates

Dr. Mohammed Al Omran successfully completed the Vascular Surgery fellowship and the Royal College of Physicians and Surgeons certification examination in September 2005. Dr. April Boyd completed the Vascular Surgery fellowship training in June 2006.

## Research

Dr. Johnston continues with his four-year CIHR grant to support his basic research programs, with Professor Richard Cobbold (Biomedical Engineering) in Doppler ultrasound. Dr. Rubin is funded as the Primary Investigator on grants from CIHR and the Heart and Stroke Foundation of Canada for research into gene regulation in the heart. The SAVR Program (Systematic Assessment of Vascular Risk) initiated by Dr. Lindsay continues to enroll patients to assess and intervene upon patients with atherosclerosis and under treated risk factors. Dr. Lindsay continues his research into mechanisms of organ injury following ruptured abdominal aortic aneurysms. Dr. Lossing and David Courtman continue their research examining the changes in the matrix structure of abdominal aortic aneurysms.



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## **Awards**

Dr. Robert Maggisano was promoted to the rank of Associate Professor in May 2006. Dr. Lindsay won the Surgical Skills Centre Distinguished Educator Award, at Gallie Day 2006. Dr. Rubin was elected as a Distinguished Fellow of the Society for Vascular Surgery.

## **External Visits and Visitors**

Dr. Johnston was invited to be the inaugural Robert B. Smith III Lecturer at Emory University, Atlanta, GA. on February 1-2, 2006. He spoke on “How Industry Influences the Reported Results of Clinical Trials”. He was also an invited lecturer at the Brazilian Congress of Angiology and Vascular Surgery, at the University of West Virginia Symposium Refresher Course and the Veith Symposium. Drs. Johnston and Lindsay presented at the Winnipeg Vascular Surgery course in April 2006. Drs. Lindsay, Oreopoulos and Wooster presented on the applications of Duplex ultrasound at the VITO meeting in Toronto in May 2006. Dr. Wooster presented at the CAUS Vascular Symposium in Banff, Alberta, the St. Michael’s Renal Symposium in Toronto, the Ontario Amputee Society Meeting and at the Rochester, N.Y. Symposium. Dr. Ameli presented at the Association of International Vascular Surgeons on the reorganization of Vascular Surgical Services in Toronto. Dr. Lossing presented at the New England Society for Vascular Surgery on familial aneurysms.



**Charles H. Tator** - President

As President of the Surgical Alumni Association (SAA) since 1999, I don't believe there has been a year quite like 2005-2006. In this academic year, I've observed both a deepening of the SAA's mandate, as well as a flexibility to welcome new programs and staff to support our mission, the "preservation of our legacy, in research, investigation and education, and to uphold the integrity of the Surgeon-Scientist Program at the University of Toronto."

That integrity now also includes the new Scholarship in Surgery program. Both programs provide excellent research training for surgical residents who wish to pursue a career in academic surgery. As in past years, much of the support for these future stars comes from the alumni and past and current faculty of the department. I would submit that 2005-2006 was a banner year in this respect. Taking advantage of current government and university matching programs, the SAA raised over \$181,000 to add to its fellowship endowment, making sure there is salary support in perpetuity for SSP and SIS residents.

In 2005-2006 the Surgical Alumni Association also welcomed the department's new Chairs in Plastic Surgery (Dr. Dimitri Anastakis) and Orthopaedic Surgery (Dr. Benjamin Alman.) We thank outgoing Chairmen, Dr. James Waddell and Dr. Peter Neligan, for their service to the SAA over the years. Both divisions have had extraordinary success with their fundraising efforts on behalf of the association and department.

Finally, alumni, current and retired faculty and friends of the department came forward and identified their intentions to remember the SAA/Department of Surgery with over \$1.2 million through their Wills. These gestures are of the ultimate order and serve to remind me just how defining the Department of Surgery has, is and will continue to be for all of us reading this report.



**Andy Smith** - Head, University of Toronto Surgical Oncology Umbrella Committee

Surgical oncology activity continues to expand in many divisions through the Department of Surgery. In the clinical arena, government focus on increasing cancer surgery volumes has provided the impetus to recruit new surgical oncologists. These recruitments have also provided great opportunities to expand the academic impact of the Division of Surgical Oncology in the department.

St. Michael's Hospital has a renewed focus on oncology, emphasizing management of breast and colorectal cancer. With the recruitment of Dr. Nancy Baxter, SMH has invested in clinical research with a focus on outcomes, and has leadership in multi-centre randomized trials in oncology both from a national and North American perspective.

Sunnybrook has recruited Dr. May Lynn Quan and Dr. Natalie Coburn to bolster breast and hepatobiliary oncology foci. In addition, Dr. Anna Gagliardi, a PhD researcher, was recruited to strengthen the focus on knowledge translation in cancer. Knowledge translation efforts remain a central challenge for surgical oncologists at The University of Toronto as they strive to help improve cancer care through the province, e.g. emphasis on colorectal cancer quality markers.

UHN/MSH lays claim to 46 surgical oncologists who last year performed 6,992 cancer surgeries. 61% of these were classified as tertiary level cases. The future emphasis of UHN/MSH is the development of Guided Therapeutics Program embracing innovative technologies in imaging (e.g. real time cone beam CT) and tumour ablation (e.g. involving robotics.) This work is being developed and led by a cohort of surgical oncology scientists/investigators.

Fellowship programs in all disciplines continue to thrive and impact cancer care throughout the world. For example, the Uro-oncology Program directed by Drs. Laurie Klotz and Michael Jewett this year boasted graduates returning to Saudi Arabia and Ireland while presently providing postgraduate training to urologists from New Zealand, Australia and Israel. In Canada, general surgery oncology training is transitioning to certification status, so there will be a national certifying exam beginning in September, 2009. Dr. Carol Swallow will play a major role in facilitating this evolution.

University of Toronto surgical oncologists continue to provide extensive, direct input and leadership into Cancer Care Ontario initiatives. This includes development of HPB and thoracic surgery quality initiatives and standards documents as well as development of guidelines for the development of multidisciplinary case conferences (tumour boards) through the province (Dr. Frances Wright.) As well, Drs. Jonathan Irish and David Urbach lead efforts to better understand and positively impact wait times and access to cancer care.

# CONTINUING PROFESSIONAL DEVELOPMENT



**Sender Herschorn - Director**

Continuing professional development continues to be a major focus within the department. Most members participate actively in educational program of all descriptions.

Six years ago the members of the department began recording their CPD activities in compliance with the Royal College of Physicians and Surgeons of Canada guidelines for accreditation. The guidelines require tracking all of the CPD activities for each year is well known. Fellows are required to earn 400 credits during 5 years of active practice by participating in educational activities of their choice. The first 5-year cycle extends from January 1, 2001 until December 31, 2005. Those who began in 2000 had 6 years to complete the mandatory 400 hours. Members are required to submit continuing professional development (CPD) hours from the previous year by the January 31<sup>st</sup> deadline. Each year a random sample of 3% of fellows are required to validate their self-reports of participation in educational activities.

The participation rate of members of surgical specialists in Ontario in the program is in the following table which is compiled from information on the RCPSC website (<http://rcpsc.medical.org/opd/statistics/index.php>).

	2001		2002		2003		2004		2005	
	Eligible	Part. (%)	Eligible	Part. (%)	Eligible	Part. (%)	Eligible	Part. (%)	Eligible	Part. (%)
Cardiac Surgery	14	8 (57.1)	13	7 (53.8)	15	9 (60.0)	16	11 (68.7)	20	14 (70.0)
General Surgery	564	427 (75.7)	579	440 (75.9)	551	431 (78.2)	535	443 (82.8)	526	424 (81.0)
Neurosurgery	75	52 (69.3)	73	49 (67.1)	71	54 (76.0)	72	53 (73.6)	71	57 (80.2)
Orthopedic Surgery	408	321 (78.6)	413	323 (78.2)	410	345 (84.1)	425	350 (82.3)	431	331 (77.0)
Plastic Surgery	168	125 (74.4)	169	128 (75.7)	173	142 (82.0)	174	146 (83.9)	179	144 (80.4)
Thoracic Surgery	30	28 (93.3)	32	75 (75.0)	31	28 (90.3)	35	30 (85.7)	36	31 (86.1)
Urology	216	176 (81.4)	228	181 (79.3)	227	184 (81.0)	224	183 (81.7)	220	180 (82.0)
Vascular Surgery	64	52 (81.2)	68	51 (75.0)	68	57 (83.8)	68	57 (83.8)	66	53 (80.3)

The range of participation rate of those surgical specialists listed above in 2005 was from 70% to 86.1%. For all specialists with a full-time university appointment in Ontario the participation rate in 2005 was 86.1% versus 85.1% for those with no university appointment.

Most divisions held courses this year and there were 20 that were run by the University Continuing Education Department, an increase of 3 over last year. The list of the courses is in the following table. Of note is General Surgery that held its 45<sup>th</sup> annual update. The Aesthetic Plastic Surgery Course has been given for 36 years. The Thoracic Surgery course was given for the 32<sup>nd</sup> year. The Vascular course has been given for 24 years and the Upper Extremity course for 21 years. The Urology Update was 13 years old. All events were very well attended. There were 2854 participants in the courses.

**Table: CE events**

Title	Participants
Update In General Surgery 2006	446
Update In General Surgery (Mexico Site)	36
Webcast Update In General Surgery 2006	7
Foot And Ankle Symposium	217
Thoracic Surgery 2006	155
Pelvic Fracture Course	-
Upper Extremity Update 2006	165
International Surgery	-
Aesthetic Plastic Surgery	200
Vascular Imaging Toronto 2006	50
Breast Surgery Symposium	144
Botulinum Toxin In Urology	39
Urology Update 2005	254
Kennedy Visiting Professor	25
Fixation Of Knee Fractures	30
Vascular Imaging (Savi)	0
Urologic Laproscopy	12
Surgical Oncology	173
Toronto Critical Care Medicine	901
Critical Care Trials	-
<b>Total</b>	<b>2854</b>

The new framework for documenting CPD activities is reproduced below from the Royal College website (Maintenance of Certification Program Guide - <http://rcpsc.medical.org/opd/moc-program/index.php>). Of note is that in Section 6, Personal Education Development, there is no limit on the number of credits that are able to be applied. Formerly there was a maximum of 20 per year. Academic surgeons are often heavily engaged in this type of CPD.

<b>Section 1</b>	<p><b>Accredited Group Learning Activities</b></p> <p>Events that meet established educational ethical standards for group learning activities</p> <ol style="list-style-type: none"> <li>a. Hospital-based rounds, journal clubs or other educational events (approved by a planning committee)</li> <li>b. Small-group learning sessions (approved by a planning committee)</li> <li>c. Accredited group learning activities held outside Canada (approved by a Royal College accredited provider)</li> <li>d. Accredited group learning activities held outside Canada (sponsored by a university, academy, specialty society or physician organization)</li> <li>e. Web-based continuing medical education events (approved by a Royal College accredited provider in Canada and meets the same criteria defined for face-to-face accredited group activities)</li> </ol>	<p><b>1 credit per hour: No maximum</b></p> <p><b>Documentation Requirements:</b></p> <ul style="list-style-type: none"> <li>• Official certificate of attendance or confirmation of participation</li> <li>• Optional –documented learning Outcome(s) for practice</li> </ul>
<b>Section 2</b>	<p><b>Other Learning Activities</b></p> <p>Non-accredited group events and individual learning activities that do not meet the standards for Section 1. E.g., unaccredited conferences, journal reading, browsing the internet, etc.</p>	<p><b>1 credit per hour: Maximum 100 credits per cycle</b></p> <p><b>Documentation Requirements:</b></p> <ul style="list-style-type: none"> <li>• No documentation required</li> </ul>
<b>Section 3</b>	<p><b>Accredited Self-Assessment Programs</b></p> <p>Programs developed or approved by a Royal College accredited provider designed to assist the specialist to identify gaps in knowledge (written self-assessment programs) or performance (simulators)</p>	<p><b>2 credits per hour: No maximum</b></p> <p><b>Documentation Requirements:</b></p> <ul style="list-style-type: none"> <li>• Confirmation of completion by the program sponsor</li> <li>• Documented learning outcome(s) for practice</li> </ul>
<b>Section 4</b>	<p><b>Structured Learning Projects</b></p> <p>Self-initiated learning activities stimulated by practice where an outcome is identified and recorded</p> <ol style="list-style-type: none"> <li>a. Personal learning projects - individually planned learning projects stimulated by questions in practice</li> <li>b. Traineeships—learning activities developed to meet specific professional needs.</li> <li>c. Preceptored courses, fellowships, master or PhD programs sponsored by a university or college</li> </ol>	<p><b>1 credits per hour: No maximum</b></p> <p><b>Documentation Requirements:</b></p> <ul style="list-style-type: none"> <li>• Personal learning projects—question, stimulus, resources and documented learning outcome(s) for practice</li> <li>• Traineeships—learning objectives, learning activities, confirmation of completion by supervisor and documented learning outcome(s) for practice</li> <li>• Courses &amp; programs—learning objectives, confirmation of completion by the university, college or institute; and documented learning outcome(s) for practice</li> </ul>
<b>Section 5</b>	<p><b>Personal Practice Review</b></p> <p>Activities that assist specialists to review their personal performance in practice in relation to a defined standard</p>	<p><b>3 credits per hour: No maximum</b></p> <p><b>Documentation Requirements:</b></p> <ul style="list-style-type: none"> <li>• Date of completion</li> <li>• Summary of findings</li> <li>• Documented learning outcome(s) for practice</li> </ul>
<b>Section 6</b>	<p><b>Personal Education Development</b></p> <p>Learning stimulated by engaging in:</p> <ol style="list-style-type: none"> <li>a. Teaching—formal presentations</li> <li>b. Research—publications and grant proposals</li> <li>c. Standard setting activities</li> </ol>	<p><b>1 credit per hour: No maximum</b></p> <p><b>Documentation Requirements:</b></p> <ul style="list-style-type: none"> <li>• Description of the activity</li> <li>• Documented learning outcome(s) for practice</li> </ul>

The department continues to be a large provider of CPD courses due to the skill and motivation of its members. Over the past 5 years CPD has assumed a greater importance in the lives of surgeons. CPD activity is necessary for maintenance of certification and patients expect physicians to engage in life-long learning. Excellence in providing continuing education for our peers also has a positive impact on an individual's annual performance review and in academic promotion.



**James G. Wright** - Surgeon-in-Chief

## *Heads of Divisions*

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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

This is my second report as Surgeon-In-Chief, having begun my term on January 1, 2005. Several important events are ongoing at the Hospital. First, the Hospital, through a broad consultative process, has developed five strategic directions: leading nationally and internationally, enhancing system capability, strengthening integration of care, research and teaching, establishing areas of focus, and achieving operational excellence. Second, the Ontario Child Health Network and Sick Kids are leading a province-wide initiative to address surgical waiting times for children. Access targets for nine surgical disciplines were adopted on a national basis in February 2006, at a meeting of the National Coalition for Children and Youth. Finally, the Hospital is preparing for renegotiation of the AFP which is now entering its 13<sup>th</sup> year.

## **New Staff**

No new staff joined the hospital in July 1, 2005 to June 30, 2006.

## **Appointments and Promotions**

Dr. Benjamin Alman has been appointed the A.J. Latner Chair of the Division of Orthopaedics at the University of Toronto effective July 1, 2006. Drs. Walid Farhat and John Phillips were promoted to Associate Professors. Dr. Christopher Forrest was appointed to Professor. Dr. James Rutka is the Royal College Janes Visiting Professor and received the International Order of the Smile. Dr. Andrew Howard was the inaugural John Sharrard Memorial Award and Invited Lecturer for the British Society of Children's Orthopaedic Surgery. Dr. Unni Narayanan received a Young Investigators Award from the Paediatric Orthopaedic Society of North America. Dr. Pippi Salle was appointed CME Director for the Department of Surgery, University of Toronto.

## **Education**

The Hospital continues an active educational program training 267 fellows and residents originating from 39 countries worldwide. Among many courses and visiting professors, a highlight was the course in Hypospadias led by Dr. Pippi Salle, with international attendance and innovative teaching methods.

## **Research**

The Hospital is a vibrant centre of research spanning all scientific fields and venues from the wet labs at Sick Kids, to the dangerous roadways of Uganda. Of the 32 surgeons, 12 in the Department have CIHR grants.



## 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

**Alghamdi AA, McCrindle BW, Van Arsdell G:** Physiologic Versus Anatomic Repair of Congenitally Corrected Transposition of the Great Arteries: Meta-Analysis of Individual Patient Data. *Annals of Thoracic Surgery*: April 2006: 81(4): pp 1529-1535.

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**Guerra VC, Coles J, Smallhorn JF:** Aneurysm of Right Atrium Diagnosed by 3-Dimensional Real-Time Echocardiogram. *Journal of American Soc Echocardiography*: November 2005: 18(11): pp 1221.

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**Wittnich C, Askin N, Belanger MP:** Laboratory Manual for Marine Mammal Biology, Anatomy and Conservation. ISBN: 0-9735138-2-9; OERS, Toronto: 2006:

**Wittnich C, Askin N, Belanger MP, MacNeill A:** Marine Mammal Biology, Anatomy and Conservation. Educational Text: ISBN: 0-9735138-1-0 OERS, Toronto: 2005:

**Wittnich C, Su J, Boscarino C, Belanger MP:** Age-Related Differences in Myocardial Hydrogen Ion Buffering During Ischemia. *Molecular and Cellular Biochemistry*: April 2006: 285: pp 61-67.

**Yun TJ, Al-Radi OO, Adatia I, Caldarone CA, Coles JG, Williams WG, Smallhorn J, Van Arsdell GS:** Contemporary Management of Right Atrial Isomerism: Effect of Evolving Therapeutic Strategies. *Journal of Thoracic and Cardiovascular Surgery*: May 2006: 131(5): pp 1108-1113.

## Invited Visits to Other Hospitals/Universities

**Caldarone C:** AHA Research Symposium, Dallas Texas, November 2005. Apoptosis-Related Mitochondrial Dysfunction in the Neonate after Cardioplegic Arrest.

**Caldarone C:** International Symposium on the Hybrid Approach to Congenital Heart Disease, Children's Hospital Columbus, Ohio, June 2006. 1) Hybrid Workshop at University Laboratory Animal Resources, Experimental Surgery Suite; 2) Hypoplastic Left Heart Syndrome: Hybrid Stage I & II.

**Caldarone C:** American Heart Association, Dallas, Texas, November 2005. Lessons Learned in Pediatric Databases: The Congenital Heart Surgeons Society.

**Caldarone C:** Canadian Cardiovascular Congress, Montreal, Quebec, October 2005. Moderator for: Issues in Intraoperative Management: A Primer on Cardiopulmonary Bypass by Lisa Davey.

**Caldarone C:** Society of Cardiovascular Anesthetists, Whistler, British Columbia, March 2006. Where is Cardiovascular Care Going in the Future?

**Van Arsdell GS:** The Korean Society of Circulation, Seoul, Korea, September 2005. Current Issues in Pediatric Cardiac Surgery: Changing the Tails of Congenital Heart Disease.

**Van Arsdell GS:** Contemporary Questions in Congenital Heart Disease: The Right Heart, Hospital for Sick Children, Toronto, Ontario, June 2006. How Often Can We Preserve the RVOT at the Time of Primary Repair?

**Van Arsdell GS:** 2<sup>nd</sup> International Conference on Pediatric Mechanical Circulatory Support Systems & Pediatric Cardiopulmonary Perfusion, Toronto, Ontario, May 2006. 1) Mass Spectroscopy in Pediatric Cardiac Surgery; 2) Mechanical Circulatory Support Systems; 3) North American Trends in Perioperative Transplantation.

**Van Arsdell GS:** Contemporary Questions in Congenital Heart Disease: The Right Heart, Hospital for Sick Children, Toronto, Ontario, June 2006. PFO, 1 1/2 Ventricle, Both? How Do We Surgically Manage the Borderline RV?

**Van Arsdell GS:** Oregon Health and Science University: 16<sup>th</sup> Annual Congenital Heart Disease in the Adult, Oregon, June 2006. 1) Strategies I Use for Revising Fontan Procedures in Adults; 2) Surgery and Catheter Intervention (moderator.); 3) What Can a Surgeon Do that Isn't Done So Well Percutaneously?; 4) What is the Role for Hybrid Procedures? Outcomes Data?; 5) What Can Surgeons Do to Minimize the Risk of Neurodevelopmental Problems in Post-Op Patients?

**Van Arsdell GS:** The Korean Society of Circulation, Seoul, Korea, September 2005. Total Anomalous Pulmonary Venous Return in Functional Single Ventricle and Postoperative Pulmonary Venous Obstruction: Contemporary Therapeutic Strategy of Right Atrial Isomerism.

**Williams WG:** Contemporary Questions in Congenital Heart Disease: The Right Heart, Hospital for Sick Children, Toronto ON, May 2006. The Dr. Bill Mustard Lecture: The RV Friend or Foe.

**Wittnich C:** Canadian Pediatric Society, Canadian Cardiovascular Society Congress, Montreal, QC, October 2005. Response of Newborns to Low Oxygen Stress.

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## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Training Program in Cardiovascular Research: Molecules to Humans, Heart Failure to Prevention (TACTICS.) *Peter Liu*, 31 co-applicants including *Carin Wittnich*: *CIHR* (\$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.)

Assessment of Heavy Metal Toxins in Canadian Marine Mammals. *Wittnich C*: *OERS Seed Grant* (\$5,000 2005 - 2007.)

Can Remote Ischemic Preconditioning Modulate Cardiopulmonary Dysfunction and Systemic Inflammation Induced by Cardiopulmonary Bypass? *Redington A*, *Van Arsdell GS*, *Downey GP*: *Canadian Institutes of Health Research* (\$330,666 2003 - 2006.)

Early Postoperative Apoptosis after Cardiac Surgery in the Neonate. *Caldarone CA*: *American Heart Association Scientist Development Grant* (\$260,000 2002 - 2006.)

Impact of Gender on Myocardial Pathology & Ischemia/Reperfusion (Renewal.) *Wittnich C*: *Heart & Stroke Foundation of Ontario* (\$249,000 2004 - 2007.)

Individualized Heparin and Protamine Management in Infants Undergoing Cardiopulmonary Bypass for Cardiac Surgery Reduces Bleeding and Blood Transfusion Requirements. *Gruenwald C*, *Holtby H*, *McC Crindle B*, *Van Arsdell GS*: *Heart and Stroke Foundation of Canada* (\$108,000 2006 - 2007.)

Oxygen Stress in Newborn Hearts (Renewal.) *Wittnich C*: *Heart & Stroke Foundation of Ontario* (\$387,069 2002 - 2006.)

Trial of Right Ventricular vs Modified Blalock-Taussig Shunt in Infants with Single Ventricle Defect Undergoing Staged Reconstruction. *McC Crindle BW*, *Caldarone CA*: *National Institute of Health* (\$10,000 2004 - 2005.)

## Honours Received

**Wittnich C:** Ontario Veterinary Medical Association Recognition Award 2006 for Hurricane Katrina Relief Efforts, March 2006.

## DIVISION OF GENERAL SURGERY

**Dr. P. Chiu – Assistant Professor**

**Dr. S.H. Ein - Associate Professor**

**Dr. A.H. Fecteau – Assistant Professor**

**Dr. J.T. Gerstle - Assistant Professor**

**Dr. P.C.W. Kim - Associate Professor**

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

**Dr. P. Wales - Assistant Professor**

## Publications

**Choi M, Borenstein SH, Hornberger L, Langer JC:** Heterotaxia Syndrome; The Role of Screening for Intestinal Rotation Abnormalities. *Archives of Disease in Childhood: September 2005: 90: pp 813-815.*

**Doria AS, Amernic H, Dick P, Babyn P, Langer JC, Coyte P, Ungar W:** Cost-Effectiveness Analysis of a Weekday-Shift versus a Weeknight/Weekend-Shift Program for Appendicitis Assessment. *American Journal of Radiology: September 2005: 35: pp 1186-1195.*

**Ein SH:** Resection of Sacrococcygeal Teratoma, in Fessler R, Skhar L (eds.) In: *Atlas of Neurosurgical Techniques: Spine and Peripheral Nerves* Thieme, New York, NY: 2005: pp 711-716.

**Ein SH, Langer JC, Daneman A:** Non-Operative Management of Pediatric Ruptured Appendix with Inflammatory Mass or Abscess: Presence of an Appendicolith Predicts Recurrent Appendicitis. *Journal of Pediatric Surgery: September 2005: 40: pp 1612-1615.*

**Goldman RD, Balasubramanina S, Wales PW, Mace S:** Pediatric Surgeons and Pediatric Emergency Physicians' Attitude to Analgesia and Sedation for Incarcerated Inguinal Hernia Reduction. *Journal of Pain: October 2005: 6(10): pp 650-655.*

**Goldman RD, Crum D, Bromberg R, Rogovik A, Langer JC:** Analgesia Administration for Acute Abdominal Pain in the Pediatric Emergency Department. *Journal of Pediatrics: January 2006: 22: pp 18-21.*

**Tzifa KT, Maxwell EL, Chait P, James AL, Forte V, Ein SH, Friedburg J:** "Endoscopic Treatment of Congenital H-type and Recurrent Tracheoesophageal Fistula with Electrocutery and Histoacryl Glue". *International Journal of Pediatric Otolaryngol: November 2005:*

## Invited Visits to Other Hospitals/Universities

**Ein SH:** Oshawa General Hospital, Oshawa, Ontario, November 2005. Take Our Kids to Work Day, Lecture to 15 - 20<sup>9th</sup> Grade Students re: Surgery, at Oshawa General Hospital.

**Langer JC:** University of West Indies, Bustamante Children's Hospital, Kingston, Jamaica, December 2005. Transanal Soave Pullthrough for Hirschsprung's disease.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Qualitative Study Comparing Health Care Providers', Patients', and Family Perceptions, Attitudes and Beliefs About the Risk of Living Liver Donation. *Fecteau A, Grant D, Wright L: Physicians Services Incorporated Foundation (\$64,000 2004 - 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.)*

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

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Pain in Child Health Research Training Consortium. *Langer JC, McGrath PJ, et al (PI's); Feldman B, Taddio A, Baruchel S, Brown S, Koren G: Canadian Institute for Health Research (\$1,800,000 2002 - 2008.)*

The Community-Based Materno-Fetal Healthcare Network. *Kim PCW: The Ontario Ministry of Health (\$1,877,500 2004 - 2006.)*

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.)*

## **Honours Received**

**Langer JC:** James Warden Visiting Professorship, University of California, Irvine, California, March 2006.

**Kim PCW:** The Walter MacKenzie - Scotiabank Travel Award - The Royal College of Surgeons and Physicians of Canada, January 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.Taylor – Assistant Professor**

## **Publications**

**Ahmet A, Blaser S, Stephens D, Guger S, Rutka JT, Hamilton J:** Risk Factors for Weight Gain in Children Treated for Craniopharyngioma. *Journal of Pediatric Endocrinology and Metabolism*: February 2006: 19(2): pp 121-128.

**Akiyama T, Otsubo H, Ochi A, Ishiguro T, Kadokura G, Ramachandranair R, Weiss SK, Rutka JT, Snead OC:** Focal Cortical High-Frequency Oscillations Trigger Epileptic Spasms: Confirmation by Digital Video Subdural EEG. *Clinical Neurophysiology*: October 2005:

**Al-Otibi M, Rutka JT:** Neurosurgical Implications of Neurofibromatosis Type I in Children. *Neurosurgical Focus*: January 2006: 20: pp 1-6.

**Al-Saad K, Thorner P, Ngan B, Gerstle JT, Kulkarni AV, Babyn P, Grant RM, Read S, Laxer RM, Chan HSL:** Extranodal Rosai-Dorfman Disease with Multifocal Bone and Epidural Involvement Causing Recurrent Spinal Cord Compression. *Pediatric Developmental Pathology*: October 2005: 8: pp 593-598.

**Araki T, Drake JM, Rutka JT, Dirks PB, Yokota H, Yamamoto Y:** Clinical Diagnosis and Treatment of Pediatric Head Trauma. *No Shinkei Geka*: February 2006: 34: pp 135-146.

**Araki T, Otsubo H, Makino Y, Elliot I, Iida K, Ochi A, Weiss SK, Chuang SH, Rutka JT, Snead OC:** Efficacy of Dexamethasone on Cerebral Swelling and Seizures During Subdural Grid EEG Recording in Children. *Epilepsia*: January 2006: 47: pp 176-180.

**Bansal K, Kongham P, Rutka JT:** Treatment Modalities for Ependymomas in Children. *Contemporary Neurosurgery*: February 2006: 28:4: pp 1-8.

**Bansal K, Liang ML, Rutka JT:** Molecular Biology of Human Gliomas. *Technology in Cancer Research and Treatment*: June 2006: 5, No. 3: pp 1-9.

**Bartels U, Hawkins C, Ma J, Ho M, Dirks PB, Rutka JT, Stephens D, Bouffett E:** Vascularity and Angiogenesis as a Predictor of Growth in Optic Pathway/Hypothalamic Gliomas. *Journal of Neurosurgery*: May 2006: 104: pp 314-320.

**Benifla M, Otsubo H, Ochi A, Snead OC, Rutka JT:** Multiple Subpial Transections in Pediatric Epilepsy: Indications and Outcomes. *Child's Nervous System*: January 2006: 22, No. 8: pp 992-998.

**Benifla M, Rutka JT, Logan W, Donner EJ:** Vagal Nerve Stimulation for Refractory Epilepsy in Children: Indications and Experience at The Hospital for Sick Children. *Child's Nervous System*: January 2006: 22, No. 8: pp 1018-1026.

**Chintagumpala MM, Friedman HS, Stewart CF, Kepner J, McLendon RE, Modrich PL, McCluggage C, Burger P, Holmes E, Thompson S, Rutka J, Michalski J, Woo S, Blaney SM, Kun LE, Horowitz AM;** A Pediatric Oncology Group Study: A Phase II Window Trial of Procarbazine and Topotecan in Children with High-Grade Glioma: A Report from the Children's Oncology Group. *Journal of Neuro-Oncology*: November 2005: 1:

**Dennis M, Copeland K, Francis D, Blaser S, Drake J, Edelstein K, Frederick J, Hetherington R, Kramer L, Brandt M, Fletcher J:** Space-Based Inhibition of Return in Children with Spina Bifida. *Neuropsychology*: July 2005: 19(4): pp 456-465.

**Dirks P:** Stem Cells for Brain Cancer. *The Scientist*: April 2006: 20: pp 37.

**Drake JM:** Editorial: Congenital Hydrocephalus. *Journal of Neurosurgery*: August 2005: 103(2Supp): pp 113-118.

**Drake JM:** Editorial: Does Double Gloving Present Cerebrospinal Fluid Shunt Infection? *Journal of Neurosurgery*: January 2006: 104(1Supp): pp 3-4.

- Drake JM, Iantosca MR:** Chapter 37: Cerebrospinal Fluid Shunting and Management of Pediatric Hydrocephalus (Section VII - Management of Hydrocephalus.) In: Operative Neurosurgical Techniques: Indications, Method, and Results - Volume I (5/e) (Schmidek HH, Roberts DW, eds.) Saunders WB (Schmidek & Sweet), Philadelphia: 2006: pp 487-508.
- Gassas A, Kennedy J, Green G, Connolly B, Cohen J, Dag-Ellams U, Kulkarni AV, Bouffet E:** Risk of Ventriculoperitoneal Shunt Infections Due to Gastrostomy Feeding Tube Insertion in Pediatric Patients with Brain Tumors. *Pediatric Neurosurgery*: February 2006: 42: pp 95-99.
- Gnanaraj L, Gilliland MGF, Yahya RR, Rutka JT, Drake JM, Dirks PB, Levin AV:** Ocular Manifestations of Crush Head Injury in Children. *Eye*: November 2005: 10: pp 1038.
- Grondin R, Chuang S, Otsubo H, Holowka S, Snead OC, Raybaud C, Rutka JT:** The Role of Magnetoencephalography In Pediatric Epilepsy Surgery. *Child's Nervous System*: January 2006: 22, No. 8: pp 779-785.
- Hetherington R, Dennis M, Barnes M, Drake J, Gentili F:** Functional Outcome in Young Adults with Spina Bifida and Hydrocephalus. *Child's Nervous System*: February 2006: 22(2): pp 117-124.
- Ivanchuk SM, Rutka JT:** Regulation of the Cell Cycle and Interventional Developmental Therapeutics. In: *Handbook of Brain Tumor Chemotherapy* (Herbert B. Newton, ed.) Academic Press, Elsevier, San Diego: 2006: pp 123-140.
- Kohandel M, Sivaloganathan S, Tenti G, Drake JM:** The Constitutive Properties of the Brain Parenchyma Part 1. Strain Energy Approach. *Medical Engineering Physics*: October 2005:
- Kongkham P, Rutka JT:** Choroid Plexus Tumors. In: *Neuro-Oncology of CNS Tumors* (Tonn JC, Westphal M, Rutka JT, Grossman SA, eds.) Springer, Heidelberg: 2006: pp 530-537.
- Kongkham P, Rutka JT:** Neurocutaneous Syndromes. In: *Neuro-Oncology of CNS Tumors* (Tonn JC, Westphal M, Rutka JT, Grossman SA, eds.) Springer, Heidelberg: 2006: pp 329-343.
- Kulkarni AV:** Distribution-Based and Anchor-Based Approaches Provided Different Interpretability Estimates for the Hydrocephalus Outcome Questionnaire. *Journal of Clinical Epidemiology*: February 2006: 59: pp 176-184.
- Kulkarni AV:** Questionnaire for Assessing Parents' Concerns About Their Child with Hydrocephalus. *Developmental Medicine and Child Neurology*: January 2006: 48: pp 108-113.
- Lee J, Crawford MW, Drake J, Buncic JR, Forrest C:** Anterior Ischemic Optic Neuropathy Complicating Cranial Vault Reconstruction for Sagittal Synostosis in a Child. *Craniofacial Surgery*: July 2005: 16(4): pp 559-562.
- Matouk C, McDonald P, Drake JM:** Section I - Pediatric Neuro-oncology, Chapter 78: Midbrain Gliomas. In: *Textbook of Neuro-Oncology* (Berger, MS, Prados MD, eds.) Saunders, WB, Philadelphia: 2005: pp 599-603.
- Matouk C, McDonald P, Drake JM:** Section I - Pediatric Neuro-oncology, Chapter 92: Pediatric Meningiomas. In: *Textbook of Neuro-Oncology* (Berger, MS, Prados MD, eds.) Saunders, WB, Philadelphia: 2005: pp 687-691.
- Mikulis DJ, Krolczyk G, Desal H, Logan W, DeVeber G, Dirks P, Tymianski M, Crawley A, Vesley A, Kassner A, Preiss D, Somogyi R, Fisher JA:** Preoperative and Postoperative Mapping of Cerebrovascular Reactivity In Moyamoya Disease by Using Blood Oxygen Level-Dependent Magnetic Resonance Imaging. *Journal of Neurosurgery*: August 2005: 103: pp 347-355.
- Ozelame RV, Shroff M, Wood B, Bouffet E, Bartels U, Drake JM, Hawkins C, Blaser S:** Basal Ganglia Germinoma in Children with Associated Ipsilateral Cerebral and Brain Stem Hemiatrophy. *Pediatric Radiology*: February 2006: 4: pp 1-6.
- Parmar H, Hawkins C, Bouffet E, Rutka JT, Shroff M:** Imaging Findings in Primary Intracranial Atypical Teratoid/Rhabdoid Tumors. *Pediatric Radiology*: December 2005:
- Peraud A, Tonn JC, Rutka JT:** Adult Tumors of Pediatric Origin. In: *Neuro-Oncology of CNS Tumors* (Tonn JC, Westphal M, Rutka JT, Grossman SA, eds.) Springer Science+Business Media, Heidelberg: 2006: pp 160-165.
- Peraud A, Tonn JC, Rutka JT:** Dysembryoplastic Neuroectodermal Tumors. In: *Neuro-Oncology of CNS Tumors* (Tonn JC, Westphal M, Rutka JT, Grossman SA, eds.) Springer, Heidelberg: 2006: pp 480-483.
- Ramachandran R, Otsubo H, Ochi A, Rutka JT, Donner EJ:** Mirror Movements Following Cortical Resection of Polymicrogyria in a Child with Intractable Epilepsy. *Pediatric Neurology*: February 2006: 34: pp 135-138.

**Raybaud C, Shroff M, Rutka JT, Chuang SH:** Imaging Surgical Epilepsy in Children. *Child's Nervous System*: February 2006: 22: pp 786-809.

**Rossi MR, Conroy J, McQuaid D, Nowak NJ, Rutka JT, Cowell JK:** Array CGH Analysis of Pediatric Medulloblastomas. *Genes, Chromosomes & Cancer*: March 2006: 45: pp 290-303.

**Rutka JT, Huo JS, Carter M, Ray A, Ueda S, Mainprize TG:** Advances in the Treatment of Pediatric Brain Tumors. *Future Drugs*: July 2005: 1473-7175: pp 879-893.

**Salhia B, Rutten F, Nakada M, Beaudry C, Berens N, Kwan A, Rutka JT:** Inhibition of Rho-Kinase Affects Astrocytoma Morphology Motility, and Invasion Through Activation of Rac1. *Cancer Research*: October 2005: 65: pp 8792-8800.

**Serletis D, Khoshyomn S, Gerstle JT, Rutka JT:** Anterior Penetrating Sacral Injury in a Child. *Journal of Neurosurgery*: November 2005: 103: pp 471.

**Sgouros S, Kulkarni AV, Constantini S:** The International Infant Hydrocephalus Study: Concept and Rationale. *Child's Nervous System*: October 2005.

**Tabori U, Ma J, Carter M, Zielenska M, Rutka J, Bouffet E, Bartels U, Malkin D, Hawkins C:** Human Telomere Reverse Transcriptase Expression Predicts Progression and Survival in Pediatric Intracranial Ependymoma. *Journal of Clinical Oncology*: April 2006: 24, No.10: pp 1522.

**Tabori U, Vukovic B, Zielenska M, Hawkins C, Braude I, Rutka J, Bouffet E, Squire J, Malkin D:** The Role of Telomere Maintenance in the Spontaneous Growth Arrest of Pediatric Low-Grade Gliomas. *Neoplasia*: February 2006: 8, No.2: pp 136-142.

**Taylor MD, Poppleton H, Fuller C, Su X, Liu Y, Jensen P, Magdaleno S, Dalton J, Calabrese C, Board J, MacDonald T, Rutka JT, Guha A, Gajjar A, Curran T, Gilbertson RJ:** Radial Glia Cells Are Candidate Stem Cells of Ependymoma. *Cancer Cell*: October 2005: 8: pp 323-335.

**Tsai E, Hawryluk G, Rutka JT:** Tumors of the Skull Base in Children. In: *Neuro-Oncology of CNS Tumors* (Tonn JC, Westphal M, Rutka JT, Grossman SA, eds.) Springer, Heidelberg: 2006: pp 556-565.

**Yahya RR, Dirks P, Humphreys R, Rutka JT, Taylor MD, Drake JM:** Children and Television Tipovers in Children: A Significant and Preventable Cause of Long-Term Neurological Deficits. *Journal of Neurosurgery (Pediatrics)*: September 2005: 103: pp 219-222.

## Invited Visits to Other Hospitals/Universities

**Dirks PB:** Mouse Models of Human Cancer Consortium, Winter Park, Utah, August 2005. Brain Tumor Initiating Cells.

**Dirks PB:** Boeringer Ingelheim International Titisee Conference, Titisee, Germany, October 2005. Brain Tumor Stem Cells.

**Dirks PB:** Division of Neurosurgery, Neuroscience Rounds, University of British Columbia, Vancouver, British Columbia, September 2005. Brain Tumor Stem Cells: At the Roots of Brain Tumor Growth.

**Dirks PB:** Terry Fox Laboratories/BC Cancer Center Seminar, Vancouver, British Columbia, September 2005. Brain Tumor Stem Cells: At the Roots of Brain Tumor Growth.

**Dirks PB:** Preston Robert Tisch Brain Tumor Center, Duke University, Durham, North Carolina, May 2006. Brain Tumor Stem Cells: Promises and Challenges.

**Dirks PB:** American Association for Cancer Research Workshop on Cancer Stem Cells, Lansdowne, Maryland, February 2006. Cancer Stem Cells: Identification and Assays.

**Dirks PB:** Keystone Symposia on Molecular Biology: Stem Cell Conference, Whistler, British Columbia, March 2006. Characterization of Human Brain Tumor Initiating Cells.

**Dirks PB:** Cleveland Clinic, Cleveland, Ohio, May 2006. Cleveland Clinic Brain Tumor Summit: Brain Tumor Stem Cells.

**Dirks PB:** American Society for Investigative Pathology Symposium: Stem Cells and Neuro-Oncology, San Francisco, California, April 2006. Human Brain Tumor Initiating Cells.

**Dirks PB:** University of Edinburgh, Institute for Stem Cell Research, Edinburgh, United Kingdom, May 2006. Human Brain Tumor Stem Cells.

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- Dirks PB:** Banbury Conference, Cold Spring Harbor Laboratories, Cold Spring Harbor, New York, December 2005. Human Brain Tumour Initiating Cells.
- Dirks PB:** Ontario Hospitals Association, Annual Meeting, Toronto, Ontario, November 2005. Identification of Brain Tumor Stem Cells.
- Dirks PB:** Royal College Lecture, Canadian Congress of Neurological Sciences Annual Meeting, Montreal, Quebec, June 2006. Identification of Human Brain Tumor Initiating Cells.
- Dirks PB:** The Krembil Center for Stem Cell Biology, Robarts Research Institute, University of Western Ontario, London, Ontario, September 2005. Identification of Human Brain Tumor Initiating Cells: At the Roots of Human Brain Tumor Growth.
- Dirks PB:** Carolyln Frye Symposium: Stem Cells and Brain Cancer, Massachusetts General Hospital, Harvard University, Boston, Massachusetts, November 2005. Prospective Identification of Human Brain Tumor Initiating Cells.
- Dirks PB:** UCLA Symposium: Stem Cells, Pathways, and Cancer: From Biology to Therapy, Los Angeles, California, March 2006. Prospective Identification of Human Brain Tumor Initiating Cells.
- Dirks PB:** Society for Neuroscience, Plenary Session, Stem Cells and Brain Cancer, Washington, DC, November 2005. Purification of Human Brain Tumor Initiating Cells.
- Dirks PB:** Neuro-Oncology Research Group Seminar Series, Washington University, St. Louis, Missouri, January 2006. Stem Cells: Unlocking the Secrets of Human Brain Tumors.
- Drake JM:** 33<sup>rd</sup> Meeting of the International Society for Pediatric Neurosurgery, Vancouver, British Columbia, September 2005. (1) Abstract - Oral Presentation: Endoscopic Third Ventriculostomy in Pediatric Patients - The Canadian Experience, (2) Co-Chair of Session - Endoscopy II.
- Drake JM:** American Academy of Neurological Surgeons, Half Moon Bay, California, September 2005. Abstract: Outcomes in Pediatric Endoscopic Third Ventriculostomy.
- Drake JM:** NIH/NINDS, Bethesda, Maryland, September 2005. Workshop - Hydrocephalus: Myths, New Facts, Clear Directions (Pediatric Hydrocephalus Peculiarities and Problems.)
- Kulkarni AV:** International Child Neurology Congress, Montreal, Quebec, June 2006. Acute Neurosurgical Management of Pediatric Head Injury.
- Kulkarni AV:** North American Senior Resident Course on Neurotrauma and Critical Care, Toronto, Ontario, May 2006. Guidelines for Pediatric Head Injury Management.
- Kulkarni AV:** National Institutes of Health, Bethesda, Maryland, September 2005. Panelist for NIH Symposium: Hydrocephalus: Myths, New Facts, Clear Directions.
- Kulkarni AV:** American Association of Neurological Surgeons, San Francisco, California, April 2006. Patient Assessment and Outcomes in Neurosurgery.
- Kulkarni AV:** Department of Neurosciences, Medical University of South Carolina, Charleston, South Carolina, November 2005. Quality-of-Life Outcomes in Pediatric Neurosurgery.
- Rutka JT:** MD Anderson Cancer Centre, Houston, Texas, February 2006. Brain Tumours in Children: Current and Future Perspectives, Guest Speaker.
- Rutka JT:** Ottawa Health Research Institute, Ottawa, Ontario, June 2006. Astrocytoma Invasiveness: Molecular Mechanisms at the Leading Edge.
- Rutka JT:** Canadian Congress of Neurological Sciences Annual Meeting, Montreal, Quebec, June 2006. Case Presentation "Standard of Care for Paediatric Medulloblastoma" June 14, 2006.
- Rutka JT:** 64<sup>th</sup> Annual Meeting of the Japan Neurosurgical Society, Yokohama, Japan, October 2005. Complex Spinal Malformations in the Child with Spina Bifida: Neurosurgical Implications.
- Rutka JT:** Research Update in Neuroscience for Neurosurgeons (RUNN), Woodshole, Boston, Massachusetts, October 2005. Developmental Signaling Pathways and Brain Tumors.
- Rutka JT:** ISPN, Vancouver, British Columbia, September 2005. Epilepsy.
- Rutka JT:** Tokushima University, Tokushima, Japan, May 2006. Human Gliomas: State-of-the-Art Treatment and Future Therapies.



- Rutka JT:** Japanese Congress of Neurological Surgeons, 26<sup>th</sup> Annual Meeting, Tokyo, Japan, May 2006. Keynote Speaker. “Malignant Brain Tumours: On the Cutting Edge of Novel Treatment Strategies.
- Rutka JT:** American Association of Neurological Surgeons, San Francisco, California, April 2006. Lecture “Craniopharyngiomas,” April 23, 2006.
- Rutka JT:** Ministry of Health Manpower Development Plan, Singapore, January 2006. Lectures: (1) Running an Academic Neurosurgery Program in North America, (2) Molecular Biology of Pediatric Brain Tumours, (3) Resident Training and Future Trends, (4) Glioma Update, (5) Tumour Surgery, (6) Molecular Biology of Brain Tumours, (7) Low-Grade Gliomas, (8) Research in Toronto: The Role of Small Cytoskeletal GTPases Regulating Astrocytoma Invasion, (9) Neuronavigation, (10) Pediatric Epilepsy, (11) Brainstem Gliomas, (12) Craniopharyngiomas.
- Rutka JT:** The Balkin Family Lecture, Boston, Massachusetts, September 2005. Medulloblastoma: A Quest for Novel Therapeutic Targets.
- Rutka JT:** Hamamatsu University School of Medicine, Hamamatsu, Japan, May 2006. Medulloblastoma - A Quest for Novel Therapeutic Targets.
- Rutka JT:** Preston Robert Tisch Brain Tumor Centre, Duke University, Durham, North Carolina, March 2006. Medulloblastoma: A Quest for Novel Therapeutic Targets.
- Rutka JT:** Johns Hopkins Department of Neurosurgery, Baltimore, Maryland, January 2006. Medulloblastoma: From a Difficult Past to a Promising Future.
- Rutka JT:** AANS, San Francisco, California, April 2006. MEG Program “Role of MEG in Pediatric Epilepsy Surgery and Functional Brain Mapping,” April 25, 2006.
- Rutka JT:** International Brain Tumor Research and Therapy Meeting, PBTF, Silverado Resort, Napa Valley, San Francisco, April 2006. MEG Program “Utility of MEG in Functional Brain Mapping and Neuronavigation-Assisted Tumor Resections in Children,” April 28, 2006.
- Rutka JT:** Congress of Neurological Surgeons 55<sup>th</sup> Annual Meeting, Boston, Massachusetts, October 2005. Moderator: Malignant Gliomas: Current Surgical and Adjuvant Strategies.
- Rutka JT:** 4<sup>th</sup> Annual Meeting, ASNO, Taipei, Taiwan, November 2005. Molecular Diagnosis, Targeting, and Management of Paediatric Brain Tumours.
- Rutka JT:** 64<sup>th</sup> Annual Meeting of the Japan Neurosurgical Society, Yokohama, Japan, October 2005. Neurosurgical Approaches to Intraventricular Tumors in children.
- Rutka JT:** World Academy of Neurological Surgery (WANS), Japan, October 2005. Neurosurgical Management of Rolandic Epilepsy.
- Rutka JT:** Weil Medical College of Cornell University, New York City, July 2005. Nina Werblow Lecture Series: Management of Malignant Brain Tumors: Past, Present and Future.
- Rutka JT:** National Institute of Neurological Disorders and Stroke, Bethesda, Maryland, September 2005. NINDS Board of Scientific Counselors.
- Rutka JT:** Northwestern University Academic Day Lecturer, Chicago, Illinois, December 2005. Novel Treatments for Medulloblastoma: Clues from Neuroembryogenesis.
- Rutka JT:** Japanese Congress of Neurological Surgeons, 26<sup>th</sup> Annual Meeting, Tokyo, Japan, May 2006. Plenary Lecture on the Neurosurgical Management of Epilepsy in Children: The Hospital for Sick Children Experience.
- Rutka JT:** National Center for Child Health and Development, Tokyo, Japan, May 2006. Recent Advancements for Brain Tumour Surgery and Research.
- Rutka JT:** Nagoya University, Nagoya, Japan, May 2006. Recent Advancements for the Treatment Strategy of Medulloblastoma.
- Rutka JT:** Senior Society of Neurological Surgeons, Annual Meeting, Durham, North Carolina, May 2006. Scientific Session “Recruitment of Women in Neurosurgery,” May 23, 2006.
- Rutka JT:** ASPN 2006 Annual Meeting, Great Exuma, Bahamas, January 2006. Scientific Session IV: Epilepsy “Neurosurgical Management of Rolandic Epilepsy in Children.”
- Rutka JT:** ISPN, Vancouver, British Columbia, September 2005. Session 3-Miscellaneous.
- Rutka JT:** AANS, San Francisco, California, April 2006. Update on Tumours Lecture “Biology of Gliomas” April 23, 2006.
- Rutka JT:** VSM MedTech-Keynote Speaker at ISPN, Vancouver, British Columbia, September 2005. Utility of MEG in Functional Mapping Pediatric Epilepsy Surgery.

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## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Study of Cancer Stem Cells in Human Brain Tumors. *Dirks PB: National Cancer Institute of Canada* (\$428,172 2004 - 2007.)

Cellular and Molecular Characterization of Cancer Stem Cells in Human Brain Tumors. *Dirks PB: Canadian Institutes of Health Research* (\$229,516 2004 - 2007.)

Children with Posterior Fossa Brain Tumours: Quality of Life and Predictors of Outcome. *Kulkarni AV, Bouffet E: Brainchild Foundation* (\$42,685 2006 - 2008.)

Exploring the Relationship between Caregiver and Child Safety Knowledge, Attitudes, and Behaviours and Injury Occurrence in Children. *Cusimano MD, Morrongiolo B, Khanlou N, Kulkarni AV, Tyberg J, Chipman M, Masi R: Canadian Institutes Health Research (CIHR)* (\$100,000 2005 - 2006.)

Gli2 as a Target for the Treatment of Medulloblastoma. *Rutka JT: Ontario Cancer Research Network* (\$443,262 2003 - 2006.)

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.)

Mouse Imaging Centre for Canada. *Henkelman RM, Rutka JT, Hui C, McKerlie C, Foster FS, Cuticchia J, Rossant J, Rabinovitch M, Back P, Adamson SL: Canadian Foundation for Innovation, Canadian Institutes of Health Research* (\$5,294,947 2000 - 2005.)

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 Health Research (CIHR) and Hospital for Sick Children Foundation* (\$94,536 2005 - 2007.)

The Role of Cytoskeletal GTPases in Astrocytoma Migration. *Rutka JT: Canadian Institutes of Health Research* (\$500,000 2004 - 2009.)

VEGF Polymorphisms in Medulloblastomas. *Rutka JT: Brainchild* (\$25,620 2005 - 2006.)

## Honours Received

**Drake JM:** Donald D. Matson Award, at the American Association of Neurological Surgeons and the Congress of Neurological Surgeons: Sections of Pediatric Neurosurgery, April 2006.

**Rutka JT:** Knight of the Order of Smile by Kawaler Orderu Usmiechu, May 2006.

**Rutka JT:** Recipient of Research Grant Awarded by the Pediatric Brain Tumor Foundation Institute, January 2006.

**Rutka JT:** The Janes Visiting Professorship of the Royal College of Physicians and Surgeons of Canada, December 2005.

## 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**

## Publications

**Alman BA:** Duchenne Muscular Dystrophy and Steroids: Pharmacologic Treatment in the Absence of Effective Gene Therapy. *Journal of Pediatric Orthopaedics*: July 2005: 25(4): pp 554-556.

**Alman BA, Goldberg MJ:** Syndromes of Orthopaedic Importance. In: Lovel and Winter's Pediatric Orthopaedics (6<sup>th</sup> Edition) (Raymond Morrissy and Stuart Weinstein, ed.) J.P. Lippincott, Philadelphia: 2006: pp 251-315.

**Burton K, Beveridge M, Howard A:** Relevance of Electronic Health Information to Doctors in the Developing World: Results of the Ptolemy Project's Internet-based Health Information Study (IBHIS.) *World Journal of Surgery*: September 2005: Volume 29: pp 1194-1198.

**Cotterill SL, Jackson GC, Leighton MP, Wagener R, Makitie O, Cole WG, Briggs MD:** Multiple Epiphyseal Dysplasia Mutations in MATN3 Cause Misfolding of the A-Domain and Prevent Secretion of Mutant Matrilin-3. *Human Mutation*: December 2005: 26: pp 557-565.

**Dobbs MB, Gurnett CA, Pierce B, Exner GU, Robarge J, Morcuende JA, Cole WG, Templeton P, Foster B, Bowcock AM:** HOXD10 M319K Mutation in a Family with Isolated Congenital Vertical Talus. *Journal of Orthopaedic Research*: January 2006: 24: pp 448-453.

**Ferretti M, Srinivasan A, Deschner J, Gassner R, Balko F, Piesco N, Salter R, Agarwal S:** Anti-Inflammatory Effects of Continuous Passive Motion on Meniscal Fibrocartilage. *Journal of Orthopaedic Research*: January 2006: 23: pp 1165-1171.

**Graham B, Dvali L, Regehr G, Wright JG:** Variations in Diagnostic Criteria for Carpal Tunnel Syndrome Among Ontario Specialists. *American Journal of Industrial Medicine*: January 2006: 49(1): pp 8-13.

**Hopyan S, Nadesan P, Yu C, Wunder JS, Alman BA:** Constitutive Hedgehog Signaling in Chondrosarcoma Upregulates Tumour Cell Proliferation. *American Journal of Pathology*: January 2006: 168(1): pp 321-30.

**Howard AW:** Injury Prevention: A health Priority for Children. *AO Dialogue*: June 2006: 2: pp 20.

**Howard AW, Alman BA:** Metabolic and Endocrine Abnormalities. In: Lovell and Winter's Pediatric Orthopaedics (6<sup>th</sup> edition) (Raymond Morrissy and Stuart Weinstein, ed.) Lippincott, Philadelphia: 2006: pp 167-205.

**Howard AW, Moses McKeag A, Rothman L, Mills D, Blazeski S, Chapman M, Hale I:** Cervical Spine Injuries in Children Restrained in Forward Facing Child Restraints. *Journal of Trauma*: December 2005: 59: pp 1504-1506.

**Kapoor T, Altenhof W, Emam A, Howard AW:** A Comparison of the Head and Neck Injury Parameters on a TNO P3 and a Three-Year-Old Hybrid III Child Dummies from Numerical Simulation. *SAE Transactions*: July 2005: pp 1303.

**Kapoor T, Altenhof W, Howard AW:** The Effect of Using Universal Anchorages in Child Restraint Seats on the Injury Potential for Children in Frontal Crash. *International Journal of Crashworthiness*: July 2005: 10: pp 305-314.

**Kapoor T, Altenhof W, Wang Q, Howard AW:** Injury Potential of a Three-Year-Old Hybrid III Dummy in Forward and Rearward Facing Positions under CMVSS 208 Testing Conditions. *Accident Analysis and Prevention*: March 2006:

**Macpherson A, Howard AW:** Body Checking Rules and Childhood Injuries in Ice Hockey. *Pediatrics*: February 2006: 117: pp 143-147.

**Makitie O, Susic M, Ward L, Barclay C, Glorieux FH, Cole WG:** Schmid Type of Metaphyseal Chondrodysplasia and COL10A1 Mutations Findings in 10 Patients. *American Journal of Medical Genetics A*: September 2005: 137: pp 241-248.

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**Matlowe AG, Wright JG, Zimmerman B, Thomson K, Valente M:** Can the Principles of Complexity Science Be Applied to Improve the Coordination for Complex Paediatric Patients? *Quality Safety Health Care*: April 2006: 15(2): pp 85-88.

**Nam D, Alman BA:** Aggressive Fibromatosis in Pediatric Oncology. In: *Pediatric Bone and Soft Tissue Sarcomas* (Pappo A, ed.) Springer and Verlag, Germany: 2005: pp 163-180.

**Pattison G; Fiissel D; Howard AW:** Severity of Playground Fractures: Play Equipment versus Standing Height Falls. *Injury Prevention*: December 2005: 11: pp 337-339.

**Roposch A, Graf R, Wright JG:** Determining the Reliability of the Graf Classification for Hip Dysplasia. *Clinical Orthopaedics and Related Research*: June 2006: 447: pp 119-124.

**Segev F, Heon E, Cole WG, Wenstrup RJ, Young F, Slomovic AR, Rootman DS, Whitaker-Menezes D, Chervoneva I, Birk D:** Structural Abnormalities of the Cornea and Lid Resulting from Collagen V Mutations. *Investigative Ophthalmology and Visual Sciences*: February 2006: 47: pp 565-573.

**Smart R, Cannon E, Howard AW, Frise P, Mann R:** Can We Design Cars to Prevent Road Rage? *International Journal of Vehicle Information and Communication Systems*: September 2005: 1: pp 44-55.

**Tai D, Dick P, To T, Wright JG:** Development of Pediatric Comorbidity Prediction Model. *Archives of Pediatrics and Adolescent Medicine*: March 2006: 160(3): pp 293-299.

**Templeton PA, Flowers MJ, Latz K, Stephens DK, Cole WG, Wright JG:** Factors Predicting Outcome of Primary Clubfoot Surgery. *Canadian Journal of Surgery*: April 2006: 49: pp 123-127.

**Tiet TD, Hopyan S, Nadesan P, Gokogoz N, Poon R, Lin AC, Yan T, Andrulis IL, Alman BA, Wunder JS:** Constitutive Hedgehog Signalling in Chondrosarcoma Up-Regulates Tumor Cell Proliferation. *American Journal of Pathology*: January 2006: 168(1): pp 321-330.

**Wright JG, Einhorn TA, Heckman JD:** Grades of Recommendation (Editorial.) *Journal of Bone and Joint Surgery (American)*: September 2005: 87: pp 1909-1910.

**Wright JG, Einhorn TA, Heckman JD:** Revised Grades of Recommendation for Summaries or Reviews of Orthopaedic Surgical Studies. *Journal of Bone and Joint Surgery (American)*: May 2006: 88(5): pp 1161-1162.

## Invited Visits to Other Hospitals/Universities

**Alman BA:** Scoliosis Workshop - Stowers Institute in Kansas, Kansas, Missouri, November 2005. *Canadian Congenital Scoliosis Proposal*.

**Alman BA:** HME: Insights into Pathogenesis, Houston, Texas, November 2005. *p53 and Rb in Cartilage Tumors in Mice*.

**Alman BA:** International Pediatric Orthopaedic Think Tank (IPOTT), Seville, Spain, September 2005. *Patients with Duchenne Muscular Dystrophy Treated with Long-Term Steroids Do Not Require Lower Extremity Surgery*.

**Cole WG:** Osteogenesis Imperfecta Foundation, Chicago, Illinois, April 2006. "Caffey Disease Due to a Mutation in COL1A1" in *Symposium - New Research and Clinical Strategies in Osteogenesis Imperfecta*.

**Cole WG:** Annual Scientific Meeting, American College of Rheumatology, San Diego, California, October 2005. *Marshall J. Schiff MD Memorial Lectureship for 2005 "Etiology and Pathogenesis of Osteoarthritis in Young Individuals."*

**Cole WG:** Pediatric Orthopaedic Society of North America, San Diego, California, May 2006. *Research Grant Writing Tutorial*.

**Howard AW:** CBC Thunder Bay Radio, Thunder Bay, Ontario, May 2006. *Car Seat Story Interview*.

**Howard AW:** British Orthopaedic Association, London, England, January 2006. *Child Dummy Response in CMVSS 208 Crash Conditions*.

**Howard AW:** ECSAOA, Dar-es Salaam, Tanzania, November 2005. *Interactive Spine Instructional Course*.

**Howard AW:** CHEO, Ottawa, Ontario, March 2006. *Invited as James W. Riley Visiting Professor in Paediatric Orthopaedics. Combined Surgery/Paediatric Rounds*.

**Howard AW:** ECSAOA, Dar-es Salaam, Tanzania, November 2005. Limb Reconstruction Workshop.

**Howard AW:** Windsor Star, Windsor, Ontario, September 2005. MD Backs Age Limits for ATVs: Should Have Same Requirements as Cars, Surgeon Says.

**Howard AW:** 640 Radio, Toronto, Ontario, February 2006. Paper Release. Body Checking Rules and Childhood Injuries in Ice Hockey.

**Howard AW:** Canwest, Toronto, Ontario, February 2006. Paper Release. Body Checking Rules and Childhood Injuries in Ice Hockey.

**Howard AW:** CBC, Sudbury, Ontario, February 2006. Paper Release. Body Checking Rules and Childhood Injuries in Ice Hockey.

**Howard AW:** Toronto Star, Toronto, Ontario, February 2006. Paper release. Body Checking Rules and Childhood Injuries in Ice Hockey.

**Howard AW:** POSNA, Chicago, Illinois, March 2006. POSNA Specialty Day Invited Lecturer: Clinical Research in Children Ethical and Practical Issues for Investigators and the IRB.

**Howard AW:** British Society of Children's Orthopaedic Surgery Annual Meeting, Milton Keynes, England, January 2006. Presidential Guest Speaker for the BSCOS Annual Meeting.

**Howard AW:** ECSAOA, Dar es Salaam, Tanzania, November 2005. Principles of Operative Fracture Management.

**Howard AW:** ASEA/COSECSA, Dar-es Salaam, Tanzania, December 2005. Ptolemy Workshop.

**Howard AW:** CKNW AM 980, Vancouver, British Columbia, January 2006. SUV Study.

**Narayanan UG:** American Academy of Cerebral Palsy & Developmental Medicine 2005 Annual Meeting, Orlando, Florida, September 2005. 1) Caregivers' Rating of Importance of Items in a New Measure of Health Related Quality of Life in Children with Severe Cerebral Palsy; 2) Evidence Based Medicine: What Constitutes Evidence? Point -Counterpoint Debate.

**Narayanan UG:** 1<sup>st</sup> POSNA-ASEAN Paediatric Orthopaedic Review Course, Kuala Lumpur, Malaysia, August 2005. 1) Developmental Dysplasia of the Hip: Evaluation and Diagnosis; 2) Elastic Stable Intramedullary Nailing of Pediatric Femoral Fractures; 3) Hip Instability in Cerebral Palsy; 4) Ponseti Method of Clubfoot Treatment: Workshop.

**Wedge JH:** Canadian Orthopaedic Association, Toronto, Ontario, June 2006. The Results of Innominate Osteotomy and Combined Innominate and Femoral Osteotomy in Legg-Calve-Perthes-Disease.

**Wright JG:** International Paediatric Orthopaedic Symposium, Seville, Spain, December 2005. 1) Back Pain in children, 2) Clubfoot Osteotomies, 3) Toeing-in Toeing-Out.

**Wright JG:** 5<sup>th</sup> Annual G. Wilbur Westin Visiting Lectureship, Los Angeles, California, April 2006. 1) Clubfoot Osteotomies, 2) Changing Orthopaedics from Practice-Based Evidence to Evidence Based Practice, 3) Femoral Fracture in Children.

**Wright JG:** Symposium on Spina Bifida: Current Strategies, Chigago, Illinois, May 2006. 1) Knee Problems in Spina Bifida, 2) The Relationship Between Disability and Spinal Deformity: Implications for Treatment of Scoliosis in Children with Spina Bifida, 3) Ankle/Foot Problems in Spina Bifida.

**Wright JG:** Columbia University Grand Rounds Lecturer, New York, New Yord, April 2006. Are We Performing Too Few or Too Many Orthopaedic Procedures?

**Wright JG:** International Paediatric Orthopaedic Symposium, Orlando, Florida, November 2005. Foot and Ankle Surgery in Muscular Dystrophy.

**Wright JG:** American Academy of Orthopaedic Surgeons, Continuing Medical Education Course, Arlington, Virginia, December 2005. Orthopaedic Clinical Trials: Design, Implementation, and Regulation Issues. 1) Overview of Clinical Trials. December 10, 2005, 2) Workshop C: Journal Club: "Issues in the Interpretation of Clinical Trials" December 11, 2005.

**Wright JG:** American Orthopaedic Association, San Antonio, Texas, June 2006. Why Are RCTs So Hard in Orthopaedics?

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## Research And Investigations

*Senior Investigator's Name Appears in Italics*

A 45-Year Follow-Up Assessment of the Clinical and Radiographic Outcomes of Combined Open Reduction and Innominate Osteotomy for the Late Presenting Developmental Dislocation of the Hip (DDH) in Children Ages 1.5 To 5 Years. *Salter RB: Physicians Services Incorporated* (\$22,500 2006.)

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.)

Adolescent Idiopathic Scoliosis Waiting Times Study: Are We Waiting Too Long? Impact of Surgical Wait Times and Determination of a Maximal Acceptable Waiting Time. *Ahn H, Wright JG: Restracom, The Hospital for Sick Children* (\$35,000 2004 - 2006.)

Auto21 Project A203-ACS. *Howard AW, Snowdon A, Altenhof W: Auto21 NCE* (\$42,000 2005 - 2006.)

Beta-Catenin in Aggressive Fibromatosis: Molecular Pathology and Implications for Therapy. *Alman BA: National Cancer Institute of Canada* (\$433,326 2005 - 2008.)

Bracing in Adolescent Idiopathic Scoliosis (BrAIST.) *Wright JG, Clarke WR, Dolan L, Spratt K, Morcuende J, Weinstein S: CIHR* (\$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: CIHR* (\$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.)

Crash Protection for Children: Simulation of Real World Crashes. *Howard AW: Ford Motor Company* (\$170,000 2003 - 2006.)

Development and Validation of the Caregiver Priorities & Child Health Index of Life with Disabilities (CP CHILD), a health related quality of life measure for children with severe developmental disabilities. *Narayanan UG, Fehlings D: Paediatric Orthopaedic Society of North America (POSNA)* (\$40,000 2004 - 2006.)

From Knowledge Generation to Knowledge Translation: A Systems Approach to Reducing the Burden of Injury in Canada. *Raina R, MacArthur C, Philippa HH, Howard AW, Morrongiello B, Shannon H: CIHR* (\$750,000 2003 - 2007.)

Gene Expression of Collagen and Chondroitin Sulphate with CPM. *Alman B, Salter RB: Jose Waltham Fund* (\$15,000 2005 - 2006.)

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.)

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.)

Interdisciplinary Health Research Team in Musculoskeletal Neoplasia: Please note this grant is divided into 4 programs and Dr. Alman is the Primary Investigator of 1 of these 4 programs, entitled; Developmental Pathways in Musculoskeletal Neoplasia. *Bell RS, Alman BA, Andrulis I, Bramwell V, Davis A, Greenberg M, Hill R, Kandel R, Malkin D, Masri B, O'Sullivan B, Turcotte R, and Wunder J: Canadian Institutes of Health Research (CIHR)* (\$5,995,000 2001 - 2006.)

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 Institute for Health Research* (\$283,322 2004 - 2007.)

Modulating Hedgehog and Beta-Catenin Signalling in Osteoarthritis. *Alman, BA: Canadian Institute for Health Research* (\$380,000 2006 - 2009.)

Molecular Mechanism of Dupuytren's Contracture. *Gan B, Alman BA, Howard J: Canadian Institute for Health Research* (\$376,000 2003 - 2006.)

Molecular Pathology of Cartilage Neoplasia. *Wunder JS, Alman BA: Canadian Institute for Health Research* (\$560,000 2003 - 2008.)

Molecular Pathology of Ehlers-Danlos Syndrome and Chondrodysplasias. *Cole WG: Canadian Institute for Health Research* (\$735,341 2005 - 2009.)

Molecular Pathology of Healing. *Alman BA: Canadian Institute for Health Research* (\$423,975 2005 - 2008.)

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 Institute for 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 Institute for Health Research* (\$250,000 2004 - 2009.)

The Chondrogenic Potential of Muscle Grafts Under Influence of CPM. *Alman B, Salter RB: Zimmer Corporation* (\$10,000 2005 - 2006.)

The Effect of CPM on Intra-Articular Meniscus. *Alman B, Salter RB: University of Ohio* (\$10,391 2005 - 2006.)

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: The Physicians' Services Incorporated Foundation* (\$22,500 2006 - 2007.)

The Ptolemy Project: Evaluation of Electronic Health Information for Surgical Capacity Building in East Africa. *Beveridge M, Howard AW, Zakus D, Chan L, Gomez M: CIHR* (\$91,000 2004 - 2005.)

The Utilization of Gait Analysis for Clinical Decision Making in Management of Children with Cerebral Palsy: Measuring Surgeons' Uncertainty and Region Variation in North America. *Narayanan UG, Morris A, Redekop S: Bloorview MacMillan Children's Foundation* (\$24,410 2004 - 2006.)

Thresholds for Injury Acceptability: Where Should Prevention Interventions Be Targeted? *Howard AW, Macarthur C; Morrongiello B: iPALS* (\$7,000 2005 - 2006.)

What is the Health and Quality of Life for Graduates from Children's Rehabilitation Centres? *Young N, Boydell K, Fehlings D, Law M, McCormick A, Mukherjee S, Rumney P, Steele C, Wedge J, Williams J: Canadian Institutes for Health Research and Bloorview Children's Hospital Foundation* (\$400,000 2003 - 2006.)

## Honours Received

**Alman BA:** Clinical Research Society of Toronto - Senior Investigator Award - given with respect to work done on "The Molecular Mechanisms Responsible for the Deregulation of Cellular Growth Control in Musculoskeletal Tumours," October 2005.

**Cole WG:** Marshall J. Schiff MD Memorial Lectureship, Annual Scientific Meeting, American College of Rheumatology, San Diego, October 2005.

**Howard AW:** John Sharrard Memorial Medal, awarded by British Society of Children's Orthopaedic Surgeons, Inaugural Recipient, Milton Keynes, England, January 2006.

**Salter RB:** Giant of Biomedical Research, June 2006.

**Salter RB:** Paediatric Orthopaedic Society of North America "In Recognition of His Many Contributions to the Diagnosis and Treatment of Children with Developmental Dysplasia of the Hip," July 2005.

**Wedge JH:** Officer of the Order of Canada, February 2006.

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## **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. G.A. Tait – Assistant Professor**

**Dr. R.M. Zuker - Professor**

## **Publications**

**Ames WA, Shichor TM, Speakman M, Zuker RM:** Anaesthetic Management of Children with Moebius Sequence. *Canadian Journal of Anaesthesia*: July 2005: 52 (8): pp 837-844.

**Burezq H, Daskalogiannakis J, Forrest CR:** Management of the Prominent Premaxilla in Bilateral Cleft Lip and Palate. *Cleft Palate Craniofacial Journal*: January 2006: 43(1): pp 92 -95.

**Clarke HM, Fisher DM:** Plastic Surgery. In: *The Hospital for Sick Children Atlas of Pediatrics* (Laxer RM, Ford-Jones EL, Friedman JN, Gerstle JT, eds.) Current Medicine, Philadelphia, PA: 2005: pp 473-482.

**Farkas LG, Forrest CR, Katic MJ:** International Anthropometric Study of Facial Morphology in Various Ethnic Groups/Races. *Journal of Craniofacial Surgery*: July 2005: 16(4): pp 615-646.

**Farkas LG, Katic MJ, Forrest CR:** Anthropometric Proportion Indices in the Craniofacial Regions of 73 Patients with Forms of Isolated Coronal Synostosis. *Annals of Plastic Surgery*: November 2005: 55(5): pp 495-496.

**Fisher DM:** Unilateral Cleft Lip Repair - An Anatomic Sub-Unit Approximation Technique. *Plastic and Reconstructive Surgery*: July 2005: 116, No. 1: pp 61-71.

**Ho ES, Clarke HM:** Functional Evaluation in Children with Congenital Upper Extremity Malformations. *Clinics in Plastic Surgery*: October 2005: 32(4): pp 471-83.

**Ho ES, Clarke HM:** Upper Extremity Function in Children with Congenital Hand Anomalies. *Journal of Hand Therapy*: July 2005: 18(3): pp 352-64.

**Ho ES, Curtis CG, Clarke HM:** Pediatric Evaluation of Disability Inventory: Its Application to Children with Obstetric Brachial Plexus Palsy. *Journal of Hand Surgery (American)*: February 2006: 31(2): pp 197-202.

**Jaegar MRO, Zuker RM:** Congenital Giant Nevocellular Nevus of the Back with Deep Extension to the Face and Fascia. *Canadian Journal of Plastic Surgery*: March 2006: 14 (1): pp 45-47.

**Kiehn MW, Forrest CR:** Craniofacial Syndromes. In: *Plastic and Reconstructive Surgery Board Review* (Lin and Hijjawi, ed.) McGraw Hill, United States: 2005: pp 339 -342.

**Lee J, Crawford MW, Drake J, Buncic JR, Forrest C:** Anterior Ischemic Optic Neuropathy Complicating Cranial Vault Reconstruction for Sagittal Synostosis in a Child. *Journal of Craniofacial Surgery*: July 2005: 16(4): pp 559-562.

**Leshem, D, Gur E, Meilik B, Zuker RM:** Treatment of Congenital Facial Nevi. *Journal of Craniofacial Surgery*: September 2005: 16 (5): pp 897-903.

**Manktelow RT, Zuker RM:** Free Functioning Muscle Transfers in the Upper Limb. In: *Plastic Surgery* (Stephen J. Mathes, ed.) W.B. Saunders Company, Philadelphia, PA: 2006: pp 489-506.

**Moses MA, Addison PD, Neligan PC, Ashrafpour H, Huang N, McAllister SF, Lipa JE, Forrest CR, Pang CY:** Inducing Late Phase of Infarct Protection in Skeletal Muscle by Remote Preconditioning: Efficacy And Mechanism. *American Journal of Physiology Regul Integr Comp Physiol*: September 2005: 289(6): pp 1609-1617.

**Neinstein RM, Borschel GH, Zuker RM: Case Report:** Staged Management of a Congenital Nevus of the Breast and Abdomen Presenting in a Female Infant. *Canadian Journal of Plastic Surgery*: June 2006: 14 (2): pp 9193.



**Organek A, Klebuc M, Zuker RM:** Indications and Outcomes of Free Tissue Transfer to the Lower Extremity in Children - A Review. *Journal of Reconstructive Microsurgery*: April 2006: 22 (3):

**Phillips JH, George KA:** Le Fort III Osteotomy or Distraction Osteogenesis: Your Choice. *Journal of Plastic and Reconstructive Surgery*: April 2006: 117(4): pp 1255-1260.

**Phillips JH, Leshem D, Tompson B, Britto J, Forrest C:** Orthognathic Surgery in Juvenile Rheumatoid Arthritis Patients. *Journal of Plastic and Reconstructive Surgery*: May 2006: 117 (6): pp 1941-1946.

**Phillips JH, Tompson B, Rechner B:** Mandibular Growth Following Reconstruction Using a Free Fibular Graft in the Pediatric Facial Skeleton. *Journal of Plastic and Reconstructive Surgery*: August 2005: 116: pp 419-424.

**Sibbald RG, Zuker RM, Coutts P, Coelho S, Williamson D, Queen D:** Using a Dermal Skin Substitute in the Treatment of Chronic Wounds Secondary to Recessive Dystrophic Epidermolysis Bullosa: A Case Series. *Ostomy Wound Management*: November 2005:

**Zuker RM, Manktelow RT, Hussain G:** Facial Paralysis. In: *Plastic Surgery* (Stephen J. Mathes, ed.) W.B. Saunders Company, Philadelphia, PA: 2006: pp 883-915.

**Zuker RM, Redett R, Alman B, Coles JG, Timoney N, Ein SH:** First Successful Lower-Extremity Transplantation: Technique and Functional Result. *Journal of Reconstructive Microsurgery*: May 2006: 22 (4): pp 239-244.

### Invited Visits to Other Hospitals/Universities

**Clarke HM:** Departments of Burn Surgery, Neurosurgery and Plastic Surgery, 3<sup>rd</sup> Faculty of Medicine, Charles University, Prague, Czech Republic, May 2006. (1) Hand Burns and Reconstructive Surgery for Burns in Children, (2) The Management of Obstetrical Brachial Plexus Palsy, (3) Congenital Hand Surgery.

**Clarke HM:** 18<sup>th</sup> Annual Cleft Lip and Palate Symposium, Children's Healthcare of Atlanta, Atlanta, Georgia, November 2005. (1) The Management of Obstetrical Brachial Plexus Palsy, (2) Congenital Hand Anomalies and their Associations with Craniofacial Patients, (3) Surgical Techniques: The details (with Drs. Williams, Burstein and Schwentker.)

**Fisher DM:** Operation Smile, Assuit, Egypt, November 2005. (1) Member of a team of volunteer plastic surgeons (personally demonstrated four cleft lip and palate repairs.), (2) Surgical Education Program: Introduction and Cleft Lip; Bilateral Cleft Lip Repair, (3) Introduction and Cleft Lip; Cleft Lip Nasal Deformity, (4) Introduction and Cleft Lip; Repair of Unilateral Cleft Lip, (5) Management of Cleft Palate and Its Sequelae; Alveolar Bone Grafts, (6) Management of Cleft Palate and Its Sequelae; Cleft Palate Repair - Techniques and Timing, (7) Management of Cleft Palate and Its Sequelae; The Toronto Protocol.

**Fisher DM:** BC Children's Hospital, Vancouver, British Columbia, April 2006. Visiting Professor, Demonstration Surgery.

**Forrest CR:** Division of Plastic Surgery, Montreal General Hospital, McGill University, Resident Day, Montreal, Quebec, June 2006. Case Presentations.

**Forrest CR:** American Society of Plastic Surgeons, Chicago, Illinois, September 2005. Cleft Nasal Deformity.

**Forrest CR:** Grand Surgical Rounds, Montreal General Hospital, Montreal, Quebec, June 2006. Craniofacial Surgery in the 21<sup>st</sup> Century.

**Forrest CR:** Resident Teaching Rounds, Division of Plastic Surgery, John's Hopkins School of Medicine, Baltimore, Maryland, March 2006. Midface Distraction.

**Forrest CR:** Craniofacial Trauma Conference, Shock Trauma Hospital, University of Maryland, Baltimore, Maryland, March 2006. Optic Neuropathy.

**Forrest CR:** Division of Plastic Surgery, Montreal General Hospital, McGill University, Resident Day, Montreal, Quebec, June 2006. Pediatric Facial Fractures.

**Forrest CR:** Grand Rounds Division of Plastic Surgery, John's Hopkins School of Medicine, Baltimore, Maryland, March 2006. Sagittal Synostosis: It's Not Just Cosmetic.

**Forrest CR:** Resident Teaching Rounds, Division of Plastic Surgery, John's Hopkins School of Medicine, Baltimore, Maryland, March 2006. Secondary Cleft Rhinoplast.

**Forrest CR:** Division of Plastic Surgery Rounds, Montreal General Hospital, McGill University, Montreal, Quebec, June 2006. Secondary Cleft Rhinoplasty.

**Phillips JH:** PERLS - Pediatric Residents, Toronto, Ontario, March 2006. "Craniosynostosis."

**Phillips JH:** AAO-HSF 2005 Annual Meeting and OTO EXPO, Los Angeles, California, October 2005. NPC Screen.

**Zuker RM:** Guys and St. Thomas' Hospital NHS Trust, London, England, February 2006. (1) Conjoined Twins - Lessons Learned, (2) Lower Limb Transplantation in a Set of Conjoined Twins.

**Zuker RM:** Visiting Professor: Paediatric Plastic Surgery - Royal Children's Hospital, Department of Plastic & Maxillofacial Surgery, Melbourne, Australia, November 2005. (1) Facial Naevi - Algorithm for Success, (2) Tissue Expansion, (3) Conjoined Twins - Toronto Experience, (4) Paediatric Microsurgery 1, (5) Volkmann's Ischemic Contracture, (6) Paediatric Microsurgery 2, (7) Facial Paralysis - Paediatric Overview and Unilateral Reconstruction, (8) Live Patient Assessment.

**Zuker RM:** Invited Lecturer: University of Cuzco, Cuzco, Peru, April 2006. (1) The Separation of Conjoined Twins, (2) Lower Extremity Transplantation in Ischiopagus Conjoined Twins.

**Zuker RM:** Operation Smile Surgical Team, Deesa, India, February 2006. Lower Limb Transplantation in a Conjoined Twin.

**Zuker RM:** Visiting Professor: University of Southern California, Los Angeles, California, November 2005. New Frontiers in Pediatric Microsurgery.

**Zuker RM:** Visiting Professor/Invited Lecturer: Birmingham Children's Hospital NHS Trust, Birmingham, England, February 2006. New Spheres of Development in Paediatric Microsurgery.

**Zuker RM:** American Society for Reconstructive Microsurgery, Tucson, Arizona, January 2006. Pediatric microsurgery.

**Zuker RM:** Invited Speaker: American Society of Plastic Surgeons, Annual Meeting, Chicago, Illinois, September 2005. (1) Pediatric Plastic Surgery, (2) The Complete Head and Neck Microsurgery Course.

**Zuker RM:** Visiting Professor: University of Southern California, Los Angeles, November 2005. Unilateral Facial Paralysis.

## Research And Investigations

*Senior Investigator's Name Appears in Italics*

Apoptosis in Cultured Calvarial Cells Following Radiation. *Christopher Forrest C, Gevorgyan A: Plastic Surgery Educational Foundation (\$5,500 2004 - 2005.)*

Bernd Spiessel Award 2004: Radiation-Induced Craniofacial Bone Growth Retardations: Relationship Between P53 Expression, Apoptosis and Cell Cycle Arrest Following Radiation and Cytoprotection In Vitro. *Forrest CR, Gevorgyan AM: American Society of Maxillofacial Surgeons, Synthes Maxillofacial Grants (\$7,000 2004 - 2005.)*

Global Protection of Skeletal Muscle Against Ischemic Necrosis and Vascular Dysfunction by Non-Invasive Remote Ischemic Preconditioning: Efficacy and Mechanism. *Pang CY, Forrest CR, Neligan PC: CIHR Operating Grant (\$220,000 2003 - 2006.)*

Global Protection of Skeletal Muscle Against Necrosis and Vascular Dysfunction by Non-Invasive Remote Ischemic Preconditioning: Efficacy and Mechanism. *Pang CY, Neligan PC, Forrest CR: CIHR - Sellers Foundation Innovations in CF Research (\$22,200 2003 - 2006.)*

Perioperative Protection and Post-Ischemic Salvage of Skeletal Muscle from Ischemia/Reperfusion Injury. *Pang CY, Neligan PC, Forrest CR: CIHR (\$110,000 2005.)*

Skin Flap Ischemia: Pathology and Pharmacologic Intervention. *Pang CY: CIHR (\$40,000 2001 - 2006.)*

## **DIVISION OF UROLOGY**

**Dr. D.J. Bagli - Associate Professor**

**Dr. W. Farhat - Associate Professor**

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

**Dr. J.L. Pippi Salle - Associate Professor**

## **Publications**

**Afshar K, Malek R, Bakhshi M, Papanikolaou F, Farhat W, Bagli DJ, Khoury AE, Pippi Salle JL:** Should the presence of Congenital Para-Ureteral Diverticulum Affect the Management of Vesicoureteral Reflux? *Journal of Urology*: October 2005: 174 (4): pp 1590-1593.

**Cartwright L, Farhat W, Sherman C, Chen J, Shou Z, Yeger H, Babyn P, Cheng HL:** Dynamic Contrast-Enhanced MRI to Quantify VEGF Enhanced Tissue Engineered Bladder Graft Neovascularization: Pilot Study. *Journal of Biomedical Materials Research*: May 2006: 77(2): pp 390-395.

**Cartwright L, Shou Z, Yeger H, Farhat W:** Porcine Bladder Acellular Matrix Porosity: Impact of Hyaluronic Acid and Lyophilization. *Journal of Biomedical Research (MS #JBMR-A-05-0288)*: April 2006: 77(1): pp 180-184.

**Cook A, Khoury AE, Bagli D, McLorie GA, El-Ghoneimi A, Farhat WA:** The Development of Laparoscopic Surgical Skills in Pediatric Urologists: Longterm Outcome of a Mentorship-Training Model. *Canadian Journal of Urology*: October 2005: 12(5): pp 2824-2828.

**Cook A, Khoury AE, Neville C, Bagli DJ, Farhat WA, Pippi-Salle, JL:** A Multicenter Evaluation of Technical Preferences for Primary Hypospadias Repair. *Journal of Urology*: December 2005: 174: pp 2354-2357.

**Cook A, Pippi Salle JL, Bakhshi M, Cartwright L, Lorenzo A, Bagli DJ, Farhat W, Khoury AE:** Pediatric Renal Cell Carcinoma: Experience at a Single Centre. *Journal of Urology*: April 2006: 175(4): pp 1456-1460.

**Cook A, Pippi Salli JL, Reid J, Fontana-Chow K, Kuan J, Razvi H, Farhat W, Bagli DJ, Khoury AE:** Prospective Evaluation of Remote, Interactive Videoconferencing to Enhance Urology Resident Education: The GU Teleteaching Initiative. *Journal of Urology*: November 2005: 174 (4): pp 1958-1960.

**Farhat W, Austin R:** Retroperitoneal Laparoscopy for Repairing Ureteropelvic Junction Obstruction in Children. *The American Journal of Urology Review*: July 2005: 3(7): pp 334-336.

**Farhat W, Chen J, Sherman C, Cartwright L, Bahoric A, Yeger H:** Impact of Fibrin Glue and Urinary Bladder Cells Spraying on the In-Vivo Acellular Matrix Cellularization: Pilot Study. *Canadian Journal of Urology*: April 2006: 13(2): pp 3000-3308.

**Farhat W, Khoury AE:** Extraperitoneal Laparoscopy - Basic Technique. In: *Operative Endoscopy and Endoscopic Surgery in Infants and Children* (Najmaldin, Azad, Associate Editors: Rothenberg S, Crabbe D, Beasley S, eds.) Hodder Education (Hodder Headline Group), London, England: 2005: pp 379-384.

**Hafez AT, Afshar K, Bagli DJ, Bahoric A, Aitken K, Smith C, Khoury AE:** Aerosol Transfer of Bladder Urothelial and Smooth Muscle Cells onto Demucosalized Colonic Segments for Porcine Bladder Augmentation in Vivo: A 6-Week Experimental Study. *Journal of Urology*: October 2005: 174 (4): pp 1663-1668.

**Halachmi S, Aitken D, Szybowska M, Sabha N, Dessouki S, Tse D, Lorenzo A, Bagli DJ:** The Role of Signal Transducer and Activator of Transcription-3(Stat#) in Stretch Injury to Bladder Smooth Muscle Cells. *Cell & Tissue Research*: May 2006: Epub ahead: pp of print.

**Jednak R, Pippi Salle JL:** Treatment Alternatives for Different Types of Neurogenic Bladder Dysfunction in Children. In: *Neurogenic Bladders*: 2005: pp 297.

**Lorenzo A, Karsli C, Halachmi S, Kolci M, Luginbuehl I, Bissonnette B, Farhat W:** Hemodynamic and Respiratory Effects of Pediatric Urological Retroperitoneal Laparoscopic Surgery: A Prospective Study. *Journal of Urology*: April 2006: 175(4): pp 1461-1465.

**Nicanor FA, Cook A, Pippi Salle JL:** Early Diagnosis of the Urofacial Syndrome Is Essential to Prevent Irreversible Renal Failure. *International Brazilian Journal of Urology*: October 2005: 31 (5): pp 477-481.

**Pippi Salle JL, Langer J, Favorito LA:** Unilateral Renal Agenesis Associated with Partial Epididymis and Vas Deferens Agenesis in a Patient with Abdominal Testicle. *Brazilian Journal of Urology*: April 2006: 32: pp 1-3.

**Wallis C, Khoury AE, Lorenzo AJ, Pippi Salle JL, Bagli DJ, Farhat W:** Outcome Analysis of Retroperitoneal Laparoscopic Heminephrectomy in Children. *Journal of Urology*: June 2006: 175(6): pp 2277-80.

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## Invited Visits to Other Hospitals/Universities

- Bagli DJ:** Northeastern & New England Sections of the American Urological Association, Bermuda, November 2005. Pediatric Debate - Is Deflux the Appropriate Treatment for Reflux?
- Farhat W:** Kuwait Urological Association, Kuwait City, Kuwait, February 2006. Epidemiology of Stones in Pediatric Population.
- Farhat W:** Wake Forest University, Winston-Salem, North Carolina, September 2005. Laparoscopy and Pediatric Urology.
- Farhat W:** Specialty Lecture, Oklahoma City, Oklahoma, January 2006. Laparoscopy in Pediatric Urology: SickKids - Toronto Experience.
- Farhat W:** Kuwait Urological Association, Kuwait City, Kuwait, February 2006. Role of Laparoscopy in Pediatric Urolithiasis.
- Farhat W:** Lab Presentation, Oklahoma City, Oklahoma, January 2006. Search for an Optimal Bladder Substitute.
- Farhat W:** Society for Pediatric Urology, 54<sup>th</sup> Annual Meeting, Atlanta, Georgia, May 2006. Tissue Engineering in Urology - Where Are We Now?
- Farhat W:** Specialty Lecture, Oklahoma City, Oklahoma, January 2006. What MRI and Tissue Engineering Have In Common?
- Khoury AE:** College of Family Physicians of Canada, Toronto, Ontario, November 2005. Bedwetting.
- Khoury AE:** University of Texas Southwestern Medical Center, Dallas, Texas, November 2005. Impact of Deflux on the Management of Reflux.
- Khoury AE:** University of Texas Southwestern Medical Center (Terry D. Allen Visiting Professorship in Pediatric Urology), Dallas, Texas, November 2005. Surgery for Pediatric Urological Tumors: Insights and Observations from Toronto.
- Pippi Salle JL:** 25<sup>th</sup> Congress of the International Continence Society: Management of Myelomeningoceles Workshop, Montreal, Quebec, August 2005. (1) Bladder Augmentation, (2) Bladder Neck Reconstruction, (3) Initial Management of Myelomeningoceles and Pre-Op Evaluations Prior to Surgery for Incontinence.
- Pippi Salle JL:** Department of Surgery, University of Cape Town, Red Cross Children's Hospital, Cape Town, South Africa, August 2005. Grand Rounds "Investigative Approach in Antenatally Diagnosed Hydronephrosis."
- Pippi Salle JL:** Hospital Bambino Gesù, Rome, Italy, April 2006. Lecture: Update in the Management of Bladder Exstrophy in the Newborn.
- Pippi Salle JL:** Hospital Jesus, Rio de Janeiro, Brazil, December 2005. Live Surgeries: Non-Ablative Dismembered Clitoroplasty: A New Technique for feminizing Genitoplasty.
- Pippi Salle JL:** 3<sup>rd</sup> International Congress of Urethral Reconstructive Surgery, Madrid, Spain, February 2006. (1) Management of Complex and Redo Hypospadias, (2) Moderator of Live Surgeries Performed by Drs. JM Garat and A Mundy, (3) Instrumentation for Pediatric Urethral Surgery, (4) Round Table: Management of Hypospadias - How Do I Do?
- Pippi Salle JL:** The Children's Memorial Health Institute, Warsaw, Poland, September 2005. Management of Hydronephrosis.
- Pippi Salle JL:** University of Mozambique, Mozambique, Africa, July 2005. (1) Management of Intersex, (2) Management of Vesicoureteral Reflux, (3) Hypospadias, (4) Antenatal Hydronephrosis.
- Pippi Salle JL:** Congress of the International Society of Hypospadias and Intersex Disorders, Istanbul, Turkey, November 2005. (1) Non-Ablative Clitoroplasty: A Potentially Reversible Technique for Feminizing Genitoplasty, (2) Panel Member - Controversies in the Management of Hypospadias, (3) Feminizing Genitoplasty: Technical Details, (4) Technical Details to Improve Results in Hypospadias Repair.
- Pippi Salle JL:** Hospital Bambino Gesù, Rome, Italy, April 2006. Panel Participation - International Meeting on Anomalies of Sex Differentiation presenting the topic Non-Ablative Dismembered Clitoroplasty: A Potentially Reversible Technique for Feminizing Genitoplasty.
- Pippi Salle JL:** Department of Surgery, University of Cape Town, Red Cross Children's Hospital, Cape Town, South Africa, August 2005. (1) Participated Urology Weekly Rounds on Case Discussion, (2) Performed 2 demonstrative surgeries on Hypospadias.
- Pippi Salle JL:** The Children's Hospital Memorial Health Institute, Warsaw, Poland, September 2005. Presented Videos on Bladder Exstrophy, Hypospadias Repair and Feminizing Genitoplasty.
- Pippi Salle JL:** American Urological Association, Atlanta, Georgia, May 2006. State-of-Art Lecture - Bladder Neck Reconstruction in Children.

**Pippi Salle JL:** Plenary Session: 25<sup>th</sup> Congress of the International Continence Society, Montreal, Quebec, August 2005. Surgical Correction of Incontinence Secondary to Low Outlet Resistance.

**Pippi Salle JL:** Hospital Jesus, Rio de Janeiro, Brazil, December 2005. Update on Management of Intersex: A new Technique for Clitoroplasty.

**Pippi Salle JL:** Hospital Bambino Gesù, Rome, Italy, April 2006. Video presentation on: Non-Ablative Dismembered Clitoroplasty: A Potentially Reversible Technique for Feminizing Genitoplasty during the International Meeting on Anomalies of Sex Differentiation.

**Pippi Salle JL:** Hospital Bambino Gesù, Rome, Italy, April 2006. Visiting Professor in the Department of Neonatal Surgery.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

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

Small Bowel Acellular Matrix as a Small Intestinal Substitute in a Porcine Model. *Wales P, Farhat W, Kim J: The Canadian Association of General Surgeons (\$10,000 2004 - 2005.)*

The Role of Erk MAP Kinase in Bladder Smooth Muscle Cell Response to Injury. *Bagli DJ: CIHR (\$250,000 2002 - 2005.)*

The Role of Hypoxia in Fibroproliferative Bladder Disease. *Bagli DJ: National Institutes of Health Research in coordination with NIH O'Brien Centre Grant in Urologic Research awarded to Children's Hospital in Boston (PI: Dr. Michael Freeman, PhD (\$147,774 2004 - 2006.)*

The Search for an Optimal Bladder Substitute. *Farhat W: The Hospital for Sick Children Foundation and the Institute of Human Development, Child and Your Health - CIHR (\$130,000 2004 - 2006.)*

## Honours Received

**Pippi Salle JL:** First Prize for Clinical Paper - Robson Day - Non-Ablative Dismembered Clitoroplasty: A Potentially Reversible Technique for Feminizing Genitoplasty, March 2006.



**Zane Cohen** - Surgeon-in-Chief

## *Heads of Divisions*

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Dr. R.S. McLeod - General Surgery

Dr. J. Wunder - Orthopaedic Surgery

Dr. K. Jarvi - Urology

The Department of Surgery at Mount Sinai Hospital consists of three major divisions, those being: General Surgery, Orthopaedic Surgery and Urology. Emphases within General Surgery are Colorectal Surgery including IBD and Oncology. Oncology includes colorectal, breast sarcoma and retroperitoneal tumours; and endocrine surgery includes thyroid disease. Within Orthopaedic Surgery, Orthopaedics Oncology, and Reconstructive Orthopaedics are the main foci. Within Urology, the development of the Murray Koffler Urologic Wellness Centre, in addition to a nationally recognized program in Andrology, has now furthered developed clinical research and prevention and biomarkers related to prostate cancer.

## **General Surgery**

The Division of General Surgery of Mount Sinai Hospital is composed of the following members: Drs. Zane Cohen, Alexandra Easson, Steve Gallinger, Michael Goldberg, Robert Gryfe, Irving Koven, Helen MacRae, Andrea McCart, Robin McLeod, Irving Rosen, Saul Sidlofsky and Carol Swallow. Cross-appointments within the Division include Drs. Jaime Escallon, Wey Leong and David McCready.

The Division continues to focus on four areas of expertise: Colorectal Surgery, Gastrointestinal Oncology, Breast Disease, and Inflammatory Bowel Disease. The Colorectal Surgical programs and the Surgical Oncology programs are accredited without certification by the Royal College of Surgeons of Canada. Both of these programs continue to attract outstanding and international residents.

The Familial Gastro-Intestinal Cancer Registry (FGICR) and the IBD unit have moved into new combined quarters at 60 Murray Street. This digestive diseases clinical research unit is an exemplary multi-disciplinary model being used for clinically related research.

Dr. Alexandra Easson was promoted to Assistant Professor. Dr. Andrea McCart received the Saul Highman Memorial Award in Gene Therapy. Dr. Zane Cohen was the Buie Visiting Professor at the Mayo Clinic, and Dr. Robin McLeod was a Visiting Professor at the Royal College of Surgeons of Glasgow.

Drs. Rob Gryfe, Helen MacRae, Andrea McCart, Robin McLeod and Carol Swallow continue to hold peer-reviewed grants from NCI, NCIC, CIHR, PSI, Crohn's and the Colitis Foundation of America, Ontario Cancer Research Network and NINDC. In addition, Rob Gryfe received a CIHR Term Grant. Carol Swallow received new operating grants from CIHR, NCIC, and the national Colorectal Cancer Campaign. Andrea McCart received grants from the NCIC, Leukemia and Lymphoma Society of Canada, and the National Colorectal Cancer Campaign. Alexandra Easson received grants from the Dean's Excellence Fund and the Department of Psycho-Social Oncology at the University Health Network.



## **The following positions were held by members of the division:**

Dr. Irving Rosen is a board member of the Thyroid Foundation of Canada, Canadian Thyroid Cancer Support Group, T-4 Life, and the Head and Neck Cancer Foundation. Helen MacRae is the D.H. Gales Director of the University of Toronto Surgical Skills Centre at Mount Sinai Hospital, and Alexandra Easson is a member of the Palliative Care Group of the American College of Surgeons. Robin McLeod is a regent of the American College of Surgeons and Andrea McCart was a co-organizer of the Southern Ontario Gene Therapy Meeting for 2005. Carol Swallow is the Chair of Royal College of Physicians and Surgeons of Canada General Surgery Oncology Specialty Committee and the Chair of the Research Committee of the Canadian Association of General Surgeons.

Highlights during the academic year included the division honouring Irv Koven, who retired after 35 years in practice at Mount Sinai Hospital. A dinner was held in his honour and Dr. Henry Shibata from McGill University was invited to present Tri-Hospital Rounds on the topic of Advances in Breast Cancer Surgery Due to Results from Clinical Trials.

The Third Annual Rosen-Rasch Lecture was delivered by Dr. Chris McHenry from Case Western Reserve.

Alexandra Easson and colleagues produced a CD-ROM on “Disclosure of Medical Error: Vignettes for Discussion” for the American College of Surgeons, and she also initiated the inaugural Humanism in Surgery OSCE for evaluating general surgery residents using canMEDS 2006. This was supported by a grant from the Dean’s Excellence Fund.

## **Orthopaedic Surgery**

The efforts in Orthopaedic Oncology and Reconstructive Orthopaedic continue. Members of the Division include Jay Wunder, who is the Head of the Division of Orthopaedic Surgery, Peter Ferguson, Allan Gross, David Backstein, Erin Boynton and Bob Bell.

## **Significant Activities**

Bob Bell was appointed C.E.O. of the University Health Network. This is a tremendous accomplishment for Bob, and we wish him well in his new venture. Jay Wunder was elected to the Board of Directors of Connective Tissue Oncology which is the foremost international sarcoma research and clinical organization. He also won the Tovee Award for best post-graduate teacher in the Department of Surgery at the University of Toronto, and was chosen as the new Surgeon-In-Chief of Mount Sinai Hospital as of July 1, 2006.

Jay also developed, along with Bob Bell and Peter Ferguson, Tele-medicine Muscular-Skeletal Oncology Teaching Rounds for orthopaedic residents at the University of Toronto, University of Western, and University of Ottawa. He, Bob Bell and the Canadian Sarcoma Group completed publication of the initial series of clinical articles, called the Canadian Randomized Prospective Study, describing a new paradigm shift in treatment for patients with extremity soft-tissue sarcoma based on pre-operative radiation.

Peter Ferguson ranked in the top 10 of under-graduate teachers in the Department of Surgery. He was appointed to the NCIC Clinical Trials Group/Canadian Sarcoma Group Sarcoma Executive. He was a guest speaker at the Canadian Society of Orthopaedic Technologist Annual Meeting, and a moderator at the Canadian Orthopaedic Residents Association Annual Meeting.

Allan Gross received the Order of Ontario. He received the Genzyme International Cartilage Repair Society (ICRS) Cartilage Research Life Time Award 2006, and organized a Zimmer Hands on Hip Revision Course and a G3 Cadaveric Hands On Course.

David Backstein, along with Adam Dubrowski, in the field of surgical education, continued to supervise two Educational research fellows in their work toward achieving a Master’s Degree in Education (Dr. M. Nousianen and W. Goften.)

In David’s capacity as the Director of Undergraduate Education for the Department of Surgery, he implemented a major curricular change for our year three medical students. This addition to the curriculum is called the “Crash Course in Surgery,” and it is a week-long program consisting of technical skills instruction and practice in the Surgical Skills Centre. It also includes an integrated seminar series which augments the technical skills training. Additionally, he organized and ran the 2006 Orthopaedic Undergraduate Week in June 2006 and is re-vamping the evaluative process for undergraduates.

Dr. Boynton has been the consulting physician for the Toronto Blue Jays, the Toronto Maple Leafs, the Toronto Marlies and the Toronto Argonauts. She was the consulting physician for the RBC Cup in Hockey. She spoke at the COA meeting this June, as the key note speaker for the Women in Orthopaedics Luncheon. Her talk was entitled “Field of Dreams - Some Comments on How to Get There”.

Dr. Boynton has won the Carol Lauren Research Award for her paper entitled “Investigation of the Supraspinatus Muscle and Tendon Architecture in Normal and Full-Thickness Tendon Tears: A Cadaveric and Ultrasonographic Study.”

Numerous grants are held by all members of the division of Orthopaedic Surgery. Their expertise has been sought by organizations internationally and they have been actively presenting at scientific meetings.

## **Urology**

The Department of Surgery at Mount Sinai Hospital is very pleased to welcome Dr. Alexandre Zlotta to its faculty and to that of the university. Dr. Zlotta is an internationally renowned Urologic Oncologist who will be appointed as the Director of the Prostate Oncology program of the Koffler Urologic Wellness Centre, which is part of Mount Sinai Hospital. He will have a cross-appointment at the Princess Margaret Hospital, and we are delighted to have him as part of the Mount Sinai Hospital Department of Surgery and the University of Toronto Department of Surgery faculty.

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## DIVISION OF GENERAL SURGERY

**Dr. Z. Cohen - Professor**

**Dr. A. 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. S. Sidlofsky - Assistant Professor**

**Dr. C.J. Swallow - Associate Professor**

## Publications

**Bacani J, Zwingerman R, Di Nicola N, Spencer S, Wegrynowski T, Mitchell K, Hay K, Redston M, Holowaty E, Huntsman D, Pollett A, Riddell R, Gallinger S:** Tumor Microsatellite Instability in Early Onset Gastric Cancer. *J Mol Diagn*: October 2005: 7(4): pp 465-477.

**Blackstein ME, Blay JY, Corless C, Driman DK, Riddell R, Soulieres D, Swallow CJ, Verma S:** Gastrointestinal Stromal Tumors: Consensus Statement on Diagnosis and Treatment. *Canadian Journal of Gastroenterology*: March 2006: 20(3): pp 157-163.

**Brown CJ, MacLean AR, Asano Y, Cohen Z, MacRae HM, O'Connor BI, McLeod RS:** Crohn's Disease and Indeterminate Colitis and the Ileal Pouch-Anal Anastomosis: Outcomes and Patterns of Failure. *Diseases of the Colon and Rectum*: August 2005: 48: pp 1542-1549.

**Brown CJ, O'Connor B, Liu M, MacRae H, Cohen Z, McLeod RS:** Proctocolectomy in Patients with Colorectal Cancer - A Retrospective Cohort Study of Indications and Outcomes of the Ileal Pouch Anal Anastomosis Compared to Permanent Ileostomy. *Canadian Journal of Surgery*: August 2005: 48: pp 3.

**Durno CA, Aronson M, Bapat B, Cohen Z, Gallinger S:** Family History and Molecular Features of Children, Adolescents and Young Adults with Colorectal Carcinoma. *GUT*: August 2005: 54(8): pp 1146-1150.

**Hendren SK, O'Connor BI, Liu M, Asano T, Cohen Z, Swallow CJ, Macrae HM, Gryfe R, McLeod RS:** Prevalence of Male and Female Sexual Dysfunction Is High Following Surgery for Rectal Cancer. *Annals of Surgery*: August 2005: 242(2): pp 212-223.

**Johnson PM, Gallinger S, McLeod RS:** Surveillance Colonoscopy in Individuals at Risk for Hereditary Nonpolyposis Colorectal Cancer: An Evidence-Based Review. *Diseases of the Colon and Rectum*: January 2006: 49(1): pp 80-93.

**Kassam Z, Lockwood G, O'Brien C, Brierley J, Swallow C, Oza A, Siu L, Knox JJ, Wong R, Cummings B, Kim J, Moore M, Ringash J:** Conformal Radiotherapy in the Adjuvant Treatment of Gastric Cancer: Review of 82 Cases. *International Journal of Radiation Oncology, Biology, Physics*: March 2006: 65(3): pp 713-719.

**Ko MA, Rosario CO, Hudson JW, Kulkarni S, Pollett A, Dennis JW, Swallow CJ:** Plk4 Haploinsufficiency Causes Mitotic Infidelity and Carcinogenesis. *Nature Genetics*: August 2005: 37(8): pp 883-888.

**Raval MJ, Schnitzler M, O'Connor BI, MacRae HM, Cohen Z, Gryfe R, McLeod RS:** Improved Outcome Due to Increased Experience and Individualized Management of Leaks Following Ileal Pouch Anal Anastomosis (IPAA.) *Canadian Journal of Surgery*: August 2005: 48: pp 6.

**McLeod RS:** Evidence Based Reviews in Surgery: A New Educational Program for ACS Fellows, Candidates, and Resident Members. *American College of Surgeons Bulletin*: October 2005: 90: pp 8-11.

**McLeod RS, Lindsay T, O'Malley M, Members of the Evidence Based Reviews in Surgery Group:** Canadian Association of General Surgeons and American College of Surgeons Evidence Based Reviews in Surgery 14. Preoperative Fasting for Adults to Prevent Perioperative Complications. *Canadian Journal of Surgery*: December 2005: 48: pp 409-411.



**Naik AM, Chalikonda S, McCart JA, Xu H, Guo ZS, Langham G, Gardner D, Mocellin S, Lokshin AE, Moss B, Alexander HR, Bartlett DL:** Intravenous and Isolated Limb Perfusion Delivery of Wild Type and a Tumor-Selective Replicating Mutant Vaccinia Virus in Non-Human Primates. *Human Gene Therapy*: January 2006: 17: pp 31-45.

**Pawlik TM, Pisters PW, Mikula L, Feig BW, Hunt KK, Cormier JN, Ballo MT, Catton CN, Jones JJ, O'Sullivan B, Pollock RE, Swallow CJ:** Long-Term Results of Two Prospective Trials of Preoperative External Beam Radiotherapy for Localized Intermediate or High-Grade Retroperitoneal Soft Tissue Sarcoma. *Annals of Surgical Oncology*: February 2006: 13 (4): pp 508-17.

**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* (In press): June 2006.

**Wiltshire KL, Ward IG, Swallow C, Oza AM, Cummings B, Pond GR, Catton P, Kim J, Ringash J, Wong CS, Wong R, Siu LL, Moore M:** Preoperative Radiation with Concurrent Chemotherapy for Resectable Rectal Cancer: Effect of Dose Escalation on Pathologic Complete Response, Local Recurrence-Free Survival, Disease-Free Survival, and Overall Survival. *International Journal of Radiation Oncology, Biology, Physics*: February 2006: 64 (3): pp 709-716.

### **Invited Visits to Other Hospitals/Universities**

**Cohen Z:** Tripartite Colorectal Meeting, Dublin, Ireland, July 2005. (1) Moderator for Scientific Paper Session, (2) Panel Member for Symposium on Difficult Cases in Inflammatory Bowel Disease.

**MacRae HM:** Update in General Surgery 2006, 46<sup>th</sup> Annual Course for Practising Surgeons, Toronto, ON, April 2006. Avoiding Complications in Laparoscopic Colon Surgery.

**MacRae HM:** ACS 91<sup>st</sup> Annual Clinical Congress 2005, San Francisco, San Francisco, CA, October 2005. GS36-Improving Teaching: Advances in Educational Technology.

**MacRae HM:** CAGS/WCOG Postgraduate Course 2005, Montreal, QC, September 2005. Laparoscopic Resection.

**MacRae HM:** CAGS/WCOG Postgraduate Course 2005, Montreal, QC, September 2005. Preventing Past Errors: Basic Training Requirements.

**McCart JA:** Southern Alberta Cancer Research Institute, Calgary, AB, December 2005. Vaccinia Oncolysis: Virotherapy for Cancer.

**McCart JA:** Ottawa Health Research Institute, Ottawa, ON, February 2006. Vaccinia Virus Oncolysis: Virotherapy for Cancer.

**McLeod RS:** American College of Surgeons, San Francisco, CA, October 2005. (1) A Good Stoma Versus Pouch Gone Bad - Assessment of Relative Quality of Life?, (2) Anal Fissure - Chemical vs. Surgical Spineterotomy.

**McLeod RS:** World Congress of Gastroenterology, Montreal, QC, September 2005. Is Crohn's Disease a Contraindication to Perform IPAA?

**McLeod RS:** Tripartite Colorectal Meeting, Dublin, Ireland, July 2005. Management of Inflammatory Bowel Disease.

**McLeod RS:** Canadian Association of General Surgeons, Montreal, QC, September 2005. Mucosectomy Should Be Performed Selectively.

**McLeod RS:** American College of Surgeons, San Francisco, CA, October 2005. Privileging and Re-Credentialing as Related to Age.

**McLeod RS:** Asociacion Mexicana de Cirugia General Colegio Postgraduados en Cirugia General, Merida, Yucatan, November 2005. (1) State-of-the-Art Lecture: Carcinoma of the Colon and Rectum - Evidence Based Management, (2) Surgical Treatment of Chronic Ulcerative Colitis.

**McLeod RS:** Canadian Society of Colon and Rectal Surgeons, Montreal, QC, September 2005. Strictureplasty - How I Do It?

**McLeod RS:** Canadian Association of General Surgeons, Montreal, QC, September 2005. Women in Surgery.

**Swallow CJ:** BC Surgical Oncology Network Conference, Vancouver, BC, December 2005. Assessing the Quality of Surgery for Gastric Cancer.

**Swallow CJ:** CSSO Symposium, Canadian Surgery Forum, Montreal, QC, September 2005. Current concepts in the surgical Management of Peritoneal Carcinomatosis: Who, Why, How and What? Organizer and Chair.

**Swallow CJ:** University of Calgary Surgial Oncology Special Lecture, Calgary, AB, December 2005. Gastrointestinal Stromal Tumor.

**Swallow CJ:** University of Alberta Department of Surgery Province Wide Rounds Cross Cancer Institute, Edmonton, AB, December 2005. Gastrointestinal Stromal Tumor - The Future of Cancer Surgery.

**Swallow CJ:** Surgical Oncology Network Symposium, Toronto, ON, October 2005. Preoperative Radiation for Rectal Cancer - The New Standard of Care?

**Swallow CJ:** Memorial Sloan-Kettering Cancer Center Grand Rounds, New York, NY, April 2006. Results of an Aggressive Approach to Resection of Locally Recurrent Rectal Cancer.

**Swallow CJ:** Congres L'Association des Chirugiens Generaux du Quebec Satellite Symposium, Gatineau, QC, May 2006. Update on the Surgical Management and Review of the Canadian Consensus Recommendations for GIST.

## Research and Investigations

### *Senior Investigator's Name Appears in Italics*

A Phase I/II Trial of Celecoxib with Preoperative Chemoradiation for Resectable Rectal Cancer with In Vivo Analysis of Celecoxib Effector Pathways. *Kim J, Swallow CJ, Easson A, Cummings B, Wong R, Qi-Ling Y, Siu L, Brierley J, Catton P: Ontario Cancer Research Network (\$150,000 2003 - 2006.)*

A Prospective Study of Intervals and Delays in the Diagnosis of Cancer. *Bondy S, Angus J, Benk V, Easson A, Grunfeld E, Hodgson D, Holowaty E, Iscoe N, Loblaw A, Kim J, Paszat L, Smith A, Stukel T, Ung Y, Wong R: Canadian Institute of Health Research (\$488,602 2002 - 2005.)*

Characterizing MSI-H Colorectal Cancer Genotype and Phenotype. *Gryfe R: Canadian Institutes of Health Research, Cancer Care Ontario, Eli Lilly Canada, Phase II (\$150,000 2005 - 2007.)*

Development of A Novel Tumour Specific Vaccinia Virus. *McCart JA, Fish EN: National Cancer Institute of Canada (\$35,000 2005 - 2006.)*

Ductoscopy of Breast Diseases. *Leong WL, Easson AM, McCready DM: Nelson Arthur Hyland Foundation (\$25,000 2004 - 2007.)*

Ductoscopy of Breast Diseases. *Leong WL, Easson AM, McCready DM: Den Haag Breast Cancer Foundation (\$128,000 2004 - 2007.)*

Ductoscopy of Breast Diseases. *Leong WL, Easson AM, McCready DM: Princess Margaret Hospital Women's Committee (\$25,000 2004 - 2007.)*

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 (\$25,000 2004 - 2005.)*

Immuno-Gene Therapy for Colorectal Cancer. *McCart JA, Medin JA, Co-PI: National Colorectal Cancer Campaign (\$55,000 2005 - 2006.)*

Interdisciplinary Research on the Determinants and Impact of Colorectal Cancer: Molecular Genetic Factors, Risk Modifiers and Population Health. *John McLaughlin: Canadian Institutes of Health Research (\$4,459,615 2006 - 2010.)*

Lentivirus Gene Therapy for Farber Disease in Nhps. *Medin JA, McCart JA: National Institutes of Health (\$250,000 2005 - 2007.)*

Mammary Ductoscopic Imaging and Spectroscopy, An Exploratory Study. *Leong WL, Easson AM, McCready DR, Done S, Douplik A, Yang V, Vitkin A, Wilson B: Ontario Research and Development Challenge Fund (\$8,730 2004 - 2005.)*

Perceptions of Professionalism Among Faculty and Trainees in Academic Surgery. *Park., Woodrow S, Reznick R, MacRae H: Royal College of Physicians and Surgeons of Canada Medical Education Grant (\$24,867 2004 - 2005.)*

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 Expression and Regulation in Human Colorectal Cancer. *Swallow CJ: National Colorectal Cancer Campaign (\$73,600 2005 - 2006.)*

Pre-clinical Assessment of Vaccinia Virus for Cancer Gene Therapy and Functional Tumour Imaging. *McCart JA, Reilly R: Ontario Cancer Research Network (\$451,538 2002 - 2005.)*

Pre-clinical Assessment of Vaccinia Virus for Functional Tumour Imaging. *McCart JA: 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.)

Teaching Surgical Skills: Massed Versus Distributed Practice. *Moulton CA, Dubrowski A, MacRae H, Reznick R: Physicians' Services Incorporated* (\$43,000 2005 - 2006.)

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

**Gryfe R:** Phase II Charles Hollenberg Translational Research Senior Fellow/Clinician Scientist Award. Eli Lilly Canada, Cancer Care Ontario, Canadian Institutes of Health Research, July 2005.

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## DIVISION OF ORTHOPAEDIC SURGERY

**Dr. D. Backstein - Assistant Professor**

**Dr. R.S. Bell - Professor**

**Dr. E.L. Boynton - Assistant Professor**

**Dr. P.C. Ferguson - Assistant Professor**

**Dr. A.E. Gross - Professor**

**Dr. D. MacIntosh - Associate Professor**

**Dr. E.A. Silverstein - Assistant Professor**

**Dr. J.S. Wunder - Associate Professor (Division Head)**

## Publications

**Akudugu JM, Bell RS, Catton C, Davis AM, Griffin AM, O'Sullivan B, Waldron JN, Ferguson PC, Wunder JS, Hill RP:** Wound Healing Morbidity in STS Patients Treated with Preoperative Radiotherapy In Relation to In Vitro Skin Fibroblast Radiosensitivity, Proliferative Capacity and TGF-Beta Activity. *Radiotherapy Oncology*: January 2006: 34 (12): pp 771-777.

**Aljassir F, Beadel GP, Turcotte RE, Griffin AM, Bell RS, Wunder JS, Isler MH:** Outcome after Pelvic Sarcoma Resection Reconstructed with Saddle Prosthesis. *Clinical Orthopaedics and Related Research*: September 2005: 438: pp 36-41.

**Backstein D, Safir O, Gross A:** Fresh Osteochondral Allografts for Articular Defects of the Knee. In: *Surgery of the Knee (Fourth Edition)* (W. Norman Scott, ed.) Churchill Livingstone Elsevier, Philadelphia, PA: 2006: pp 420-433.

**Backstein D, Safir O, Gross A:** Management of Bone Loss: Structural Grafts in Revision Total Knee Arthroplasty. *Clinical Orthopaedics and Related Research*: May 2006: 446: pp 104-112.

**Beadel GP, McLaughlin CE, Aljassir F, Turcotte RE, Isler MH, Ferguson P, Griffin AM, Bell RS, Wunder JS:** Iliosacral Resection for Primary Bone Tumors: Is Pelvic Reconstruction Necessary? *Clinical Orthopaedics and Related Research*: September 2005: 438: pp 22-29.

**Beadel GP, McLaughlin CE, Wunder JS, Griffin AM, Ferguson PC, Bell RS:** Outcome in Two Groups of Patients with Allograft-Prosthetic Reconstruction of Pelvic Tumor Defects. *Clinical Orthopaedics and Related Research*: September 2005: 438: pp 30-35.

**Beadel GP, McLaughlin CE, Aljassir F, Turcotte RE, Isler MH, Ferguson PC, Griffin AM, Bell RS, Wunder JS:** Iliosacral Resection for Primary Bone Tumors: Is Pelvic Reconstruction Necessary? *Clinical Orthopaedics and Related Research*: September 2005: 438: pp 22-29.

**Chhaya S, White LM, Kandel R, Wunder JS, Ferguson P, Agur A:** Transarticular Invasion of Bone Tumours Across the Sacroiliac Joint. *Skeletal Radiology*: December 2005: 34 (12): pp 771-777.

**Clarkson PW, Griffin AM, Catton CN, O'Sullivan B, Ferguson PC, Wunder JS, Bell RS:** Epineural Dissection is a Safe Technique that Facilitates Limb Salvage Surgery. *Clinical Orthopaedics and Related Research*: September 2005: 438: pp 92-96.

**Schreiber D, Bell RS, Wunder JS, O'Sullivan B, Turcotte R, Masri BA, Davis AM:** Evaluating Function and Health Related Quality of Life in Patients Treated for Extremity Soft Tissue Sarcoma. *Quality of Life Research*: May 2006: D01 10.100:

**Davis AM, Agnidis Z, Badley E, Kiss A, Waddell JP, Gross AE:** Predictors of Functional Outcome Two Years Following Revision Hip Arthroplasty. *Journal of Bone and Joint Surgery (American)*: April 2006: 88A: pp 685-691.

**Dubrowski A, Backstein D, Abughaduma R, Leidl D, Carnahan H:** The Influence of Practice Schedules in the Learning of a Complex Bone Plating Surgical Task. *American Journal of Surgery*: September 2005: 190: pp 359-63.

**Ferguson PC:** Surgical Considerations for Management of Distal Extremity Soft Tissue Sarcomas. *Current Opinion in Oncology*: July 2005: 17(4): pp 366-369.

**Ferguson PC, Griffin AM, O'Sullivan B, Davis AM, Catton CN, Murji A, Bell RS, Wunder JS:** Bone Invasion for Soft Tissue Sarcoma: Impact on Disease Outcomes. *Cancer*: June 2006: 106(12): pp 2692-2700.

**Ghert MA, Davis AM, Griffin AM, Alyami AH, White L, Kandel RA, Ferguson PC, O'Sullivan B, Catton CN, Lindsay T, Rubin B, Bell RS, Wunder JS:** The Surgical and Functional Outcome of Limb-Salvage Surgery with Vascular Reconstruction for Soft Tissue Sarcoma of the Extremity. *Annals of Surgical Oncology*: December 2005: 12: pp 1102-1110.

- Griffin AM, Parsons JA, Davis AM, Bell RS, Wunder JS:** Uncemented Tumor Endoprostheses at the Knee: Root Causes of Failure. *Clinical Orthopaedics and Related Research*: September 2005: 438: pp 71-79.
- Gross AE:** Allograft Prosthetic Composite. In: *Master Techniques in Orthopaedic Surgery, The Hip* (Barrack RL, Rosenberg AG, eds.) Lippincott Williams & Wilkins: 2006: pp 385-396.
- Gross AE:** Restoration of Acetabular Bone Loss 2005. *Journal of Arthroplasty*: June 2006: 21 No. 4: pp 117-120.
- Gross AE:** Which Treatment for an Osteochondral Lesion? *The Journal of Musculoskeletal Medicine*: December 2005: pp 658-659.
- Hamstra S, Dubrowski A, Backstein D:** Teaching Technical Skills to Surgical Residents: A Survey of Empirical Research. *Clinical Orthopaedics and Related Research*: June 2006.
- He W, Bull SB, Gokgoz N, Andrusis I, Wunder J:** Application of Reliability Coefficients in cDNA Microarray Data Analysis. *Statistics in Medicine*: March 2006: 25(6): pp 1051-1066.
- Hungerford DS, Cameron HU, Engh CA, Gross AE, Rosenberg AG, Stulberg BN:** What Would You Do? Challenges in Hip Surgery. *Journal of Arthroplasty*: June 2006: 21, No. 4: pp 131-140.
- Kandel R, Li, SQ, Bell R, Wunder J, Ferguson P, Kauzman A, Diehl JA, Werier J:** Cyclin D1 and p21 is Elevated in the Giant Cells of Giant Cell Tumors. *Journal of Orthopaedic Research*: January 2006: 24(3): pp 428-437.
- Khokhotva M, Backstein D, Dubrowski A:** Performance Error is Not Necessary for Learning of Orthopaedic Bone Drilling. *University of Toronto Medical Journal*: January 2006: 83s: pp 26.
- Maury AC, Pressman A, Cayen B, Zalzal P, Backstein D, Gross A:** Proximal Femoral Allograft Treatment of Vancouver Type B3 Periprosthetic Femoral Fractures after Total Hip Arthroplasty. *Journal of Bone and Joint Surgery (American)*: May 2006: 88: pp 953-958.
- Morag G, Kulidjian A, Gross A, Backstein D:** Total Knee Replacement in Previous Recipients of Fresh Osteochondral Allografts. *Journal of Bone and Joint Surgery (American)*: March 2006: 88 (3): pp 541-546.
- Morag G, Zalzal P, Liberman B, Safir O, Flint M, Gross AE:** Outcome of Revision Hip Arthroplasty in Patients with a Previous Total Hip Replacement for Developmental Dysplasia of the Hip. *Journal of Bone and Joint Surgery*: August 2005: 87B, No. 8: pp 1068-1072.
- Safir O, Backstein D, Zalzal P, Gross AE:** Massive Osteochondral Allografts in the Management of Nontumoral Conditions Around the Knee. *Techniques in Knee Surgery*: July 2005: 4, Issue 2: pp 89-99.
- Tiet TD, Hiopyan S, Nadesan P, Gokgoz N, Poon R, Lin AC, Yan T, Andrusis IL, Alman BA, Wunder JS:** Constitutive Hedgehog Signaling in Chondrosarcoma Up-Regulates Tumor Cell Proliferation. *American Journal of Pathology*: January 2006: 168 (1): pp 321-30.
- Invited Visits to Other Hospitals/Universities**
- Backstein D:** Canadian Orthopaedic Association Annual Meeting, Toronto, ON, June 2006. Arthroplasty Session Moderator.
- Backstein D:** Ecuadorian Orthopaedic Association, Quito, Ecuador, March 2006. Canadian Orthopaedic Congress.
- Backstein D:** Stryker Canada Continuing Medical Education, Whistler, BC, February 2006. Contemporary and Future Concepts in Orthopaedics 2006.
- Backstein D:** Zimmer Canada Continuing Medical Education, Whistler, BC, February 2006. Emerging Trends in Hip and Knee Arthroplasty.
- Backstein D:** Canadian Orthopaedic Association Annual Meeting, Toronto, ON, June 2006. Intraoperative Femoral Fracture During MIS Surgery - Instructional Course Lecture.
- Backstein D:** University of Virginia Grand Rounds, Charlottesville, VA, November 2005. Long-Term Follow-Up of Fresh Osteochondral Allografts of the Knee.
- Backstein D:** Surgical Advances in Total Hip and Knee Arthroplasty, Mont Tremblant, QC, August 2005. (1) Minimally Invasive Total Hip Replacement Recovery Fact or Fiction?, (2) Minimally Invasive Total Knee Arthroplasty: Worth the Trouble?, (3) Revision Total Knee: Managing Bone Loss.

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**Backstein D:** Canadian Undergraduate Surgical Education Committee Semi-Annual Meeting (CUSEC), Banff, AB, December 2005. Surgical Skills Centres for Undergraduate Medical Education.

**Backstein D:** Association of Faculties of Medicine of Canada, London, ON, April 2006. The Future of Assessment Across the Educational Continuum: Use of Simulation in Assessment.

**Backstein D:** Zimmer Sales Meeting, Niagara Falls, ON, January 2006. The Mini Midvastus Approach to Total Knee Replacement.

**Backstein D:** The Canadian Society of Orthopaedic Technologists, Mississauga, ON, April 2006. Total Knee Arthroplasty Sawbones Demonstration.

**Bell RS:** J. William Hillman Visiting Professor, Vanderbilt School of Medicine, Nashville, TN, May 2006. (1) Cellular Therapy in Sarcoma, (2) Multi-Disciplinary Management of Soft Tissue Sarcoma, (3) Reconstruction of the Pelvis, Hip and Knee Following Sarcoma Resection.

**Bell RS:** New Zealand Orthopaedic Association 2005 Annual Scientific Meeting, Christchurch, New Zealand, October 2005. (1) Management of Extremity Soft Tissue Sarcoma: Past Lessons and Future Directions, (2) Reconstruction of Skeletal Defects at the Acetabulum and Knee Following Sarcoma Resection.

**Bell RS:** Orthopaedic Residents Association of New Zealand, Christchurch, New Zealand, October 2005. Radiographic Interpretation of Bone Tumours: Seven Questions.

**Ferguson PC:** Canadian Orthopaedic Resident's Association Annual Meeting, Toronto, ON, June 2006. Moderator.

**Ferguson PC:** Canadian Society of Orthopaedic Technologists, Toronto, ON, April 2006. Orthopaedic Oncology.

**Gross AE:** Invited Lecturer by Zimmer - 2006 New Trends of Joint Replacement Symposium, Beijing, China, April 2006. (1) A Classification and Treatment of Bone Defects in Revision of the Knee, (2) Distal Femoral Varus Osteotomy of the Knee, (3) Long-Term Results of Fresh Osteochondral Allografts for Post Traumatic Knee Defects, (4) Periprosthetic Fractures of the Knee.

**Gross AE:** Visiting Professor, Rush University Medical Center, Department of Orthopedic Surgery, Grand Rounds, Chicago, IL, August 2005. Fresh Osteochondral Allografts for Post Traumatic Knee Defects.

**Gross AE:** Vail Cartilage Symposium, An International Symposium on the Treatment of Articular Cartilage Injuries, Vail, Colorado, August 2005. Long-Term Results of Fresh Osteochondral Allografts for Posttraumatic Knee Defects.

**Gross AE:** Invited Guest, International Hip Society Closed Meeting, Vienna, Austria, September 2005. Revision Arthroplasty of the Acetabulum in 2005.

**Gross AE:** 33<sup>rd</sup> Annual Arthroplasty Course: Advances in Arthroplasty, A Major Focus on Navigation, Bearing Surfaces, and MIS Techniques, Boston, MA, September 2005. (1) Revision Arthroplasty of the Acetabulum in 2005, (2) The Complex Infected Total Hip.

**Gross AE:** SIOT Congress (Societa Italiana Di Ortopedia E Traumatologia), Florence, Italy, October 2005. (1) Revision Arthroplasty of the Femur with Restoration of Bone Stock, (2) Long-term Results of Fresh Osteochondral Allografts for Posttraumatic Knee Defects.

**Gross AE:** Northern German Orthopaedic Association Meeting, Hamburg, Germany, June 2006. (1) The Role of Allografts in Revision Arthroplasty of the Femur, (2) Use of Trabecular Metal and Cages in Revision Acetabular Surgery.

**Gross AE:** AAOT/AAOS Co-Branded Education Program (42 Congreso Argentino De Ortopedia Y Traumatologia), Buenos Aires, Argentina, December 2005. (1) The Treatment of Periprosthetic Fractures of the Knee, (2) Management of Severe Bone Loss in Orthopaedics, (3) Revision Arthroplasty of the Femur: A Classification and Treatment Guide, (4) Fresh Osteochondral Allografts for Posttraumatic Knee Defects.

**Wunder JS:** Tata Memorial Hospital, Mumbai, India, December 2005. Improving Radiation Morbidity for Soft Tissue Sarcoma: The Therapeutic Ratio.

**Wunder JS:** Indian Orthopaedic Association, Mumbai, India, December 2005. (1) Musculoskeletal Oncology: A Model for Bench to Bedside Research in Orthopaedics, (2) Osteosarcoma: Current Concepts and the Future, (3) TNM Classification in Orthopaedic Oncology.

**Wunder JS:** Jaipur Regional Cancer Center, Jaipur, India, December 2005. Overview of Limb Salvage for Malignant Bone Tumors.

**Wunder JS:** Johns Hopkins Orthopaedic Oncology Faculty, Baltimore, MD, April 2006. Surgical Techniques in Musculoskeletal Oncology.

**Wunder JS:** The Fifth Princess Margaret Hospital Conference: New Developments in Cancer Management, Toronto Marriott Downtown Eaton Centre, Toronto, ON, September 2005. When To Call The Orthopod.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Randomized Multi- Centre Controlled Trial of Large Diameter (36/40 mm) versus Conventional Diameter (32 mm) Femoral Heads for Prevention of Post-Revision Arthroplasty Dislocation. *Garbuz D, Gross AE, Duncan C, Greidanus N, Masri B, Dunbar MJ, Estok D, Backstein D, Kim P, Kudrna J, Paprosky WG, Sporer S, Sekundiak T, Weeden SH: Zimmer Ltd (\$30,000 2003 - 2005.)*

Bridge Funding 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 (\$308,454 2006.)*

Hedgehog Signaling in Cartilaginous Neoplasia: Implications for Treatment. *Wunder JS, Alman BA: Canadian Institutes of Health Research (\$159,332 2003 - 2008.)*

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 (\$6,136,475 2001 - 2005.)*

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.)*

New Measures for Quantifying Soft Tissue Fibrosis. *Davis AM, Bell RS, Lee P, O'Sullivan B, Hill R, Levin W, Wunder JS, Inman R, McCready D: National Institutes of Health Research (\$99,421 2003 - 2006.)*

Predicting Clinical Outcome in Osteosarcoma Using Microarray Analysis. *Wunder JS, He WQ, Andrulis IL: Ontario Cancer Research Network (\$140,000 2003 - 2006.)*

Predictors of Disability Outcomes Following Revision Total Knee Arthroplasty. *Davis A, Mohammed N, Gross AE, Szalai J, Schemitsch E, Kreder H, Macdonald SJ, Gignac M, Garbuz D, Sekundiak T, Bogoch E, Davey JR: Canadian Institutes of Health Research (\$276,000 2001 - 2005.)*

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.)*

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.)*

TMT Acetabular Cup Outcome Study. *Gross A, Backstein D: Zimmer Ltd. (\$48,000 2003 - 2005.)*

## Honours Received

**Backstein D:** Canadian Congress of Neurological Sciences - KG McKenzie Memorial Prize for Clinical Neuroscience Research, June 2006.

**Bell RS:** Distinguished Service Award, Canadian Orthopaedic Association, June 2006.

**Ferguson PC:** Zimmer Competition Grant - A Biomechanical Comparison of Techniques of Fixation of Pathologic Fractures of Diaphyseal Humerus, March 2006.

**Gross AE:** Order of Ontario, September 2005.

**Gross AE:** The Genzyme International Cartilage Repair Society (ICRS) Cartilage Research Life Time Award 2006, January 2006.

**Wunder JS:** Bruce Tovee Teaching Award, Department of Surgery University of Toronto, May 2006.

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## DIVISION OF PLASTIC SURGERY

Dr. N.H. McKee - Professor

### Publications

**McKee NH, Agur AMR, Tsang W, Singh KS:** Imagining What 3-D Computer Modelling of Muscle Offers Reconstructive Surgeons (Buenos Aires.) Proceedings of IIIrd Congress of the World Society for Reconstructive Microsurgery (Guillerma Loda, ed.) Medimond International Proceedings, Bolgna, Italy: 2005: pp 59-63.

**McKee NH, Agur AMR, Tsang W, Singh KS:** Possible Uses of Computer Modeling of the Functioning Human Hand. In: Plastic Surgery Clinics of North America, Volume on "Hand Challenges" (Guest Editor: McKee, NH, eds.) Elsevier Inc, Philadelphia: 2005: pp 635-641.

### Invited Visits to Other Hospitals/Universities

**McKee NH:** American Association for Hand Surgery, American Society for Peripheral Nerve, American Society for Reconstructive Microsurgery Combined Program, Tucson, AZ, January 2006. Reinnervating Muscle (Instructional Course 1h with Paul Cederna.)

### Research and Investigations

*Senior Investigator's Name Appears in Italics*

Creating a User Friendly Interface for the "Helping Hand." McKee NH, Agur A, Singh K, Fiume E, Oliver M: *Canadian Society for Surgery of the Hand* (\$10,000 2006 - 2007.)



## **DIVISION OF UROLOGY**

**Dr. K. Jarvi - Professor (Division Head)**

**Dr. C. K. Lo - Assistant Professor**

## **Publications**

**Heshmat S, Lo KC:** Evaluation and Treatment of Ejaculatory Duct Obstruction in Infertile Men. Canadian Journal of Urology: February 2006: 13: pp 18-21.

## **Invited Visits to Other Hospitals/Universities**

**Jarvi K:** Society of Interventional Radiologists Annual Meeting, Toronto, ON, April 2006. Surgical Treatment of Varicocele.

**Lo KC:** American Society of Andrology, Chicago, IL, April 2006. Co-Chair Male Genetics Symposium.

## **Honours Received**

**Lo KC:** Canadian Urologic Association Scholarship Foundation Award (\$ 40,000), July 2005.



Lloyd C. Smith - Surgeon-in-Chief

## *Heads of Divisions*

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Dr. T. Harmantas – General Surgery

Dr. C. Compeau – Thoracic Surgery

Dr. M. Roscoe – Orthopaedic Surgery

Dr. U. Jain – Urology

Dr. R. Levine – Plastic Surgery

The past year has been a challenging time for the surgical staff at St. Joseph's Health Centre. Along with the challenges, however, there have been some great opportunities for expansion and growth. Challenges have come mainly in the form of budget constraints, in the environment of rising costs for surgical equipment and new technology. Opportunities have come from recruitment of new surgeons and new money associated with Ministry initiatives for Wait Time Funding.

In the Division of General Surgery, Dr. Tom Harmantas was reappointed for a second five-year term as Division Head. We recruited Dr. Paul Sullivan to join our group and strengthen our MIS Program. The addition of Dr. Sullivan gives us three focused MIS surgeons and helps to improve the MIS Fellowship Program. The Division of General Surgery is now involved in two University of Toronto Fellowship Programs – MIS and Surgical Oncology.

In the Division of Plastic Surgery, Dr. Kyle Wanzel joined the group in January of 2006. Dr. Wanzel will be doing general plastic surgery with a focused interest in breast reconstruction. Dr. Robert Knowlton retired from active practice in 2005. We wish to thank Dr. Knowlton for his tremendous contributions to the Department over the years.

In Thoracic Surgery, Dr. Ernie Spratt retired from active surgical practice in July of 2005. He continues to be involved on a part-time basis, assisting with difficult cases and running a clinic. Dr. Spratt has made a huge contribution to the Department of Surgery at St. Joseph's Health Centre, having been Division Head of General and Thoracic Surgery, Surgeon-in-Chief, and Chief of Staff. He has always been extremely focused in teaching and has acted as a mentor to many of the surgeons in our Department.

Dr. Chris Compeau was promoted from Lecturer to Assistant Professor.

In the Division of Urology, Dr. Umesh Jain has been appointed as Division Head as of March 2006.

The Division of Vascular Surgery was relocated to the UHN in January of 2006.

The Dr. Ernie Spratt Teaching Award for the most outstanding surgical teacher was started this year and the first recipient of the award was Dr. Lloyd Smith. This will be an annual award given to a member of the Department as selected by the resident and fellow staff as being the best surgical teacher.

We look forward to the next year to continue developing our Surgical Program, focusing on teaching excellence in community surgery.



## **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

## **Orthopaedic Surgery**

Dr. A. ElMaraghy - Lecturer

Dr. M. Kliman - Lecturer

Dr. M. Roscoe - Lecturer (Division Head)

Dr. G. Vincent - Lecturer

Dr. M. Wood - Lecturer

## **Plastic Surgery**

Dr. C. Fielding - Lecturer

Dr. L. Kasrai – Assistant Professor

Dr. R. Levine – Associate Professor (Division Head)

## **Thoracic Surgery**

Dr. C. Compeau – Assistant Professor (Division Head)

Dr. Y. Shargall – Assistant Professor

Dr. E. Spratt – Associate Professor

## **Urology**

Dr. U. Jain (Division Head)

Dr. A. Marcuzzi - Lecturer

Dr. A. McLean

Dr. J. H. Wait - Lecturer



**Ori Rotstein** - Surgeon-in-Chief

## *Heads of Divisions*

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Dr. L.E. Errett – Cardiac Surgery

Dr. J. Mahoney – Plastic Surgery

Dr. M. Burnstein – General Surgery (Interim Head)

Dr. R.J. Honey – Urology

Dr. W.S. Tucker – Neurosurgery (Interim Head)

Dr. F.M. Ameli – Vascular Surgery

Dr. E. Schemitsch – Orthopaedic Surgery

The Department of Surgery at St. Michael's Hospital has had an exciting and fulfilling year. In November 2005, we received the announcement of a generous donation to construct the Li Ka Shing Knowledge Institute which would be the first of its kind in North America. The Institute will bring together the worlds of research, education and patient care to create a unique research environment aimed at improving patient care.

Dr. Nancy Baxter has joined the Division of General Surgery from the University of Minnesota, and has strengthened both the clinical and research efforts in colorectal disease, particularly colorectal cancer. The Department has also had the pleasure of welcoming Drs. Vern Campbell and Wayne Tanner to the Division of Vascular Surgery. With the move completed, we have become one of the two Centres of Excellence in Vascular Surgery in the Greater Toronto Area. Dr. Yves LeClerc has gone to St. Mary's Hospital in Kitchener. We also recognize the retirement of Dr. Harley Smyth from clinical practice at our hospital. His contributions to pituitary surgery have been immense and have influenced an entire field of surgical practice.

St. Michael's Hospital was once again cited as the most popular institution for clinical clerk training for students at the University of Toronto. Further, our Faculty has been recognized for excellence in teaching by receiving a number of awards, honours and leadership positions in education. Dr. Bob Mustard received the St. Michael's Hospital, William Horsey Award for post-graduate education, and Dr. Ken Pace was awarded the St. Michael's Hospital Donald J. Currie Teaching award for undergraduate teaching. Dr. David Latter distinguished himself through his leadership in the Task Force for Fellowship training. Finally, Dr. John Bohnen was awarded the Best Lecturer in the Principles of Surgery Seminar Series.

As we move into the next academic year, we look forward to opportunities for growth in our Department across the range of Specialties with a view to enhancing our academic and clinical profile nationally and internationally.



## DIVISION OF CARDIAC SURGERY

**Dr. D. Bonneau - Associate Professor**

**Dr. L.E. Errett - Associate Professor (Division Head)**

**Dr. M. Keith – Assistant Professor**

**Dr. D. Latter – Associate Professor**

## Publications

**Keith M, Errett L:** Myocardial Metabolism and Improved Outcomes After High Risk Heart Surgery. *Seminars in Cardiothoracic and Vascular Anesthesia*: September 2005: 9: pp 167-171.

**Keith M, Jeejeebhoy K:** Nutritional Assessment. In: *Clinical Nutrition - Nutrition Society Textbook Series in Human Nutrition* (Gibney M, Elia M, Ljungqvist O, Dowsett J, eds.) Blackwell Science, London: 2005:

**Douglas-Hanninen S, Darling PB, Barr A, Kurian R, Sole M, Keith M:** The Prevalence of Thiamin Deficiency in Hospitalized Patients with Congestive Heart Failure. *Journal of the American College of Cardiology*: January 2006: 47: pp 354-361.

**Verma S, Wang CH, Weisel RD, Fedak P, Li RK, Rao V, Hyland K, Cherng WJ, Errett L, Leclerc Y, Bonneau D, Latter DA:** Tetrahydrobiopterin Deficiency Exaggerates Intimal Hyperplasia After Vascular Injury. *American Journal of Physiology*: August 2005: 289(2): pp R299-304.

## Invited Visits to Other Hospitals/Universities

**Errett LE:** Synthes Canada Ltd, Laval, QC, April 2006. Sternal Workshop.

**Keith M:** Canadian Foundation for Dietetic Research - Sponsors Breakfast, Toronto, ON, May 2006. The Prevalence of B Vitamin Deficiency in Hospitalized Patients with CHF.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

Can Reducing Insulin Resistance Improve Post-Operative Glycemic Control and Reduce Markers of Inflammation in Patients Undergoing Coronary Artery Bypass Graft Surgery. *Keith M, Wolever T, Song J, Errett L: The Canadian Foundation for Dietetic Research* (\$15,000 2004 – 2005.)

Does Nutrient Supplementation Influence Cardiac Structure, Function and Survival by Altering Energy Metabolism? *Keith M, Briet F, Stewart D, David Mazer CD: Canadian Institutes of Health Research* (\$156,000 2005 – 2007.)

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 CD: Society of Cardiovascular Anaesthesiologists* (\$40,000 2005 – 2007.)

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## 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 (Interim Division Head)**

**Dr. J. Koo – Associate Professor**

**Dr. J.C. Marshall – Professor**

**Dr. R. Mustard – Assistant Professor**

**Dr. O.D. Rotstein - Professor**

**Dr. K. Szaszi – Assistant Professor**

## Publications

**Ali J, Cherry R, Williams JI:** Trauma Base Knowledge and the Effect of the Trauma Evaluation and Management (TEAM) Program Among Senior Medical Students In 7 Countries. *Journal of Trauma*: July 2005: 7: pp 6-18.

**Barie PS, Rotstein OD, Dellinger EP, Grasela TH, Walawander CA:** The Cost-Effectiveness of Cefepime Plus Metronidazole Versus Imipenem/Cilastatin in the Treatment of Complicated Intra-Abdominal Infection. *Surgical Infection*: September 2005: 5(3): pp 269-80.

**Cook DJ, Rocker G, Marshall JC, Griffith LE, McDonald E, Guyatt GH, for the Level of Care Study Investigators and the Canadian Critical Care Trials Group:** Levels of Care in the Intensive Care Unit: A Research Program. *American Journal of Critical Care*: May 2006: 5: pp 269-279.

**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.

**Dellinger RP, Abraham E, Bernard G, Marshall JC, Vincent JL:** Controversies in Sepsis Clinical Trials: proceedings of a meeting of the International Sepsis Forum, Lausanne, Switzerland, September 29, 2001. *Journal of Critical Care*: March 2006: 21: pp 38-47.

**Di Ciano-Oliveira C, Lodyga M, Fan L, Szaszi K, Hosoya H, Rotstein OD, Kapus A:** Is Myosin Light-Chain Phosphorylation A Regulatory Signal for the Osmotic Activation of the Na<sup>+</sup>-K<sup>+</sup>-2Cl<sup>-</sup> Cotransporter? *American Journal of Cell Physiology*: July 2005: 289(1): pp C68-81.

**Lingard L, Espin S, Rubin B, Whyte S, Colmanares M, Regehr G, Baker GR, Doran D, Grober E, Orser B, Bohnen J, Reznick R:** Getting Teams to Talk: Development and Pilot Implementation of a Checklist to Promote Safer Operating Room Communication. *Quality and Safety in Health Care*: October 2005: 14: pp 340-346.

**Lorente JA, Marshall JC:** Neutralization of Tumor Necrosis Factor in Pre-Clinical Models of Sepsis. *Shock*: December 2005: 24 Suppl 1: pp 107-119.

**Marshall JC:** Lipopolysaccharide: An Exogenous Hormone? *Clinical Infectious Disease*: November 2005: 41: pp S470-S480.

**Marshall JC:** Neutrophils in the Pathogenesis of Sepsis. *Critical Care Medicine*: December 2005: 33(12) Supp: pp S502-S505.

**Marshall JC:** Surgical Decision-Making: Integrating Evidence, Inference and Experience. *Surgical Clinics of North America*: February 2006: 86: pp 201-215.

**Marshall JC:** The Effects of Granulocyte Colony-Stimulating Factor (G-CSF) in Pre-Clinical Models of Infection and Acute Inflammation. *Shock*: December 2005: 24 Suppl 1: pp 120-129.

**Marshall JC:** The Staging of Sepsis: Understanding Heterogeneity in Treatment Efficacy. *Critical Care*: November 2005: 9: pp 626-628.

**Marshall JC, Deitch EA, Moldawer LL, Opal S, Redl H, van der Poll T:** Pre-Clinical Models of Sepsis: What Can They Tell Us? *Shock*: December 2005: 24 Suppl 1: pp 1-6.

**Marshall JC, Vincent JL, Guyatt G, Angus D, Abraham E, Bernard G, Bombardier C, Calandra T, Jorgensen HS, Sylvester R, Boers M:** Outcome Measures for Clinical Research in Sepsis. A Report of the 2<sup>nd</sup> Cambridge Colloquium of the International Sepsis Forum. *Critical Care Medicine*: August 2005; 33: pp 1708-1716.

**Patel R, Cook DJ, Meade MO, Griffith L, Mehta S, Rucker G, Marshall J, Hodder R, Martin C, Heyland D, Peters S, Muscadere J, Soth M, Campbell N, Guyatt GH, for Burden of Illness in Venous Thromboembolism in Critical Care (BITEC) Study Investigators; Canadian Critical Care Trials Group:** Burden of Illness in Venous Thromboembolism in Critical Care: A Multicenter Observational Study. *Journal of Critical Care*: December 2005; 20: pp 341-347.

**Szaski K, Sirokmany G, Di Ciano-Oliveira C, Rotstein OD, Kapus A:** Depolarization Induces Rho-Rho Kinase-Mediated Myosin Light Chain Phosphorylation in Kidney Tubular Cells. *American Journal of Cell Physiology*: September 2005; 289(3): pp C673-C685.

## Invited Visits to Other Hospitals/Universities

**Bohnen JMA:** Core Health Services Inc., Toronto, ON, February 2006. Managing Intra-Abdominal Surgical Infections: Developing Antimicrobial Education.

**Burnstein MJ:** Symposium, Cook Canada, Toronto, ON, June 2006. Current Treatment Options for Anal Fistulas.

**Burnstein MJ:** Annual Refresher Course, Dalhousie University, Halifax, NS, November 2005. Perianal Disease.

**Burnstein MJ:** General Surgery Review 2006, Mississauga, ON, April 2006. Perianal Disease.

**Burnstein MJ:** American College of Surgeons Postgraduate Course, San Francisco, CA, October 2005. What's New in the Treatment of Polyps?

**Marshall JC:** 18<sup>th</sup> Annual Congress, European Society of Intensive Care Medicine, Amsterdam, Netherlands, September 2005. (1) Adjuvant Therapy For Sepsis: Activated Protein C, (2) Biomarkers in Sepsis: Performance Requirements, (3) Procalcitonin as a Marker in Sepsis: Not Yet.

**Marshall JC:** 10<sup>th</sup> Toronto Critical Care Medicine Symposium, Toronto, ON, October 2005. (1) Apoptosis in Critical Illness, (2) Selective Decontamination of the Digestive Tract (SDD): Why Don't We Use It?

**Marshall JC:** ISF Colloquium on Biomarkers of Sepsis, Mississauga, ON, October 2005. (1) Biomarkers of Sepsis: An Overview, (2) Cytokines as Biomarkers.

**Marshall JC:** Visiting Professor, R. Adams Cowley Shock/Trauma Center, University of Maryland, Baltimore, MD, March 2006. (1) Cellular Mechanisms of Impaired Neutrophil Apoptosis in Sepsis, (2) Targeting the Host Response in Trauma and Sepsis: Where Do We Stand?

**Marshall JC:** 4<sup>th</sup> Annual Meeting, Society for Complexity in Acute Illness, Koln, Germany, September 2005. (1) Evidence-Based Modeling: Outcome Data, (2) Complexity Theory: Questions That Need To Be Asked.

**Marshall JC:** XLI Annual Congress, Spanish Society of Intensive Care Medicine, Pamplona, Spain, June 2006. (1) Guidelines for the Management of Acute Necrotizing Pancreatitis, (2) Sepsis Bundles: A Standard Of Care?

**Marshall JC:** 2<sup>nd</sup> International Congress, German Sepsis Society, Weimar, Germany, September 2005. (1) Measuring Endotoxin in Critically Ill Patients, (2) From SIRS to PIRO.

**Marshall JC:** 33<sup>rd</sup> Congress, Japanese Society of Intensive Care Medicine, Osaka, Japan, March 2006. (1) Nosocomial Infection in the ICU, (2) Host-Microbial Interactions in Critical Illness.

**Marshall JC:** 8<sup>th</sup> Annual Meeting, Tuscany Critical Care Group, Pisa, Italy, September 2005. (1) Organ Dysfunction in Sepsis: Mechanisms and Clinical Course, (2) Intra-Abdominal Infection.

**Marshall JC:** Joint Faculty of Intensive Care Medicine/Australia and New Zealand Intensive Care Society Annual Scientific Meeting, Melbourne, Australia, June 2006. (1) Pathogenesis and Molecular Biology of Sepsis, (2) Overview of Guidelines Development, (3) Debate- Heparin is Efficacious in Septic Shock: No. 4. Sepsis Research: Where Have We Gone Wrong?

**Marshall JC:** XVI Latin American Surgical Congress, Cartagena, Colombia, August 2005. (1) Preserving the Indigenous Gut Flora in Critical Illness, (2) Necrotizing Pancreatitis: Are We Making A Difference?, (3) New Horizons in Sepsis.

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- Marshall JC:** 11<sup>th</sup> International Symposium on Infections in the Critically Ill Patient, Sevilla, Spain, February 2006. (1) Sepsis: Current Status, Future Prospects, (2) Debate: Empiric Antibiotics Are Rarely Needed in the Patient with Severe Infection. Pro.
- Marshall JC:** Critical Care Course, Pontificia Universidad Catolica de Chile, Santiago, Chile, April 2006. (1) Severe Sepsis: New Perspectives, (2) Organizing Multicentre Investigations in Critical Care, (3) The Multiple Organ Dysfunction Syndrome, (4) The Surviving Sepsis Campaign.
- Marshall JC:** 9<sup>th</sup> Congress of the World Federation of Societies of Intensive and Critical Care Medicine, Buenos Aires, Argentina, August 2005. (1) The ISF Debates: Sepsis Is Good for the Patient, (2) Scores: Why Don't We Use Them?, (3) Scores and Composite Severity Measures: What Can They Tell Us?, (4) Neutrophil Apoptosis in Sepsis, (5) The Epidemiology of Sepsis: Multiple Organ Dysfunction Syndrome.
- Marshall JC:** 5<sup>th</sup> International Sepsis Forum Colloquium on Host-Microbial Interactions in Critical Illness, Toledo, Spain, June 2006. (1) The Micro-Organism Is Irrelevant to the Host Response in Sepsis: Pro, (2) Host-Microbial Interactions In Sepsis: Adversarial or Adaptive?
- Marshall JC:** Intensive Care Society of Ireland Annual Meeting, Cork, Ireland, November 2005. (1) Empiric Antibiotics in the Intensive Care Unit, (2) The Canadian Critical Care Trials Group.
- Marshall JC:** 26<sup>th</sup> International Symposium of Intensive Care and Emergency Medicine, Brussels, Belgium, March 2006. (1) Pre-B Cell Colony-Enhancing Factor (PBEF)/Visfatin, (2) Outcomes from Clinical Trials, (3) Report of the ISF Colloquium on Biomarkers of Sepsis, (4) Neutrophil Survival, (5) Do We Need Empiric Therapy?, (6) Staging Sepsis Using PIRO, (7) TNF: Still A Target In Sepsis?
- Marshall JC:** Critical Care Quarterly Forum, University of Minnesota, St. Pauls, MN, May 2006. Decision-Making in Critical Care: Integrating Evidence, Inference and Experience.
- Marshall J:** Post-graduate Course on Clinical Research in the ICU, American Thoracic Society, San Diego, CA, May 2006. Developing A Research Program.
- Marshall JC:** Visiting Professor, Department of Trauma and Acute Medicine, Osaka University Hospital, Osaka, Japan, March 2006. Host-Microbial Interactions in Critical Illness.
- Marshall JC:** Visiting Professor, Johannesburg General Hospital, University of Witwatersrand, Johannesburg, South Africa, December 2005. Host-Microbial Interactions in the Pathogenesis of Critical Illness.
- Marshall JC:** Novartis Foundation Symposium 280: Sepsis: Emerging Targets, London, UK, February 2006. Modulating Neutrophil Apoptosis.
- Marshall JC:** Joint Symposium, Novartis Foundation, British Medical Society, University College, London, London, UK, February 2006. Modulation of Apoptosis is a Rational Therapeutic Strategy.
- Marshall JC:** Canadian Critical Care Trials Group, First Residents' Research Day, Windermere, ON, June 2006. Planning An Academic Career.
- Marshall JC:** 16<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases, Nice, France, April 2006. Sepsis Biomarkers in 2006.
- Marshall JC:** Critical Care Society of Southern Africa, Capetown, South Africa, November 2005. The Canadian Critical Care Trials Group.
- Marshall JC:** 3<sup>rd</sup> World Shock Forum, Tokyo, Japan, February 2006. The Multiple Organ Dysfunction Syndrome: Evolving Insights, Future Challenges.
- Marshall JC:** Roundtable Conference on Mechanisms of Organ Dysfunction and Resolution in Sepsis, Brussels, Belgium, March 2006. The Role of the Neutrophil.
- Marshall JC:** 35<sup>th</sup> Critical Care Congress, Society of Critical Care Medicine, San Francisco, CA, January 2006. The Surviving Sepsis Campaign: Future Bundles - Source Control.
- Marshall JC:** 31<sup>st</sup> Annual Clinical Congress, American College of Surgeons, San Francisco, CA, October 2005. The Transfusion Trigger: When to Pull It.
- Marshall JC:** CHEST 2005, Montreal, QC, October 2005. Towards Better Criteria for Sepsis.
- Rotstein OD:** Annual Association of Mexican Surgeons, Merida, Mexico, October 2005. Immunomodulation in Surgery: Practical Issues.
- Rotstein OD:** Annual Association of Mexican Surgeons, Merida, Mexico, October 2005. Postgraduate Course: Sepsis and Surgical Infections.



## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Phase, 3, Multi-Center, Randomized, Placebo-Controlled, Double-Blind, Three-Arm Study to Evaluate the Safety and Efficacy of Tifacogin (Recombinant Tissue Factor Pathway Inhibitor) Administration in Patients with Severe Community-Acquired Pneumonia. *Marshall, JC: Chiron Ltd.* (\$95,000 2004 - 2006.)

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.)

Cellular Mechanisms of Lipopolysaccharide-Induced Lung Injury Following Shock. *Rotstein OD: Canadian Institutes of Health Research* (\$451,715 2000 - 2005.)

Clinical Indicator Project, Hospital Report Research Collaborative. *Brown A, Anderson G, Bohnen J, Choudhry N, Gagliardi A, McGillis-Hall L: Ontario Ministry of Health and Long Term Care* (\$250,000 2003 – 2005.)

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.)

Hypertonic Preconditioning for Liver Ischemia/Reperfusion Injury: A Novel Protective Strategy. *Rotstein OD: Physicians' Services Incorporated* (\$150,000 2005 – 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.)

Perioperative Ischemic Evaluation Study (POISE Study.) *Yang, Homer, Multidisciplinary Research Group (Canada-wide) - Rotstein OD (co-investigator): Canadian Institutes of Health Research* (\$5,306,074 2001 – 2006.)

Re-Engineering the Canadian Critical Care Trials Group. *Cook DJ, Marshall JC: Canadian Institutes for Health Research Workshop Grant* (\$52,500 2005 – 2006.)

Surgery Education for Rural Family Medicine: A Survey. *Bohnen J, Wyman R: Ontario Ministry of Health and Long Term Care* (\$50,000 2006 – 2007.)

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.)

## Honours Received

**Bohnen JMA:** Best Lecturer, Principles of Surgery Postgraduate Lecture Series, Department of Surgery, June 2006.

**Bohnen JMA:** Certificate of Merit Award, Canadian Association for Medical Education, February 2006.

**Bohnen JMA:** Lois H. Ross Resident Advocate Award, Professional Association of Interns and Residents of Ontario (PAIRO), March 2006.

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## DIVISION OF NEUROSURGERY

**Dr. M.D. Cusimano - Professor**

**Dr. H.J. Ginsberg - Assistant Professor**

**Dr. P.J. Muller - Professor**

**Dr. R.G. Perrin - Associate Professor**

**Dr. W.S. Tucker - Associate Professor (Interim Division Head)**

## Publications

**Horvath E, Kovacs K, Smyth HS, Cusimano MD: Silent Adenoma Subtype 3 of the Pituitary:** Immunohistochemical and Ultrastructural Classification. A Review of 28 Cases. *Ultra-structural Pathology*: October 2005: 29: pp 1-14.

**Kovacs K, Diep CC, Horvath E, Cusimano MD, Smyth H, Coire C, Scheithauer BW, Lloyd RV:** Prognostic Indicators in An Aggressive Pituitary Crooke's Cell Adenoma. *Canadian Journal of Neurological Science*: November 2005: 32 No. 4: pp 540-545.

**Maimon N, Chan RP, Cusimano MD, Faughnan ME:** A 50-Year-Old Man with Clubbing Has Seizures After a Dental Procedure. *Chest*: September 2005: 128: pp 3634-3638.

**Muller P, Wilson B:** Photodynamic Therapy of Brain Tumors - A Work in Progress. *Lasers in Surgery and Medicine*: June 2006: 38: pp 384-389.

## Invited Visits to Other Hospitals/Universities

**Cusimano MD:** Road Safety Network, Toronto, ON, September 2005. Collision Reduction Through Research Technology and Innovation 2005.

**Cusimano MD:** Ottawa Citizen/National Post, Toronto, ON, November 2005. Interview.

**Cusimano MD:** Caribbean Neurosciences Symposium, Jamaica, February 2006. Invited lecturer on "Details, Applications and Complication Avoidance in the Orbitozygomatic Approach" and "Update on the Management of Pituitary Tumors."

**Cusimano MD:** Grants & Awards Alberta Heritage Foundation for Medical Research, Edmonton, AB, November 2005. Invited to be Reviewer - Dr. Carolyn Emery - "The Effectiveness of a Prevention Strategy to Reduce Injury in Adolescent Soccer."

**Cusimano MD:** 640 News Radio, Toronto, ON, August 2005. Radio Interview with Mike Stafford: Concussion in Hockey.

**Cusimano MD:** The 2005 Canadian Injury Prevention and Safety Conference, Halifax, NS, November 2005. Socio-Economic Determinants of Alcohol Associated Traumatic Brain Injury: A Geomatics Approach.

**Cusimano MD:** The 2005 Canadian Injury Prevention and Safety Conference, Halifax, NS, November 2005. Understanding Injury-Related Behavioural Intentions in Children.

**Cusimano MD:** The 2005 Canadian Injury Prevention and Safety Conference, Halifax, NS, November 2005. Understanding the Spatial Association Between Traumatic Injuries and Socio-Economic Characteristics of Neighbourhoods: A Geomatics Approach.

**Cusimano MD:** Toronto Public Health Association, Toronto, ON, January 2006. Understanding the Spatial Determinants of Injury: An Opportunity for Collaboration.

**Perrin RG:** Neurosurgical Society of America, Ojai, CA, June 2006. Dr. K. Livingston - In Remembrance - June 6, 2006 - NSA Annual Meeting.

**Perrin RG:** International Opportunities in Neurosurgery - AANS Annual Meeting, San Francisco, CA, April 25, 2006.

**Perrin RG:** World Federation of Neurosurgical Societies Course, St. Petersburg, Russia, September 2005. Spinal Metastases.

**Perrin RG:** World Federation of Neurosurgical Societies, St. Petersburg, Russia, September 2005. Temporal Lobectomy for Seizure Disorder.

**Tucker WS:** Teva Neuroscience, Desolation Sound, BC, August 2005. Neurology and the Law.

**Tucker WS:** Toronto Neurology Update, Toronto, ON, October 2005. Surgical Case Histories.

**Tucker WS:** St. Michael's Hospital Neurosurgical Nurses, Toronto, ON, November 2005. Trigeminal Neuralgia.

## Research and Investigations

### *Senior Investigator's Name Appears in Italics*

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.) Site Principal Investigator, *Cusimano MD*, Baker A, Ginsberg H, Bruce G, Muller P, Muradali D, Tucker W, Perrin R: *Novo Nordisk Canada Inc.* (Mississauga, ON) (\$75,000 2005 – 2007.)

An Internet-Based Intervention for Depression in Mild Traumatic Brain Injury Patients: A Pilot Study. *Topolovec-Vranic J*, Cusimano MD, Andrews M, Bhalerao S, Cullen N, Gilmore V, Masanic C, McCutcheon A, Michalak A, Ouchterlony D: *Ontario Neurotrauma Foundation* (\$96,900 2005 – 2006.)

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.)

Exploring the Relationship Between Caregiver and Child Safety Knowledge, Attitudes and Behaviours and Injury Occurrence in Children. *Cusimano MD*: *Canadian Institutes of Health Research (CIHR)* (\$100,000 2005 – 2006.)

Implementation and Evaluation of a Neurotrauma Injury Prevention Program into Ontario's Healthy Living Curriculum: A Controlled Trial. *Cusimano MD*, Chipman M, Kalnins I, Freedman B: *Ontario Neurotrauma Foundation* (\$600,000 2000 – 2005.)

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.)

Skull Base Surgery and the Internet. *Cusimano MD*, Agur A: *McGraw-Hill Ryerson Teaching Technology Integration Fund* (\$1,000 2003 – 2005.)

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 Institute of Health Research* (\$225,000 2004 – 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.H. Schemitsch - Professor – (Division Head)**

**Dr. J. Waddell – Professor**

**Dr. D. Whelan - Lecturer**

## Publications

**Bhandari M, Devereaux PJ, Tornetta P 3rd, Swiontkowski MF, Berry DJ, Haidukewych G, Schemitsch EH, Hanson BP, Koval K, Dirschl D, Leece P, Keel M, Petrison B, Heetveld M, Guyatt GH:** Operative Management of Displaced Femoral Neck Fractures in Elderly Patients. An International Survey. *Journal of Bone and Joint Surgery (American)*: September 2005; 87(9): pp 2122-2130.

**Bogoch ER, Elliot-Gibson V, Beaton DE, Jamal SA, Josse RG, Murray TM:** Effective Initiation of Osteoporosis Diagnosis and Treatment for Patients with a Fragility Fracture in An Orthopaedic Environment. *Journal of Bone and Joint Surgery (American)*: January 2006; 88(1): pp 25-34.

**Chen XD, Waddell JP, Morton J, Schemitsch EH:** Isolated Acetabular Revision after Total Hip Arthroplasty: Results at 5-9 Years of Follow-Up. *International Orthopaedics*: October 2005; 29(5): pp 277-280.

**Daniels TR, Thomas R, Bell T, Nelligan P:** Functional Outcome of the Foot and Ankle after Free Fibular Graft. *Foot & Ankle International*: August 2005; 26 (8): pp 597-601.

**Hall JA, McKee MD:** Casing the Joint: Investigating Shoulder Pain. *Canadian Journal of Diagnosis*: October 2005; 22:10: pp 97-99.

**Hall JA, McKee MD:** Posterolateral Rotatory Instability of the Elbow Following Radial Head Excision. *Journal Bone Joint Surg(A)*: July 2005; 87A: pp 1571-1579.

**Kreder H, Agel J, McKee MD, Schemitsch EH, Stephen D, Hanel DP:** A Randomized Controlled Trial of Distal Radius Fractures with Metaphyseal Displacement But Without Joint Incongruity: Closed Reduction and Casting Versus Closed Reduction, Spanning External Fixation and Optional Percutaneous K-Wires. *Journal of Orthopaedic Trauma*: February 2006; 20(2): pp 115-121.

**McKee MD:** BMP-7: Applications For Clinical Trauma. *Journal of Orthopaedic Trauma*: December 2005; 19(10): pp S26-S28.

**McKee MD:** Displaced Fractures of the Clavicular Shaft: Fact and Fallacy. *AO Dialogue*: March 2006; 1/06: pp 26-28.

**McKee MD:** Fractures of the Humeral Shaft. In: *Rockwood and Green's Fractures in Adults Sixth Edition* (Bucholz RW, Heckman JD, Court-Brown C, eds.) Lippincott Williams and Wilkins, Philadelphia: 2006: pp 1117-1159.

**McKee MD, Pedersen EM, Jones C, Stephen DJ, Kreder HJ, Schemitsch EH, Wild LM, Potter J:** Deficits Following Nonoperative Treatment of Displaced Midshaft Clavicular Fractures. *Journal of Bone and Joint Surgery (American)*: January 2006; 88(1): pp 35-40.

**McKee MD, Ricci W:** Fractures of the Elbow. In: *Orthopaedic Knowledge Update 3* (Tornetta P, Baumgartner M, eds.) AAOS, Rosemont, Illinois: 2005: pp 181-200.

**Mehdian H, McKee MD:** Scapholunate Instability Following Dorsal Wrist Ganglion Excision: A Case Report. *Iowa Orthopaedic Journal*: September 2005; 25: pp 203-206.

**Schemitsch EH:** The Polytrauma Patient and Fracture Healing. In: *Orthopaedic Knowledge Update Trauma 3* (Baumgaertner M, Tornetta P III., eds.) AAOS Press, Rosemont, Ill: 2005: pp 89-150.

**Thomas R, Daniels TR, Parker K:** Gait Analysis and Functional Outcomes Following Ankle Arthrodesis for Isolated Ankle Arthritis. *Journal of Bone and Joint Surgery (American)*: March 2006; 88-A: pp 526-535.

**Zlowodzki M, Bhandari M, Keel M, Hanson BP, Schemitsch EH:** Perception of Garden's Classification for Femoral Neck Fractures: An International Survey of 298 Orthopaedic Trauma Surgeons. *Archives of Orthopaedic Trauma Surgery*: August 2005; 2: pp 1-3.

**Zlowodzki M, Zelle B, Cole PA, Jeray K, McKee MD:** Treatment of Acute Midshaft Clavicle Fractures: Systematic Review of 2144 Fractures. *Journal of Orthopaedic Trauma*: September 2005; 19, No.7: pp 504-507.

## Invited Visits to Other Hospitals/Universities

**Bogoch ER:** Regional Osteoporosis Board, Toronto, ON, April 2006. Current Status of Post Fracture Care in Ontario.

**Bogoch ER:** European Rheumatoid Arthritis Surgical Society, Pfaffikon, Switzerland, May 2006. Osteoporosis from the Orthopaedic Perspective.

**Bogoch ER:** Eastern Ontario Rheumatology Association Annual Meeting, Montebello, QC, January 2006. The Epidemiology of Osteoporosis and Post-fracture Care.

**Daniels TR:** The 2<sup>nd</sup> Joint IFFAS Meeting (International Federation of Foot and Ankle Societies), Naples, Italy, September 2005. (1) Ankle Arthroplasty Versus Ankle Arthrodesis for End-Stage Ankle Arthritis: A Functional Comparison, (2) A functional Analysis of Ankle Arthroplasty for End-Stage Ankle Arthritis.

**Daniels TR:** COA 2006, Toronto, ON, June 2006. (1) Ankle Arthroplasty vs. Ankle Arthrodesis for End-Stage Ankle Arthritis: A Functional Comparison (Daniels TD, Duggal N, Redekop S, Yeung M), (2) Off-Loading Neuropathic Ulcers Using A Fiberglass Cast with A Metal Stirrup (Tamir E, McLaren AM, Daniels TD.)

**Daniels TR:** Post-Graduate/Refresher Course in Orthopaedic Surgery, Quito, Ecuador, March 2006. (1) Ankle Biomechanics, (2) Functional Outcomes of Ankle Arthrodesis vs Ankle Arthroplasty, (3) Triple Fusion - Indications and Surgical Techniques, (4) Ankle Arthrodesis - Indications and Surgical Techniques, (5) Surgical Management of Hallux Valgus Deformities - Lapidus, Proximal and Distal Osteotomies.

**Daniels TR:** Harvard University, Surgical Grand Rounds, Boston, MA, May 2006. Ankle Arthrodesis vs. Ankle Arthroplasty: A Functional Comparison.

**Daniels TR:** The Canadian Society of Orthopaedic Technologists: New Horizons CSOT 2006 Conference, Toronto, ON, April 2006. Ankle Fusion versus Ankle Arthroplasty: A Debate.

**Daniels TR:** COA 2006, Toronto, ON, June 2006. ICL Foot and Ankle: (1) Achilles Tendon: Insertional Achilles Tendonitis, (2) New Approaches to Old Problems: Treatment of Metatarsalgia, (3) Moderator for the Session on New Approaches to Old Problems.

**Daniels TR:** 3M + Wound Preceptorship SMH, Toronto, ON, October 2005. Neuropathic Foot.

**Daniels TR:** COA, Toronto, ON, June 2006. Paediatric/Foot & Ankle Sessions (Moderator.)

**Daniels TR:** AOFAS (American Orthopaedic Foot and Ankle Society), Boston, MA, July 2005. Symposium on Total Ankle Arthroplasty: Invited as a Guest Faculty Member.

**Daniels TR:** AOFAS Specialty Day 2006, Chicago, IL, March 2006. Truth or Consequences: An Interactive Symposium on Surgical Decision Making.

**McKee MD:** The Cleveland Clinic Foundation, Cleveland, Ohio, September 2005. "The Heritage Lecture." The treatment of clavicle fractures.

**McKee MD:** UCSF Orthopaedic Trauma Course, San Francisco, CA, May 2006. (1) Clavicle fractures- The Case for ORIF, (2) BMP in Trauma (3) Evaluation and Treatment of the Terrible Triad of the Elbow.

**McKee MD:** Brown University Orthopaedic Grand Rounds, Providence, RI, November 2005. (1) Clavicle fractures: Trials and tribulations, (2) The Use of BMP's in Trauma and Post-Traumatic Reconstruction.

**McKee MD:** AO Basic Course, Vancouver, BC, September 2005. (1) Fracture-Dislocation of the Elbow, (2) Group Discussion: Upper Extremity Trauma Cases, (3) Lab Exercise.

**McKee MD:** 62<sup>nd</sup> Annual Meeting of the Canadian Orthopaedic Association, Toronto, ON, June 2006. (1) ICL - How to Use Quality Rounds to Gain MOC Credits, (2) ICL - Upper Extremity Cases, (3) COTS - The Case for Pinning of Distal Radius Fractures, (4) COFAS - Bone Substitutes.

**McKee MD:** 5<sup>th</sup> Biennial Meeting of the ASES, Orlando, FL, April 2006. (1) Radial Head fractures: Evaluation and Management, (2) Non-Prosthetic Management of Elbow Arthritis, (3) A Multicenter Randomized Trial of Nonoperative versus Operative Care of Displaced Midshaft Clavicle Fractures, (4) Management of Clavicle Malunions and Nonunion, (5) Debate: ORIF of Clavicle Fractures - Pro.

**McKee MD:** Edinburgh International Trauma Symposium, Edinburgh, Scotland, August 2005. (1) Scapular fractures: Which Ones Need Surgery?, (2) TEA for Elbow Fracture, (3) Capitellar Fractures: Investigation and Management, (4) Distal Humeral Fractures, (5) Bracing for Fractures of the Humeral Shaft.

**McKee MD:** 3<sup>rd</sup> Annual Current Solutions in Orthopaedic Trauma, Orlando, FL, December 2005. (1) The Treatment of Clavicular Nonunion, (2) Four-Part Fractures of the Proximal Humerus, (3) Supracondylar Fractures: Treatment with Anatomic Plates.

**McKee MD:** Workers Safety and Insurance Board, Toronto, ON, October 2005. Adhesive Capsulitis.

**McKee MD:** Grand Orthopaedic Rounds University of British Columbia, Vancouver, BC, May 2006. Clavicle Fractures - An RCT.

**McKee MD:** OTA Annual Resident Fracture Course, Ottawa, ON, October 2005. Humeral Shaft Fractures.

**McKee MD:** Extremity War Injury Symposium, Washington, DC, January 2006. Orthobiologics for Segmental Bone Loss.

**McKee MD:** Visiting Professor - Wayne State University/Henry Ford Hospital, Detroit, MI, November 2005. The Evolution of Treatment for Displaced Fractures of the Clavicle.

**Schemitsch EH:** Update on Alternate Bearings in Total Hip and Knee Arthroplasty, Fox Harbour, NS, September 2005. (1) Fireside Case Presentations, (2) Debate-Polywear: Metal On Poly Is The Way To Go.

**Schemitsch EH:** ARCO 2005. 13<sup>th</sup> International Symposium on Bone Circulation, London, England, September 2005. (1) Guest Lecture: Current Concepts in the Treatment of Avascular Necrosis, (2) Bone Vascularity - Measurement and Induction.

**Schemitsch EH:** Hip Surgery in the Young Adult II, Banff, AB, January 2006. (1) Hip Templating Workshop, (2) BHR Workshop, (3) Case Presentations - Alternate Bearings in THA, (4) Case Presentations - Complex Hip Resurfacing/Primary THA, (5) Lecture. Alternate Bearings in THA. Cross Linked Poly.

**Schemitsch EH:** The Principles and Practice of Clinical Research, Nice, France, January 2006. (1) How to Prepare a Study Protocol, (2) How Are Multi-Centered Trials Organized? Overview, (3) Small Group Session Research Proposals.

**Schemitsch EH:** Bone and Joint Decade. Young Investigators Initiative Workshop, Toronto, ON, November 2005. (1) Human/Animal Use Considerations, (2) Budgets/Justification.

**Schemitsch EH:** Orthopaedic Trauma Association Basic Science Focus Forum, Ottawa, ON, October 2005. (1) Paper Session Moderator, (2) Symposium (Managing Hip Fractures: Current Evidence) Moderator, (3) Program Chair.

**Schemitsch EH:** Orthopaedic Trauma Association, Ottawa, ON, October 2005. (1) Periprosthetic Supracondylar Femur Fractures – Debate, (2) Basic Science Session Moderator, (3) Distal Humerus Fracture Symposium - Lecture: Optimizing Plate Type and Configuration, (4) Mini Symposia Lecture. Evidence-Based Medicine-Conducting Randomized Trials.

**Schemitsch EH:** Osteomyelitis: Current and New Therapeutic Modalities Pre-Course, Baltimore, MD, September 2005. (1) The Use of OP-1 and DBM's in Extreme Defects and Nonunions.

**Schemitsch EH:** Primary and Revision Total Joint Arthroplasty: Current Concepts, Huntsville, ON, September 2005. (1) Total Knee Arthroplasty: Conventional Cement Is Best, (2) Lecture. Has Modularity Improved TKA, (3) Lecture. Issues in Revision TKA-Pre-Op Planning, (4) Lecture. Hip Instability, (5) Issues in Revision TKA-Panel Discussion, (6) Challenging Knee Cases-Panel Discussion, (7) Debating the Controversies-Panel Discussion.

**Schemitsch EH:** AIOD Trauma Meeting, Nice, France, September 2005. Lecture. Current Concepts in the Treatment of Forearm Fractures.

**Schemitsch EH:** 2<sup>nd</sup> ISFR - IOF Workshop on Osteoporotic Distal Forearm Fractures, Rome, Italy, October 2005. Lecture. The Use of a Randomized Design for An Internation Wrist Fracture Study.

**Schemitsch EH:** Orthopaedic Research Society, Chicago, IL, March 2006. Moderator Fracture Healing Session.

**Schemitsch EH:** Hennepin County Medical Center 35<sup>th</sup> Annual Orthopaedic and Trauma Seminar, Minneapolis, MN, November 2005. Robert Merkow Memorial Lecturer. (1) Fractures of the Forearm: Current Thoughts, (2) Biology of Intramedullary Nailing.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Functional Analysis of Ankle Arthroplasty for End-Stage Arthritis. *Daniels TR, Duggal N, Redekop S, Yeung M: AOFAS (American Orthopaedic Foot and Ankle Society) (\$2,300 2005 - 2006.)*

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 1<sup>st</sup> MTP Joint Fusion Compared to 1<sup>st</sup> MTP Joint Hemiarthroplasty in Severe Hallux Rigidus. *Lau JTC, Daniels TR, Waddell JP, Mahomed N: PSI (\$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 (FLOW) Pilot Study. *Bhandari M, Petrisor B, Schemitsch EH: Physicians Services Incorporated (\$100,000 2005 - 2006.)*

A Randomized Trial of Fluid Lavage in the Treatment of Open Wounds. *Bhandari M, Petrisor B, Schemitsch EH: 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.)*

Ankle Arthrodesis versus Ankle Arthroplasty for End-Stage Ankle Arthritis: A Prospective Functional Comparison. *Daniels TR, Duggal N: American Orthopaedic Foot and Ankle Society (\$10,000 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.)
- Biomechanical and Finite Element Analysis of the Birmingham Hip Resurfacing. *Schemitsch EH: Smith and Nephew* (\$50,000 2006 - 2007.)
- Cell-Based VEGF Gene Transfer to Promote Fracture Healing. *Schemitsch EH, Li R, VonSchroeder H, Stewart D: Physicians' Services Incorporated Foundation* (\$86,000 2005 - 2007.)
- Cell-Based VEGF Gene Transfer to Promote Fracture Healing. *Schemitsch EH, Li R, VonSchroeder H, Stewart D: University of Toronto* (\$10,000 2005.)
- 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.)
- Development of Clinical Trials Infrastructure. *Schemitsch EH: Orthopaedic Research and Education Fund* (\$150,000 2003 - 2006.)
- Fibreglass Cast with Metal Stirrup - A New Treatment for Heel Ulcers and Large Midfoot Neuropathic Ulcers. *Daniels TR, Tamir E: Zimmer* (\$8,300 2006.)
- GEMOS1 Clinical Trial. *Daniels T: BioMimetic Therapeutics Inc.* (\$100,000 2006.)
- Identification of Fragility Patients in Two Fracture Clinics of St. Michael's Hospital. *Bogoch ER, Josse R, Murray T: Merck Frosst Canada Inc.* (\$80,000 2004 - 2006.)
- Integrated Post Fracture Care for Osteoporosis in Ontario: A Demonstration Project. *Jaglal S, Bogoch ER, Brooks D, Carroll J, Jaakkimainen L, Kradder H, Zwarenstein M: Primary Health Care Transition Fund* (\$700,000 2004 - 2006.)
- Martin Family Centre for Arthritis Care Research. *Bogoch ER, Shupak R, Johnstone B: Martin Family* (\$500,000 2000 - 2005.)
- Osteoporosis Care for Fragility Fracture Patients. *Bogoch ER: Martin Family Foundation* (\$100,000 2006.)
- 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.)
- Prevention of Osteoporotic Fragility Fractures. *Bogoch ER: Procter & Gamble Pharmaceuticals* (\$40,000 2005 - 2006.)
- Study of Prospectively Evaluated Reamed Intramedullary Nails in Tibial Fractures. A Multi-Centre Randomized Trial. *Swiontkowski M, Guyatt G, Bhandari M, Tornetta P, Schemitsch EH and the Sprint Study Group: NIH* (\$1,500,000 2002 - 2005.)
- 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.)
- Wound Care Research Project: Outpatient Project. *Daniels TR, Teague L, Beaton D: AOFAS (American Orthopaedic Foot and Ankle Society)* (\$570 2005 - 2006.)

## Honours Received

- Daniels TR:** Best Clinical Paper awarded to "Ankle Arthroplasty vs. Ankle Arthrodesis for End-Stage Ankle Arthritis: A Functional Comparison" from the 3<sup>rd</sup> Triennial International Federation of Foot and Ankle Societies Meeting, September 2005.
- Daniels TR:** First Prize Poster, AOFAS Summer Meeting in Boston, MA: A Functional Analysis of Ankle Arthroplasty for End-Stage Arthritis (Duggal N, Yeung M, Redekop S, Daniels TR), July 2005.
- Daniels TR:** Second Prize Poster, AOFAS Summer Meeting in Boston, MA: Wound Care Research Project: Outpatient Project (Daniels TR, Teague L, Beaton D, Inrig T, July 2005.)
- McKee MD:** Edwin G. Bovill Award - The Most Outstanding Scientific Paper, at the 21<sup>st</sup> Annual Annual OTA Meeting 2005: "A Randomized Clinical Trial of Non-Operative versus Operative Treatment of Displaced Mid-Shaft Clavicle Fractures," March 2006.
- McKee MD:** Queens University, Belfast, Northern Ireland, UK. Trauma and Acute Care Conference "The Radiographic Quantification of Scapular Winging and Its Correlation to Functional Outcome Following Mal-Union or Non-Union of Displaced Clavicular Shaft Fractures" - First Prize (Best Presentation of Conference), March 2006.
- Schemitsch EH:** Host of 1<sup>st</sup> Ken Johnson Memorial Travelling Fellow (Max Talbot), October 2005.
- Schemitsch EH:** Lecoq Lecture, University of Washington, Seattle, WA, October 2005.
- Schemitsch EH:** Robert Merkow Lecture, Hennepin County Medical Centre, Minneapolis, MN, November 2005.

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## **DIVISION OF PLASTIC SURGERY**

**Dr. J.L. Mahoney - Associate Professor (Division Head)**

**Dr. M. Musgrave – Assistant Professor**

### **Publications**

**Cowan KN, Teague L, Sue SC, Mahoney JL:** Vacuum-Assisted Wound Closure of Deep Sternal Infections in High-Risk Patients after Cardiac Surgery. *Annual of Thoracic Surgery*: December 2005; 80: 2205: pp 12.

### **Invited Visits to Other Hospitals/Universities**

**Mahoney JL:** Niagara Region Wound Care Symposium, Niagara Falls, ON, April 2006. *Complex Wounds: Wound Management*.

**Mahoney JL:** 2<sup>nd</sup> International Advisory Board, Lisbon, Portugal, March 2006. *Surgical Debridement and Versajet*.

**Mahoney JL:** Halton Peel Doctors on Tour, Santiago, Chile, February 2006. *Wound Care*.

### **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

A Multi-Centre in Market Evaluation of Acticoat Moisture Control. *Mahoney JL, Teague L: Smith & Nephew* (\$10,000 2005 - 2006.)



## DIVISION OF UROLOGY

**Dr. R.J. Honey - Associate Professor (Division Head)**

**Dr. K.T Pace - Assistant Professor**

**Dr. R.J. Stewart - Assistant Professor**

## Publications

**Blew BDM, Fazio LM, Pace KT, Honey RJ:** Laparoscopic Simple Prostatectomy. Canadian Journal of Urology: December 2005: 12 (6): pp 2891-2894.

**Pace KT, Ghiculete D, Harju M, The University of Toronto Lithotripsy Associates, Honey RJD:** Shock Wave Lithotripsy at 60 or 120 Shocks Per Minute: A Randomized Double-Blinded Trial. Journal of Urology: August 2005: 174: pp 595-9.

## Invited Visits to Other Hospitals/Universities

**Pace KT:** McMaster University/CMAS Laparoscopic Urology Course, Hamilton, ON, January 2006. (1) Adrenal Disease and Laparoscopic Adrenalectomy, (2) Choice of Laparoscopic Approach: Trans versus Retro versus Hand.

**Pace KT:** St. Michael's Hospital Foundation, Toronto, ON, September 2005. Minimally-Invasive Surgery in Urology: Pushing the Frontiers at St. Michael's Hospital.

**Pace KT:** St. Michael's Hospital Board of Directors, Toronto, ON, October 2005. Robotic Surgery: The Next Frontier for St. Michael's Hospital.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

The Impact of Laparoscopic Surgery on Renal Physiology. *Pace KT, Stewart RJ, Honey RJD, Hare G, Blew B: Physician Services Incorporated (\$170,000 2004 - 2006.)*

## 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**



**Robin Richards** - Surgeon-in-Chief

## *Heads of Divisions*

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Dr. S. Femes – Cardiac and Vascular Surgery

Dr. H. Kreder – Orthopaedic Surgery

Dr. A. Smith – General Surgery

Dr. J. Semple – Plastic Surgery

Dr. M. Schwartz – Neurosurgery

Dr. L. Klotz – Urology

The Hospital underwent a Government initiated demerger process with the Women's College Hospital. This process has given the Institution new direction, a new logo, new colours and returned its previous name. Coincident with the Government's decision were the announcements of plans to create a Centre of Excellence for hip and knee surgery at the Wellesley Street Site, and to fund capital redevelopment at the Bayview Site. William Holland donated \$20 million to the Institution for the development of the Holland Orthopaedic and Arthritic Centre of Excellence of Hip and Knee Surgery. The Divisions of Cardiac and Vascular Surgery were combined under Dr. Femes' leadership, and the Institution began performing endovascular arterial reconstructive procedures (EVAR) with Foundation funds raised by Dr. Maggisano.

## **New Staff**

Anna Gagliardi, PhD, was appointed as a Scientist in the Division of General Surgery. Anna will employ both quantitative and qualitative methods to explore factors influencing the effect of organization and delivery of cancer services. Talat Chughtai was appointed as a Clinical Associate in the Division of General Surgery. Fuad Moussa joined the Department as a Clinical Associate in the Division of Cardiac and Vascular Surgery. Ted Tufescu and Tajedin Getahun were appointed as Clinical Associates in the Division of Orthopaedic Surgery.

## **Appointments and Promotions**

Mitch Brown was promoted to Associate Professor in the Division of Plastic Surgery, recognizing his scholarly activity in the field of breast reconstruction. Robert Maggisano was promoted to Associate Professor recognizing his long-standing contributions to the field of vascular reconstruction. David Rowed was promoted to Professor, recognizing his scholarly activity directed towards the management of cerebellopontine angle neoplasms. John Semple was promoted to Professor, recognizing his contributions in the areas of tissue engineering and breast reconstruction. Sandro Rizoli had a successful four-year review and was promoted to the Active Staff category.

Hans Kreder was appointed as the inaugural Marvin Tile Chair in Orthopaedic Surgery, Head of the Division of Orthopaedic Surgery, and Medical Leader of the Holland Musculoskeletal Program.

Calvin Law received an adjunct appointment to HPME.

## **Educational Activity and Awards**

John Murnaghan received the Helen P. Batty Faculty Development Award for Program Excellence. Robert Cartotto won a 2006 PAIRO Excellence in Clinical Teaching Award. Sender Herschorn was recognized at Gallie Day for completion of his term as Chair of the Departmental Continuing Education Committee. Robin Richards received the Bruce Tovee Award for Undergraduate Teaching at Gallie Day. Dr. Karen Cross, supervised by Dr. J. Fish, received the 2006 OMA Resident Achievement Award. Ron Kodama was awarded the Urology Divisional AW Bruce Undergraduate Teaching Award.

Sender Herschorn received a Peters-Boyd Clinical Teaching/Supervision Award. Fred Brenneman received a Peters-Boyd Academy Award for excellence in continuing education. Terry Axelrod, Paul Binhammer, Richard Holtby, Robin Richards and Stewart Wright spoke at the 22<sup>nd</sup> Annual Upper Extremity Update. Andy Smith directed and Frances Wright helped to organize the 2005 Update on Surgical Oncology. Claire Holloway, Calvin Law and May Lynn Quan also participated in this event. Andy Smith contributed to the development of the Annual Update in General Surgery.

## **Research Activity and Awards**

Sandro Rizoli was awarded the 2006 Royal College Medal Award in Surgery for his work on the immunomodulatory effects of hypertonic saline resuscitation. Robert Nam was awarded the Langer Prize at Gallie Day as an outstanding graduate of the Surgeon-Scientist Program, who shows the greatest promise for a career in academic surgery.

Steve Fremes received funding from the Heart and Stroke Foundation. Robert Nam received a CHIR New Investigator Salary Award and CIHR and NCIC operating grants. Vasu Venkateswaran received independent peer review funding from the Prostate Cancer Research Foundation of Canada and CIHR funding for three years. Laurie Klotz continued to attract funding for multiple studies relating to prostate cancer and was elected as Chair of the World Urologic Oncology Federation and Vice-President of the Canadian Urological Association.

Drs. Holloway, Wright and Quan received funding from the Ontario Cancer Research Network. Anna Gagliardi and Sharon Sharir received Dean's funding. Angel Arnaout, supervised by Dr. C. Holloway and others, received the inaugural Breast Journal Award at the American Society of Breast Surgeons.

Paul Marks received funding for a study of microfracture and repair of focal articular cartilage lesions on the femoral condyle. Joel Fish received PSI funding for the Hemodynamic Monitoring of Acute Burn Injuries using Near Infrared Spectroscopy. The staff of the Burn Unit including Manuel Gomez, M. Beveridge, J. Fish and R. Cartotto had multiple presentations at the Annual Meeting of the American Burn Association.

### **Other Awards and Activities**

The Department underwent a five-year review by Dr. John Denstedt, Professor and Chair of the Department of Surgery at the University of Western Ontario. The Department's leadership was renewed with constructive advice from the review. Dr. Denstedt also reviewed the Division of Urology.

Hugh Cameron received the American Academy of Orthopaedic Surgeon's Award of Excellence for his presentation on modularity in total hip arthroplasty. Robert Maggisano received the Professional Excellence Award of the Canadian Italian Business Association. Drs. J. Cameron and R. Nam received Marvin Tile Awards for their contributions to the Department. Drs. Daniel Penello, Peter Stotland, Hany Sawires and Bryan Wells received Harrison Teaching Awards. Marvin Tile was appointed Chair of the Governing Council of the Sunnybrook Foundation, and Robin Richards and Hamilton Hall remain active on the Board.

The Trauma Program, Canada's largest, led by Fred Brenneman was reviewed by the Trauma Association of Canada and accredited with many accolades. Sherif Hanna continued his leadership of the Surgical Oncology Programs. Sender Herschorn underwent a five-year review as Chair of the University Division of Urology and was re-appointed.

Homer Tien was deployed for a tour of duty in support of Canada's mission in Afghanistan. Talat Chughtai traveled to Pakistan to assist in the recovery effort following a massive earthquake that struck on October 8, 2005. Peter Chu served as missionary general surgeon at the Galmi Hospital in Niger and gave five lectures at the 27<sup>th</sup> Brackenhurst CME Conference for Missionary Doctors serving in Africa.



### **Retirements and Sabbaticals**

Hamilton Hall, having concluded his surgical practice, remained active in teaching and was appointed Executive Director of the Canadian Spine Society. Joel Finklestein was on sabbatical at the Hadassah Medical Centre in Israel, and Drs. J. Fish and M. Beveridge announced plans for sabbaticals.

### **Conclusion**

As the year concluded, a Search was underway for the Medical Leader of the Trauma and Critical Care Program and capital redevelopment of the Emergency Room began. The Foundation fundraising campaign reached the \$100 million milestone and plans were well underway for the construction of ambulatory operating rooms at the Bayview Campus, with initial funding from the Holland initiative. Sunnybrook's future seems bright and its Department of Surgery is appreciative and proud of the role it plays in the provision of surgical service to patients in the Toronto Central Local Health Integrated Network and the Province as a whole.

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## **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**

**Desai ND, Miwa S, Kodama D, Cohen G, Christakis GT, Goldman BS, Baerlocher MO, Pelletier MP, Fremes SE:** Improving the Quality of Coronary Bypass Surgery with Intraoperative Angiography: Validation of a New Technique. *Journal of the American College of Cardiology*: October 2005: 46(8): pp 1521-1525.

**Fitchett DH, Borgundvaag B, Cantor W, Cohen E, Dhingra S, Fremes S, Gupta M, Heffernan M, Kertland H, Husain M, Langer A, Letovsky E, Goodman SG:** Non ST Segment Elevation Acute Coronary Syndromes: A Simplified Risk-Orientated Algorithm. *Canadian Journal of Cardiology*: June 2006: 22(8): pp 663-77.

**Fremes SE:** On Free Right Internal Thoracic Artery in a “Horseshoe” Configuration: A New Technical Approach for “In Situ” Conduit Lengthening. *Journal of Cardiac Surgery*: November 2005: 20(6): pp 585.

**Guru V, Anderson GM, Fremes SE, O’Connor GT, Grover FL, Tu JV:** The Identification and Development of Canadian Coronary Artery Bypass Graft (CABG) Surgery Quality Indicators. *Journal of Thoracic and Cardiovascular Surgery*: November 2005: 130(5): pp 1257.

**Guru VS, Fremes SE:** Impact of Off-Pump Coronary Artery Bypass Surgery on Postoperative Bleeding: Current Best Available Evidence. *Journal of Cardiac Surgery*: February 2006: 21(1): pp 42-43.

**Guru V, Fremes SE, Austin PC, Blackstone EH, Tu JV:** Gender Differences in Outcomes after Hospital Discharge from Coronary Artery Bypass Grafting. *Circulation*: January 2006: 113(4): pp 507-516.

**Guru V, Fremes SE, Tu JV:** How Many Arterial Grafts Are Enough? A Population Based Study of Mid-Term Outcomes. *Journal of Thoracic and Cardiovascular Surgery*: May 2006: 131(5): pp 1021-1028.

**Hanayama N, Christakis GT, Mallidi HR, Rao V, Cohen G, Goldman BS, Fremes SE, Morgan CD, Joyner CD:** Determinants of Incomplete Left Ventricular Mass Regression Following Aortic Valve Replacement for Aortic Stenosis. *Journal of Cardiac Surgery*: July 2006: 20(4): pp 307-313.

**Miwa S, Desai N, Koyama T, Chan E, Cohen EA, Fremes SE;** Radial Artery Patency Study Investigators: Radial Artery Angiographic String Sign: Clinical Consequences and the Role of Pharmacologic Therapy. *Annals of Thoracic Surgery*: January 2006: 81(1): pp 112-118.

### **Invited Visits to Other Hospitals/Universities**

**Christakis GT:** KMH Cardiology & Diagnostic Centres, Mississauga, ON, April 2006. Expediting Access to Heart Surgery and Improving Patient Care.

**Christakis GT:** 10<sup>th</sup> Annual Medical Disease Management Symposium, Huntsville, ON, June 2006. Expediting Access to Heart Surgery and Improving Patient Care.

**Fremes SE:** MOHLTC, Peterborough, Ontario, March 2006. ICES Data Blitz.

**Fremes SE:** Cardiopulmonary Research Science and Technology Institute, Chicago, IL, January 2006. Intra-Operative Imaging: Changing Perspectives in Coronary Bypass Surgery.

**Cohen G:** ‘Meet the Experts’ Workshop, Canadian Cardiovascular Congress, Montreal, QC, October 2005. Current Options in the Surgical Management of Atrial Fibrillation.

**Goldman BS:** Medtronic of Canada Ltd., Mississauga, ON, December 2005. Dr. Wilfred Bigelow.

**Goldman BS:** Ryerson University, Toronto, ON, November 2005. Healthy Hearts.

**Goldman BS:** 6<sup>th</sup> International Congress on Coronary Artery Disease, Istanbul, Turkey, October 2005. Impact of Small Aortic Valves on Late Outcomes in Coronary Patients.

**Maggisano R:** American Stroke Association, Kissimmee, FL, February 2006. 3-Dimensional High Resolution Magnetic Resonance Direct Thrombus Imaging: Detection of Carotid AHA Type VIb/c Plaque.

**Maggisano R:** 14<sup>th</sup> Scientific Meeting of the International Society of Magnetic Resonance in Medicine, Seattle, Washington, May 2006. In Vivo High-Resolution Volumetric Imaging of Carotid Complicated Plaque: 3-Dimensional High-Resolution Magnetic Resonance Direct Thrombus Imaging (hires MRDTI.)

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

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.)*

Canadian Cardiovascular Outcomes Research Team. *Tu, J, Fremes SE: CIHR - Interdisciplinary health research team (\$5,000,000 2001 - 2005.)*

Graft Imaging to Improve Patency (GRIIP) Study. *Fremes SE, Desai N, Cohen EA: Heart and Stroke Foundation of Ontario (\$199,702 2005 - 2007.)*

Left Ventricular Mass Regression Following Aortic Valve Replacement with Stentless Versus Stented Valves: Follow-Up of a Randomized Trial. Grant# NA5377. *Cohen GN, Christakis GT, Alter DA: Heart and Stroke Foundation of Ontario (\$89,350 2004 - 2006.)*

Multicentre Radial Artery Patency Study: 5-Year Results. *Fremes, SE, Multi-Centre Radial Artery Study Participants: Canadian Institutes for Health Research (\$1,000,000 2002 - 2006.)*

The Role of Genetic Polymorphisms in Modulating the Efficacy of N-Acetylcysteine in Preventing Post Cardiopulmonary Bypass Renal Dysfunction. *Guru V, Fremes SE: Physicians Services Incorporated Foundation (\$20,000 2005 - 2006.)*

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 - Operating Grant (\$171,395 2004 - 2006.)*

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## **DIVISION OF GENERAL SURGERY**

**Dr. F.D. Brenneman - Associate Professor**

**Dr. P. Chu - Assistant Professor**

**Dr. A. Gagliardi – Assistant Professor**

**Dr. S.S. Hanna - Associate Professor**

**Dr. G.Y. Hiraki - Assistant Professor**

**Dr. C. 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. Smith - Associate Professor (Division Head)**

**Dr. G.A. Taylor - Associate Professor**

**Dr. H.C. Tien - Lecturer**

**Dr. L. Tremblay – Assistant Professor**

**Dr. F. Wright – Assistant Professor**

## **Publications**

**Aziz D, Narod S, Rawlinson E, Sun P, Lickley L, McCreedy D:** The Role of Re-Excision for Positive Margins in Optimizing Local Disease Control After Breast Conserving Surgery for Cancer. *The Breast Journal*: February 2006: In press.

**Ball CG, Kirkpatrick AW, Brenneman FD:** Non-Compliance with Seat-Belt Use in Patients Involved in Motor Vehicle Collisions. *Canadian Journal of Surgery*: October 2005: 48: pp 367-72.

**Boffard KD, Riou B, Warren B, Choong PIT, Rizoli SB, Rossaint R, Axelsen M, Kluger Y:** Randomized Trials in Patients with Blunt and Penetrating Trauma - Letter to the Editor. *Journal of Trauma*: May 2006: 60: pp 243-246.

**Boffard KD, Riou B, Warren B, Choong PIT, Rizoli SB, Rossaint R, Axelsen M, Kluger Y:** Recombinant Factor VIIa as Adjunctive Therapy for Bleeding Control in Severely Injured Trauma Patients. Two Parallel Randomized, Placebo-Controlled, Double-Blind Clinical Trial. *Journal of Trauma*: July 2005: 59 (1): pp 8-18.

**Chapman JW, Lickley HLA, Trudeau ME, Hanna WM, Kahn HJ, Murray D, Sawka CA, Mobbs BG, McCreedy DR, Pritchard KI:** Ascertaining Prognosis for Breast Cancer in Node-Negative Patients with Innovative Survival Analysis. *The Breast Journal*: February 2006: 12: pp 37-47.

**Kahn HJ, Hanna WM, Chapman J-A, Trudeau ME, Lickley HLA, Mobbs BG, Murray D, Pritchard KI, Sawka CA, McCreedy DR, Marks A:** Biological Significance of Occult Micro Metastases in Histologically Negative Axillary Lymph Nodes in Breast Cancer Patients Using the Recent ASCC Breast Cancer Staging System. *The Breast Journal*: February 2006: In Press:

**Khalifa MA, Rowsell C, Gladdy RA, Ko YJ, Hanna SS, Smith AJ, Law CHL:** Expression of the Epidermal Growth Factor Receptor (EGFR) in Primary Colorectal Adenocarcinoma Predicts Its Expression in Recurrent Disease. *American Journal of Clinical Pathology*: February 2006: 125(2): pp 229-233.

**Mackay H, Billingsley K, Gallinger S, Berry S, Smith AJ, Yeung R, Pond G, Croitoru M, Swanson P, Krishnamurthi S, Siu LL:** A Multi-Center Phase II Study of “Adjuvant” Irinotecan Following Resection of Colorectal Hepatic Metastases. *American Journal of Clinical Oncology*: December 2005: 28(6): pp 547-554.

**Maroun J, Kocha W, Kvols L, Bjarnason G, Chen E, Germond C, Hanna S, Poitras P, Rayson D, Reid R, Rivera J, Roy A, Shah A, Sideris L, Siu L, Wong R:** Guidelines for the Diagnosis and Management of Carcinoid Tumours. Part 1: The Gastrointestinal Tract. A statement from a Canadian National Carcinoid Expert Group. *Current Oncology*: April 2006: 13, no.2: pp 67-76.

**Pieri P, Stein DM, Scarpelini S, Rizoli S:** Pro/Con Debate: Does Recombinant Factor Viia Have A Role To Play in the Treatment of Patients with Acute Nontraumatic Hemorrhage? *Critical Care Medicine*: June 2006: 10: pp 214-217.

**Rizoli SB, Chughtai T:** The Emerging Role of Recombinant Factor Viia in the Treatment of Blunt Traumatic Haemorrhage. *Expert Opinion on Biological Therapy*: January 2006: 6(1): pp 73-81.

**Rizoli SB, Rhind SG, Shek PN, Inaba K, Filips D, Tien H, Brenneman F, Rotstein O:** The Immunomodulatory Effects of Hypertonic Saline Resuscitation in Patients Sustaining Traumatic Hemorrhagic Shock - A Randomized, Controlled, Double-Blinded Trial. *Annals of Surgery*: January 2006: 243(1): pp 47-57.

**Tien, H, Cunha JRF, Wu SN, Chughtai T, Tremblay LN, Brenneman FD, Rizoli SB:** Do Trauma Patients with a GCS of 3 and Bilateral Fixed and Dilated Pupils Have Any Chance of Survival? *Journal of Trauma*: February 2006: 60(2): pp 274-276.

**Tremblay L, Tien H, Hamilton P, Brenneman F, Rizoli S, Sharkey P, Chu P, Rozycki GS:** Risk and Benefit of Intravenous Contrast in Trauma Patients with Elevated Serum Creatinine. *Journal of Trauma*: November 2005: 59(5): pp 1162-1167.

**Tremblay LN, Slutsky AS:** Ventilator Induced Lung Injury: Bench to Bedside. *Intensive Care Medicine*: October 2005: 32(1): pp 24-33.

**Tremblay LN, Slutsky AS:** Letter to the Editor on "Ventilator Induced Lung Injury: Bench to Bedside." *Intensive Care Medicine*: June 2006: epub.

**Tremblay LN, Tien H, Hamilton P, Brenneman FD, Rizoli SB, Sharkey B, Chu P, Rozycki GS:** The Risk Benefit Ratio Favors the Use of Intravenous Contrast in Trauma Patients Presenting with High Serum Creatinine. *Journal of Trauma*: November 2005: 59(5): pp 1162-1167.

**Wright FC, Crooks D, Fitch M, Hollenberg E, Maier BA, Last LD, Greco E, Miller D, Law CHL, Sharir, S, Fleshner NE, Smith AJ:** Qualitative Assessment of Patient Experiences Related to Extended Pelvic Resection for Rectal Cancer. *Journal of Surgical Oncology*: February 2006: 93: pp 92-99.

**Wright FC, Law CHL, Last LD, Klar N, Ryan DP, Smith AJ:** A Blended Knowledge Translation Initiative to Improve Colorectal Cancer Staging. *BMC - Health Services Research*: January 2006: 6: pp 4-32.

**Wyrzykowski AD, George TJ, Tremblay LN, Rozycki GS, Feliciano DV:** Emergent Right Hemicolectomies. *American Surgeon*: November 2005: 71(8): pp 653-656.

## Invited Visits to Other Hospitals/Universities

**Brenneman FD:** General Surgery Review 2006, Mississauga, ON, April 2006. (1) Abdominal Trauma, (2) Hernia Repair.

**Brenneman FD:** CAGS Post-Graduate Course in Trauma, Canadian Surgery Forum, Montreal, QC, September 2005. Damage Control Surgery and Abdominal Compartment Syndrome.

**Brenneman FD:** Annual Scientific Meeting of the Trauma Association of Canada, Banff, AB, March 2006. Debate: The Secondary Abdominal Syndrome: Latrogenic or Unavoidable?

**Brenneman FD:** University of British Columbia, Vancouver, BC, May 2006. DSTC (Definitive Surgical Trauma Care) course. Course Instructor.

**Brenneman FD:** Johnson & Johnson Professional Education Lecture, Thunder Bay, ON, August 2005. (1) Inguinal Hernia Repair with PHS, (2) Laparoscopic Ventral Hernia Repair, (3) Laparoscopic Ventral Hernia Repair.

**Brenneman FD:** Ontario Association of General Surgeons, Toronto, ON, November 2005. Laparoscopic Ventral Hernia Repair.

**Brenneman FD:** Trauma Nursing Conference 2006 (Course Co-Director), Toronto, ON, February 2006. Lessons Learned.

**Brenneman FD:** Austrama 2006 Westmead Trauma Conference, Sydney, Australia, March 2006. Massive Pelvic Trauma.

**Brenneman FD:** McMaster University, Hamilton, ON, June 2006. McMaster University General Surgery Resident Seminar. (1) Inguinal Hernia and Laparoscopic Ventral Hernia Repair, (2) Trauma Practice Oral Exam Review.

**Brenneman FD:** Johnson & Johnson Professional Education Program, Calgary, AB, April 2006. Open Inguinal Hernia Repair/Tension Free Repair.

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**Brenneman FD:** Johnson & Johnson Professional Education Program Advanced Hernia Repair Conference, Mt. Tremblant, QC, February 2006. (1) Open Inguinal Hernia Repair Techniques, (2) Open Ventral Hernia Repair.

**Brenneman FD:** Johnson & Johnson Professional Education Program, Calgary, AB, April 2006. Open Ventral Hernia Repair In The Complicated Patient.

**Brenneman FD:** Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON, August 2005. Operative Techniques of Laparoscopic Ventral Hernia Repair.

**Brenneman FD:** Abbotsford General Hospital, Abbotsford, BC, November 2005. Operative Techniques of Laparoscopic Ventral Hernia Repair.

**Brenneman FD:** Penticton General Hospital, Penticton, ON, December 2005. Operative Techniques of Laparoscopic Ventral Hernia Repair.

**Brenneman FD:** CAGS Postgraduate Course in Trauma, Canadian Surgery Forum, Montreal, QC, September 2005. Penetrating Neck Trauma.

**Brenneman FD:** Rouge Valley Centenary Hospital Emergency Department Grand Rounds, Scarborough, ON, December 2005. Penetrating Trauma - Gunshot Wounds and Stab Wounds.

**Brenneman FD:** Canadian Surgery Forum, Montreal, QC, September 2005. Peritoneal Healing and Its Effects on Mesh Selection in Ventral Hernia Repair.

**Brenneman FD:** Austrama 2006 Westmead Trauma Conference, Sydney, Australia, March 2006. Severe Liver Trauma.

**Brenneman FD:** Austrama 2006 Westmead Trauma Conference, Sydney, Australia, March 2006. The Role of the TTL.

**Brenneman FD:** Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON, May 2006. Thunder Bay Trauma Conference keynote speaker. Penetrating Trauma.

**Brenneman FD:** Trauma Association of Canada, Halifax, NS, September 2005. Trauma Association of Canada Accreditation of Queen Elizabeth II Health Sciences Centre, IWK Paediatric Hospital, Antigonish Hospital.

**Brenneman FD:** Canadian Surgery Forum, Montreal, QC, September 2005. Trauma Association of Canada Symposium “Innovations in Trauma & Critical Care” - Trauma Case Presentation.

**Brenneman FD:** Canadian Surgery Forum, Montreal, QC, September 2005. Trauma Association of Canada Symposium “Innovations in Trauma & Critical Care” - Symposium Moderator.

**Hanna SS:** Southwest Surgical Association, London, ON, November 2005. Surgical Management of Metastatic Colorectal Cancer.

**Hanna SS:** Southwest Surgical Association, London, ON, November 2005. Surgical Resources and Practice in China - A Visitor’s Perspective.

**Law CHL:** North York General Hospital, Toronto, ON, February 2006. Challenges in the Management of Gastrointestinal Carcinoid Syndrome.

**Law CHL:** Sunnybrook & Women’s College Health Sciences Centre, Toronto, ON, September 2005. Multidisciplinary Team Care in Hepatobiliary and Pancreatic Surgical Oncology.

**Lickley L:** Ontario Breast Screening Program Public Meeting sponsored by the three Peterborough Units, Peterborough, ON, November 2005. Keynote Speaker: “Breast Cancer Surgery and Breast Cancer Prevention”.

**Smith AJ:** Northeastern Ontario Regional Cancer Conference, Sudbury, ON, November 2005. Adopting Laparoscopic Colon Cancer Surgery in Ontario.

**Smith AJ:** Thunder Bay Regional Cancer Centre, Thunder Bay, ON, March 2006. Adopting Laparoscopic Colon Cancer Surgery in Ontario.

**Smith AJ:** Canadian Parliament (Committee Meeting), Ottawa, ON, May 2006. Colorectal Cancer: The Prevention Imperative.

**Smith AJ:** Minneapolis Surgical Society, Minneapolis, MN, December 2005. Conundrums in the Management of Locally Advanced Colorectal Cancer.

**Smith AJ:** Cancer Quality Council of Ontario - Cancer Care Ontario, Toronto, ON, June 2006. Evolution of a Cancer Surgery Quality Initiative in Ontario.

**Smith AJ:** Grand Rounds, University of Minnesota, Minneapolis, MN, December 2005. Evolution of a Cancer Surgery Quality Initiative in Ontario.



**Smith AJ:** American College of Surgeons - Manitoba Chapter, Winnipeg, MN, November 2005. Impact of LN Count on Survival in Stage II (node negative) CRC.

**Smith AJ:** Northeastern Ontario Regional Cancer Conference, Sudbury, ON, November 2005. Impact of LN Count on Survival in Stage II (node negative) CRC.

**Smith AJ:** Cancer Care Ontario, Surgical Oncology Program Retreat, Toronto, ON, October 2005. It's Not About the Lymph Nodes.

**Smith AJ:** Thunder Bay Regional Cancer Centre, Thunder Bay, ON, March 2006. It's Not About the Lymph Nodes.

**Smith AJ:** Surgical Oncology Program, Cancer Care Ontario, Toronto, ON, June 2006. Laparoscopic Colorectal Cancer Resection Education Program.

**Smith AJ:** Georgian Bay Gut Club, Barrie, ON, September 2005. Lymph Nodes: The Evolution of the CCO Quality Agenda in Surgical Oncology.

**Smith AJ:** American College of Surgeons - Manitoba Chapter, Winnipeg, MB, November 2005. Mentorship in Surgery - The Surgical Circle of Life (Keynote Dinner Speaker.)

**Tien HC:** Ontario Medical Association - Doctors for International Aid, Toronto, ON, May 2006. Trauma Care in Afghanistan: Challenges and Pitfalls.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

"A Population Based Study of the Outcomes of Transanal Resection for Rectal Cancer." *Law, CHL, Paszat L, Klar N, Stern H, Swallow C, Smith AJ, Wright FC: National Cancer Institute of Canada (\$172,767 2002 - 2006.)*

A Prospective Study of Intervals and Delays in the Diagnosis of Breast and Colon Cancer. *Bondy S, Angus J, Benk V, Grunfeld E, Hodgson D, Holowaty E, Iscoe NA, Kim J-H J, Loblaw DAB, Paszat L, Smith AJ: CIHR (\$645,605 2002 - 2005.)*

Blood Transfusion and Colorectal Cancer Outcomes in the Universal Leukoreduction Era. *Law CHL, Cheang TSE: Canadian Institute of Health Research (CIHR) - Canada Graduate Scholarships Master's Awards (A) (\$17,500 2005 - 2006.)*

Career Scientist Award: Surgical Oncology Outcomes: Determining Quality Indicators, Practice Patterns and Outcomes of Cancer Surgery in Ontario. *Law CHL: Ministry of Health and Long Term Care of Ontario (\$301,875 2004 - 2009.)*

Clinical Research Consortium to Improve Resuscitation Outcomes. *Tremblay L, Consultant: NIH Consortium Grant (\$2,454,201 2004 - 2009.)*

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 - 2007.)*

Evaluating a Knowledge Translation Strategy for Pancreatic Cancer Surgery in Ontario: 1995-2003. *Simunovic M, Brown A, Gagliardi A, Langer B, Davis D, Urbach D, Elit L, Holowaty E, Fitch M, Levine M, To T, Tandan V, Wright FC: NCIC (\$290,369 2005 - 2006.)*

Improving Colon Cancer Staging Through a Blended Knowledge Translation Program Aimed at Surgeons and Pathologists. *Smith AJ, Ryan DP, Wright FC, Law CHL, DePetrillo D, Khalifa M: Change Foundation (\$100,000 2002 - 2006.)*

Improving Colon Cancer Staging Through a Multimodal Knowledge Translation Program Aimed at Surgeons and Pathologists. *Smith A, Wright FC, Law CHL, Ryan DP, Stern H, Khalifa M: Ontario Cancer Research Network (\$246,633 2003 - 2006.)*

Introduction of Multimodal, Multidisciplinary Fast Track Surgery Protocol to Reduce Length of Stay in Colorectal Surgical Oncology Patients. *Sawyer J, Smith AJ, Faclier G, Moura S: Ministry of Health and Long Term Care (\$117,100 2005 - 2006.)*

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.)*

Pre-Hospital Trauma Training for Special Operations Medical Technicians. *Tien H, Martineau L, Brenneman F: Department of National Defence (\$25,976 2005 - 2006.)*

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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 Initiative in Rectal Cancer (QIRC) Trial. Simunovic M, Levine M, Goldsmith C, Whelan T, McLeod R, Browman G, Stern H, Riddell R, Smith A: *CIHR* (\$786,124 2001 - 2005.)

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 J.R, Kim Y-I.J.: *CIHR* (\$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, Smith AJ, 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 US: 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.)

Surveillance Magnetic Resonance Imaging and Ultrasound for Women at High Risk for Hereditary Breast Cancer. Warner E, Causer P, DeBoer G, Jong R, Messner S, Narod S, Plewes D, Wong J, Wright FC, Yaffe 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: *Clinical Oncology Group (OCOG)* (\$968,842 2005 - 2008.)

The Role of Thromboelastography in Trauma. Rizoli S, Tien H, Tremblay L, Reis M: *Defence Research and Development Canada* (\$244,388 2006 - 2008.)

To Reduce Wait Times through Cycle Improvement for Colorectal Cancer (CRC) Diagnostic Assessment in Toronto. Sawka C, Gandhi M, Matheson G, Cohen L, Rabeneck L, Smith AJ, Gopinath N, Shapiro T, Saibil F, Rhodes K, Cooper M: *Cancer Services Innovation Fund 2004-2005* (\$100,000 2005.)

Trauma Care at a Role 3 Canadian Forces Hospital in Afghanistan. Tien H, Redelmeier R, Brenneman F, Shek P: *Department of National Defence, Canada* (\$40,000 2006.)

## Honours Received

**Brenneman FD:** 2005 - 2006 Award for Excellence in Continuing Education Teaching at the Peters-Boyd Academy, Sunnybrook Health Sciences Centre, May 2006.

**Smith AJ:** OHA Innovation in Clinical Practice Team Award, November 2005.

## **DIVISION OF NEUROSURGERY**

**Dr. M. Fazl - Assistant Professor**

**Dr. F. Pirouzmand - Assistant Professor**

**Dr. D.W. Rowed - Professor**

**Dr. M.L. Schwartz – Professor (Division Head)**

## **Publications**

**Andrade-Souza YM, Zadeh G, Ramani M, Scora D, Tsao MN, Schwartz ML:** Testing the Radiosurgery-Based Arteriovenous Malformation Score and the Modified Spetzler-Martin Grading System to Predict Radiosurgical Outcome. *Journal of Neurosurgery*: October 2005; 103: pp 642-648.

## **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

PRECISE Study. *Pirouzmand F: NeoPharm* (\$100,000 2004 - 2006.)

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## **DIVISION OF ORTHOPAEDIC SURGERY**

**Dr. T.S. Axelrod - Associate Professor**

**Dr. H.U. Cameron - Associate Professor**

**Dr. J.C. Cameron – Assistant Professor**

**Dr. G. Fernie - Professor**

**Dr. J. Finkelstein – Associate Professor**

**Dr. M.H. Ford - Assistant Professor**

**Dr. J.D. Gollish - 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. I. Weller – Assistant Professor**

**Dr. C. Whyne – Assistant Professor**

**Dr. C.S. Wright - Assistant Professor**

**Dr. A.J.M. Yee - Assistant Professor**

## **Publications**

**Adkin A, Quant S, Maki BE, McIlroy WE:** Cortical Responses Associated with Predictable and Unpredictable Compensatory Balance Reactions. *Experimental Brain Research*: January 2006: 172: pp 85-93.

**Ahn H, Jhaveri S, Yee AJ, Finkelstein JA:** Lumbar Vertebral Hemangioma Causing Cauda Equina Syndrome (MS #05390.) *Spine*: November 2005: 30(21): pp E622-E644.

**Al-Khalifa F, Adjei N, Yee AJ, Finkelstein JA:** Patterns of Collapse in Thoracolumbar Burst Fractures. *Journal of Spinal Disorders*: October 2005: 18(5): pp 410-412.

**Axelrod TS:** Conservative Treatment: When I Use It. *Symposia EE Management of Osteoporotic Wrist Fractures. Proceedings American Academy of Orthopaedic Surgeons, Rosemont, Illinois*: 2006: pp 201-202.

**Batani H, Maki BE:** BE Canes and Walkers: Benefits and Adverse Consequences of Use. *Rehab and Community Care Medicine*: September 2005: 14: pp 22-24.

**Bradley NME, Sinclair E, Danjoux C, Barnes EA, Tsao MN, Farhadian M, Yee AJ, Chow E:** The Do-Not-Resuscitate Order: Incidence of Documentation in the Medical Records of Cancer Patients Referred for Palliative Radiotherapy. *Current Oncology*: May 2006: 13(2): pp 47-54.

**Burch S, Bisland SK, Bogaards A, Yee AJ, Whyne CM, Finkelstein JA, Wilson BC:** Photodynamic Therapy for the Treatment of Vertebral Metastases in a Rat Model of Human Breast Carcinoma. *Journal of Orthopaedic Research*: September 2005: 23(5): pp 995-1003.

**Burch S, Bisland SK, Yee AJ:** Photodynamic Therapy for Bone Metastases - An Avenue for Earlier Identification and Treatment. *Oncology Exchange*: July 2005: 4(3): pp 6-12.

**Cheung G, Chow E, Holden L, Vidmar M, Danjoux C, Yee AJ, Connolly R, Finkelstein JA:** Percutaneous Vertebroplasty in Patients with Intractable Pain from Osteoporotic or Metastatic Fractures: A Prospective Study Using Quality-of-Life Assessment. *Canadian Association of Radiologists Journal*: February 2006: 57(1): pp 13-21.

**Duis JD, Stephen D, Ruedi T, Alonso JE:** Back Page Debate: Opinion on Two Cases of Pilon Injuries from Traffic Accidents. *AO Dialogue*: December 2005: 18, Issue3: pp 39-41.

**Jaglal S, Weller S, Mamdani M, Hawker G, Kreder HJ, Jaakimainen L, Adachi R:** Population Trends in BMD Testing, Treatment, and Hip and Wrist Fracture Rates: Are the Projections Wrong? *Journal of Bone and Mineral Research*: June 2005: 20(6): pp 898-905.

**Kreder HJ:** Commentary: Early Mobilization is Better than Cast Immobilization for Injured Limbs. *British Medical Journal (Clinical Research Ed)*: August 2005: 10(4): pp 118.

**Kreder HJ, Agel J, McKee MD, Schemitsch EH, Stephen DJG, Hanel DP:** A Randomized Controlled Trial of Distal Radius Fractures with Metaphyseal Displacement But Without Joint Incongruity: Closed Reduction and Casting versus Closed Reduction, Spanning External Fixation and Optional Percutaneous K-Wires. *Journal of Orthopaedic Trauma*: February 2006: 20, No. 2: pp 115-21.

**Kreder HJ, Hanel DP, Agel J, McKee MD, Schemitsch EH, Trumble TE, Stephen DJG:** A Randomized Controlled Trial of Indirect Reduction and Percutaneous Fixation versus Open Reduction and Internal Fixation for Displaced Intraarticular Distal Radius Fractures. *Journal of Bone and Joint Surgery (British)*: June 2005: 87B(6): pp 829-836.

**Kreder HJ, Rozen N, Borkhoff CM, LaFlamme YG, McKee MD, Schemitsch EH, Stephen DJG:** Determinants of Functional Outcome After Simple and Complex Acetabular Fractures Involving the Posterior Wall. *Journal of Bone and Joint Surgery (British)*: June 2006: 88(6): pp 776-82.

**Leitch K, Dalgorf D, Borkhoff CM, Kreder HJ:** Bilateral Total Knee Arthroplasty; Staged or Simultaneous? *Ontario Orthopaedic Surgeons Reply. Canadian Journal of Surgery*: August 2005: 48(4): pp 273-276.

**Maki BE, McIlroy WE:** Change-In-Support Balance Reactions in Older Persons: An Emerging Research Area of Clinical Importance. In: *Nerologic Clinics of North America: Otolaryngology (Volume 23) (Furman JM, Whitney SL, eds.) Elsevier, Philadelphia: 2005: pp 751-783.*

**McKee MD, Pederson EM, Jones C, Stephen DJG, Kreder HJ, Schemitsch EH, Wild LM, Potter J:** Deficits Following Non-Operative Treatment of Displaced Clavicle Fractures. *Journal of Bone and Joint Surgery (American)*: January 2006: 88-A, No. 1: pp 35-40.

**Mori B, Lunden K, Kreder HJ:** 13-Metre Walk Test Applied to the Elderly with Musculoskeletal Impairment: Validity Study. *Physiotherapy Canada*: July 2005: 57(3): pp 217-224.

**Murnaghan JJ:** Knee and Hip Replacements: When to Refer. *Canadian Journal of Continuing Medical Education*: April 2006.

**Roth SE, Kreder HJ, Stephen DJG, Whyne CM:** Biomechanical Stability of Intramedullary Nailed High Proximal Third Tibial Fractures with Cement Augmented Proximal Screws. *Journal of Orthopaedic Trauma*: August 2005: 19(7): pp 457-461.

**Stephen DS, Bellabarba C, Nork S, Pohlemann T:** The Debate: How to Treat Sacral Fractures with Nerve Injuries. *AO Dialogue*: February 2006: 02/2006: pp 39-43.

**Wu YJ, La Pierre DP, Wu J, Yee AJ, Yang BB:** The Interaction of Versican with Its Binding Partners. *Cell Research*: July 2005: 15(7): pp 483-494.

**Xiang YY, Dong H, Wan Y, Li J, Yee AJ, Yang B, Lu W:** Versican G3 Domain Regulates Neurite Growth and Synaptic Transmission of Hippocampal Neurons by Activation of Epidermal Growth Factor Receptor. *Journal of Biological Chemistry*: May 2006.

**Yu SJ, Qui GX, Yang B, Roth S, Whyne C, Yee AJ:** Expression of Integrin Alpha 5 and Actin in the Cells of Intervertebral Disc under Cyclic Hydrostatic Pressure In Vitro. *Chinese Journal of Surgery (Zhonghua Wai Ke Za Zhi)*: December 2005: 43(24): pp 1605-8.

**Zettel JL, Holbeche H, McIlroy WE, Maki BE:** Redirection of Gaze and Switching of Attention During Rapid Stepping Reactions Evoked by Unpredictable Postural Perturbation. *Experimental Brain Research*: September 2005: 165: pp 392-401.

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## Invited Visits to Other Hospitals/Universities

**Axelrod TS:** American Academy of Orthopaedic Surgeons, Annual Meeting, Chicago, IL, March 2006. (1) Complications of Distal Radius Fractures: Arthritis and Carpal Deformity Instructional Course Lecture #169, (2) Management of Osteoporotic Wrist Fractures (EE) Moderator and Symposia Chairman: Symposia.

**Axelrod TS:** Canadian Orthopaedic Association Annual Meeting, Toronto, ON, June 2006. Instructional Course #7: Fractures of the Upper Extremity.

**Axelrod TS:** Holland Orthopaedic and Arthritic Centre, Toronto, June 2006. Introduction to Upper Extremity X-Ray Interpretation.

**Axelrod TS:** AO/ASIF International Foundation, Davos, Switzerland, December 2005. (1) Lab Director Bone Defect and Grafting Practical; AO International Hand and Wrist Fracture Course, (2) Lab Director ORIF of Distal Radius Fracture Practical; AO International Hand and Wrist Fracture Course, (3) The Management of Mal-Unions and Non-Unions of Distal Radius Fractures, (4) The Role of Bone Grafting and Biologics in Hand and Wrist Trauma.

**Axelrod TS:** AO North America, Hand and Wrist Fracture Management Course, Marco Island, FL, June 2006. (1) Metallurgy: Stainless Steel versus Titanium, (2) The History of the AO/ASIF, (3) The Rationale of Distal Radius Fracture Operative Care.

**Cameron JC:** Rocky Mountain Traumatological Society, Colorado, U.S.A., January 2006. Long Terms Results of Patello-Femoral Arthroplasty.

**Cameron JC:** Canadian Orthopaedic Association, Toronto, ON, June 2006. (1) Poster Presentation: Long Term Results of Meniscal Allograft, (2) Poster Presentation: Long Term Results of Patello-Femoral Arthroplasty, (3) Puddu Opening Wedge High Tibial Osteotomy for Osteoarthritis of the Knee, (4) Rotational Osteotomy of the Proximal Tibia for Mal-Tracking/Dislocation of the Patella.

**Cameron JC:** 2006 Panceltic Orthopaedic Meeting, Ayrshire, Scotland, June 2006. Rotational Osteotomy of the Proximal Tibia for Mal-tracking/Dislocation of the Patella.

**Cameron JC:** Workplace Safety Insurance Board, Toronto, ON, May 2006. Surgical Management of Osteoarthritis of the Knee.

**Ford MH:** Dewar Orthopaedic Society, Prince George, BC, September 2005. Minimally Invasive Approach to Metastatic Spine Disease.

**Ford MH:** Sixth Annual Canadian Spine Society, Lake Louise, AB, March 2006. Symposium - Kyphoplasty vs Vertebroplasty: The Case for Kyphoplasty.

**Gollish JD:** BC Interior Annual Orthopaedic Meeting 2005, Vernon, BC, September 2005. Advances in New Technologies in Knee Arthroplasty. (1) MIS Mid Vastus Approach for MIS TKR, (2) A Pragmatic Approach to Revision TKR.

**Gollish JD:** Hamilton Health Sciences Centre: Optimizing Outcomes for Joint Arthroplasty Patients, Hamilton, ON, November 2005. Update on OAI Arthroplasty Experience - Care Model Development.

**Kreder HJ:** Thirteenth Toronto Pelvic and Acetabular Fracture Management Course, AO/ASIF North America, Toronto, ON, May 2006. (1) Acetabular Fractures: Anterior Column and Anterior Wall Fractures, (2) Anatomy of the Pelvis and Acetabulum: Anterior Approaches, (3) Polytrauma with a Pelvic Fracture; Managing the Acute Injury, (4) The Failed Acetabulum: Techniques for Total Hip Arthroplasty.

**Kreder HJ:** Emerging Trends and Controversies in Hip and Knee Arthroplasty, Whistler, BC, February 2006. (1) Acute Total Hip Replacement in Acetabular Fractures, (2) Controversies re: Interface for Total Joint Replacement, (3) Outcomes of Total Hip Arthroplasty Post Old Hip Fracture.

**Kreder HJ:** AO/ASIF Advanced Principles and Techniques of Operative Management, Marco Island, FL, June 2006. (1) Articular Fractures of the Upper Extremity: Session Moderator, (2) Bone Graft and Bone Morphogenetic Protein (BMP) Tissue Engineering: Options and Outcomes, (3) Diaphyseal Fractures: Femoral Shaft Treatment is an Emergency, (4) Distal Humerus Fractures: Outcomes and Complications of Open Reduction and Internal Fixation, (5) Practical Exercise: Distal Intra-Articular Humerus Fracture Management.

**Kreder HJ:** AO North America, Course on Basic Principles and Techniques of Operative Fracture Management, Vancouver, BC, October 2005. (1) Articular Fractures; Section Moderator, (2) Diaphyseal Fractures; Discussion Group Leader, (3) Dynamic Hip Screw Insertion: Practical Exercise Leader, (4) Intracapsular Hip Fractures, (5) Review of Principles of Decision Making: Discussion Group Leader, (6) The Spectrum of Stability: Absolute Stability.

**Kreder HJ:** Bone and Joint Decade Young Investigator Workshop, Toronto, ON, November 2005. (1) Clinical and Health Services Research, (2) Grant Writing: The Literature Review, (3) Time Management and Negotiating Research Time.

- Kreder HJ:** West Greater Toronto Area Community Orthopaedic Surgeon Group, Mississauga, ON, May 2006. Management of Periprosthetic Fractures in the Lower Extremity.
- Kreder HJ:** Canadian Orthopaedic Association Annual Meeting, Toronto, ON, June 2006. (1) Management of Supracondylar Femur Fractures: IM Nailing Techniques and Results, (2) Trochanteric Avulsion: Reattachment Tips and Tricks.
- Kreder HJ:** Orthopaedic Trauma Association, Ottawa, ON, October 2005. Periprosthetic Fractures of the Proximal Femur.
- Kreder HJ:** AO/ASIF Advanced Course of Fracture Management for Operating Room Personnel, Toronto, ON, June 2006. (1) Practical Session on Fixation of Acetabular Fractures and Plating of a Symphyseal Disruption, (2) The Concept of Indirect Reduction, (3) The Treatment of Acetabular Fractures.
- Kreder HJ:** International Bone and Joint Decade Workshop, Ottawa, ON, October 2005. Toward Optimum Management of Hip Fractures.
- Maki BE:** International Congress on Gait and Mental Function: The Interplay Between Walking, Behavior and Cognition - Madrid, Spain, February 2006. Cognitive Demands of Balance-Recovery Reactions.
- Maki BE:** 4<sup>th</sup> International Posture Symposium, Smolenice Castle, Slovakia, June 2006. Cortical Control of Balance-Recovery Reactions (presented by K Zabjek.)
- Maki BE:** Falls and Mobility Network of Ontario, Sunnybrook and Womens College Health Sciences Centre, Toronto, ON, October 2005. Getting a Grip on Stairs: Improvements to Conventional Handrails and Development of Novel Handrail Systems (Keynote Speaker.)
- Maki BE:** Pittsburgh Older Americans Independence Center (National Institute on Aging Claude Pepper Center), University of Pittsburgh, Pittsburgh, PA, September 2005. Invited participant at site - Visit and Research Retreat.
- Murnaghan JJ:** Ontario Association for Amputee Care, Toronto, ON, May 2006. Quality of Life Before and after Below Knee Amputation for Limb Ischemia.
- Richards RR:** Artic Orthopaedic Conference, Yellowknife, July 2005. (1) The Shoulder, (2) Shoulder Assessment.
- Richards RR:** American Society for Surgery of the Hand, San Antonio, TX, September 2005. Bicepsplasty - Steindler Procedure (given by Dr. Milan Stevanovic.)
- Richards RR:** Ontario Trial Lawyers Association, Toronto, ON, September 2005. Orthopaedic Negligence.
- Richards RR:** COA Specialty Meeting, Toronto, ON, June 2006. Rotator Cuff Tear Should Be Done Open (debate with Dr. R. Hollinshead.)
- Stephen DGS:** AO ASIF Advanced Symposium: Solutions Course for Fracture Fixation Problems, San Francisco, CA, April 2006. (1) Distal Tibial Malunions, (2) Ankle Mal-Unions, (3) Difficult Foot and Ankle Cases.
- Stephen DGS:** AO Principles of Fracture Management Course, Marcos Island, June 2006. (1) Evaluator of Fracture Management Course, (2) Lecture: Principles of Articular Management.
- Stephen DGS:** AO North America, Toronto, ON, June 2006. (1) Lecture: AO ASIF History, Principles and Indications for Fracture Treatment, (2) Practical Session: Lag Screw Technique Review - Cortical and Cancellous, (3) Lecture: Pelvic Ring Injuries, (4) Co-Chair - The Advanced Course of Fracture Management for Operating Room Personnel.
- Stephen DGS:** Orthopaedic Trauma Association's 2005 Residents Basic Fracture Course, Ottawa, ON, October 2005. (1) Femoral Neck Fracture: Young and Old, (2) Hands-On Skills Labs: Calcaneous Fractures.
- Stephen DGS:** 73<sup>rd</sup> Annual Meeting, American Academy of Orthopaedic Surgeons, Chicago, IL, March 2006. Instructional Course: Talus and Calcaneous Fractures: Current Treatment.
- Stephen DGS:** AO ASIF New England Regional Trauma Summit, Stowe, Vermont, January 2006. International Faculty - Panel Discussions, Case Reviews.
- Stephen DGS:** Annual Canadian Orthopaedic Association, Toronto, ON, June 2006. Lower Extremity Cases - Instructional Course.
- Stephen DGS:** Scientific Meeting, Quebec Orthopaedic Association, Montreal, QC, February 2006. Polytrauma: Timing of Orthopaedic Intervention.

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**Stephen DGS:** AO ASIF Basic Principles and Techniques of Operative Fracture Management Course for Residents, Vancouver, BC, September 2005. (1) Preoperative Planning - Forearm Model, (2) The Patient and the Injury.

**Stephen DGS:** 2006 Synthes Orthopaedic Trauma Think-Tank, Aspen, CO, February 2006. Problem Fractures: Proximal Femur 1 & 2.

**Stephen DGS:** Faculty Development Forum, AO Chairman's Course, Scottsdale, AZ, November 2005. (1) The Daily Pre-Course (Lecture.), (2) Update on Percutaneous Plating.

**Stephen DGS:** North York General Hospital - presentation at rounds, North York, ON, November 2005. Update on Pilon Fractures.

**Stephen DGS:** Division of Orthopaedic Surgery, McGill University, Montreal, QC February 2006. Visiting Professor.

**Yee AJM:** University of Ottawa, Ottawa, ON, November 2005. 'The Conundrum that Spine Surgery Is.' Visiting Lecturer. Orthopaedic Research Day Visiting Professor, Department of Surgery, University of Ottawa -- Critique Of Orthopaedic Research Proposals And Studies.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

An Intelligent Environment to Support Aging-In-Place and Independence. *Mihailidis A*, Fernie GR, Boutilier C: *Alzheimer's Association* (\$223,000 2004 - 2007.)

A Prospective Study of Biomechanically-Based Guidelines in Metastatic Burst Fracture Risk Prediction. *Whyne C*, Clemons M, Weller I, Barnes T, Chow E, Yee AJM, Kreder H, Finkelstein J: *Canadian Breast Cancer Research Initiative* (\$300,000 2003 - 2006.)

Association Between Cognitive Functioning and the Risk of Falling Among the Elderly. *McIlroy WE*, Maki BE, Glazer P: *Ontario Neurotrauma Foundation (Mentor-Student Program)* (\$48,159 2004 - 2005.)

Biomechanical Assessment of Kyphoplasty in a Burst Fracture Model. *Ford M*, Whyne C: *Kyphon* (\$20,000 2006.)

Biomechanical Implications of Metastatic Disease in the Spine: Evaluation of Stability and Tumor Burden in a Pre-Clinical Model. *Whyne C*, Yee AJ, Finkelstein J (Co-Applicant): *CIHR (Canadian Institutes of Health Research)* (\$239,460 2004 - 2007.)

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 - 2005.)

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 for Health Research* (\$782,042 2004 - 2009.)

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 JW: *Canadian Institutes of Health Research* (\$706,371 2004 - 2009.)

Design and Efficacy of Novel Interface Sling Systems for Patients. *Fernie G*, Doran DM: *Canadian Institutes of Health Research* (\$316,327 2003 - 2006.)

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 for Health Research (Pilot Projects Grants, Institutes of Aging)* (\$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*, Co-Applicants: *Bezjak A*, *Brundage M*, *Clemons M*, *Wu J*, *Yee AJM*, *Bottomley A*, *Hoskin P*, *Velikova G*: *NCIC* (\$271,483 2005 - 2008.)

Development of an International Hip Fracture Research Collaborative. *Bhandari M*, *Guyatt G*, *Swiontkowski M*, *Kreder HJ*, *Schemitsch EH*, *Petrisor B*, *Laflamme G*, *Einhorn T*, *Dirschl D*, *Koval K*, *Jeray K*, *Heetveld M*, *Leighton R*, *Sanders D*, *Obremsky W*, *Torneta P*, *Berry D*, *Schmidt A*, *Haidukewych G*, *Keating J*: *CIHR* (\$25,000 2004 - 2005.)

Enabling Safe Independent Powered Wheelchair Mobility in Long Term Care Residents with Cognitive and Other Impairments that Currently Limit Powered Mobility Use. *Fernie GR*, *Cott, CA*, *Herrmann, N*, *Jutai, JW*: *Canadian Institutes of Health Research (CIHR)* (\$348,571 2002 - 2005.)



- Evaluation of a Pre-Clinical Model of Vertebral Metastasis; An In Vivo Study of the VX2 Rabbit Carcinoma. *Whyne CM, Yee AJ (Co-Investigator): Zimmer* (\$10,000 2005 - 2006.)
- Evaluation of the Practicality, Safety and Anti-Tumor Effectiveness of Photodynamic Therapy for Treatment of Tumours in Vertebrae. *Wilson BC, Burch S, Bisland S, Yee A, Finkelstein J: Canadian Institutes of Health Research* (\$134,236 2005 - 2006.)
- 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 (CIHR)* (\$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 & Arthritic Institute* (\$15,000 2005 - 2006.)
- iDAPT Innovative Rehabilitation for People in Challenging Environments. *Fernie GR: Canadian Foundation for Innovation/Ontario Innovation Trust/Toronto Rehabilitation Institute Foundation* (\$18,398,069 2004 - 2007.)
- Integrated Post Fracture Care for Osteoporosis in Ontario: A Demonstration Project. *Jaglal S, Kreder HJ, Bogoch E, Brooks D, Carroll J, Jaakkimainen L, Zwarenstein M: Primary Health Care Transition Fund* (\$760,204 2003 - 2006.)
- Investigating Physician Bias as a Possible Explanation for the Gender Disparity in the Utilization of Knee Arthroplasty Surgery. *Wright JG, Kreder HJ, Hawker G, Borkhoff C, Glazier RH, Mahomed N, Hudak P, Coyte P: CIHR* (\$123,453 2004 - 2006.)
- 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 - 2007.)
- Laboratories and Workspaces for Scientists and Graduate Students Engaged in the Idapt Research Program at Toronto Rehabilitation Institute. *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.)
- Mechanobiology of the Intervertebral Disc: The Role of Alpha-5 Integrin on Cell Metabolism. *Yee AJ, Yang B, Whyne CM: Orthopaedic and Arthritic Institute* (\$20,000 2005 - 2006.)
- Metastatic Breast Cancer Genome Anatomy. *Seth A, Aubin J, Kahn H, Lyons-Weiler J, Yee AJ, Narod S: Canadian Breast Cancer Research Alliance* (\$750,000 2005 - 2010.)
- Photodynamic Therapy for the Treatment of Metastatic Breast Carcinoma to the Spine: Development and Validation in a Preclinical Model. *Yee AJM, Bisland SK, Whyne CM, Finkelstein JA, Burch S, Wilson BC: Canadian Breast Cancer Foundation* (\$300,000 2004 - 2007.)
- Priority Criteria for Hip and Knee Replacement: Addressing Health Service Wait Times for Surgery. *Kreder HJ, Duncan CP, Dunbar MJ, Masri BA, Cochrane NJ, Hughes K, Craig KD, Kopec JA, Mahomed NN, Miller WC, Pitman D, Weller IM: CIHR* (\$100,000 2005 - 2006.)
- Profiling Function Pre and Post-Operatively in the Total Hip and Knee Arthroplasty Population. *Gollish, JD, Kennedy D, Stratford P, Pagura S, Woodhouse L: Orthopaedic and Arthritic Foundation* (\$24,000 2001 - 2005.)
- Prospective Randomized Clinical Pilot Study to Evaluate the Effects of the Medial Distal Locking Plate for High Energy Intra Articular Fractures of the Distal Tibia. *Stephen DJG, Kreder H, MD, Schemitsch E, McKee M, Bulmer B: American Orthopaedic Foot and Ankle Society (AOFAS)* (\$10,000 2005 - 2006.)
- Risk Factors & Indicators that Predict the Progression of Osteoarthritis after Knee Injury. *Marks PH, Hurtig M, White L, Weller I: CIHR - Net Grant (300, 000 x 5 years)* (\$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.)

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Safe Activity Participation Following Elective Total Hip Replacement (SafeT.) *Weller I, Kreder H, Gollish J, Kennedy D: OAI Research Committee* (\$15,000 2005.)

The Impact of Hip and Knee Replacements and Other New Techniques on Physician Requirements for Orthopaedic Surgery. *Chan B, Williams J, Hawker G, Kreder HJ, Buske L, Rorabeck CH: CHSRF* (\$161,000 2002 - 2006.)

The Validation of a Classification for Work-Related Disorders of the Shoulder and Elbow. *Beaton D, Richards R, Hogg-Johnson S: Workplace Safety and Insurance Board of Ontario* (\$103,356 2002 - 2005.)

Tumor Invasiveness and the Role of Versican in Breast Carcinoma Metastasis to Bone. *Yee AJ, Yang B, Finkelstein JA (Co-I): Zimmer* (\$10,000 2005 - 2006.)

## **Honours Received**

**Cameron JC:** The Dr. Marvin Tile Distinguished Service Award in Recognition of Contributions to the Department of Surgery, January 2006.

**Kreder HJ:** Edwin G. Bovril Memorial Lecture Award for Best Research Paper Presented at the 21<sup>st</sup> Annual Meeting of the Orthopaedic Trauma Association, October 2005.

**Kreder HJ:** Inaugural Marvin Tile Chair, Division of Orthopaedic Surgery, Sunnybrook & Women's College Health Sciences Centre, University of Toronto, October 2005.

**Murnaghan JJ:** Helen J. Batty Faculty Development Award for Program Excellence, Faculty of Medicine, University of Toronto, April 2006.

**Richards RR:** Bruce Tovee Award for Undergraduate Teaching, Department of Surgery, University of Toronto, May 2006.

**Stephen DGS:** Winkvist Cup for Best Lab at the Orthopaedic Trauma Association, Resident Course, November 2005.

**Yee AJM:** 2005 Astrazeneca Resident Research Award for Best Paper, Kennedy Day Visiting Professorship, Division of Orthopaedic Surgery, University of Toronto 2005 - "How Does Health Care Delivery Impact Outcomes for Lumbar Spinal Surgery" -- Sam Bederman, Kreder, Weller, Yee AJ, November 2005.

## **DIVISION OF PLASTIC SURGERY**

**Dr. O. Antonyshyn - Associate Professor**

**Dr. M. Beveridge- Assistant Professor**

**Dr. P. Binhammer - Lecturer**

**Dr. M.H. Brown - Associate Professor**

**Dr. R.C. Cartotto - Associate Professor**

**Dr. J. Fialkov – Assistant Professor**

**Dr. J.S. Fish - Associate Professor**

**Dr. M. Gomez - Assistant Professor**

**Dr. J.L. Semple - Professor (Division Head)**

## **Publications**

**Andrade WN, Semple JL:** Patient Self-Assessment of the Cosmetic Results of Breast Reconstruction. *Plastic and Reconstructive Surgery*: January 2006: 117(1): pp 44-47.

**Armour A, Fish JS, Semple JL, Woodhouse KA:** A Comparison of Human and Porcine Acellularized Dermis: Interactions with Human Fibroblasts In Vitro. *Plastic and Reconstructive Surgery*: March 2006: 117 (3): pp 845-856.

**Brown MH, Shenker R, Silver S:** Cohesive Silicone Gel Breast Implants in Aesthetic and Reconstructive Breast Surgery. *Plastic and Reconstructive Surgery*: September 2005: 116: pp 768-779.

**Burton K, Howard A, Beveridge M:** Is Electronic Health Information Relevant to Doctors in the Developing World? - Results of the Ptolemy Project's Internet-Based Health Information Study (IBHIS.) *World Journal of Surgery*: August 2005: 29: pp 1194-1198.

**Cartotto R:** The Burned Hand: Optimizing Late Outcomes with a Standardized Approach to Acute and Subacute Care. *Plastic Surgery Clinics*: October 2005: 32: pp 515-527.

**Cartotto RC, Fish JS:** Exfoliative Disorders of the Skin. In: *Plastic Surgery, 2nd Edition* (Mathes S, ed): 2006: pp 793-807.

**Choo B, Umraw N, Gomez M, Cartotto R, Fish JS:** The Utility of the Functional Independence Measure (FIM) in Discharge Planning for Burn Patients. *Burns*: January 2006: 32: pp 20-23.

**Choo R, Woo T, Assaad D, Antonyshyn O, Barnes EA, McKenzie D, Fialkov J, Breen D, Mamedov A:** What is the Microscopic Tumor Extent Beyond Clinically Delineated Gross Tumor Boundary in Nonmelanoma Skin Cancers? *International Journal of Radiation Oncology Biology and Physics*: July 2005: 62(4): pp 1096-1099.

**Kwok B, Yamauchi A, Rajesan R, Chen L, Dhillon U, Gao W, Xu H, Wang B, Takahashi S, Semple JL, Tamai I, Nezu JI, Tsuji A, Harper P, Ito S:** Carnitine/Xenobiotics Transporters in the Human Mammary Gland Epithelia. *MCF 12A. American Journal Physiol. Regul. Integr. Comp. Physiology* (Oct 13/05): October 2005:

**Lipa J, Novak C, Binhammer P:** Patient Reported Donor Site Morbidity Following Anterolateral Thigh Free Flaps. *Journal of Reconstructive Microsurgery*: August 2005: 21:

**Moore GWK, Semple JL:** A Tibetan Taylor Cap and a Halo of Stratospheric Ozone Over the Himalaya. *Geophysical Research Letters*, 32, L21810. doi:10.1029/2005GLO24186: December 2005: 32:

**Murji A, Gomez M, Knighton J, Fish JS:** Emotional Implications of Working in a Burn Unit. *Journal of Burn Care and Research*: January 2006: 1: pp 8-13.

**Noble J, Gomez M, Fish JS:** Quality of Life and Return to Work Following Electrical Burn Injury. *Burns*: February 2006: 32: pp 159-164.

**Palmieri TL, Caruso DM, Foster KN, Cairns BA, Peck MD, Gamelli RL, Mazingo DW, Kagan RJ, Wahl W, Kemalyan NA, Fish JS, Gomez M, Sheridan RL, Faucher LD, Latenser BA, Gibran NS, Klein RL, Solem LD, Saffle JR, Morris SE, Jeng JC, Voigt D, Howard PA, Molitor F, Greenhalgh DC:** Effect of Blood Transfusion on Outcome After Major Burn Injury: A Multicenter Study. *Critical Care Medicine*: January 2006: 34: pp 1-6.

**Xin W, Yin Z, Qin Z, Jian L, Tanuseputro P, Gomez M, Beveridge M, ZhenJiang L:** Characteristics of 1494 Pediatric Burn Patients in Shanghai. *Burns*: June 2006: 32: pp 613-618.

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## Invited Visits to Other Hospitals/Universities

**Antonyshyn O:** Department of Surgery Grand Rounds, University of British Columbia, Vancouver, BC, May 2006. Craniofacial Skeletal Reconstruction: Current Techniques, Outcomes and New Developments.

**Antonyshyn O:** Trauma 2006 Annual Meeting, Trauma Association of Canada and Panamerican Trauma Society, Banff, AB, March 2006. (1) Facial Trauma: Primary Repair, (2) Post-traumatic Facial Deformities: Issues and Outcomes.

**Beveridge M:** Canadian Association of General Surgeons, Montreal, QC, September 2005. 21<sup>st</sup> Century Challenges: International Surgery Symposium organized at the Canadian Surgical Forum.

**Brown MH:** American Society of Plastic Surgery Nurses, Chicago, IL, September 2005. Abdominoplasty for the Plastic Surgical Nurse.

**Brown MH:** Health Canada, Ottawa, ON, September 2005. Health Canada Medical Advisory Panel on Silicone Gel Breast Implants.

**Brown MH:** Inamed Aesthetics, Chicago, IL, September 2005. Reconstructive Breast Surgery with Cohesive Gel Implants - Inamed Academy.

**Cartotto RC:** Mont Tremblant Anesthesia and Perioperative Medicine Conference, Mont Tremblant, QC, February 2006. Acute Burn Care Review.

**Cartotto RC:** Canadian Association of Burn Nurses, Toronto, ON, September 2005. Acute Management of the Burned Hand.

**Cartotto RC:** American Burn Association Annual Meeting, Las Vegas, NE, April 2006. Course D: Innovative Therapies for ALI and ARDS in the Burn Patient.

**Sample JL:** Canadian Society of Plastic Surgeons Annual Meeting, Quebec City, QC, Canada, June 2006. Canadian Expert Series: Technical Refinements that Make Breast Reconstruction Easier and Better in My Hands.

**Sample JL:** TSRCC Breast Rounds, Toronto, ON, January 2006. Innovation and Outcomes in Breast Reconstruction.

**Sample JL:** Canadian Society of Plastic Surgeons Annual Meeting, Quebec City, QC, Canada, June 2006. Plastic Surgeon on Mount Everest.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

Advanced Research in Tissue Engineering: Multidisciplinary Group Working Grant. *Sample J, Fish J, Midha R, Fialkov J: Ontario Research and Development Corporation Foundation for Advanced Research in Tissue Engineering (\$12,000,000 2003 - 2008.)*

Near Infrared Spectroscopy for Evaluation of Burn Depth. *Fish J, Leonardi L, Sowa M: Physicians Services Incorporated (\$160,000 2004 - 2006.)*

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 Corp (\$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.)*

Psychosocial Functioning in Women Treated with Mastectomy With or Without Breast Reconstruction. *Sample JL, Metcalfe K, Holloway C: Canadian Breast Cancer Foundation (\$183,168 2004 - 2007.)*

Which Outcome Measure Is Best? Evaluating Resposiveness, Patient, Surgeon and Therapist Preference of the Michigan Hand Questionnaire, The DASH, and The Patient Specific Functional Scale Following Hand and Wrist Surgery. *Binhammer P, Bulmer B, Kreder H: Orthopaedic & Arthritic Institute (\$15,000 2005.)*

## Honours Received

**Brown MH:** The American Society of Plastic Surgeons, PSEF Recognition Award, September 2005.

**Cartotto RC:** 2006 PAIRO Excellence in Clinical Teaching Award for the University of Toronto, May 2006.

## **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**

**Coburn N, Przybysz R, Law C, Barbera L, Hodgson D, Sharir S, Laupacis A:** Utilization of CT and MRI Scanning Among Cancer Patients in Ontario, 1993-2002. ICES Investigative Report Institute for Clinical Evaluative Sciences, Toronto: 2005:

**Green J, Herschorn S:** The contemporary role of Burch colposuspension. *Current Opinion in Urology* 2005 July: 15: pp 250-255.

**Herschorn S:** Current status of injectable agents for female stress urinary incontinence. *Canadian Journal of Urology* 2006 February: 13(1): pp 5-12.

**Herschorn S:** Section Editor: 3. Diagnostic Evaluation of Incontinence and Prolapse. In: *Female Urology and Urogynecology* (Cardozo L, Staskin D., eds). Informa Healthcare, London 2006: pp 250-500.

**Herschorn S, Green J, Robinson D:** Video-urodynamics. In: *Textbook of Female Urology and Urogynecology* (Cardozo L, Staskin D., eds). Informa Healthcare, London 2006: pp 350-370.

**Klotz LH, Nam RK:** Active Surveillance with Selective Delayed Intervention for Favorable Risk Prostate Cancer: Clinical Experience and a ‘Number Needed To Treat’ Analysis. *Canadian Journal of Urology*: February 2006: 13: pp S48-55.

**Nam RK, Reeves JR, Toi A, Dulude H, Trachtenberg J, Emami M, Daigneault L, Panchal C, Sugar L, Jewett MAS, and Narod SA:** A Novel Serum Marker, Total Prostate Secretory Protein of 94 Amino Acids (PSP94), Improves Prostate Cancer Detection and Helps Identify High Grade Cancers at Diagnosis. *Journal of Urology*: April 2006: 175: pp 1291-1297.

**Nam RK, Toi A, Klotz LH, Trachtenberg J, Jewett MAS, Loblaw A, Pond GR, Emami M, Sugar L, Sweet J, and Narod, SA:** Nomogram Prediction for Prostate Cancer and Aggressive Prostate Cancer at Time of Biopsy: Utilizing All Risk Factors and Tumor Markers for Prostate Cancer. *Canadian Journal of Urology*: April 2006: 13: pp S2-10.

**Nam RK, Toi A, Trachtenberg J, Klotz LH, Jewett MAS, Emami M, Sugar L, Sweet J, Pond GR, and Narod SA:** Making Sense of PSA: Improving Its Predictive Value Among Patients Undergoing Prostate Biopsy. *Journal of Urology*: February 2006: 175: pp 489-494.

**Nam RK, Zhang W, Jewett MAS, Trachtenberg J, Klotz LH, Emami M, Sugar L, Sweet J, Toi A, Narod SA:** Determining Risk for Prostate Cancer at Prostate Biopsy Using Genetic Markers. *Clinical Cancer Research*: December 2005: 11: pp 8391-8397.

**Pinthus JH, Nam RK, Klotz LH:** Prostate Sparing Radical Prostatectomy - Not For All, But An Option For Some. *Canadian Journal of Urology*: February 2006: 13: pp S81-87.

**Sharir S:** Is Surgery Still An Option for Prostate Cancer After Radiation? *Canadian Journal of Diagnosis*: December 2005: 22: pp 28.

**Sharir S, Evans AJ, Gospodarowicz MK, Jewett MAS:** Issues in Staging of Ta, Tis, and T1 Bladder Cancers. In: *Textbook of Bladder Cancer* (Lerner SP, Schoenberg MP, Sternberg CN, eds.) Taylor and Francis, Oxford: 2006: pp 287.

**Wright FC, Crooks D, Fitch M, Hollenberg E, Maier BA, Last LD, Greco E, Miller D, Law CHL, Sharir S, Fleshner NE, Smith AJ:** Qualitative Assessment of Patient Experiences Related to Extended Pelvic Resection for Rectal Cancer. *Journal of Surgical Oncology*: January 2006: 93: pp 92-99.

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## Invited Visits to Other Hospitals/Universities

**Herschorn S:** Australasian Urological Society Workshop on Botulinum Toxin A, Sydney, Australia, December 2005 (1) Botulinum toxin A in sphincter dysfunction, (2) Botulinum toxin A injection techniques.

**Herschorn S:** NEXUS Male OAB Meeting, Dublin, IR, June 2006. Assessment of LUTS including OAB symptoms in the male patient.

**Herschorn S:** Society for Genitourinary Reconstructive Surgery, Atlanta, GA, May 2006. Biological slings for female stress urinary incontinence.

**Herschorn S:** Association for the Bladder Exstrophy Community 2nd International Conference, Toronto, ON, August 2005. Bladder exstrophy adult issues.

**Herschorn S:** Kaiser Permanente Combined Urology Gynecology Rounds, Irvine, CA, June 2006. Bulking therapy for stress female urinary incontinence.

**Herschorn S:** Society for Urodynamics and Female Urology Plenary Session, Atlanta, GA, May 2006. Collagen is still the best injectable agent.

**Herschorn S:** Canadian Urological Association, Halifax, NS, June 2006. (1) CUA Guidelines Session: Update on Clinical Practice Guidelines, (2) Educational Forum on Overactive Bladder: Current role and results for Botulinum Toxin A for overactive bladder, (3) Investigator initiated clinical trials - barriers and solutions.

**Herschorn S:** American Urological Association Plenary Session, Atlanta, GA, May 2006. Moderator: How should urologists treat patients with multiple sclerosis?

**Herschorn S:** Ottawa General Hospital/University of Ottawa, Ottawa, ON, January 2006. New concepts in the use of mesh for pelvic floor reconstruction.

**Herschorn S:** Queen's University, Kingston, ON, February 2006 - Queen's University Annual Senior Urology Residents Review Course.

**Nam RK:** American Society of Clinical Oncology Prostate Cancer Symposium, San Francisco, CA, February 2006. Can Prostate Cancer Risk Assessment Be Refined?

**Sharir S:** Man to Man Prostate Cancer Support Group, Toronto, ON, August 2005. Quality of Life after Radical Prostatectomy.

**Sharir S:** Newmarket Prostate Cancer Support Group, Newmarket, ON, January 2006. Quality of Life with Localized Prostate Cancer.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Qualitative Exploration of Women's and Men's Experiences When Undergoing Radical Cystectomy for Bladder Cancer. *Sharir S, Miller D, Fitch MI: PBR Award (\$14,259 2005 - 2007.)*

A Qualitative Exploration of Women's and Men's Experiences When Undergoing Radical Cystectomy for Bladder Cancer. *Sharir S, Miller M, Fitch MI: Canadian Nurses Foundation (\$4,753 2005 - 2007.)*

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: Pfizer (\$50,000 2005 - 2007)*

A Randomized Multi-Centre Clinical Trial to Evaluate the Efficacy of Amitriptyline for the Treatment of Painful Bladder Syndrome (PBS) in Newly Diagnosed Patients. *Nickel C, Carr LK: NIH (\$25,000 2005 - 2006.)*

A Real-Life Canadian Clinical Practice Study to Evaluate the Efficacy and Safety of Uracyst for the Treatment of GAG Deficient Interstitial Cystitis. *Nickel C, Carr LK: Stellar Labs (\$15,000 2005 - 2006.)*

Biomarker Discovery in the Transgenic Mouse Prostate Cancer Prevention Model. *Venkateswaran V, Klotz L, Fleshner N, Sugar L: Canadian Prostate Cancer Research Initiative-New Ideas Grant (\$38,610 2005 - 2007.)*

Cystistat International Study on the Treatment of Interstitial Cystitis. *Carr LK: Bioniche* (\$20,000 2005 - 2006.)

Effect of Intermittent versus Continuous Androgen Suppression on Bone Loss and Body Composition in a Phase 3 Randomized Trial. *Klotz L, Gleave M: Ontario Cancer Research Network* (\$540,000 2003 - 2006.)

Effectiveness of Tolterodine Tartrate on Patient's Perception of Bladder Condition. *Herschorn S: Pfizer* (\$10,000 2004 - 2005.)

Intravesical Botox for the Management of Refractory Neurogenic Urge Incontinence. *Herschorn S, Carr LK: Allergan* (\$10,000 2005 - 2006.)

Muscle Cell Mediated Therapy for Stress Urinary Incontinence: A Phase 2 Trial. *Carr LK: Cook Myosite* (\$100,000 2005 - 2006.)

Non-Invasive Longitudinal Imaging of Prostate Cancer Progression in a Transgenic Model. *Foster S, Duckett A, Klotz L, Venkateswaran V: Canadian Prostate Cancer Research Initiative* (\$50,000 2004 - 2006.)

Ontario Cancer Biomarker Network. *Diamantis E, Klotz L: Ontario Cancer Research Network* (\$6,000,000 2005 - 2008.)

Population-Based Assessment of Lymphadenectomy During Radical Cystectomy for Bladder Cancer in Ontario. *Sharir S, Law CHL, Jewett MAS, Klotz L: Dean's Fund* (\$10,000 2006 - 2007.)

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.)

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: *NIH* (\$170 1999 - 2009.)

## Honours Received

**Nam RK:** Bernard Langer Surgeon Scientist Award, Department of Surgery, University of Toronto, May 2006.

**Nam RK:** Dr. Marvin Tile Distinguished Service Award, Department of Surgery, Sunnybrook Health Sciences Centre, June 2006.



**Laura Tate** - Surgeon-in-Chief

## *Heads of Divisions*

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Dr. R. Zeldin – General Surgery

Dr. G. Maistrelli – Orthopaedic Surgery

Dr. A. Kesarwani – Plastic Surgery

Dr. R. Singal - Urology

## **Introduction**

The Surgical Department of the Toronto East General Hospital has 19 active surgeons including three urologists, six orthopedic surgeons; six general surgeons, including two thoracic surgeons, four plastic surgeons and one consulting neurosurgeon Dr. Fred Gentili.

## **Changes**

Dr. Harold Hall, plastic surgeon, has retired this year. Dr. Vern Campbell and Dr. Wayne Tanner have joined the staff of St. Michael's Hospital in line with the Ministries' initiative to centralize vascular services. Dr. Paul Sullivan, general surgery, has joined the staff of St. Joseph's Health Science Centre.

We welcome Dr. Jamie Cyriac to the Division of General Surgery. Jamie obtained his BSC from MacMaster and his MD degree from the University of Western. He is a graduate from the University of Toronto General Surgery Program and recently completed a Minimally Invasive Surgery Fellowship in Toronto.

The Time to Treat initiative pioneered by Dr. Rob Zeldin, in collaboration with our oncology and respirologist colleagues, has significantly shortened the time from initial presentation to diagnosis for lung cancer. This successful model will now be extended across the province and other types of cancers.

Dr. Carmine Simone, our Director and Division Head of Critical Care, has been successful in securing funding for the Ministries Critical Care Rapid Response Team initiative. TEGH will use this funding to support a simulated patient program to be instituted across disciplines. Research will be an integral part of these plans.

Two of our 13 operating rooms will be fully fitted with MIS equipment this summer. We are grateful for a 2 million dollar matching gift from Dr. Bill Waters. A third room will be fitted by the end of this year with two more rooms planned.



Dr. Rob Zeldin and Dr. Carmine Simone have cross appointments with Sunnybrook Health Science Centre as thoracic surgeons. With the retirement of Dr. B. Miller, TEGH has been supporting the oncologists, radiation therapists and respirologists at Sunnybrook with the aim of becoming a Level 1 Thoracic Center.

## **Presentations**

Cancer Care Ontario Innovative Fund project: "Time to Treat: Fast Tracking Lung Cancer Patients Through the System." One of only 3 CCO projects to receive special recognition. Dr. Robert Zeldin, invited speaker at 1<sup>st</sup> Annual Ontario Lung Oncology Group, Niagara-on-the Lake, April 2006; Presentation of Results of "Time to Treat" Lung Cancer Project at TEGH. Dr. Rob Zeldin Teaching: Clinical Clerk Lecture Series in Thoracic Surgery at Sunnybrook Hospital (with Dr. Carmine Simone); Faculty and Speaker at General Surgery Update Course, University of Toronto, April 2006; Faculty and Speaker at Thoracic Surgery Refresher Course, University of Toronto, June 2006.



## **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)

## **Division of Orthopedic Surgery**

Dr. M. Catre - Lecturer

Dr. W. Kraemer - Lecturer

Dr. G. Maistrelli - Associate Professor (Division Head)

Dr. F. Mastrogiacomo - Lecturer

Dr. P. Weiler - Assistant Professor

Dr. P. Wong - Lecturer

## **Division of Plastic Surgery**

Dr. B. Beber

Dr. M. Dupere

Dr. A. Kesarwani (Division Head)

Dr. L. Tate - Lecturer

## **Division of Thoracic Surgery**

Dr. C. Simone - Lecturer

Dr. R. Zeldin - Assistant Professor

## **Division of Urology**

Dr. R. MacMillan - Assistant Professor

Dr. R. Singal - Lecturer (Division Head)



**Bryce Taylor** - Surgeon-in-Chief

## *Heads of Divisions*

Dr. T.E. David – Cardiac Surgery

Dr. L. Rotstein – General Surgery

Dr. C. Wallace – Neurosurgery

Dr. R. Davey – Orthopaedic Surgery

Dr. P. Neligan – Plastic Surgery

Dr. S. Keshavjee – Thoracic Surgery

Dr. N. Fleshner – Urology

Dr. B. Rubin – Vascular Surgery

The Department of Surgery at University Health Network has enjoyed an extremely successful year. Clinical volumes were for the most part achieved or exceeded, surgical budgets were adhered to, the educational and research mandates were met on an ongoing basis; and a planning process, instituted just prior to the beginning of the last fiscal year, was encouraging in its comprehensive focus and early successes.

In general, budgeted volumes were achieved. Open-heart surgeries were just below budgeted numbers, surgical oncology was above budget, and hips and knees were under the total by only 14. Transplant volumes were achieved and prepared the way for a significant increase in budgeted volumes for 2006-2007. The volumes for hips and knees have been increased to 849 (and possibly as high as 1000), and this number will need further discussion and strategies to succeed given the current staff complement. Measured outcomes were excellent.

University Health Network (UHN) has played a major role in the last two years in the Ontario Wait Times Project under the direction of Dr. Alan Hudson. In particular, Jon Irish and Bryce Taylor have been active on the surgical side, with significant help from Francesca Fiumara and Lee Fairclough as well as many others on their teams. We will continue to lead when the initiative advances to a large number of Ontario hospitals. In one area, hepatobiliary and pancreatic surgery, a “one number to call” system was set up to render wait times amongst our HPB surgeons more consistent. This is an important step in the next phase of wait times management among various clinicians in a division/department, not just wait times capture.



UHN Department of Surgery was active during the year in recruiting not only for the 2005-2006 academic year, but also for July 2006. As of this date, Drs. Allan Okrainec and Erin Kennedy will be appointed to the Division of General Surgery. In addition, Drs. George Oreopoulos and Doug Wooster were recruited in January 2006 as our newest members of the Vascular Surgery Centre of Excellence, situated at the University Health Network. In addition, the Department of Surgery either established or reappointed no fewer than seven endowed chairs, for a current total of 20 in Surgical Services. Lorne Rotstein was appointed to the Peter Crossgrove Chair in General Surgery, Tom Waddell to the R. Fraser Elliott Chair in Transplantation, Viv Rao to the DeGasperis Chair in the Surgical Management of Heart Failure, Terry Yau to the DeGasperis Chair in Cardiovascular Surgery Research, David Urbach to the Tyco Chair in Minimally Invasive Surgery, Mark Catral to the CIHR/Fujisawa Chair in Transplantation and Mike Jewett to the Anna-Liisa Farquharson Chair in Kidney Cancer Research.

Many local and provincial discussions took place in the last 18 months, culminating in the establishment of a Vascular Surgery Centre of Excellence at University Health Network. A major portion of this work fell to Marnie Escaf, Janet Newton, Barry Rubin and Tom Lindsay. This led to an agreement of funding and clinical enhancement, which will build an EVAR Program and expand current vascular activities with recruitment of additional personnel. A Vascular Surgery Alternate Funding Arrangement has stabilized academic vascular surgical incomes.

In July 2005, Drs. David Urbach and Herb von Schroeder were promoted to Associate Professor; and Drs. Mark Cattral, Karen Davis and Fred Gentili were promoted to Full Professor. For the July 1<sup>st</sup> 2006 process, Michael Borger will be promoted to Associate Professor and Michael Johnston to Full Professor.

The quantity and quality of education provided by UHN surgeons was once again highly rated at undergraduate and postgraduate levels.

Research productivity in all the divisions continues to be strong. In the last academic year, peer-reviewed funding remained at a very high level and the quality and quantity of manuscripts published were consistent throughout all eight surgical divisions.



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## **DIVISION OF CARDIAC SURGERY**

**Dr. M.A. Borger - Associate Professor**

**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**

**Alghamdi AA, Albanna MJ, Gura V, Brister SJ:** Does the Use of Erythropoitin Reduce the Risk of Exposure to Systematic Allogenic Blood Transfusion in Cardiac Surgery? A Systematic Review and Meta Analysis. *Journal of Cardiac Surgery*: May 2006: 21(3): pp 320-326.

**Alsoufi B, Borger MA, Armstrong S, Maganti M, Carson S, David TE:** Results of Aortic Valve Preservation and Repair for Bicuspid Aortic Valve Disease. *Journal of Heart Valve Disease*: November 2005: 14: pp 752-758.

**Alsoufi B, Rao V, Borger MA, Maganti M, Feindel CM, Scully HE, David TE:** Short and Long Term Results of Triple Valve Surgery in te Modern Era. *Annals of Thoracic Surgery*: June 2006: 81: pp 2172-2178.

**Borger MA, Carson SM, Ivanov J, Rao V, Scully HE, Feindel CM, David TE:** Stentless Aortic Valves Are Hemodynamically Superior to Stented Valves During Mid-Term Follow-Up: A Large Retrospective Study. *Annals of Thoracic Surgery*: December 2005: 80(6): pp 2180-2185.

**Borger MA, Ivanov J, Armstrong S, Christie-Hrybinsky D, Feindel CM, David TE:** Twenty-Year Results of the Hancock II Bioprosthesis. *Journal of Heart Valve Disease*: January 2006: 15 (1): pp 49-55.

**Brister SJ, Lenkei S:** Common Ward Complications and Management. In: *A Practical Approach to Perioperative Care in Cardiac Anesthesia and Surgery* (Davy C.H. Cheng, Tirone E. David, eds.) Lippincott Williams & Wilkins, Philadelphia, PA: 2006: pp 423-428.

**Butany J, Collins MJ, El Demellawy D, Nair V, Israel N, Leong SW, Borger MA:** Morphological and Clinical Findings in 247 Surgically Excised Native Aortic Valves. *Canadian Journal of Cardiology*: July 2005: 9: pp 747-755.

**Butany J, Collins MJ, Nair V, Leask RL, Scully HE, Williams WG, David TE:** Morphological Findings in Explanted Toronto Stentless Porcine Valves. *Cardiovascular Pathology*: January 2006: 15(1): pp 41-48.

**Butany JW, Naseemuddin A, Nair V, Borger MA, Daniel L:** Infective Endocarditis in a Hancock Bioprosthetic Heart Valve. *Journal of Cardiac Surgery*: July 2005: 20: pp 389-392.

**Chao-Hung W, Shu-Hong L, Weisel RD, Fedak PWM, Ren-Ke L, Hyland K, Rao V, Verman S:** Tetrahydrobiopterin Deficiency Exaggerates Restenosis In Vivo. *American Journal of Applied Physiology*: July 2005: 289: pp R299-304.

**Cheng DCH, David TE:** Surgery of the Transverse Aortic Arch and Cerebral Protection. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (Cheng DCH, ed) Lippincott, Williams & Wilkins, Philadelphia, PA: 2005: pp 267-272.

**Cheng DCH, David TE:** Surgery for End-Stage Heart Disease and Heart Transplantation. In: *Perioperative Care i Cardiac Anesthesia ad Surgery* (Cheng DCH, ed) Lippincott, Williams & Wilkins, Philadelphia, PA: 2005: pp 289-294.

**Chukwumeka A, Borger MA, Ivanov J, Armstrong S, Feindel CM, David TE:** Valve Surgery in Octogenarians: A Safe Option with Good Medium-Term Results. *Journal of Heart Valve Disease*: March 2006: 15(2): pp 191-196.

- Chukwuemeka A, Rao V, Armstrong S, Ivanov J, David TE:** Aortic Valve Replacement: A Safe and Durable Option in Patients with Impaired Left Ventricular Systolic Function. Revised Manuscript. *European Journal of Cardiothoracic Surgery*: January 2006: 29: pp 133-138.
- Chukwuemeka A, Weisel A, Maganti M, Nette AF, Wijeyesundera D, Beattie WS, Borger MA:** Renal Dysfunction After On-Pump and Off-Pump Coronary Artery Bypass Surgery: A Propensity Score Analysis in High Risk Patients. *Annals of Thoracic Surgery*: December 2005: 80: pp 2148-2153.
- David TE:** For Everything There Is A Season. *Journal of Thoracic and Cardiovascular Surgery*: October 2005: 130(4): pp 961-965.
- David TE:** Invited Commentary. *Annals of Thoracic Surgery*: May 2006: 81(5): pp 1585-1586.
- David TE:** Should Cardiac Surgery Be Performed In Low-Volume Hospitals? *Journal of Thoracic and Cardiovascular Surgery*: April 2006: 131(4): pp 773-774.
- David TE:** Sizing and Tailoring the Dacron Graft for Reimplantation of the Aortic Valve. *Journal of Thoracic and Cardiovascular Surgery*: August 2005: 130(2): pp 243-244.
- David TE:** Surgery for Mechanical Complications of Myocardial Infarction. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (Cheng DCH, David TE, eds.) Lippincott Williams & Wilkens, Philadelphia: 2006: pp 261-265.
- David TE:** Surgery of the Aortic Valve. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (Cheng DCH, David TE, eds.) Lippincott Williams & Wilkens, Philadelphia: 2006: pp 227-240.
- David TE:** Surgery of the Ascending Aorta. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (Cheng DCH, David TE, eds.) Lippincott Williams & Wilkens, Philadelphia: 2006: pp 261-265.
- David TE:** Surgery of the Mitral Valve. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (Cheng DCH, David TE, eds.) Lippincott Williams & Wilkens, Philadelphia: 2006: pp 241-251.
- David TE:** Triangular Resection and Folding of Posterior Leaflet for Mitral Valve Repair. *Journal of Cardiac Surgery*: May 2006: 21(3): pp 277.
- David TE:** Tricuspid Valve Surgery. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (Cheng DCH, David TE, eds.) Lippincott Williams & Wilkens, Philadelphia: 2006: pp 253-256.
- David TE, Ivanov J, Armstrong S, Christie D, Rakowski H:** A Comparison of Outcomes of Mitral Valve Repair for Degenerative Disease with Posterior, Anterior, and Bileaflet Prolapse. *Journal of Thoracic and Cardiovascular Surgery*: November 2005: 130(5): pp 1242-1249.
- Davierwala PM, Borger MA, David TE, Rao V, Maganti M, Yau TM:** Reoperation is Not an Independent Predictor of Mortality During Aortic Valve Surgery. *Journal of Thoracic and Cardiovascular Surgery*: February 2006: 131: pp 329-335.
- Degouse N, Angoulvant D, Fazel S, Stefanski E, Saha S, Ilescu K, Lindsay TF, Fish JE, Marsden PA, Li R-K, Audoly LP, Jakobsson P-J, 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 Biological Chemistry*: June 2006: 281(24): pp 16443-16452.
- Delgado D, Rao V, Cusimano RJ, Feindel CM, O'Grady C, Young E, McCurdy C, Ross HJ:** The Benefit of C2 Monitoring after Cardiac Transplantation. *Journal of Heart Lung Transplantation*: July 2005: 24: pp 1343-1434.
- Delgado DH, Rao V, Hamel J, Miriuka S, Cusimano RJ, Ross HJ:** Monitoring of Cyclosporine 2-Hour Post-Dose Levels in Heart Transplantation: Improvement in Clinical Outcomes. *Journal of Heart Lung Transplantation*: September 2005: 24(9): pp 1343-1346.
- Doenst T, Ivanov J, Borger MA, David T, Brister SJ:** Valve Type Affects Sex-Specific Long-Term Outcomes after Combined Valve and Coronary Surgery. *Annals of Thoracic Surgery*: May 2006: 81(5): pp 1632-1636.
- Doenst T, Wijeyesundera D, Karkouti K, Zechner C, Maganti M, Rao V, Borger MA:** Hyperglycemia During Cardiopulmonary Bypass is an Independent Predictor of Mortality in Patients Undergoing Cardiac Surgery. *Journal of Thoracic and Cardiovascular Surgery*: October 2005: 130: pp 1144-1150.

**Eriksson MJ, Bitkover CY, Omran AS, David TE, Ivanov J, Ali MJ, Woo A, Siu SC, Rakowski H:** Mitral Annular Disjunction in Advanced Myxomatous Mitral Valve Disease: Echocardiographic Detection and Surgical Correction. *Journal of the American Society of Echocardiography*: October 2005: 18(10): pp 1014-1022.

**Fazel S, Chen L, Weisel RD, Angoulvant D, Seneviratne C, Fazel A, Cheung P, Lam J, Fedak PWM, Yau TM, Li R-K:** Cell Transplantation Preserves Cardiac Function After Infarction by Infarct Stabilization: Augmentation by Stem Cell Factor. *Journal of Thoracic and Cardiovascular Surgery*: November 2005: 130: pp 1310.

**Fazel S, Fedak PWM, Weisel RD, Angoulvant D, Yau TM, Li R-K:** Cell transplantation: The New Frontier. In: *Cardiovascular Genomics in Contemporary Cardiology* (Raizada MK, Katovich MJ, Kasparov S, Paton JFR, eds.) Humana Press Inc: 2005: pp 325-344.

**Fazel S, Weisel RD:** Myocardial Protection During Cardiac Surgery. In: *Perioperative Care in Cardiac Anesthesia and Surgery* (David TE, Cheng DCH, eds.) Lippincott, Williams & Wilkins, Philadelphia: 2005: pp 195-200.

**Fedak PWM, Moravec CS, McCarthy PM, Altamentova SM, Wong AP, Skrtic M, Verma S, Weisel RD, Li R-K:** Altered Expression of Disintegrin Metalloproteinases and their Inhibitor in Human Dilated Cardiomyopathy. *Circulation*: January 2006: 113: pp 238-245.

**Fedak PWM, Szmitko PE, Weisel RD, Altamentova SM, Nili N, Ohno N, Verma S, Fazel S, Strauss BH, Li R-K:** Cell Transplantation Preserves Matrix Homeostasis: A Novel Paracrine Mechanism. *Journal of Thoracic and Cardiovascular Surgery*: November 2005: 130: pp 1430-1439.

**Feindel CM:** Aortic Root Enlargement in the Adult. In: *Operative Techniques in Thoracic & Cardiovascular Surgery - A Comparative Atlas* (Cohn LH, ed.) Elsevier Inc. (American Association for Thoracic Surgery), Boston, Mass: 2006: pp 2-15.

**Gupta M, Brister SJ:** Is South Asian Ethnicity An Independent Cardiovascular Risk Factor? *Canadian Journal of Cardiology*: March 2006: 22: pp 193-197.

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**Wijesundera DN, Beattie WS, Djajani G, Rao V, Karkouti K, Cusimano RJ:** Off-Pump Coronary Artery Surgery for Reducing Mortality and Morbidity: Meta-Analysis of Randomized and Observational Studies. *Journal of the American College of Cardiology*: September 2005: 46: pp 872-882.

**Wijesundera DN, Karkoutis K, Beattie S, Rao V, Ivanov J:** Improving the Identification of Patients at Risk of Postoperative Renal Failure Following Cardiac Surgery. *Anaesthesiology*: January 2006: 104: pp 65-72.

**Yau TM:** On-Pump Coronary Artery Bypass Surgery. In: *Handbook of Perioperative Care in Cardiac Surgery*: University Health Network, 2nd ed. (David TE, Cheng D, eds.) Lippincott Williams & Wilkins, Philadelphia: 2006: pp 201-208.

**Yau TM:** Tamponade and Chest Reopening. In: *Handbook of Perioperative Cardiac Surgical Care*: University Health Network, 2nd ed. (David TE, Cheng D, eds.) Lippincott Williams & Wilkins, Philadelphia: 2006: pp 375-380.

**Yau TM, Kim C, Li G, Zhang Y, Weisel RD, Li R-K:** Maximizing Ventricular Function with Multimodal Cell-Based Gene Therapy. *Circulation*: August 2005: 112(I): pp 123-128.

**Yau TM, Kim C, Ng D, Li G, Zhang Y, Weisel RD, Li R-K:** Increasing Transplanted Cell Survival with Cell-Based Angiogenic Gene Therapy. *Annals of Thoracic Surgery*: November 2005: 80(5): pp 1779-1786.

**Zhang H, Fazel S, Tian H, Mickle DAG, Weisel RD, Fujii T, Li R-K:** Increasing Donor Age Adversely Impacts Beneficial Effects of Bone Marrow But Not Smooth Muscle Myocardial Cell Therapy. *American Journal of Physiology: Heart and Circulatory Physiology*: November 2005: 289: pp H2089-96.

## Invited Visits to Other Hospitals/Universities

**Borger MA:** Pioneering Techniques in Cardiac Surgery, Leipzig, Germany, December 2005. Aortic Valve Sparing Long-Term Results: The Toronto experience.

**Borger MA:** Controversies in Valvular Surgery and Therapy, Newport Beach, CA, August 2005. Bioprosthetic Replacement in the Mitral Position: Choosing the Right Patient.

**Borger MA:** Grand Rounds, Department of Surgery, Maine Medical Center, Portland, ME, January 2006. Cerebral Emboli During Cardiac Surgery: What Do We Know?

**Borger MA:** Mitral Valve Surgery: Reflections and Contemplations, Barcelona, Spain, September 2005. Is Perimount A Lifelong Promise?

**Borger MA:** Australian Society of Cardiac Surgeons, Sydney, Australia, August 2005. Valve Replacement with the Hancock II Bioprosthesis: A Safe and Durable Option.

**Brister SJ:** American Psychiatric Association, Toronto, ON, May 2006. Neuro Behavioral Outcomes Following Cardiac Surgery: How Can They Be Improved?

**Cusimano RJ:** American College of Surgeons, San Francisco, CA, October 2005. Cardiovascular Surgery: Redefining Success in the Management of Advanced Cardiovascular Disease.



**Cusimano RJ:** Southlake Hospital Rounds, Newmarket, ON, March 2006. Lead extractions using laser energy.

**Cusimano RJ:** Scarborough Centenary Hospital, Scarborough, ON, December 2005. Pacer Insertion Methods.

**Cusimano RJ:** Canadian Cardiology Techniques & Technologies, Costa Rica, March 2006. Post Infarction Ventricular Septal Rupture.

**David TE:** ISMETT - Istituto Mediterraneo per I Trapianti e Terapie ad Alta Specializzazione and UPMC - University of Pittsburgh Medical Center, Palermo, Italy, May 2006. "A Day with Tirone David" - Live Teleconference and Lectures: (1) Live Demonstrations of Aortic and Mitral Valve Repair, (2) Lecture: Long term Results of Aortic and Mitral Valve Repair.

**David TE:** Society of Cardiothoracic Surgeons of South Africa Forum 2005, Zambezi Sun, Zambia, August 2005. (1) "What's New In Aortic Valve Surgery," (2) "What's New In Mitral Valve Surgery?"

**David TE:** Cardiology Society of Rio de Janeiro, Rio de Janeiro, Brazil, April 2006. (1) Aortic Dissections: Diagnosis, Treatment and Outcomes; (2) Ischemic Mitral Valve Disease: What Do I Do? David TE: 5<sup>th</sup> Triennial Brigham Cardiac Valve Symposium, Harvard Medical School, Boston, MA, October 2005. (1) Best Operation for Aortic Stenosis: Homograft, Pulmonary Autograft or Repair, (2) Aortic Valve Endocarditis: Timing of Operation and Valve of Choice, (3) Discussant - Aortic Valve Surgery: New Advances.

**David TE:** American Association for Thoracic Surgery, Philadelphia, PA, April 2006. (1) Long term Results of Aortic Valve Sparring Operations, (2) Dividing Secondary Chords Improves Mitral Leaflet Mobility and Reduces Mitral Regurgitation in Patients with Ischemic MR.

**David TE:** Università di Roma Tor Vergata, Rome, Italy, November 2005. (1) Twenty-Year Results of the Hancock II Bioprosthesis, (2) Update on Reoperative Mitral Valve Surgery and Aortic Root Reconstruction.

**David TE:** Seminar on Heart Valve Disease, Washington, DC, March 2006. (1) When and How to Operate on Patients with Mitral Valve Disease, (2) Outcomes of Mitral Valve Repair and Replacement, (3) When and How to Operate on Patients with Aortic Valve Disease, (4) Outcomes of Aortic Valve Repair and Replacement.

**David TE:** Lillehei Memorial Workshop for Japanese Surgeons 2005, Minneapolis, MN, August 2005. Aortic Valve Repair.

**David TE:** Dallas Valve Symposium: What Every Surgeon Needs To Know, Dallas, TX, November 2005. Course Coordinator: (1) Management of the Ascending Aorta and Root in Aortic Valve Disease: What Do I Do? (2) Does The Type of Mitral Annuloplasty Ring Matter?

**David TE:** Southern Thoracic Surgical Association, Orlando, FL, November 2005. Honorary Guest Speaker: Creativity in Surgery.

**David TE:** Seminari di Chirurgia Cardiaca: La Chirurgia dell'Aorta, University Degli Sudi Bari, Bari, Italy, March 2006. La Chirurgia della Radice Aortica.

**David TE:** X Aortic Symposium - Mount Sinai Medical School, New York City, NY, April 2006. Long Term Results of Aortic Valve Reimplantation in Patients with Aortic Root Aneurysm.

**David TE:** AATS Postgraduate Course - Valvular Heart Disease, Chicago, IL, September 2005. The Role of Aortic Root Disease: Implications for Treatment of Aortic Stenosis and Regurgitation.

**David TE:** European Association for Cardio-Thoracic Surgery European Residents Meeting 2005, Barcelona, Spain, September 2005. Think Different - Be Innovative.

**David TE:** Sheba Medical Center, Tel Aviv, Israel, March 2006. Visiting Professor: (1) Teleconference: Live Surgical Demonstration of Aortic and Mitral Valve Repair, (2) Lectures: Results of Aortic and Mitral Valve Repair.

**David TE:** University of Pittsburgh Medical Center, Pittsburgh, Pa, December 2005. Visiting Professor: Functional Anatomy of the Aortic Root and Its Role in Surgery.

**David TE:** University of Pennsylvania, Philadelphia, PA, January 2006. Visiting Professor: Functional Anatomy of the Aortic Root and Its Role in Surgery.

**Feindel CM:** Canadian Cardiovascular Society, Montreal, QC, October 2005. WORKSHOP: Faculty - Feindel C, Siu S, Butany J, Thangaroopan M. Echo-Path: Case-Based Illustration of Echocardiographic-Pathologic Correlates.

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- Li R-K:** The 9<sup>th</sup> Annual Toronto International Heart Failure Summit from Pathophysiology to Clinical Practice, Toronto, ON, June 2006. Cardiac Regenerative Medicine II (Chair.)
- Li R-K:** International Heart Forum Beijing 2005, Beijing, China, September 2005. Cardiovascular Surgery (Invited Speaker.)
- Li R-K:** Anatomy and Cell Biology Student Seminar Committee - University of Western Ontario, London, ON, May 2006. Cell Therapy for Cardiovascular Disease (Invited Speaker.)
- Li R-K:** 3<sup>rd</sup> Baltic Stem Cell Conference, Rostock, Germany, August 2005. Cell Transplantation (Invited Speaker.)
- Li R-K:** VIII World Congress of the International Society for Adaptive Medicine, Moscow, Russia, June 2006. Cell Transplantation to Regenerate Damaged Myocardium (Invited Speaker.)
- Li R-K:** Montreal Heart Institute, Montreal, QC, February 2006. Cell Transplantation to Restore Cardiac Function: Past, Present and Future (Invited Speaker.)
- Li R-K:** Cardiovascular Research Foundation, The Second International Conference on Cell Therapy for Cardiovascular Diseases, January 19-21, 2006, New York, NY, January 2006. Cord Blood Derived Cells (Invited speaker.)
- Li R-K:** 28<sup>th</sup> International Society of Heart Research: Translating Molecular Advances, Toronto, ON, June 2006. Creation of Cell Engineered Cardiac Tissue for Cardiac Repair (Invited speaker.)
- Li R-K:** International Society for Heart and Lung Transplantation - 7<sup>th</sup> Fall Education Meeting, Dallas, TX, November 2005. Effects of Endothelial Progenitor Cells on the Extracellular Matrix (Invited Speaker.)
- Li R-K:** 3<sup>rd</sup> Annual Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, MB, May 2006. Fraser Mustard Award Competition Examiner (Invited Examiner.)
- Li R-K:** Cell Therapy, Bench to Bedside Meeting, Institute of Cardiovascular Research, Harbin Medical University, Harbin, People's Republic of China, July 2005. Rebuilding Myocardial Matrix After Myocardial Infarction (Invited speaker.)
- Li R-K:** CIHR/Transplant Program Seminar, Toronto General Hospital, Toronto, ON, January 2006. Restoration of Cardiac Function by Cell Transplantation (Invited Speaker.)
- Li R-K:** International Stem Cell Forum, Shanghai, China, September 2005. Stem Cells and Cardiovascular Disease (invited speaker.)
- Rao V:** AATS Cardiothoracic Resident Symposium, Cincinnati, OH, May 2006. Left Ventricular Reconstruction.
- Rao V:** "Success with Heart Failure" Symposium. Montefiore-Einstein Heart Center, New York, NY, June 2006. Managing Mitral Regurgitation in the Heart Failure Patient.
- Rao V:** Preak Performance, Mt. Tremblant, QC, February 2006. Mechanical Circulatory Support in Canada.
- Rao V:** Canadian Transplant Residents and Fellows Symposium, Toronto, ON, November 2005. Mechanical Circulatory Support.
- Rao V:** Ontario Society for Clinical Perfusion, Toronto, ON, September 2005. Mechanical Circulatory Support - The TGH Experience.
- Rao V:** ACC Annual Lake Louise Symposium, Lake Louise, AB, March 2006. Mechanical Circulatory Support in Canada: Which Device, Which Patient, Which Center?
- Rao V:** 55<sup>th</sup> Annual Meeting of the American College of Cardiology, Atlanta, GA, March 2006. Mitral Regurgitation in Heart Failure.
- Rao V:** Acetelion Investigators Meeting, New York, NY, September 2005. Rationale for Endothelin-Receptor Antagonism.
- Rao V:** ACC Annual Lake Louise Symposium, Lake Louise, AB, March 2006. Surger for End-Stage Heart Disease.
- Rao V:** 9<sup>th</sup> Annual Toronto Heart Failure Summit, ACC, Toronto, ON, June 2006. Surgical Reverse Remodeling.
- Rao V:** Canadian Residents and Fellows Summit on Heart Failure, Transplantation & Mechanical Circulatory Support, Montreal, QC, October 2005. Surgical Ventricular Restoation.

**Rao V:** Canadian Residents and Fellow's Summit on Heart Failure, Transplantation & Mechanical Circulatory Support, Montreal, QC, October 2005. The Abiomed BVS5000.

**Rao V:** Canadian Residents and Fellows Summit on Heart Failure, Transplantation & Mechanical Circulatory Support, Montreal, QC, October 2005. The HeartMate LVAS.

**Rao V:** 9<sup>th</sup> Annual Heart Failure Summit, ACC, Toronto, ON, June 2006. The STICH Trial: An Update.

**Scully HE:** Canadian Medical Association, Edmonton, AB, August 2005. 138<sup>th</sup> Annual Meeting.

**Scully HE:** Canadian Cardiovascular Society, Montreal, QC, October 2005. Annual General Meeting.

**Scully HE:** The Royal College of Physicians and Surgeons of Canada, Ottawa, ON, November 2005. Health and Public Policy Committee.

**Scully HE:** University of Pennsylvania, Pittsburgh, PA, April 2006. Human Resources for Health: National Needs and Global Concerns.

**Scully HE:** Insight Information, Toronto, ON, February 2006. The Hospitalist Model - The Continuing Evolution of Inpatient Care.

**Scully HE:** The Royal College of Physicians and Surgeons of Canada Annual General Meeting, Vancouver, BC, September 2005. Update on Task Force Two: A National Physician Resource Strategy for Canada.

**Weisel RD:** Update on Cardiopulmonary Bypass Meeting, Whistler, BC, March 2006. Biology Options for Improving Coronary Revascularization.

**Weisel RD:** San Diego Cardiothoracic Surgery Symposium, San Diego, CA, February 2006. Cardiac Regeneration by Biosurgery.

**Weisel RD:** Ottawa Heart Institute, Ottawa, ON, September 2005. Cardiac Regeneration by Cell Transplantation.

**Weisel RD:** Vincent Dor Symposium on Heart Failure, New York, NY, June 2006. Cardiac Regeneration by Cell Transplantation.

**Weisel RD:** Institute of Thoracic and Cardiac Surgery, Changhai Hospital, Second Military Medical University, Shanghai, China, April 2006. Cardiac Regeneration: The Future of Cardiac Surgery.

**Weisel RD:** American College of Surgeons, San Francisco, CA, October 2005. Cellular Myocardial Restoration.

**Weisel RD:** Association of Thoracic and Cardiovascular Surgery in Asia, Manila, Philippines, November 2005. Cellular Therapy in Cardiac Surgery.

**Weisel RD:** ChaRM 2005, Toronto, ON, October 2005. Creating A New Heart.

**Weisel RD:** Update on Cardiopulmonary Bypass Meeting, Whistler, BC, March 2006. Outcome Data: Surgery versus Percutaneous Interventions.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Randomized Evaluation of the St. Jude Medical Inc., Second Generation Aortic Connector. *Yau TM: St. Jude Medical Inc.* (\$200,000 2003 - 2005.)

Autologous Tissue-Engineered Grafts for Congenital Heart Surgery. *Li R-K: Canadian Institutes of Health Research* (\$647,655 2003 - 2008.)

Cardiac Regeneration by Cell Transplantation. *Weisel RD, Verma S, Fazel S: Heart and Stroke Foundation* (\$74,910 2005 - 2006.)

Cell Transplantation for Cardiovascular Disease. *Li R-K: Heart and Stroke Foundation of Ontario (Personnel Support)* (\$381,250 2001 - 2006.)

Cell Transplantation to Improve Heart Function. *Li R-K: Ontario Ministry of Energy, Science and Technology* (\$150,000 2001 - 2006.)

Clinical Assessment of the Biophysio Valve. *Borger MA, David TE, Feindel CM: Edwards Lifesciences Inc.* (\$50,000 2005 - 2007.)

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Development of a New, Portable Biomedical Device for In Vivo Measurement of Regional Heart Tissue Elasticity. *Zu JW, Li R-K: 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 of Ontario* (\$68,192 2005 - 2006.)

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 M, Yada R, Bakovic M, Li R-K, Hellerstein M: Ontario Ministry of Agriculture and Food/ University of Guelph Food Research Program* (\$600,000 2004 - 2008.)

Gene-Enhanced Cell Transplantation to Reverse Heart Failure. *Li R-K, Fedak PW: Heart and Stroke Foundation of Ontario* (\$259,216 2004 - 2007.)

Hypertonic Saline for Cardiac Transplantation. *Feindel CM, Rao V: Heart & Stroke Foundation of Ontario* (\$169,354 2004 - 2006.)

Hypertonic Saline for Cardiac Transplantation. *Feindel CM, Rao V: Heart and Stroke Foundation of Canada* (\$85,609 2005 - 2006.)

Hypertonic Saline for Cardiac Transplantation. *Rao V, Ramzy D: Physicians' Services Incorporation* (\$20,000 2005 - 2006.)

Minimal Invasive Cardiac Surgery: Is It Safe For The Brain? *Borger MA, Djaiani G, Green RE, Ivanov J, Feindel CM: Heart and Stroke Foundation of Ontario* (\$211,000 2005 - 2007.)

Modulating Endothelial Progenitor Cells for Myocardial Regeneration: Role of PPAR $\gamma$ . *Verma S, Weisel RD: Heart and Stroke Foundation* (\$68,860 2005 - 2006.)

Myocardial Transgene Expression in Transplanted Cells. *Yau TM: Heart and Stroke Foundation of Ontario* (\$102,592 2004 - 2006.)

Polyarginine Treated Vein Grafts (PATENT.) *Briste SJ, Yau T, Ralph-Edwards A: Lumen Therapeutics* (\$630,000 2005 - 2008.)

Predictors of Massive Blood Loss in Cardiac Surgery: Development and Validation of A Simple Prediction Rule. *Karkouti K, Beattie WS, Ivanov J, Yau TM: CIHR* (\$81,797 2005 - 2006.)

Quest Trial. *Weisel RD, Rao V, Yau TM: Quest Medical, Inc.* (\$50,000 2001 - 2005.)

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 Influence of Heart Failure on the Organization of Human Ventricular Fibrillation. *Kumaraswamy N, Rao V, Downar E: Canadian Institutes for Health Research* (\$61,157 2006 - 2007.)

The Interplay of Recruited Stem Cells and the Matrix after Myocardial Infarction: Shifting the Balance Toward Repair. *Li R-K, Fazel S: Canadian Institutes of Health Research* (\$738,073 2004 - 2009.)

The PRIME (Perioperative Renal Insufficiency Management) Study: A Randomized, Double-Blinded, Placebo-Controlled Trial of N-Acetylcysteine for Preventing Renal Insufficiency Following Cardiac Surgery. *Beattie S, Wijeyesundera D, Rao V, Chan C, Granton J, Ivanov J: HSFO* (\$189,972 2004 - 2006.)

The Role of Stem Cell Factor Receptor in Cardiac Remodelling after Myocardial Infarctions. *Yau TM, Fazel S: Physicians Services Incorporated* (\$20,000 2004 - 2006.)

Transplant Vasculopathy: The Role of Endothelium. *Rao V: Canadian Institutes of Health Research* (\$50,000 2005 - 2006.)

Understanding the Link Between Quality of Care and Outcomes Report Cards for Coronary Artery Bypass Graft (CABG) Surgery in Ontario. *Tu JV, Novick RJ, Anderson J, Geoffrey M, Feindel CM: Heart & Stroke Foundation of Ontario* (\$175,715 2004 - 2006.)

Vasculogenesis Induced by Cell Transplantation. *Li R-K: Heart and Stroke Foundation of Ontario* (\$327,408 2003 - 2007.)

## Honours Received

**David TE:** 54<sup>th</sup> Brotherhood of Beth Sholom Synagogue Humanitarian Award, November 2005.

**David TE:** Elected Historian of the American Association for Thoracic Surgery, April 2006.

**Li R-K:** Canada Research Chair in Cardiac Regeneration, March 2006.

**Weisel RD:** Elected Honorary Member of the American Association for Thoracic Surgery, Philadelphia, PA, April 2006.

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## **DIVISION OF GENERAL SURGERY**

**Dr. M.S. Cattral - Professor**

**Dr. E. Escallon – Associate Professor**

**Dr. S. Gallinger - Professor**

**Dr. R.M. Gorczynski - Professor**

**Dr. D. Grant - Professor**

**Dr. P. Greig - Professor**

**Dr. B. Langer - Professor**

**Dr. W.L. Leong- Assistant Professor**

**Dr. D.R. McCready - Professor**

**Dr. I.D. McGilvray - Assistant Professor**

**Dr. T. Penner – Assistant Professor**

**Dr. M. Reedijk - Assistant Professor**

**Dr. R.K. Reznick - Professor**

**Dr. L.E. Rotstein – Professor (Division Head)**

**Dr. B.R. Taylor – Professor**

**Dr. D. R. Urbach - Associate Professor**

**Dr. A. Wei – Assistant Professor**

**Dr. H.A.E. Weizel - Associate Professor**

## **Publications**

**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*: January 2006: 12(1): pp 37-47.

**Cotterchio M, Manno M, Klar N, McLaughlin J, Gallinger S:** Colorectal Screening is Associated with Reduced Colorectal Cancer Risk: A Case-Control Study within the Population-Based Ontario Familial Colorectal Cancer Registry. *Cancer Causes and Control*: September 2005: 16(7): pp 865-875.

**Diao J, Winter E, Cantin C, Chen W, Xu L, Kelvin D, Phillips J, Cattral MS:** In Situ Replication of Immediate Dendritic Cell (Dc) Precursors Contributes to Conventional Dcs Homeostasis in Lymphoid Tissue. *The American Association of Immunologists*: June 2006: 176: pp 7196-206.

**Fazio L, Cotterchio M, Manno M, McLaughlin J, Gallinger S:** Association Between Colonic Screening, Subject Characteristics, and Stage of Colorectal Cancer. *American Journal of Gastroenterology*: November 2005: 100: pp 11.

**Gainford MC, McCready DR, Cohen Z, Clemons M:** The Latest Is The Greatest: Results of a Structured Lecture about Aromatase Inhibitor Use for Breast Cancer. *Breast Cancer Research and Treatment*: December 2005: 6: pp 1-4.

**Hitchins M, Williams R, Cheon K, Halani N, Ap-Lin V, Packham D, Ku S, Buckle A, Hawkins N, Burn J, Gallinger S, Goldblatt J, Kirk J, Tomlinson I, Scott R, Spigelman A, Suter C, Martin D, Suthers G, Ward, R:** MLH1 Germline Epimutations as a Factor in Hereditary Non-Polyposis Colorectal Cancer. *Gastroenterology*: November 2005: 129(5): pp 1392-1399.

**Jenkins M, Croitoru ME, Monga N, Cleary S, Cotterchio M, Gallinger S:** Risk of Colorectal Cancer in Monoallelic and Biallelic Carriers of MYH Mutations: A Population-Based Case-Family Study. *Cancer Epidemiol Biomarkers*: February 2006: 15(2): pp 312-314.

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## **Invited Visits to Other Hospitals/Universities**

**Cattral MS:** Canadian Transplant Fellows Course, Toronto, ON, November 2005. Pancreas Transplantation Update.

**Gallinger S:** CIHR - Colorectal Cancer Screening Workshop, Toronto, ON, April 2006. DNA Testing for Colorectal Cancer and Polyps and How Far Away We Are From This.

**Gallinger S:** Update on Cancer Genetics in Ontario Symposium - Centre for Research in Women's Health, Toronto, ON, March 2006. (1) Genetics of Gastric Cancer, (2) Update on Genetic Susceptibility to Colon Cancer.

**Gallinger S:** The Fifth Princess Margaret Hospital Conference: New Developments in Cancer Management, Toronto, ON, September 2005. Keynote Presentation: Genetic Predisposition to Gastrointestinal Cancer: Progress and Frustration.

**Gallinger S:** COMET Fall Meeting, Toronto, ON, October 2005. Management of Liver Metastases.

**Gallinger S:** 2005 World Congress of Gastroenterology, Montreal, QC, September 2005. (1) Management of Peri-ampullary Lesions, (2) State-of-the-Art Lecture: What is the Role of Genetic in Colon Cancer?

**Gallinger S:** 4<sup>th</sup> International Colorectal Cancer Congress Meeting, Aventura, FL, October 2005. Molecular Biology of Colorectal Cancer.

**Gallinger S:** St. Michael's Hospital GI Research Rounds, Toronto, ON, May 2006. Molecular Predictors of Colorectal Cancer Prognosis and Treatment Response.

**Leong WL:** Canadian Breast Cancer Research Alliance, Reasons for Hope 4<sup>th</sup> Scientific Conference 2006, Montreal, QC, May 2006. Mammary Ductoscopy: An Early Toronto Experience.

**McCready DR:** American College of Surgeons 91<sup>st</sup> Annual Meeting, San Francisco, CA, October 2005. (1) Breast Irradiation. (2) Do All Patients Need Radiation Therapy after Breast-Conserving Surgery?

**Reznick RK:** Professional Association of Residents and Interns of Ontario, Toronto, ON, November 2005. A 48-Hour Work Week: Has Europe Gone Too Far In Their Reduction Of Resident Work Hours?

**Reznick RK:** McGill University Department of Surgery, General Surgery Academic Half Day, Montreal, QC, November 2005. Being a Good Teacher: Is It Enough?

**Reznick RK:** Inaugural Harvey H. Sigman Lecture in Surgical Education, Jewish General Hospital, McGill University Department of Surgery, Montreal, QC, November 2005. Changing Models for A Changing Time.

**Reznick RK:** Association of Surgeons of Great Britain and Ireland 2006 Annual Scientific Meeting, Edinburgh, Scotland, May 2006. How Will We Assess the Performance and Training of the Surgeons of Tomorrow?

**Reznick RK:** Royal College of Surgeons of England Moynihan Lecture, Edinburgh, Scotland, May 2006. May I Be So Bold? A Prescription for a New Model of Training.

**Reznick RK:** Arizona Chapter of the American College of Surgeons, Tempe, AZ, November 2005. Playing Well in the Surgical Sandbox: Communication May Be the Key to Patient Safety.

**Reznick RK:** Canadian Surgery Forum, Canadian Association of General Surgeons Resident Education Symposium, Montreal, QC, September 2005. Resident Lifestyle and Career Choices.



**Reznick RK:** American Board of Surgery Education Retreat, Sarasota, FL, January 2006. Surgical Skills Development.

**Reznick RK:** Sir Peter Freyer Memorial Lecture at the XXX<sup>th</sup> Sir Peter Freyer Memorial Lecture and Surgical Symposium, University of Ireland, Galway, Galway, Ireland, September 2005. Surgical Training in 35 hours Per Week or Less: Laudable or Lunacy?

**Reznick RK:** W.B. and M.H. Chung Lecture, University of British Columbia, Vancouver, BC, October 2005. Surgical Training in 35 hours Per Week: Laudable or Lunacy?

**Reznick RK:** The Danish Medical Association Keynote Speech, Copenhagen, Denmark, March 2006. The Anatomy of a Surgeon.

**Reznick RK:** Arizona Chapter of the American College of Surgeons, Tempe, AZ, November 2005. Training in 35 hours Per Week: That's Less Than Half of 80.

**Reznick RK:** British Journal of Surgery Lecture at the Tripartite Colorectal Meeting of the Royal Dublin Society, Dublin, Republic of Ireland, July 2005. Why Does It Take Six Years to Teach a Brilliant Trainee to Do a Colectomy?

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Phase 2, Double-Blind, Randomized, Placebo-Controlled, Multi-Center Study Assessing the Value of Adding RAD001 to Letrozole (Femara) as Preoperative Therapy of Preliminary Breast Cancer in Postmenopausal Women. *Leigh N, Reedijk M, Leong W, McCready D: Novartis* (\$35,000 2005 - 2006)

A Program of Inter-Disciplinary and Population-Based Studies of the Determinants and Impact of Colorectal Cancer - A Genetic - Epidemiological Approach. *McLaughlin J, Gallinger S, Bapat B, Cotterchio M, and 15 others: Canadian Institutes of Health Research* (\$1,069,000 2001 - 2006.)

A Prospective, Randomized, Controlled Trial of Radioguided Seed Localization Versus Standard Needle Localization on Nonpalpable Breast Cancers. *Lovrics P, Chen V, Cornacchi S, Franic D, Hodgson N, McCready DR, Reedijk M, Goldsmith C: Canadian Breast Cancer Foundation* (\$223,577 2005 - 2007.)

A Qualitative Study Comparing Health Care Providers', Patients', and Family Perceptions, Attitudes and Beliefs About the Risk of Living Liver Donation. *Fecteau A, Grant D, Wright L: Physicians Services Incorporated Foundation* (\$64,000 2004 - 2006.)

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 Randomized, Phase III Clinical Trial to Compare Sentinel Node Resection to Conventional Axillary Dissection in Clinically Node-Negative Breast Cancer Patients. *McCready DR: National Surgical Adjuvant Breast and Bowel Project* (\$120,000 2004 - 2005.)

A Registry-Based Observational Study Assessing Clinical Outcomes in Familial Adenomatous Polyposis in Patients Receiving Celecoxib Compared to Control Patients. *Gallinger S: Pfizer Inc.* (\$67,500 2005 - 2007.)

Breast Cancer Clinical Research Program. *Vallis K, McCready DR: University Health Network* (\$800,000 2005 - 2009.)

Breast Cancer Gene Profiling. *Leong WL, Kulkarni S, Done S, Boerner S, Vallis K, McCready DR, Woodgett JR, Leigh N: Princess Margaret Hospital* (\$400,000 2005 - 2009.)

Breast Cancer Gene Profiling. *Leong WL, Kulkarni S, Done S, Boerner S, Vallis K, McCready DR, Woodgett JR, Leigh N: Genome Canada Research Matching Fund* (\$400,000 2005 - 2009.)

CIHR Team in Interdisciplinary Research on Colorectal Cancer. *McLaughlin J, Gallinger S, et al: Canadian Institutes of Health Research* (\$3,627,210 2006 - 2011.)

Comparison Between 2-Octyl-Cyanoacrylate Tissue Adhesive Versus Sutures in Skin Closure After Breast Lumpectomy: A Prospective Randomized Parallel Group Study. *Leong WL, Nasr A, Chung D, Escallon J: Ethicon Sutures Ltd.* (\$13,000 2004 - 2006.)

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.)

Discontinuity of Chronic Medications in Hospitalized Elders. *Bell C, Urbach D, Bajcar J, Bierman A, Mamdani M: CIHR* (\$43,358 2004 - 2006.)

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 DM: Nelson Arthur Hyland Foundation* (\$25,000 2004 - 2007.)

Ductoscopy of Breast Diseases. *Leong WL, Easson AM, McCready DM: Princess Margaret Hospital* (\$25,000 2004 - 2007.)

Effect of Sleep Deprivation on Resident Surgeon Psychomotor Skills. *Woodrow SI, Murray BJ, Bernstein M, Dubrowski A, Reznick RK, Hamstra S: Physicians Services Incorporated Foundation* (\$118,000 2005 - 2006.)

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* (\$250,000 2002 - 2007.)

Factors Predictive of EBV Lymphoproliferation Following Organ Transplantation: Beyond Viral Load. *Upton A, Hebert D, Weitzman S, Tellier R, Ngan B, Grant D, Humar A, Stephens D: Canadian Institutes of Health Research* (\$70,000 2003 - 2006.)

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.)

Improving Care and Research in Pancreas Cancer in Ontario - A Population-Based Study. *Gallinger S, Urbach DR, Cotterchio M, Holowaty E, Moore M: Ontario Cancer Research Network* (\$371,860 2002 - 2005.)

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.)

Making Medical Meaning: Cognitive, Social and Educational Implications of the Computerized Patient Record. *Kushniruk A, Reznick RK, Smith C: Social Sciences and Humanities Research Council of Canada* (\$106,640 2002 - 2005.)

Mammary Ductoscopic Imaging and Spectroscopy, An Exploratory Study. *Leong WL, Easson AM, McCready DR, Done S, Douplik A, Yang V, Vitkin A, Wilson B: Ontario Research and Development Challenge Fund* (\$8,730 2004 - 2005.)

New Measures of Quantifying Soft Tissue Fibrosis. *Davis AM, Bell R, Lee P, O'Sullivan B, Hill R, Levin W, Wunder J, Inman R, McCready DR: Canadian Institute of Health Research* (\$298,263 2003 - 2006.)

Notch Activation in Aggressive Human Breast Cancer. *Egan S, Reedijk M: Canadian Breast Cancer Foundation* (\$200,000 2005 - 2007.)

Ontario Clinical Oncology Group, Ministry of Health and Long Term Care. *Gallinger S, Moulton CA: PET CAM - (\$1200/case)* (\$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, et. al: National Institutes of Health* (\$7,000,000 2002 - 2007.)

Perceptions of Professionalism Among Faculty and Trainees in Academic Surgery. *Park J, Woodrow S, Reznick RK, MacRae H: Royal College of Physicians and Surgeons of Canada* (\$24,867 2004 - 2005.)

Proteomics and Protein Biomarkers of Breast Cancers. *Done S, Leong WL, Kulkarni S, Boerner S, Vallis K, McCready DR, Woodgett JR, Leigh N: Princess Margaret Hospital* (\$400,000 2005 - 2009.)

Proteomics and Protein Biomarkers of Breast Cancers. *Done S, Leong WL, Kulkarni S, Boerner S, Vallis K, McCready DR, Woodgett JR, Leigh N: Genome Canada Research Matching Fund* (\$400,000 2005 - 2009.)

Pushing Back the Boundaries of Whole Genome Analysis of Microdissected Fixed Human Tissue Samples with Improved Amplification. *McCready DR, Done S: Sir Jules Thorn Charitable Trust* (\$50,000 2004 - 2005.)

Role of fg12 in Transplantation and Cardiac Development. *Grant D, Levy G: Heart and Stoke Foundation of Canada* (\$227,750 2005 - 2008.)

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: CIHR* (\$374,000 2004 - 2009.)

Teaching Surgical Skills: Massed vs Distributed Practice. *Moulton CA, Reznick RK, Macrae H, Graham B, Dubrowski A: Physician Services Incorporated Foundation* (\$43,000 2005 - 2006.)

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 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 Molecular Genetics of Hepatitis C Viral Infection: Defining Novel Therapeutic and Pathogenic Mechanisms in Acute and Chronic Disease. *McGilvray I, 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 I, Edwards A, Rotstein O: Fujisawa Canada* (\$600,000 2003 - 2007.)

Validation of Tensiometry as a Measure of Technical Skill Performance. *Dubrowski A, Xeroulis G, Woodrow S, Reznick RK: Royal College of Physicians and Surgeons of Canada* (\$22,375 2005 - 2006.)

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.)

## Honours Received

**McCready DR:** Association of Medical Illustrators - AMI Literary Award for Best Written Contribution to the Journal Of Biocommunication by a Member of the Association of Medical Illustrators, July 2005.

**Reedijk M:** Society of University Surgeons Junior Faculty Grant Award, February 2006.

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## **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. A.M. Lozano – Professor**

**Dr. E. M. Massicotte - Assistant Professor**

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**Dr. M. Tymianski - Associate Professor**

**Dr. T. Valiante – Assistant Professor**

**Dr. A. A. Velumian - Assistant Professor**

**Dr. M.C. Wallace – Professor (Division Head)**

## **Publications**

**Aarts M, Tymianski M:** Therapeutic Tools in Brain Damage. In: Proteomics and Protein-Protein Interactions: Biology, Chemistry, Bioinformatics and Drug Design (Ed. Gabriel Waksman. Series: Protein Reviews, Vol 3 2005, eds.) Springer Press, New York: 2005:

**Ackery A, Robins S, Fehlings MG:** Inhibition of Fas-Mediated Apoptosis Through Administration of Soluble Fas Receptor Improves Functional Outcome and Reduces Posttraumatic Axonal Degeneration After Acute Spinal Cord Injury. *Journal of Neurotrauma*: May 2006: 23(5): pp 604-616.

**Anastakis DJ, Chen R, Davis KD, Mikulis D:** Cortical Plasticity Following Upper Extremity Injury and Reconstruction. *Clinics in Plastic Surgery*: October 2005: 32: pp 617-634.

**Anderson DK, Beattie M, Blesch A, Bresnahan J, Bunge M, Dietrich D, Dietz V, Dobkin B, Fawcett J, Fehlings M, Fischer I, Grossman R, Guest J, Hagg H, Hall ED, Houle J, Kleitman N, McDonald J, Murray M, Privat A, Reier P, Steeves J, Steward O, Tetzlaff W, Tuszynski MH, Waxman SG, Whittemore S, Wolpaw J, Young W, Zheng B:** Editorial: Recommended Guidelines for Studies of Human Subjects with Spinal Cord Injury. *Spinal Cord*: August 2005: 43(8): pp 453-458.

**Andrade DM, Zumsteg D, Hamani C, Hodaie M, Sarkissian S, Lozano AM, Wennberg RA:** Long-term Follow-Up of Patient with Thalamic Deep Brain Stimulation for Epilepsy. *Neurology*: May 2006: 66(10): pp 1571-1573.

**Baptiste DC, Fehlings MG:** Pharmacological Approaches to Repair the Injured Spinal Cord. *Journal of Neurotrauma*: March 2006: 23(3/4): pp 318-334.

**Bernstein M:** E-Mail Etiquette. *Parkhurst Exchange*: March 2006: 14: pp 210.

**Bernstein M:** Fully Informed Consent Is Impossible In Surgical Clinical Trials. *Canadian Journal of Surgery*: August 2005: 48(4): pp 271-272.

**Bernstein M:** Professionalism: We Know It When We See It. *Parkhurst Exchange*: November 2005: 13: pp 186.

**Bhan A, Bernstein M:** Full-Text Journal Access. It's About Time. *Parkhurst Exchange*: November 2005: 13: pp 138.

**Bono CM, Vaccaro AR, Fehlings M, Fisher C, Dvorak M, Ludwig S, Harrop J:** Measurement Techniques for Lower Cervical Spine Injuries: Consensus Statement of the Spine Trauma Study Group. *Spine*: March 2006: 31(5): pp 603-609.

- Carette S, Fehlings MG:** Cervical Radiculopathy. *New England Journal of Medicine*: July 2005: 353(4): pp 392-399.
- Casha S, Yu W, Fehlings MG:** FAS Deficiency Reduces Apoptosis, Spares Axons and Improves Function after Spinal Cord Injury. *Experimental Neurology*: September 2005: 196(2): pp 390-400.
- Chan C, Sandhu J, Scollard D, Guha A, Wang J, Chen P, Bai LL, Reilly R:** A Human Transferrin-Vascular Endothelial Growth Factor (hTf-VEGF) Fusion Protein Contains an Integrated Radiometal Binding Site for Indium-111 with applications of imaging tumor angiogenesis. *Journal of Nuclear Medicine*: October 2005: 46(10): pp 1745-1752.
- da Costa LB, Valiante TA, TerBrugge K, Tymianski M:** Anterior Ethmoidal Artery Aneurysm and Intracerebral-Hemorrhage Case Report. *AJNR (In Press)*: January 2006:
- da Costa LB, Wallace MC, Montanera W:** Shotgun Pellet Embolization to the Posterior Cerebral Circulation. *American Journal of Neuroradiology*: February 2006: 27: pp 261-263.
- Davis KD:** fMRI of Clinical Pain. In: *Functional MRI: Basic Principles and Clinical Applications* (Faro SH, Mohamed FB, eds.) Springer-Verlag, New York: 2006: pp 430-443.
- Davis KD:** Recent Advances and Future Prospects in Neuroimaging of Acute and Chronic Pain. *Future Neurology*: March 2006: 1: pp 203-213.
- Davis KD, Taylor KD, Hutchison WD, Dostrovsky JO, McAndrews MP, Richter EO, Lozano AM:** Human Anterior Cingulate Cortex Neurons Encode Cognitive and Emotional Demands. *Journal of Neuroscience*: September 2005: 25: pp 8402-8406.
- Dickman CA, Fehlings MG, Gokaslan ZL:** *Spinal Cord and Spinal Column Tumors: Principles and Practice* (Dickman CA, Fehlings MG, Gokaslan ZL, eds.) Thieme Medical Publishing, Inc, New York: 2006:
- Dvorak MF, Collins JB, Marnaghan L, Hurlbert RJ, Fehlings M, Fox R, Hedden D, Rampersaud YR, Bouchard J, Guy P, Fisher CG:** Confidence in Spine Training Among Senior Neurosurgical and Orthopaedic Residents. *Spine*: April 2006: 31(7): pp 831-837.
- Fehlings MG:** 5 Questions. *InSpine*: October 2005: 1: pp 12-13.
- Fehlings MG:** Editorial: Complete Spinal Cord Injury. *Journal of Neurosurgery: Spine*: September 2005: 3: pp 171-172.
- Fehlings MG, Baptiste DC:** Current Status of Clinical Trials for Acute Spinal Cord Injury. *Injury*: July 2005: 36(Suppl2): pp S-B113-122.
- Fehlings MG, Perrin R:** The Role and Timing of Early Decompression for Cervical Spinal Cord Injury. *Injury*: July 2005: 36(Suppl2): pp S-B13-26.
- Fehlings MG, Perrin RG:** The Timing of Surgical Intervention in the Management of Spinal Cord Injury: A Review of Recent Clinical Evidence. *Spine*: May 2006: 31(11Supp): pp S28-35.
- Fisher C, Harris M, Hurlbert J, Rechtine G, Fehlings M:** Summary Statement: Early Management of Spinal Cord and Column Injury. *Spine*: May 2006: 31(11Supp): pp S36.
- Furlan JC, Fehlings MG:** A Web-Based Systematic Review on Traumatic Spinal Cord Injury Comparing the 'Citation Classics' with the Consumers' Perspective. *Journal of Neurotrauma*: February 2006: 23(2): pp 156-169.
- Hamani C, Dostrovsky JO, Lozano AM:** The Motor Thalamus in Neurosurgery. *Neurosurgery*: January 2006: 58(1): pp 146-158.
- Hanajima R, Dostrovsky JO, Lozano AM, Chen R:** Dissociation of Thalamic High Frequency Oscillations and Slow Component of Sensory Evoked Potentials Following Damage to Ascending Pathways. *Clinical Neurophysiology*: April 2006: 117: pp 906-911.
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- Zumsteg D, Lozano AM, Wieser HG, Wennberg RA:** Cortical Activation of Limbic Structures with Deep Brain Stimulation of the Anterior Thalamus for Epilepsy. Clinical Neurophysiology: December 2005:
- ## Invited Visits to Other Hospitals/Universities
- Bernstein M:** Osgood Hall, Toronto, ON, December 2005. Medicine for Lawyers Conference.
- Davis KD:** International Association for the Study of Pain, Official Satellite to the 11<sup>th</sup> World Congress on Pain: New Frontiers in Central Pain, Noumea, NC, August 2005. "Phantom Phenomena and the Brain."
- Davis KD:** Universities of Luxembourg and Trier; 4<sup>th</sup> Summer School of Psychobiology, Psychobiology of Pain, Luxembourg, September 2005. "Psychophysical and Functional Brain Imaging Techniques Used to Study Pain."
- Davis KD:** North York Toronto General Hospital, Surgical Grand Rounds, Toronto, ON, December 2005. "Recent Advances In Imaging Pain."
- Davis KD:** 2<sup>nd</sup> International Forum on Pain Medicine, Guadalajara, Mexico, May 2006. Brain Activations in Pain Patients.
- Davis KD:** IASP Special Interest Group on Neuropathic Pain; Expanding Vistas on Neuropathic Pain (an Official Satellite to the 11<sup>th</sup> World Congress on Pain), Uluru, Australia, August 2005. Functional Brain Imaging.
- Davis KD:** Italian Association for the Study of Pain, Annual Meeting, Verona, Italy, June 2006. Functional Imaging of Pain: Recent Advances.
- Davis KD:** 2<sup>nd</sup> International Forum on Pain Medicine, Guadalajara, Mexico, May 2006. Imaging of Pain.
- Davis KD:** 11<sup>th</sup> World Congress on Pain, International Association for the Study of Pain, Sydney, Australia, August 2005. Plenary Lecture: "Recent advances in Imaging Pain."
- Davis KD:** Neural Control of Movement Society, Satellite Meeting, Key Biscayne, FL, April 2006. Somatosensory Injury and Deficits: Phantom Phenomena and the Brain.



**Massicotte EM:** Congress of Neurological Surgeons, Boston, MA, October 2005. Timing of Surgical Intervention, Adult and Pediatric Spinal trauma Surgery.

**Fehlings MG:** DePuy Spine Resident's Course, Boston, MA, March 2006. (1) Co-Chair, (2) Current Advances in Spinal Cord Repair and Regeneration.

**Fehlings MG:** American Spinal Injury Association, Boston, MA, June 2006. (1) Co-Chair, Spine Trauma Study Group, (2) Keynote Address: Update on Clinical Trials in Spinal Cord Injury: Opportunities for Clinical Translation of Basic Discoveries.

**Fehlings MG:** American Association of Neurological Surgeons, San Francisco, CA, April 2006. (1) Craniovertebral Junction Surgical Approaches: Indications, Techniques, Limitations and Complications, (2) Case Presentation: Trauma to the Craniovertebral Junction, (3) Practical Clinic - Head Trauma: Current Treatments and Controversies with Hands-On Practical Session in Brain Monitoring and Techniques, (4) Repair and Regeneration of the Injured Spinal Cord: Opportunities for Clinical Translation of Basic Science Discoveries, (5) Moderator, Breakfast Seminar: Complications and Outcome Assessment of Lumbar Interbody Fusion, (6) Moderator, Breakfast Seminar: Management and Treatment of Traumatic Spinal Cord Injury.

**Fehlings MG:** 4<sup>th</sup> Annual AOSpine North America Fellows Forum, Banff Springs, AB, March 2006. (1) Friday Keynote Lecture: Evidence Basis and Its Relevance for Today's Spine Surgeon, (2) Treatment of Cervical Spondylotic Myelopathy: What Do We Know, What Is Unclear?

**Fehlings MG:** 4<sup>th</sup> Annual Emerging Technologies in Spine Surgery, Washington, DC, September 2005. (1) Invited talk: Spinal Cord Repair, (2) Moderator: Lumbar Disc: Pain Generators, Diagnostics and Non-Surgical Treatments, (3) Reaction Panel, (4) Moderator: Summary of Case Presentations.

**Fehlings MG:** The AOSpine Interactive Courses, Davos, Switzerland, December 2005. (1) Management of Spinal Cord Injury: Current and Future, (2) Cervical Radiculopathy, (3) Management of Rheumatoid Cervical Spine.

**Fehlings MG:** 8<sup>th</sup> International Neurotrauma Symposium, Rotterdam, The Netherlands, May 2006. (1) Special Program for Ex-Patients and Relatives: Stem Cell Therapy in Neurotrauma, (2) Co-Chair: Genes and Destiny, (3) Co-Chair: Stem Cells and Neurotrophic Factors, (4) Update on Clinical Trials in Spinal Cord Injury.

**Fehlings MG:** Spine Trauma Study Group, Vancouver, BC, January 2006. (1) STASCIS Update, (2) Surgical Treatment Strategies for Spinal Cord Injury.

**Fehlings MG:** National Neurosurgery Conference and Annual Scientific Meeting, Neurosurgical Association of Malaysia, Kuching, Sarawak, May 2006. A. Invited talks: (1) Pathophysiology of Spinal Injury, (2) Imaging in Spinal Injury, (3) Timing in Spinal Operation for Trauma, (4) Electrophysiological Monitoring in Spinal Surgery, (5) Lumbar Spine Degenerative Disease - To Fix or Not To Fix; B. Spine Workshop: (1) Craniovertebral Fixation, (2) C1-C2 Fixation, (3) Odontoid Screw Fixation, (4) Thoracic Discectomy, (5) Thoracolumbar Fixation.

**Fehlings MG:** World Spine III, Rio de Janeiro, Brazil, July 2005. Faculty: Concurrent Symposia: Guidelines for Spinal Cord Injury Clinical Trials.

**Fehlings MG:** Canadian Congress of Neurological Sciences, Montreal, QC, June 2006. Mechanisms of Axonal Dysfunction after Acute and Chronic Traumatic Spinal Cord Injury.

**Fehlings MG:** American Academy of Neurological Surgery, Half Moon Bay, CA, September 2005. Molecular Mechanisms of Spinal Cord Dysfunction and Cell Death in a Mutant Mouse Model of Cervical Myelopathy: Evidence for Fas-Mediated Apoptosis.

**Fehlings MG:** Korean Neuroscience Society, Seoul, Korea, May 2006. New Advances in the Repair and Regeneration of the Injured Spinal Cord - From the Laboratory to Clinical Application.

**Fehlings MG:** AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 22nd Annual Meeting, Lake Buena Vista, FL, March 2006. New Technologies in Spine Surgery: Strategy for Revision of Cervical Arthroplasty.

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**Fehlings MG:** Repairing the Injured Spinal Cord, University Of Alberta, Banff, AB, April 2006. Repair and Regeneration of the Injured Spinal Cord and Opportunities for Clinical Translation of Basic Discoveries.

**Fehlings MG:** Cushing Visiting Professorship, Department of Neurosurgery, Johns Hopkins Hospital, Baltimore, MD, November 2005. Repair and Regeneration of the Injured Spinal Cord: From Molecule to Man.

**Fehlings MG:** Annual Ski with the SpineCenter, Whistler, BC, January 2006. Revision Strategies for Cervical Arthroplasty.

**Fehlings MG:** 7<sup>th</sup> Annual Interventional Neuroradiology Symposium, Toronto, ON, September 2005. Spinal Cord Regeneration Research. Will It Work?

**Fehlings MG:** Spine Journal Focus Group Meeting, Chicago, IL, October 2005. The Timing of Surgical Intervention in the Management of Spinal Trauma.

**Fehlings MG:** University of California Irvine, Irvine, CA, July 2005. Visiting Professor: Spinal Cord Injury Research Techniques Course.

**Fehlings MG:** Annual Orthopedic Spine Conference, Medical College of Georgia, Augusta, GA, February 2006. Visiting Professorship: (1) Repair and Regeneration of the Injured Spinal Cord: From Molecule to Man, (2) Cervical Myelopathy: Current Concepts and Future Directions.

**Fehlings MG:** Cervical Spine Research Society, 10<sup>th</sup> Instructional Course, San Diego, CA, December 2005. What Do You Do With Relatively Asymptomatic Cord Compression?

**Guha A:** Hackensack Medical Centre, Hackensack, NJ, November 2005. Aberrant Signalling Complexes in Human Astrocytomas//invited speaker.

**Guha A:** Toronto Neurological Update: Oct 22, Toronto, ON, October 2005. Entrapment Syndromes.

**Guha A:** University of Rochester: Oct 18-20: Visiting Professor, Rochester, October 2005. Genetically Engineered Murine (GEM) Glioma Models: Progression, Interactions and Gene Discovery Management & Molecular Pathogenesis of Peripheral Nerve Tumors.

**Guha A:** Boston, October 2005. Low Grade Gliomas: Management and Dilemmas: Boston - Oct 10-12.

**Guha A:** Neuroscience in West Bengal, West Bengal, India, November 2005. Molecular Biology of Gliomas and Management of Peripheral Nerve Tumors: Invited speaker.

**Guha A:** Neurofibromatosis Society of Ontario 20<sup>th</sup> Anniversary, Toronto, ON. October 2005. NF1 and NF2: Guest speaker.

**Guha A:** University of Toronto, Toronto, ON, October 2005. Workshop on Modelling in Oncology: Problems & Challenges: Field Institute, University of Toronto: Primary Human Malignant Astrocytoma: An Untamed Tiger.

**Lozano AM:** 5<sup>th</sup> International Congress on Mental Dysfunction in Parkinson's Disease, Department of Neurology, VU University Medical Center, Amsterdam, The Netherlands, June 2006. Invited international speaker: Deep Brain Stimulation for Mood Disorders.

**Lozano AM:** 2<sup>nd</sup> Aegean Meeting on Neurologic Therapeutics, Crete, Greece, May 2006. Invited International Speaker: Functional Neurosurgery to Improve Brain Function.

**Lozano AM:** Federation of European Neuroscience Societies/Hertie Foundation (FENS/Hertie) Winter School, Kitzbuhel, Austria, December 2005. Invited International Speaker: Advances in Surgery For Parkinson's Disease.

**Lozano AM:** Japan Neurosurgical Society 64<sup>th</sup> Annual Meeting, Yokohama, Japan, October 2005. Invited International Speaker. (1) Long-Term Outcome of DBS Surgery for Parkinson's Disease, (2) Deep Brain Stimulation for Treatment-Resistant Depression.

**Lozano AM:** 14<sup>th</sup> Annual Meeting, Rachidian Society, Kona, Hawaii, February 2006. Invited International Speaker: Advances in Functional Neurosurgery.

**Lozano AM:** University of Klinikum Schleswig-Holstein(UKSH), Kiel, Germany, August 2005. Invited International speaker: Deep Brain Stimulation for Depression.

**Lozano AM:** Edmond Safra Foundation. Hebrew University, Jerusalem, March 2006. Invited International Speaker. Parkinson's Disease, the Iceberg Phenomenon, What Lies Beneath the Surface?

**Lozano AM:** Colombia Neurosurgical Association XX Symposium, Cartagena, Columbia, December 2005. Invited International Speaker. Stereotactic and Functional Neurosurgery (1) Psychosurgery – update, (2) Surgical treatment of intractable movement disorders, (3) Surgical treatment of Parkinson’s disease.

**Lozano AM:** United States Army Neurotoxin Exposure Research Program Parkinson’s Disease Focus Session - Strategies for Late Stage Parkinson’s Disease, Bethesda, Maryland, July 2005. Invited International Speaker. Surgical Approaches.

**Lozano AM:** American Academy of Neurological Surgery, Half Moon Bay, San Francisco, California, September 2005. Invited Speaker. Deep Brain Stimulation for Treatment-Resistant Depression.

**Lozano AM:** Congress of Neurological Surgeons 55th Annual Meeting, Boston, Mass, October 2005. Invited Speaker. (1) Moderator of Luchon Seminar # M13, Functional Neurosurgery: Emerging Applications. (2) Moderators AM Lozano, AR Rezai of Section on Stereotactic and Functional Neurosurgery I: Reexamining surgery for psychiatric disorders. (3) Surgery for depression.

**Lozano AM:** 3rd Annual Michael T. Richard Visiting Professorship in Neurosurgery, Ottawa, Ontario, November 2005. Invited Speaker. Frontiers in Neuroscience. Neurosurgery meets psychiatry.

**Lozano AM:** Hispanoforum, Toronto, Ontario, November 2005. Invited Speaker. Improving brain function.

**Lozano AM:** AANS Annual Meeting, San Francisco, April 2006. Moderator, Scientific Session II - Stereotactic and functional microvascular decompression without neurophysiological monitoring in treatment of hemifacial spasm.

**Lozano AM:** World Parkinson’s Congress Update, Washington, DC, February 2006. Speaker, Advances and Challenges in Surgery for Parkinson’s Disease.

**Lozano AM:** Cerebral Neuropathic Pain Symposium, Toronto, ON, June 2006. Speaker: Deep Brain Stimulation for CPSP.

**Lozano AM:** American Society for Stereotactic and Functional Neurosurgery, Boston, MA, June 2006. Speaker: Opportunities and Challenges in Parkinson’s Disease.

**Lozano AM:** American Psychiatric Association 2006 Annual Meeting, Toronto, ON, May 2006. Speaker: Predictors to Deep Brain Stimulation for Treatment Resistant Depression.

**Lozano AM:** Symposium to Honor Professor Donald Calne. University of British Columbia, Vancouver, BC, March 2006. The Sounds of Sadness.

**Lozano AM:** Royal Ottawa Hospital, University of Ottawa, Ottawa, ON, April 2006. Visiting Professor and Public Lecture, Progress in the Treatment of Depression.

**Lozano AM:** Dartmouth-Hitchcock Medical Centre, Section of Neurosurgery, Lebanon, NH, June 2006. Visiting Professor: Neurosurgical Interventions to Improve Brain Function.

**Lozano AM:** Department of Psychiatry, Southwestern University, Dallas, TX, April 2006. Visiting Professor: Surgery for Psychiatric Disorders.

**Tymianski M:** UHN Gene Therapy Meeting, Cambridge, ON, May 2006. “In-Vivo Sirna Knockdown of TRPM7 Protein for Evaluating Neurons Ischemic Vulnerability.” Invited speaker. Langdon Hall.

**Tymianski M:** Weill Medical Center, New York, NY, May 2006. “PSD--95 Inhibitors as A Treatment for Ischemic Brain Damage.” Invited Speaker.

**Tymianski M:** University of Calgary, Calgary, AB, January 2006. “Riding Guanylate Kinases from Bench to Bedside - A Novel Approach to the Treatment pf Stroke.” Invited Speaker.

**Tymianski M:** Division of Neurosurgery, Foothills Medical Center, Calgary, AB, January 2006. “Surgical Treatment of Complex Brain Vascular Lesions: Lessons Learned from the Toronto Brain Vascular Malformation Study Group.” Invited Speaker.

**Tymianski M:** Department of Surgery, University Health Network. Surgical Service Rounds, Toronto, ON, February 2006. Bench to Bedside: Achieving Global Impact the Hard Way.

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**Tymianski M:** Gordon Research Conference on Calcium Signaling, Oxford University, England, July 2005. Ca<sup>2+</sup> Entry and Anoxic Cell Death. Invited speaker.

**Tymianski M:** AANS/ASITN, Orlando, FL, February 2006. Effects of Partial Embolization on Natural History of Hemorrhages from AVMS. Presenter.

**Tymianski M:** Mayo Clinic, Jacksonville, FL, December 2005. Excitotoxic and Non-excitotoxic Mechanisms of Ischemic Brain Damage.

**Tymianski M:** Department of Neurosciences, Brain Research Center, University of Calgary, Calgary, AB, January 2006. From Bench to Bedside: Preclinical Development of Stroke Therapeutics. Visiting Professor.

**Tymianski M:** Canadian Therapeutics Congress 2006, Toronto, ON, May 2006. Neuroprotective Effects of Maguk Inhibitors in Permanent Focal Cerebral Ischemia with Severe Hyperthermia.

**Tymianski M:** Mayo Clinic, Jacksonville, FL, June 2006. Neurosurgical Grand Rounds: "Neuroprotection in Cerebrovascular Surgery." Invited Speaker.

**Tymianski M:** Canadian Stroke Networks Annual General Meeting, Quebec City, QC, September 2005. Poster Judge.

**Tymianski M:** Canadian Stroke Networks Annual General Meeting, Quebec City, QC, September 2005. Presenter: Update on Neuroprotection Using Inhibitors of Protein-Protein Interactions.

**Tymianski M:** Department of Pharmacology, Loyola University Medical Center, Chicago, IL, March 2006. The Road from Bench to Bedside: PSD-95 Inhibitors as Treatments of Neuronal Injury. Invited speaker.

**Tymianski M:** American Heart Association Conference 2006, Kissimmee, FL, February 2006. The Role of PSD Proteins and Non-Selective Cation Channels in Ischemic Neuronal Death. Invited speaker.

**Tymianski M:** Department of Neurosurgery, University of Calgary, Calgary, AB, January 2006. Treatment of Complex Cerebrovascular Lesions. Visiting Professor.

**Wallace MC:** 2<sup>nd</sup> Cerebrovascular Professor's Lecture & Forum, Manila, Philippines, March 2006. (1) Arteriovenous Malformations: Clinical Research from a Multidisciplinary Clinic, (2) Carotid Stenosis: Too Much Focus on How to Treat and Less on When to Treat, (3) Cerebral Hemorrhoids: Much Ado About Nothing?, (4) Dural Fistulae: Clinical Presentation and Importance of Cortical Venous Drainage, (5) Intracranial Aneurysms: Treatment Decision-Making After ISAT, (6) Post-Graduate Training in Cerebrovascular Disease: Key Element in a Stroke Centre.

**Wallace MC:** 17<sup>th</sup> Annual Meeting of the Eastern Neuroradiological Society, Ottawa, ON, August 2005. Cavernous Malformations: Cerebral Hemorrhoids Without Significance?

**Wallace MC:** 9<sup>th</sup> Joint Annual Meeting of the AANS/ CNS and ASITN, Orlando, FL, February 2006. Experience of a North American Center in ISAT.

**Wallace MC:** 55<sup>th</sup> Annual Meeting of the Congress of Neurological Surgeons, Boston, MA, October 2005. Luncheon Seminar: Arteriovenous Malformations: Multimodality Management; Natural history of Arteriovenous Malformations.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

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.)*

AO Spine North America Fellowship Program, 1-Year Merit Award. *Fehlings MG, Massicotte EM, Rampersaud YR, Lewis S: AO Spine North America (\$88,725 2005 - 2006.)*

- AO Spine North America Fellowship Program, 3-Year Merit Award. *Fehlings MG*, Massicotte EM, Rampersaud YR, Lewis S: *AO Spine North America* (\$270,000 2004 - 2007.)
- 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: *AO North America* (\$5,860 2005 - 2006.)
- Cell Signalling in Mucosal Inflammation and Pain - a CIHR Strategic Training Initiative. *Ellen R*, 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, Davis KD, Glogauer M, Salter M, Manolson MF, Jones NL, Sherman P, Ellen R, Kandel R, Casper R, Labow R,: *CIHR strategic training initiative* (\$1,245,906 2002 - 2007.)
- Characterization and Identification of Oncogenic Receptor Protein Tyrosine Kinase Signalling Complexes in Malignant Astrocytomas. *Guha A*, Moran M: *OCRN* (\$110,000 2003 - 2005.)
- Development and Characterization of Transgenic Mouse Models of Astrocytomas. *Guha A*: *NCIC* (\$627,500 2002 - 2007.)
- Development of Mouse Models of Human Astrocytomas. *Guha A*, Gutmann: *NIH* (\$1,341,280 2001 - 2005.)
- Effect of Sleep Deprivation on Resident Surgeon Psychomotor Skills. *Bernstein M*, Woodrow S, Murray B, Dubrowski A, Reznick RK, Hamstra SJ: *PSI* (\$108,000 2004 - 2005.)
- Endogenous and Transplanted Ependymal Region Stem/Progenitor Cells for Regeneration of the Injured Spinal Cord. *Tator CH*: *Physicians Services Incorporated Foundation* (\$148,600 2004 - 2005.)
- 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.)
- Ethical Challenges in the Preparedness and Response for SARS: An Interdisciplinary Research Study. *Upshur REG*, Singer PA, Daar AS, Hawryluck L, Martin DK, Bernstein M, Gold WL, Wilson K, Styra R, Zlotnik SR: *CIHR* (\$194,850 2004 - 2005.)
- 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.)
- Gender Differences in Child Development: Vulnerability to Chronic Pain. *McGrath PA*, Davis KD, Katz J, Brown SC, Geist R: *CIHR* (\$1,478,735 2003 - 2008.)
- 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.)
- Innovative Surgical Technologies In Canada: Developing a Balanced Strategy for Integrating New Surgical Procedures into Sustainable Health Care. *Urbach DR*, Martin DK, Bernstein MA, Lehoux P, McKneally MF, Zlotnik-Shaul R: *CIHR* (\$65,616 2004 - 2006.)
- Investigation and Treatment of Traumatic Axonal Dysfunction After Spinal Cord Injury (MOP-14459.) *Fehlings MG*: *Canadian Institutes of Health Research* (\$392,319 2003 - 2006.)
- Neurophysiologic Studies of Deep Brain Stimulation. *Chen R*, Lang AE, Lozano AM: *Michael J. Fox Foundation* (\$250,000 2004 - 2005.)
- Neurophysiology of Human Subthalamic Nucleus. *Dostrovsky JO*, Hutchison WD, Lozano AM: *CIHR* (\$625,000 2004 - 2009.)
- Neuroprotection After Spinal Cord Injury by Targeting the Fas Receptor. *Fehlings MG*: *The Physicians' Services Incorporated Foundation* (\$140,500 2004 - 2006.)
- New Emerging Team in Spinal Cord Injury Research. *Fehlings MG*: *Krembil Foundation* (\$1,500,000 2006 - 2011.)

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North American Clinical Trials Network for the Treatment of Spinal Cord Injury. *Fehlings M, Tator CH: Christopher Reeve Paralysis Foundation* (\$179,520 2004 - 2005.)

Pain Research from Molecules to Community - Collaborative National Training Program. *Salter MW, Bushnell MC, Choiniere M, Coderre T, Collet J-P, Davis KD, De Koninck Y, Dostrovsky JO, Henry JL, Lavigne G, Mogil JS, Ribeiro-Da-Silva A, Seguela P, Sessle BJ, Stevens B, Wilson-Pauwels L: CIHR Strategic Training Program* (\$1,681,200 2002 - 2007.)

Pathophysiology of Parkinson's Disease. *Chen R, Hutchison WD, Lozano AM: CIHR* (\$625,000 2004 - 2009.)

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.)

Pre-clinical 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.)

Regenerative Medicine Strategies for Spinal Cord Injury Repair: Integration of Stem Cell Biology, Nanotechnology, Bioengineering Approaches and Neurosurgical Application. *Fehlings M, Tator CH: Canadian Institutes of Health Research (CIHR)* (\$1,500,000 2004 - 2009.)

Regenerative Medicine Strategies for Spinal Cord Injury Repair: Integration of Stem Cell Biology, Nanotechnology, Bioengineering Approaches and Neurosurgical Application. *Fehlings MG, Morshead C, Shoichet M, Stanis G, Tator CH, van der Kooy D: Canadian Institutes of Health Research* (\$1,500,000 2004 - 2009.)

Role of Angiopoietins in Human Astrocytomas. *Guha A: NCIC* (\$420,000 2004 - 2007.)

Role of TRP Channels in Anoxic Neuronal Damage. *Tymianski M: CIHR* (\$363,759 2004 - 2007.)

Spatial Summation and Discrimination of Pain in Humans - An fMRI Study. *Davis KD, Defrin R: International Association For The Study of Pain* (\$10,505 2003 - 2005.)

Spinal Cord Repair. *Fehlings M, Morshead C, Tator CH, Shoichet MS, van der Kooy, D: McLaughlin Centre for Molecular Medicine* (\$150,000 2004 - 2005.)

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 Role of Lipid Rafts in Ischemia-Induced Modulation of Postsynaptic Signalling. *Gurd JW, Wallace MC: Heart and Stroke Foundation of Ontario* (\$126,000 2004 - 2006.)

The Role of the P75 Neurotrophin Receptor in the Death of Neurons and Glia After Spinal Cord Injury. *Fehlings, MG: North American Spine Society* (\$115,986 2003 - 2005.)

The Role of TRP Channels in the Cellular Mechanism of Stroke and Aging. *Tymianski M, MacDonald JF: CIHR* (\$750,000 2004 - 2009.)

The Secret Life of the Paranode: An Examination of the Role of Paranodal Myelin Loops in the Normal Physiology and Pathophysiology of Axons. *Mills L, Fehlings MG, Velumian AA: Toronto Western Research Institute* (\$60,000 2005 - 2006.)

Therapeutic Hopes and Ethical Concerns: Clinical Research in the Neurosciences. *Baylis F, Bernstein M, Fine A, Kimmelman J, Reid L: CIHR* (\$604,032 2005 - 2009.)

Transforming Neuropathic Pain Research in Canada. *Salter MW, Davis KD, De Koninck Y, Mogil J, Zhuo M, Kapur S: Neuroscience Canada* (\$1,500,000 2004 - 2007.)

Transplantation of Human Adult Spinal Cord Ependymal Stem/Progenitor Cells in Spinal Cord Injury. *Tator C: Christopher Reeve Paralysis Foundation* (\$194,083 2004 - 2006.)

## Honours Received

**Davis KD:** Canada Research Chair, January 2006.

**Lozano AM:** Elected President, World Society for Stereotactic and Functional Neurosurgery, July 2005.

**Tymianski M:** Ontario Ministry of Health and Innovation. Early Researcher Award, January 2006.

**Wallace MC:** Wightman-Berris Academy Individual Teaching Award, May 2006.

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## **DIVISION OF ORTHOPAEDIC SURGERY**

**Dr. J.R. Davey - Associate Professor (Division Head)**

**Dr. B.A. Graham – Assistant Professor**

**Dr. J. Lau – Assistant Professor**

**Dr. S.J. Lewis – Assistant Professor**

**Dr. 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 MR, Lee JY, Arnold P, Harrop JS, Ratlif J, Rampersaud YR, Bono CM, Spine Trauma Study Group:** Evolution of Thoracolumbar Trauma Classification Systems: Assessing the Conflict Between Mechanism and Morphology of Injury. *Topics in Spinal Cord Injury Rehabilitation*: June 2006: 12: pp 70-78.

**Barrett J, Losina E, Baron JA, Mahomed NN, Wright J, Katz JN:** Survival Following Total Hip Replacement. *Journal of Bone and Joint Surgery (American)*: August 2005: 87: pp 1222-1228.

**Brull R, McCartney CJ, Chan VW, Abbas S, Nova H, von Schroeder HP, Katz J:** Effect of Transarterial Axillary Block Versus General Anesthesia on Paresthesiae One Year After Hand Surgery. *Anesthesiology*: November 2005: 103: pp 1104-1105.

**Dvorak MF, Collins JB, Murnaghan L, Fisher C, Fehlings MF, Fox R, Hedden D, Rampersaud YR, Bouchard J, Hurlbert J:** Confidence in Spine Training Among Senior Neurosurgical and Orthopaedic Residents. *Spine*: June 2006: 31: pp 831-837.

**Gammon B, Orner A, Sue S, Fung S, Metha B, Wang C, von Schroeder HP:** Orthopaedics. In: *The Toronto Notes TTNMS Inc.*, Toronto: 2006: pp OR 1-45.

**Harrop J, Hulbert J, Vaccaro A, Fisher C, Oner FC, Wood K, Anand N, Baron E, Wilsey J, Shaffrey C, Fehlings M, Bono C, Arnold P, Rampersaud R:** Intra- and Inter-Rater Reliability and Validity of Assessing the Mechanism of Injury and Integrity of the Posterior Ligamentous Complex with a Novel Injury Severity Scoring System for Thoracolumbar Injuries. *Journal of Neurosurgical Spine*: February 2006: 4: pp 118-22.

**Henderson WB, Lau J:** Reconstruction of Failed Ankle Fractures. *Foot and Ankle Clinics*: March 2006: 11: pp 51-60.

**Israelowitz M, Rizvi SW, Kramer J, von Schroeder HP:** Computational Modeling of Type I Collagen Fibers to Determine Extra Cellular Matrix Structure of Connective Tissues. *Protein Engineering, Design and Selection*: July 2005: 18(July): pp 329-35.

**Keynan O, Fisher C, Vaccaro A, Oner FC, Dietz J, Kwon B, Rampersaud R, Bono C, Dvorak M:** Radiographic Measurement Parameters in Thoracolumbar Fractures. *Spine*: March 2006: 31: pp E156-65.

**Levi AD, Hurlbert RJ, Anderson P, Fehlings MG, Rampersaud YR, Massicotte EM, France JC, Le Huec JC, Hedlund R, Arnold P:** Neurological Deterioration Secondary to Unrecognized Spinal Instability Following Trauma: A Multi-Center Study. *Spine*: February 2006: 31: pp 451-458.

**Losina L, Plerhoples T, Fossel AH, Mahomed NN, Barrett J, Creel AH, Wright EA, Katz JN:** Offering Patients the Opportunity to Choose their Hospital for Total Knee Replacement: Impact on Satisfaction with the Surgery. *Arthritis and Rheumatism*: October 2005: 53 Issue 5: pp 646-652.

**Osman I, Bajorin DF, Sun T'T, Zhong H, Douglas D, Scattergood J, Zheng R, Han M, Marshall KW, Liew CC:** Novel Blood Biomarkers of Human Urinary Bladder Cancer. *Clinal Cancer Research*: May 2006: 12(11): pp 3374-3380.

**Petrisor B, Lau J:** Electrical Bone Stimulation: An Overview of Its Use in High Risk and Charcot Foot and Ankle Reconstruction. *Foot and Ankle Clinics*: December 2005: 10(4): pp 609-620.



**Qu G, von Schroeder HP:** Role of Osterix in Endothelin-1-Induced Downregulation of Vascular Endothelial Growth Factor in Osteoblastic Cells. *Bone*: January 2006: 38(Jan): pp 21-29.

**Rampersaud YR, Anand N, Dekutoski MB:** Use of Minimally Invasive Surgical Techniques in the Management of Thoracolumbar Trauma: Current Concepts. *Spine*: May 2006: 31: pp S96-104.

**Rampersaud YR, Fehlings MG, Harrop JS, Kuklo TR, Massicotte EM, Salonen D, Shaffrey SI, Vaccaro AR:** Validation of Digital Radiology Measurement Tools for Quantitative Spinal Imaging. *Topics in Spinal Cord Injury Rehabilitation*: June 2006: 12: pp 11-21.

**Rampersaud YR, Foley KT:** Virtual Fluoroscopy: Overview and Future Implications. In: *In Progress in Neurological Surgery-Advances in Spinal Stabilization* (Haig RW, Subach BR, Rodts GE, eds.) Karger, Basel: 2005:

**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 Based on Evidence- Based Protocols. *Spine*: June 2006: 31: pp 1503-1510.

**Rampersaud R, Stas V, Khattab N, Zhang S, Davey R, Lewis S; Mohammed N:** Postoperative Change in Quality of Life: A Comparison Between Primary Hip Osteoarthritis and Spinal Stenosis. *The Spine Journal*: July 2005: 5 Issue 4: pp S94.

**Syed KA, Mahomed NN:** Can Magnetic Resonance Imaging of the Knee Predict Future Malalignment? *Journal of Rheumatology*: November 2005: 32: NO. 11: pp 2070-2071.

**Weyand B, von Schroeder HP:** Bone Challenges for the Hand Surgeon - From Basic Bone Biology to Future Clinical Applications. *Clinics in Plastic Surgery*: October 2005: 32(Oct): pp 537-547.

## Invited Visits to Other Hospitals/Universities

**Davey JR:** Contemporary and Future Concepts of Orthopaedics. Fairmont Chateau Whistler, MacDonald Ballroom, Whistler, BC, February 2006. (1) Approaches for Total Hip - MIS THA, (2) Stability - Optimizing Range of Movement in Primary TKA.

**Davey JR:** Annual Winter Meeting, Cairns, Australia, July 2005. (1) Cemented Total Hip Arthroplasty, (2) Soft Tissue Balancing Total Hip Arthroplasty, (3) Total Knee Post High Tibial Osteotomy, (4) Posterior Cruciate Ligament Save or Sacrifice.

**Davey JR:** Triathlon Total Knee Launch Meeting, Woodbridge, ON, July 2005. (1) Femoral Sizing in Total Knee Arthroplasty, (2) Underside Wear on Tibial Component.

**Davey JR:** Emerging Trends and Controversies in Hip and Knee Arthroplasty, Whistler, BC, February 2006. (1) Long-Term Results of HA in Primary THA, (2) Importance of Femoral Offset. (3) Cemented Femoral Stems, (4) The Posterior Cruciate Ligament: Save It or Let It Fly, (5) TKA After HTO.

**Davey JR:** Surgical Advances in Total Hip and Knee, Mount Tremblant, QC, August 2005. (1) TKA - Better Than The Rest, (2) Revision Total Knee - Approach Options, (3) Modularity in Revision Total Hip Arthroplasty - Pros and Cons.

**Davey JR:** The Estates of Sunnybrook, Zimmer, Toronto, ON, November 2005. Biomechanical Hip Reconstruction: How To Improve Our Patient Function.

**Davey JR:** Hip Surgery in the Young Adult II Course, Banff, AB, January 2006. Metal on Metal Total Hip Replacement.

**Davey JR:** Townsville Orthopaedic Society, Townsville, Australia, July 2005. Soft Tissue Balancing Total Hip Arthroplasty.

**Lau JTC:** Canadian Orthopaedic Society of Technologists, Toronto, ON, April 2006. Ankle Fusion vs. arthroplasty.

**Lau JTC:** WSIB, Toronto, ON, February 2006. Crush Injuries of the Foot: A Multidisciplinary Approach.

**Lau JTC:** AOA-North American Traveling Fellowship, Seattle, WA, October 2005. Results of an Internet Survey Determining the Most Frequently Used Ankle Scores by the American Orthopaedic Foot and Ankle Society Members.

**Lau JTC:** AOA-North American Traveling Fellowship, San Diego, CA, October 2005. Results of an Internet Survey Determining the Most Frequently Used Ankle Scores by the American Orthopaedic Foot and Ankle Society Members.

**Lau JTC:** AOA-North American Traveling Fellowship, Salt Lake City, UT, October 2005. Results of an Internet Survey Determining the Most Frequently Used Ankle Scores by the American Orthopaedic Foot and Ankle Society Members.

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**Lau JTC:** AOA-North American Traveling Fellowship, Saskatoon, SK, October 2005. (1) The Effect of Different Geometric Configurations of the Weil Osteotomy on Plantar Pressure in an In Vitro Cadaver Model, (2) The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension In A Surgically Created Pes Planus Foot.

**Lau JTC:** AOA-North American Traveling Fellowship, Sacramento, CA, October 2005. The Effect of Different Geometric Configurations of the Weil Osteotomy on Plantar Pressure in an In Vitro Cadaver Model.

**Lau JTC:** AOA-North American Traveling Fellowship, Calgary, AB, September 2005. The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension in a Surgically Created Pes Planus Foot.

**Lau JTC:** AOA-North American Traveling Fellowship, Vancouver, BC, October 2005. The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension in A Surgically Created Pes Planus Foot.

**Lau JTC:** AOA-North American Traveling Fellowship, Portland, OR, October 2005. The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension in a Surgically Created Pes Planus Foot.

**Lau JTC:** AOA-North American Traveling Fellowship, Palo Alto, CA, October 2005. The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension in a Surgically Created Pes Planus Foot.

**Lau JTC:** AOA-North American Traveling Fellowship, Albuquerque, New Mexico, October 2005. The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension in a Surgically Created Pes Planus Foot.

**Lau JTC:** AOA-North American Traveling Fellowship, Denver, CO, October 2005. The Effect of Tarsal Tunnel Release and Stabilization Procedures on Tibial Nerve Tension in a Surgically Created Pes Planus Foot.

**Mahomed NN:** Ontario Orthopaedic Association, Toronto, ON, November 2005. (1) RCT of Inpatient vs. Home Based Rehab Post TJR, (2) The Shortage of Orthopaedic Manpower in Ontario, (3) Total Joint Network: An Integrated Model of Care for TJR.

**Ogilvie-Harris DJ:** Iranian Orthopedic Association, Iran, November 2005. Arthroscopic Shoulder Surgery.

**Ogilvie-Harris DJ:** West Indies Olympic Association, Barbados, July 2005. Sports Injury Management.

**Rampersaud YR:** Instructional Spine Course and Workshop - Cleveland Clinic and Pan Arab Orthopaedic Society, Cleveland, OH, December 2005. (1) Dorsal Cervical Fixation, (2) Lumbo-sacral-pelvic fixation techniques, (3) Minimally Invasive Procedures: Indications and Techniques, (4) Non-Operative Management of Spinal Disorders, (5) Pedicle Screw Techniques, ALIF, PLIF, and TLIF, (6) Spinal Infection Management Strategies.

**Rampersaud YR:** Eurospine Annual Meeting, Barcelona, Spain, September 2005. Minimally Invasive Spine Symposium: Role of Computer-Assisted Surgery in MIS Spine Surgery.

**Rampersaud YR:** Cleveland Spine Review, Cleveland Clinic, Cleveland, OH, July 2005. (1) Minimally Invasive Surgery: Results, Tricks and Pearls, (2) Motion Preservation Techniques.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

An Integrated Model of Care for Total Joint Replacements. *Mahomed N, Davis A: Ontario Ministry of Health and Longterm Care (\$700,000 2005 - 2007.)*

A Randomized Controlled Clinical Trial of 1<sup>st</sup> MTPJ Arthrodesis Compared to 1<sup>st</sup> MTPJ Hemiarthroplasty in Severe Hallux Rigidus. *Lau J, Daniels T, Mahomed N: Physician Service Incorporated (\$73,000 2004 - 2006.)*

A Randomized Controlled Trial of 1<sup>st</sup> MTPJ Fusion Compared to 1<sup>st</sup> MTPJ Hemiarthroplasty in Severe Hallux Rigidus. *Lau J, Daniels T: American Orthopaedic Foot and Ankle Society (\$10,000 2005 - 2006.)*

Cell-based VEGF Gene Transfer to Promote Fracture Healing. *Schemitsch E, Stewart D, von Schroeder H, Li R: Zimmer of Canada (\$10,000 2005 - 2006.)*

Cell-Based VEGF Gene Transfer to Promote Fracture Healing. *Schemitsch EH, Li R, Stewart DJ, von Schroeder HP: The Physicians Services Incorporated Foundation (PSIF) (\$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 (Matching funds from University Health Network and IWH) (\$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 Institute of Health Research (\$1,495,170 2004 - 2009.)*

Evaluating the International Classification of Function as a Model for Evaluating Rehabilitation Outcomes. *Davis A, Badley E, Gignac M, Beaton D, Mahomed N, Streiner D, Flannery J, Schemitsch E: Canadian Institute of Health Research (\$75,000 2003 - 2006.)*

Optimizing In Vitro Osteogenesis: Applications Towards the Study of Scaphoid Fracture Non-Unions. *von Schroeder HP: Manus Canada (\$2,500 2004 - 2006.)*

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 (\$624,224 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 (\$284,640 2005 - 2010.)*

The Effect of Hospital and Surgeon Procedure Volume on the Outcomes of Primary and Revision Total Knee Replacement: Magnitude and Mechanisms. *Katz JN, Baron J, Mahomed NN, Liang M, Barrett J, Guadiganoli E, Daltroy L: National Institutes of Health (\$1,500,000 2001 - 2006.)*

The Biology of Scaphoid Fracture Non-Unions. *von Schroeder HP: The Physicians' Services Incorporated Foundation (\$121,000 2004 - 2006.)*

## Honours Received

**Rampersaud YR:** Robert B. Salter Award for Excellence in Teaching, November 2005.

**von Schroeder HP:** Best Scientific Paper: Li R, Stewart D, von Schroeder HP, Schemitsch EH: Cell--Based VEGF Transfer to Promote Fracture Healing. 10<sup>th</sup> Conference of the International Society for Fracture Repair, Adelaide, Australia, May 2006.

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## **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. J.E. Lipa - Assistant Professor**

**Dr. R.T. Manktelow - Professor**

**Dr. P.C. Neligan - Professor (Division Head)**

**Dr. H.P. von Schroeder – Associate Professor**

## **Publications**

**Anastakis DJ, Chen R, Davis K, Mikulis D:** Cortical Plasticity Following Upper Extremity Injury and Reconstruction. *Clinics of Plastic Surgery*: October 2005: 32: pp 617-634.

**Blondeel PN, Morris SF, Hallock GG, Neligan PC:** *Perforator Flaps, Anatomy, Technique and Clinical Applications (Two Volumes)* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, eds.) Quality Medical Publications Inc., St. Louis: 2006:

**Blondeel PN, Morris SF, Hallock GG, Neligan PC:** Closing Thoughts. In: *Perforator Flaps: Anatomy, Technique and Clinical Applications* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, eds.) Quality Medical Publishing, St. Louis: 2006: pp 1041-1044.

**Blondeel PN, Neligan PC:** Avoiding Complications. In: *Perforator Flaps: Anatomy, Technique and Clinical Applications* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, eds.) Quality Medical Publishing, St. Louis, MO: 2006: pp 102-107.

**Blondeel PN, Neligan PC:** Complications: Avoidance and Treatment. In: *Perforator Flaps: Anatomy, Technique and Clinical Applications* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, eds.) Quality Medical Publishing, St. Louis: 2006: pp 115-128.

**Brull R, McCartney CJ, Chan VW, Abbas S, Nova H, von Schroeder HP, Katz J:** Effect of Transarterial Axillary Block Versus General Anesthesia on Paresthesiae One Year After Hand Surgery. *Anesthesiology*: November 2005: 103: pp 1104-1105.

**Clark JR, de Almeida J, Gilbert R, Irish J, Brown D, Neligan PC, Gullane PJ:** Primary and Salvage (Hypo) Pharyngectomy: Analysis and Outcome. *Head & Neck*: May 2006: epub.

**Clark JR, Gilbert R, Irish J, Brown D, Neligan PC, Gullane PJ:** Morbidity After Flap Reconstruction of Hypopharyngeal Defects. *Laryngoscope*: February 2006: 116: pp 173-181.

**Daniels TR, Thomas R, Bell TH, Neligan PC:** Functional Outcome of the Foot and Ankle After Free Fibular Graft. *Foot & Ankle International*: August 2005: 26: pp 597-601.

**Di Marco C, Cowan D, Bray P, Covvey D, Di Ciccio V, Hovy E, Lipa J, Mulholland D:** A Physician's Authoring Tool for Generation of Personalized Health Education in Reconstructive Surgery. *The American Association for Artificial Intelligence 2006 Spring Symposium Series: Argumentation for Consumers of Healthcare* Palo Alto, CA: 2006.

**Dvali LT, Graham B, Regehr G, Wright JG:** Variations in Diagnostic Criteria for Carpal Tunnel Syndrome Among Ontario Specialists. *American Journal of Industrial Medicine*: January 2006: 49(1): pp 8-13.

**Evans GRD, Neligan PC, Orgill DP, Pribaz JJ:** Roundtable Discussion with the Experts. In: *Roumdtables in Plastic Surgery* Quality Medical Publishers, St. Louis: 2006: pp 23-39.

**Gammon B, Orner A, Sue S, Fung S, Metha B, Wang C, von Schroeder HP:** Orthopaedics. In: *The Toronto Notes TTNMS Inc.*, Toronto: 2006: pp OR 1-45.

**Gilbert RW, Neligan PC:** Microsurgical Laryngotracheal Reconstruction. *Clinical Plastic Surgery*: July 2005: 32: pp 293-301.

**Gullane PG, Lipa JE, Novak CB, Neligan PC:** Reconstruction of Skull Base Defects. *Clinical Plastic Surgery*: July 2005: 32: pp 391-9.

- Huang N, Khan A, Ashrafpour H, Neligan PC, Forrest CR, Kontos CD, Pang CY:** Efficacy and Mechanism of Adenovirus-Mediated VEGF165 Gene Therapy for Augmentation of Skin Flap Viability. *Am J Physiol Heart Circ Physiol*: February 2006: 391: pp 127-137.
- Israelowitz M, Rizvi SW, Kramer J, von Schroeder HP:** Computational Modeling of Type I Collagen Fibers to Determine Extra Cellular Matrix Structure of Connective Tissues. *Protein Engineering, Design and Selection*: July 2005: 18(July): pp 329-35.
- Lipa JE:** Posterior Thigh Perforator Flaps. In: *Perforator Flaps: Anatomy, Technique & Clinical Applications* (Blondeel PN, Morris S, Hallock GG, Neligan PC, eds.) Quality Medical Publishing, Inc., St. Louis, MO: 2006: pp 597-615.
- Lipa JE, Novak CB, Binhammer PA:** Patient-Reported Donor-Site Morbidity Following An Anterolateral Thigh Free Flap. *Journal of Reconstructive Microsurgery*: August 2005: 21(6): pp 365-370.
- Manktelow RT, Neligan PC:** Discussion: Autogenous Fascialata Grafts: Clinical Applications in Reanimation of the Paralyzed Face. *Plastic and Reconstructive Surgery*: July 2005: 116: pp 33-35.
- Morain W, Hallock GG, Neligan PC:** Internal Mammary Artery Perforator Flap (IMAP.) In: *Perforator Flaps: Anatomy, Technique and Clinical Applications* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, Eds.) Quality Medical Publishing, St. Louis: 2006: pp 429-439.
- Moses MA, Addison PD, Neligan PC, Ashrafpour H, Huang N, McAllister SE, Lipa JE, Forrest CR, Pang CY:** Inducing Late Phase of Infarct Protection in Skeletal Muscle by Remote Preconditioning: Efficacy and Mechanism. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*: December 2005: 289(6): pp R1609-1617.
- Neligan PC:** Resurfacing the Nasomaxillary Cavity for Management of Epistaxis in Osler-Rendu-Weber Disease. *British Journal of Plastic Surgery*: December 2005: epub.
- Neligan PC:** Aprotinin: Role in Minimizing Perioperative Blood Loss. *Plastic and Reconstructive Surgery*: July 2005: 116: pp 324-327.
- Neligan PC:** Microcirculation in DIEP flaps: A Study of the Haemodynamics Using Laser Doppler Flowmetry and Lightguide Reflectance Spectrophotometry. *J Plast Reconstr Aesthet Surg*: February 2006: 59: pp 613.
- Neligan PC:** Perforator Flaps: Overview, Classification and Nomenclature. In: *Perforator Flaps: Anatomy, Technique and Clinical Applications* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, eds.) Quality Medical Publishing, St. Louis: 2006: pp 37-52.
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- Neligan PC, Lipa JE:** Perforator Flaps in Head and Neck Reconstruction. In: *Seminars in Plastic Surgery - Issue 02 - Perforator Flaps* (Spiegel A, ed.) Thieme, New York: 2006: pp 56-63.
- Neligan PC, Morris SF:** Perforator Flaps for Breast Reconstruction. In: *Plastic Surgery, Trunk and Lower Extremity* (Vincent R. Hentz, ed.) Saunders Elsevier, Philadelphia: 2005: pp 1039-1052.
- Pang CY, Neligan PC:** Flap Physiology. In: *Perforator Flaps: Anatomy, Technique and Clinical Applications* (Blondeel PN, Morris SF, Hallock GG, Neligan PC, eds.) Quality Medical Publishing, St. Louis: 2006: pp 69-89.
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- Razzaghi A, Anastakis DJ:** Lipofibromatous Hamartoma; Review of Early Diagnosis and Treatment. *Canadian Journal of Surgery*: October 2005: 48 (5): pp 394-399.
- Scheer A, Novak CB, Lipa JE, Neligan PC:** Complications Associated with Breast Reconstruction Using a Perforator Flap Compared to a TRAM Flap. *Annals of Plastic Surgery*: April 2006: 56(4): pp 355-358.
- Smeele LE, Goldstein D, Tsai V, Gullane PJ, Neligan PC, Brown DH, Irish JC:** Morbidity and Cost Differences Between Free Flap Reconstruction and Pedicled Flap Reconstruction in Oral and Oropharyngeal Cancer: Matched Control Study. *J Otolaryngol*: March 2006: 35: pp 102-107.
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- Weyand B, von Schroeder HP:** Bone Challenges for the Hand Surgeon - From Basic Bone Biology to Future Clinical Applications. *Clinics in Plastic Surgery*: October 2005: 32(Oct): pp 537-547.

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## Invited Visits to Other Hospitals/Universities

**Anastakis DJ:** 36<sup>th</sup> Annual Meeting, American Association for Hand Surgery, Tucson, AZ, January 2006. AAHS/ASPN/ASRM Instructional Course Moderator. Nerve Gap.

**Anastakis DJ:** American College of Surgeons 91<sup>st</sup> Annual Clinical Congress, Association for Surgical Education, San Francisco, CA, October 2005. (1) Post Graduate Education: SERF Workshop Course Instructor, (2) Resistance to Change in Surgical Residency: An Ethnographic Study of Work Hours Reform.

**Anastakis DJ:** Association for Surgical Education. 2006 Surgical Education Week, Tucson, AZ, March 2006. What's New in Surgical Education. Cortical Plasticity - What You Need To Know When Teaching Surgeons New Tricks.

**Dvali LT:** American Association Hand Surgery, Tucson, AZ, January 2006. Bridging the Nerve Gap: Nerve Transfers.

**Neligan PC:** Northwest Society of Plastic Surgeons, Whistler, BC, February 2006. (1) Local Flaps in Head and Neck Reconstruction, (2) The Role of Pedicled Perforator Flaps, (3) Perforator Flaps in Breast Reconstruction, (4) Avoiding Complications In Reconstructive Surgery.

**Neligan PC:** British Virgin Islands Symposium in Plastic Surgery, BVI, January 2006. (1) Local Flaps in Head and Neck Reconstruction, (2) Intra-Operative Decision Making In Perforator Flap Breast Reconstruction, (3) Applying Craniofacial Principles in Microvascular Head and Neck Reconstruction.

**Neligan PC:** American Society for Reconstructive Microsurgery, Tucson, AZ, January 2006. (1) Reconstructive Options and Outcomes in Primary versus Secondary Mandibular Reconstruction, (2) Free Flap Donor Site Preference: A Surrogate Study, (3) The IMAP Flap - A New Option for Head and Neck Reconstruction, (4) Moderator: Prefabrication of a Free Fibula Flap by Distraction Osteogenesis for Mandibular Reconstruction, (5) Panel: Moderator - Craniofacial Surgery and Microsurgery: When Titans Collide.

**Neligan PC:** Perforator Flap Course, Barcelona, Spain, October 2005. (1) Terminology and Nomenclature, (2) Flap Physiology, (3) Round Table: Perforator Flaps in Aesthetic Surgery, (4) Expert Lecture: Perforator Flaps in the Head and Neck, (5) Live Surgery: DIEP Flap Breast Reconstruction.

**Neligan PC:** Canadian Society of Plastic Surgeons, Quebec City, QC, June 2006. Canadian Expert Series: Technical Refinements that Make Head and Neck Cancer Reconstruction Easier and Better in My Hands.

**Neligan PC:** Duke University, Durham, NC, August 2005. Head and Neck Dissections.

**Neligan PC:** American Society of Plastic Surgeons, Chicago, IL, September 2005. Instructional Course: Lip Reconstruction Following Tumor Ablation.

**Neligan PC:** III Congress of World Society for Reconstructive Microsurgery, Buenos Aires, Argentina, October 2005. Panel Head and Neck Reconstruction: (1) Panel Moderator, (2) Perforator Flaps in Head and Neck Reconstruction.

**Neligan PC:** North American Skull Base Society, Phoenix, AZ, February 2006. Panel Moderator: Reconstruction in the Skull Base: Current Techniques in Future Challenges.

**Neligan PC:** International Federation of Head and Neck Oncologic Societies (IFHNOS), Prague, Czech Republic, June 2006. Panel: Reconstructive Surgery: Tongue Reconstruction.

**Neligan PC:** Saudi Commission for Health Specialties, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia, November 2005. Visiting Professor: (1) External Examiner, Saudi Plastic Surgery Board Examiner, (2) Lecture: Management of Complex Wounds, (3) The Role of Perforator Flaps in Reconstructive Surgery, (4) The Changing Face of Microvascular Reconstruction, (5) Managing Complications in Reconstructive Surgery.

**Neligan PC:** Saudi Commission for Health Specialties, Riyadh, Saudi Arabia, November 2005. Visiting Professor: (1) External Examiner: Saudi Plastic Surgery Board Examination, (2) Lecture: Management of Complex Wounds, Security Forces Hospital, Riyadh, (3) The Role of Perforator Flaps in Reconstructive Surgery, (4) Changing Face of Microvascular Reconstruction, (5) Managing Complications in Reconstructive Surgery, King Faisal Specialist Hospital and Research Centre.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

Cell-based VEGF Gene Transfer to Promote Fracture Healing. *Schemitsch E, Stewart D, von Schroeder H, Li R: Zimmer of Canada* (\$10,000 2005 - 2006.)

Cell-based VEGF Gene Transfer to Promote Fracture Healing. *Schemitsch EH, Li R, Stewart DJ, von Schroeder HP: The Physicians Services Incorporated Foundation (PSIF)* (\$86,000 2005 - 2006.)

Global Protection of Skeletal Muscle Against Ischemic Necrosis and Vascular Dysfunction by Non-Invasive Remote Ischemic Preconditioning: Efficacy and Mechanism. *Pang, CY, Forrest CR, Neligan, PC: Canadian Institutes for Health Research* (\$72,648 2003 - 2006.)

Head and Neck Cancer Research. *Neligan PC, Gullane PJ: RE Wharton Esq* (\$1,200,000 2002 - 2012.)

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. *DiMarco C, Bray PW, Covvey D, Cowan D, DiCiccio V, Hovy E, Lipa J: Bell University Labs* (\$140,000 2005 - 2007.)

Natural Language Generation Tools and Methodologies for Creation of Personalized Health Education. *DiMarco C, Cowan DD, Covvey HDJ, DiCiccio V, Bray PW, Lipa JE: Natural Sciences and Engineering Research Council of Canada* (\$100,000 2005 - 2007.)

Optimizing In Vitro Osteogenesis: Applications Towards the Study of Scaphoid Fracture Non-Unions. *von Schroeder HP: Manus Canada* (\$2,500 2004 - 2006.)

Perioperative Protection and Postischemic Salvage of Skeletal Muscle from Ischemia/Reperfusion Injury. *Neligan PC, Pang CY: Canadian Institutes for Health Research* (\$280,035 2006 - 2009.)

The Biology of Scaphoid Fracture Non-Unions. *von Schroeder HP: The Physicians' Services Incorporated Foundation* (\$121,000 2004 - 2006.)

Skin Flap Ischemia: Pathophysiology and Pharmacological intervention. *Pang CY, Neligan PC: CIHR* (\$402,800 2001 - 2006.)

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

**Neligan PC:** American Head and Neck Society, April 2006.

**Neligan PC:** W.K. Lindsay Research Supervisor Award, University of Toronto, April 2006.

**von Schroeder HP:** Best Scientific Paper: Li R, Stewart D, von Schroeder HP, Schemitsch EH: Cell--Based VEGF Transfer to Promote Fracture Healing. 10<sup>th</sup> Conference of the International Society for Fracture Repair, Adelaide, Australia, May 2006.

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## **DIVISION OF THORACIC SURGERY**

**Dr. G.E. Darling - Associate Professor**

**Dr. M. de Perrot - Assistant Professor**

**Dr. M.R. Johnston - Professor**

**Dr. S. Keshavjee – Professor (Division Head)**

**Dr. M. Liu - Associate Professor**

**Dr. M.F. McKneally - Professor**

**Dr. A.F. Pierre - Assistant Professor**

**Dr. T.K. Waddell - Associate Professor**

## **Publications**

**Alam N, Darling GE, Shepherd FA, Mackay JA, Evans WK, Lung Cancer Disease Site Group of Cancer Care Ontario Program in Evidence-Based Care:** Adjuvant Chemotherapy for Completely Resected Non-Small Cell Lung Cancer: A Systematic Review. *Critical Reviews in Oncology/Hematology*: April 2006: 58(2): pp 146-155.

**Alam N, Darling G, Shepherd F, Mackay J, Evans B, Lung Cancer Disease Site Group of Cancer Care Ontario Program in Evidence-Based Care:** Post-Operative Chemotherapy in Non-Small Cell Lung Cancer: A Systematic Review. *Annals of Thoracic Surgery*: May 2006: 81(5): pp 1926-1936.

**Carolan H, Sun AY, Bezjak A, Yi QL, Payne D, Kane G, Waldron J, Leigh N, Feld R, Burkes R, Keshavjee S, Shepherd F:** Does the Incidence and Outcome of Brain Metastases in Locally Advanced Non-Small Cell Lung Cancer Justify Prophylactic Cranial Irradiation or Early Detection? *Lung Cancer*: July 2005: pp 109-115.

**Chen W, Zhou D, Torrealba JR, Waddell TK, Grant D, Zhang L:** In Vivo Regulation of Xeno-Reactive CD4+ T Cell Function by Double Negative Regulatory T Cells. *Journal of Immunology*: September 2005: 175: pp 3409-1346.

**Christie JD, Van Raemdonck D, de Perrot M, Barr M, Keshavjee S, Arcasoy S, Orens J, ISHLT Working Group on Primary Lung Graft Dysfunction:** Report of the ISHLT Working Group on Primary Lung Graft Dysfunction - Part I: Introduction and Methods. *Journal of Heart Lung Transplantation*: October 2005: 24(10): pp 1451-3.

**de Perrot M, Keshavjee S:** Video-assisted trans-cervical thymectomy. *Operative Techniques in Thoracic and Cardiovascular Surgery*: November 2005: 3: pp 220-230.

**D'Ovidio F, Mura M, Risdale R, Takashi H, Waddell TK, Hutcheon M, Hadjiliadis D, Singer L, Pierre A, Chaparro C, Gutierrez C, Miller L, Darling G, Liu M, Post M, Keshavjee S:** Prevalence of Gastro-Esophageal Reflux Disease within End Stage Lung Disease Patients Candidates for Lung Transplantation. *Annals of Thoracic Surgery*: October 2005: 80: pp 1254-1260.

**Dutly AE, Kugathasan L, Trogadis J, Keshavjee S, Stewart DJ, Courtman DW:** Fluorescent Microangiography (FMA): An Improved Tool to Visualize the Pulmonary Microvasculature. *Laboratory Investigation*: April 2006: 86(4): pp 409-416.

**Feld R, Sridhar SS, Shepherd FA, Mackay JA, Evans WK, Lung Cancer Disease Site Group of Cancer Care Ontario Program in Evidence-Based Care:** Use of the Epidermal Growth Factor Receptor Inhibitors, Gefitinib and Erlotinib, in the Treatment of Non-Small Cell Lung Cancer: A Systematic Review. *Journal of Thoracic Oncology*: May 2006: 1(4): pp 367-376.

**Hadjiliadis D, Chaparro C, Reinsmoen NL, Gutierrez C, Singer LG, Steele MP, Waddell TK, Davis RD, Hutcheon MA, Palmer SM, Keshavjee S:** Pre-Transplant Panel Reactive Antibody in Lung Transplant Recipients is Associated with Significantly Worse Post Transplant Survival in a Multicenter Study. *Journal of Heart and Lung Transplantation*: July 2005: 24(7): pp S249-254.

**Hadjiliadis D, Chapparro C, Gutierrez C, Steele MP, Singer LG, Davis RD, Waddell TK, Hutcheon MA, Palmer SM, Keshavjee S:** Impact of Lung Transplant Operation on Bronchiolitis Obliterans Syndrome in Patients with Chronic Obstructive Pulmonary Disease. *American Journal of Transplantation*: January 2006: 6: pp 183-189.

**Hadjiliadis D, Madill J, Chaparro C, Tsang A, Waddell TK, Singer LG, Hutcheon MA, Keshavjee S, Tullis ED:** Incidence and Prevalence of Diabetes Mellitus in Patients with Cystic Fibrosis Undergoing Lung Transplantation Before and After Lung Transplantation. *Clinical Transplantation*: December 2005: 19: pp 773-778.



- Han B, Mura M, Andrade C F, Okutani D, Lodyga M, dos Santos CC, Keshavjee S, Matthay M, Liu M:** TNF-Alpha Induced Long Pentraxin PTX3 Expression in Human Lung Epithelial Cells via JNK. *Journal of Immunology*: November 2005: 175: pp 8303-8311.
- Iyengar P, Laughlin S, Keshavjee S, Chamberlain DW:** Rhinoscleroma of the Larynx. *Histopathology*: August 2005: 47(2): pp 224.
- Johnston MR:** The Origin and History of Isolated Lung Perfusion. In: *Lung Metastases and Isolated Lung Perfusion*. (Van Schil PE, ed., eds.) Nova Science Publishers, Inc., Harippage, New York: 2005: pp 103-207.
- Kaneda H, Waddell TK, de Perrot M, Bai XH, Gutierrez C, Arenovich T, Chaparro C, Liu M, Keshavjee S:** Pre-Implantation Multiple Cytokine mRNA Expression Analysis in Donor Lung Grafts Predicts Survival after Lung Transplantation in Humans. *American Journal of Transplantation*: March 2006: 6(3): pp 544-551.
- Kenzaki K, Sakiyama S, Kondo K, Yoshida M, Kawakami Y, Takehisa M, Takizawa H, Miyoshi T, Bando Y, Tangoku A, Liu M:** Lung Regeneration: Implantation of Fetal Rat Lung Fragments into Adult Rat Lung Parenchyma. *Journal of Thoracic and Cardiovascular Surgery*: May 2006: 131(5): pp 1148-1153.
- Kugathasan L, Dutly AE, Zhao YD, Deng Y, Robb MJ, Keshavjee S, Stewart DJ:** Role of Angiopoietin-1 in Experimental and Human Pulmonary Arterial Hypertension. *Chest*: December 2005: 128(6): pp 633S-642S.
- Kumar D, Erdman D, Keshavjee S, Peret T, Tellier R, Hadjiliadis D, Johnson G, Ayers M, Siegal D, Humar A:** Clinical Impact of Community-Acquired Respiratory Viruses on Bronchiolitis Obliterans After Lung Transplant. *American Journal Transplant*: August 2005: 5(8): pp 2031-2036.
- Liu J, Wong HL, Moselhy J, Bowen B, Wu XY, Johnston MR:** Targeting Colloidal Particulates to Thoracic Lymph Nodes. *Lung Cancer*: March 2006: 51(3): pp 377-386.
- Liu M:** Innate Immunity and Lung Transplantation. In: *Contributions in Transplantation Innate Immunity in Organ Transplantation (Volume I)* Catalan Transplantation Society, Prous Science, Barcelona, Spain: 2006: pp 3-13.
- McKneally MF:** Put My Name on That Paper: Reflections on the Ethics of Authorship. *Journal of Thoracic and Cardiovascular Surgery*: March 2006: 131: pp 517-519.
- Nanua S, Sajjan U, Keshavjee S, Hershenson MB:** Absence of Typical Unfolded Protein Response in Primary Cultured Cystic Fibrosis Airway Epithelial Cells. *Biochemistry, Biophysics Research Community*: April 2006: 343(1): pp 135-143.
- Orens JB, Estenne M, Arcasoy S, Conte JV, Egan JJ, Keshavjee S, Knoop C, Kotloff R, Martinez FJ, Nathan S, Palmer S, Patterson A, Singer L, Snell G, Studer S, Vachiery JL, Glanville AR:** International Guidelines for the Selection of Lung Transplant Candidates: 2006 Update - A Consensus report from the Pulmonary Scientific Council of the International Society for Heart and Lung Transplantation. *Journal of Heart Lung Transplantation*: June 2006: 7: pp 745-755.
- Parkhall SS, Singer LG, Hadjiliadis D, Palmer SM, Gutierrez C, Waddell TK, Chaparro C, Davis RD, Howell DN, Keshavjee S, Hutcheon M:** Upper Lobe Fibrosis: A Novel Manifestation of Chronic Allograft Dysfunction in Lung Transplantation. *Chest*: September 2005: 24: pp 1260-1268.
- Pierre AF, Keshavjee S:** Lung transplantation - Donor and Recipient Critical Care Aspects. *Current Opinions in Critical Care*: August 2005: 11(4): pp 339-344.
- Pierre AF, Keshavjee SH:** Lung Preservation for Transplantation. In: *Advanced Therapy in Thoracic Surgery* (Putnam JB, Franco KL, eds.) B.C. Decker Inc., Hamilton: 2005:
- Ridsdale R, Roth-Kleiner M, D'Ovidio F, Unger S, Yi M, Keshavjee S, Tanswell AK, Post M:** Surfactant Palmitoylmyristoylphosphatidylcholine is a Marker for Alveolar Size During Disease. *American Journal of Respiratory and Critical Care Medicine*: July 2005: 172(2): pp 225-232.
- Sakiyama S, Hamilton J, Han B, Jiao Y, Shen-Tu G, de Perrot M, Keshavjee S, Liu M:** Activation of Mitogen-Activated Protein Kinases Human Lung Transplantation. *Journal of Heart Lung Transplantation*: August 2005: 24(12): pp 2079-2085.
- Sato M, Gutierrez C, Kaneda H, Liu M, Waddell TK, Keshavjee S:** The Effect of Gender Combinations on Outcome in Human Lung Transplantation: The International Society of Heart and Lung Transplantation Registry Experience. *Journal of Heart Lung Transplantation*: June 2006: 25: (6): pp 634-637.

**Sato M, Gutierrez C, Waddell TK, Liu M, Keshavjee S:** Donor-Recipient Gender Mismatch in Lung Transplantation: Impact on Obliterative Bronchiolitis and Survival. *Journal of Heart and Lung Transplantation*: November 2005: 24(11): pp 2000-2001.

**Shargall Y, Gutenther G, Ahya VN, Ardehali A, Singhal A, Keshavjee S:** Report of the ISHLT Working Group on Primary Lung Graft Dysfunction Part VI: Treatment. *Journal of Heart Lung Transplantation*: October 2005: 24 (10): pp 1489-1500.

**Shemie SD, Ross H, Pagliarello J, Baker AJ, Greig PD, Brand T, Cockfield S, Keshavjee S, Nickerson P, Rao V, Guest C, Young K, Doig C:** Organ Donor Management in Canada: Recommendations of the Forum on Medical Management to Optimize Donor Organ Potential. *Canadian Medical Association Journal*: March 2006: 174(6): pp S13-32.

**Yamane M, Liu M, Kaneda H, Uhlig S, Waddell TK, Keshavjee S:** Reperfusion Induced Gene Expression Profiles in Rat Lung Transplantation. *American Journal Transplant*: September 2005: 5(9): pp 2160-2169.

## Invited Visits to Other Hospitals/Universities

**Darling GE:** Canadian Association of Thoracic Surgeons, Montreal, QC, September 2005. Is Surgery Enough? Role of Neoadjuvant/Adjuvant Therapy.

**Johnston MR:** International Mesothelioma Symposium-TR, Antalya, Turkey, November 2005. Low-Dose Computed Tomography for the Early Diagnosis of Mesothelioma and Lung Cancer in Prior Asbestos Workers: Preliminary Results.

**Johnston MR:** Roche Pharmaceuticals - Oncology, Barcelona, Spain, July 2005. Lung Cancer Overview.

**Johnston MR:** Canadian Conference of Asbestos Workers - Annual Meeting, Halifax, NS, August 2005. Mesothelioma.

**Johnston MR:** Executive Board and Delegates - 37<sup>th</sup> Annual Convention of the British Columbia and Yukon Territory Building and Construction Trades Council, Victoria, BC, November 2005. Mesothelioma.

**Keshavjee S:** Wuxi No. 5 People's Hospital, University of Jiang Nan, Wuxi, China, August 2005. (1) Advances in Lung Transplantation, (2) Management of Primary Graft Dysfunction.

**Keshavjee S:** University of Pavia, Ospitale de S. Matteo, Pavia, Italy, August 2005. Recent Insights and New Perspectives in Lung Transplantation.

**Keshavjee S:** North York General Hospital, Toronto, ON, August 2005. The Management of Esophageal Cancer.

**McKneally MF:** Harvard Medical International, University of Lausanne, Lausanne, Switzerland, May 2006. "Principles of Innovation," "Innovations in Healthcare Delivery Systems."

**McKneally MF:** Canadian Bioethics Society Annual Meeting, Halifax, NS, October 2005. Ethics of Innovation.

**Liu MY:** Department of Physiology, University of Alberta, Edmonton, Ab, October 2005. Ventilator-Induced Lung Injury: How Can Cells Sense Mechanical Stretch?

**Pierre AF:** University Hospital of Rio de Janeiro, Rio de Janeiro, Brazil, May 2006. Department of Surgery Lecture Series: Minimally Invasive Pulmonary Lobectomy.

**Pierre AF:** 10<sup>th</sup> Congress of the Brazilian Society for Laparoscopic Surgery, Buzios, Brazil, May 2006. (1) Indications, Technique and Outcomes of VATS Lobectomy for Lung Cancer, (2) Minimally Invasive Staging and Resection of Esophageal Cancer, (3) Role of VATS in Pulmonary Metastatectomy.

**Pierre AF:** United States Health and Human Services, Los Angeles, CA, February 2006. Organ Transplantation Breakthrough Collaborative: Lung Utilization.

**Pierre AF:** Rio de Janeiro, Brazil, May 2006. (1) Thoracic Oncology Special Lecture: Management of N2 Lung Cancer, (2) Thoracic Surgery Grand Rounds: Tracheal Resection and Reconstruction.

**Waddell TK:** Canadian Cancer Registry, Ottawa, ON, September 2005. Clinical Trials in Lung Cancer.

**Waddell TK:** The Canadian Society of Transplantation, Mont Tremblant, QC, March 2006. Innate Immune Responses in Transplantation.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Double-Blind Placebo-Controlled, Multi-Centre, Dose-Ranging Study of an Anti-T-Lymphocyte Immune Globulin (EZ-2053) in the Prophylaxis of Acute Pulmonary Allograft Rejection in Adult Recipients of Primary Pulmonary Allografts. *Keshavjee S: ENZON Pharmaceuticals* (\$200,000 2005 - 2006.)

A Phase 2 Multi-Center Randomized Double-Blind Placebo Controlled Parallel-Group Study of Repertaxin in the Prevention of Primary Graft Dysfunction After Lung Transplantation (Study No. REP0104.) *Keshavjee S: Dompe spa* (\$200,000 2005 - 2006.)

A Phase 3 Prospective Randomized, Double-Blind, Placebo-Controlled Trial of the Epidermal Growth Factor Receptor Antagonist, ZD1839 (IRESSA) in Completely Resected Primary Stage IB, II and IIIA Non-Small Cell Lung Cancer ( BR-19.) *Darling GE: National Cancer Institute of Canada* (\$85,000 2002 - 2005.)

A Randomized Double Blind Phase II Study of Preoperative Celecoxib/Paclitaxel/Carboplatin for Stage IIIA Non-Small Cell Lung Cancer. *Darling GE, Al-Torki N, Shepherd F, Leigh N, Keshavjee S, Johnston M, Waddell T, Pierre A: Cornell University/Pfizer* (\$7,500 2004 - 2005.)

A Study to Find Out If a New Medical Device called The Intra-Bronchial Valve (IBV) is Safe and Effective to Use in Subjects with Severe Emphysema. *Waddel TKI: Spiration Incorporated* (\$524,440 2004 - 2005.)

Airway Remodelling in Bronchiolitis Obliterans after Lung Transplantation: The Role of Matrix Metalloproteinases. *Keshavjee S: Canadian Fibrosis Foundation* (\$90,000 2006 - 2009.)

Bacterial Microfloral Profiling of the Lung in Cystic Fibrosis. *Hwang D, Liu MY: J.P. Bickell Foundation* (\$64,134 2006 - 2007.)

Biodegradable Nanoparticles for Targeted Drug Delivery to Lymphatic Metastatic Cancer Cells. *Wu XY, Rauth M, Johnston MR: Canadian Institutes of Health Research* (\$150,000 2006 - 2007.)

CF Transplant Centre Grant. *Keshavjee S, Singer L: Canadian Cystic Fibrosis Foundation* (\$63,213 2006 - 2007.)

Development of a Treatment Protocol and Small Animal Model for Malignant Mesothelioma. *Johnston MR, Feld R, Tsao, MS: Toronto Plumbers and Steamfitters Union* (\$50,000 2005 - 2006.)

Endothelial Glycosylation, Monocyte Adhesion, and Delayed Xenograft Rejection. *Waddel TK: Canadian Cystic Fibrosis Foundation* (\$207,000 2003 - 2006.)

Gene Therapeutic Strategies for Transplant Related Lung Injury. *Keshavjee S: Canadian Institutes of Health Research* (\$523,432 2003 - 2008.)

LARGO: Lung Allograft Rejection Gene Expression Observational Study. *Keshavjee S: XDX Expression Diagnostics, Inc.* (\$200,000 2005 - 2006.)

Mechanotransduction and Ventilator-Induced Acute Lung Injury. *Liu MY: Canadian Institutes of Health for Research* (\$600,000 2001 - 2006.)

Molecular Correlates of Response to a Phase I/II Study of Single Agent Gefitinib (Iressa) in Patients with Clinical Stage I NSCLC Proceeding to Mediastinoscopy and Surgery. *Tsao M, Waddell TK, Lara-Guerra H: Princess Margaret Hospital* (\$67,000 2004 - 2005.)

Molecular Mechanisms of Allograft Transplant Induced Airway Obliterative Lesions. *Keshavjee S, Liu M: Canadian Cystic Fibrosis Foundation* (\$240,000 2003 - 2006.)

Molecular Mechanisms of Allograft Transplant-Induced Airway Obliterative Lesions. *Keshavjee S, Liu MY: Canadian Cystic Fibrosis Foundation* (\$240,000 2003 - 2006.)

Novel Molecular Prognostic Markers and Potential Therapeutic Targets in Non Small Cell Lung Cancer. *Tsao M, Johnston MR, Lam W, Der S, Pintilie M, Wigle D, Zhu CQ, Coe B, Liu J: National Cancer Institute of Canada* (\$750,000 2004 - 2009.)

Role of Regulatory T Cells in Ischemia-Reperfusion Injury Induced Lung Injury. *De Perrot M: American Association For Thoracic Surgery* (\$150,000 2005 - 2007.)

Signal Cross-Talk In Acute Lung Injury. *Liu MY: Canadian Institutes of Health for Research* (\$655,000 2003 - 2008.)

The Impact of Positron Emission Tomography (PET) Imaging in Staging Potentially Surgically Resectable Non-Small Cell Lung Cancers: A Prospective Multicenter Randomized Clinical Trial. *Darling GE, Maziak D, Keshavjee S, Johnston M, Waddell T, Pierre A: Ontario Clinical Oncology Group* (\$34,000 2004 - 2005.)

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The Role of Marrow Stromal Cells in Prevention of Chronic Lung Allograft Rejection. *Waddell TK: Canadian Institutes of Health Research* (\$150,000 2004 - 2006.)

Ventilator-Induced Acute Lung Injury: From Mechanotransduction to Molecular Therapies. *Liu MY, Chen P, Han B: Canadian Institutes of Health for Research* (\$525,000 2006 - 2011.)

## **Honours Received**

**Keshavjee S:** Gail Darling Award for Best Undergraduate Teacher, Division of Thoracic Surgery, University of Toronto, June 2006.

**Liu M:** Mel Silverman Mentorship Award, Institute of Medical Science, University of Toronto, May 2006.

**Pierre AF:** R.J. Ginsberg Award for Excellence in Postgraduate Teaching, May 2006.

**Waddell TK:** R. Fraser Elliot Chair in Transplantation Research, July 2005.

## 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

**Abreu S, Finelli A, Gill IS:** Management of Localized Renal Cell Carcinoma: Minimally Invasive Nephron-Sparing Treatment Options. In: Comprehensive Textbook of Genitourinary Oncology 3rd Edition. (Vogelzang NJ, Scardino PT, Shipley W, Debruyne MJ, Linehan WM, eds.) Lippincott Williams & Wilkins: 2005: pp 104-110.

**Al-Sukhni W, Grunbaum A, Fleshner N:** Remission of Hormone-Refractory Prostate Cancer Attributed to Essiac. Canadian Journal of Urology: October 2005: 12(5): pp 2841-2842.

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**Nieder AM, Brausi M, Lamm D, O'Donnell MA, Tomita K, Woo H, Jewett MAS:** Management of Stage T1 Tumors of the Bladder: International Consensus Panel. *Urology*: December 2005: 66 Supp 6A: pp 108-125.

**Pinthus JH, Bogaards A, Weersink R, Wilson BC, Trachtenberg J:** Photodynamic Therapy for Urological Malignancies: Past to Current Approaches. *Journal of Urology*: April 2006: 175(4): pp 1201-1207.

**Pinthus JH, Haddad R, Trachtenberg J, Holowaty E, Bowler J, Herzenberg AM, Jewett MAS, Fleshner NE:** Population Based Survival Data On Urachal Tumors. *Journal of Urology*: June 2006: 175: pp 2042-2047.

**Pinthus JH, Klotz L, Trachtenberg J:** Cardiovascular Effects of Androgen Depletion and Replacement Therapy. *Transplantation Proceedings*: June 2006: 67: pp 1126-1132.

**Rendon RA, Jewett MAS:** Expectant Management for the Treatment of Small Renal Masses. *Urological Oncology*: January 2006: 24: pp 62-67.

**Rubinstein M, Finelli A, Moinzadeh A, Singh D, Ukimura O, Desai MM, Kaouk JH, Gill IS:** Outpatient Laparoscopic Pyeloplasty. *Urology* 2005 July: July 2005: 66(1): pp 41-43.

**Rubinstein M, Gill IS, Aron M, Kilciler M, Meraney AM, Finelli A, Moinzadeh A, ukimura O, Desai MM, Kaouk J, Bravo E:** Prospective, Randomized Comparison of Transperitoneal Versus Retroperitoneal Laparoscopic Adrenalectomy. *Journal of Urology-Discussion* 445: August 2005: Aug 174(2): pp 442-445.

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**Sotelo R, Garcia A, Yaime H, Rodriguez E, Dubois R, De Andrade R, Carmona O, Finelli A:** Laparoscopic Rectovesical Fistula Repair. *Journal of Endourology*: July 2005: 19(6): pp 603-607.

**Taussky D, Crook J, Al Ghamdi A, Fleshner N, Jewett MA:** Treatment of the Inguinal Regions in Penile Cancer: A Review of the Literature and Treatment Proposal. *Canadian Journal of Urology*: February 2006: 13: pp 2978-2983.

**Trachtenberg J:** Male Lower Urinary Tract Dysfunction. In: *Prostate Cancer* (Louis Denis, J. McConnell, S. Khoury, eds.) Editions 21, Paris: 2006.

**Volpe A, Jewett MAS:** The Natural History of Small Renal Masses. *Nature Clinical Practice Urology*: August 2005: 2: pp 384-390.

## Invited Visits to Other Hospitals/Universities

**Finelli A:** Current Problems In Urology, Banff, AB, January 2006. *Future of Surgery*.

**Finelli A:** Ecuador National Urology Conference, Quito, Ecuador, March 2006. Laparoscopic Partial Nephrectomy. Performed live laparoscopic radical nephrectomy.

**Finelli A:** New Brunswick Urology Meeting and Elmer Thompson Lecture Series. Atlantic Health Sciences Corporation, Department of Urology, St. John's, NB, October 2005. Laparoscopic Radical Prostatectomy: There and Now. Performed live laparoscopic radical prostatectomy.

**Finelli A:** 5<sup>th</sup> Annual Princess Margaret Hospital Conference: New Developments in Cancer Management, Toronto, ON, September 2005. Laparoscopic Urologic Oncology.

**Finelli A:** Atlantic Health Sciences Corporation, Department of Urology., Saint John's, NB, October 2005. Performed live laparoscopic radical prostatectomy for technical demonstration.

**Hassouna MM:** Satellite Symposium Annual Meeting of the International Continence Society, Montreal, QC, August 2005. Hydrophilic Coated Catheters - Current Opinion: Moderator for the Symposium.

**Hassouna MM:** International Continence Society 35<sup>th</sup> Annual Meeting, Montreal, QC, September 2005. Moderator of Poster Session on Neurourology.

**Hassouna MM:** International Functional Electric Stimulation (IFESS), Montreal, QC, July 2005. Moderator Session on Use of Neural Prosthesis in Voiding Dysfunction.

**Hassouna MM:** The 18<sup>th</sup> Annual Saudi Urological Association, Jeddah, Saudi Arabia, February 2006. (1) Sacral Neuro Modulation from Principles to Practice, (2) The Application of HIFU for the Treatment of Localized Prostate Cancer, (3) Use of Botox in Voiding Dysfunction.

**Jewett MAS:** Annual Meeting of the South Central Section of the American Urological Association, Austin, TX, September 2005. Conservative Management of Localized Renal Cancer.

**Jewett MAS:** Surgical Wait Times Initiative Fall Meeting, King, ON, December 2005. Orchidectomy-Emergency or Not?

**Jewett MAS:** European Urology Association Annual Meeting, Paris, France, April 2006. Plenary Session Invited Speaker - Debate: Is Surveillance an Option for Renal Cancer?

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**Jewett MAS:** American Urological Association Annual Meeting, Atlanta, GA, May 2006. Plenary Session, Invited Speaker - Point-Counter Point: Should A Small Renal Lesion Be Monitored Or Ablated?

**Jewett MAS:** The 18<sup>th</sup> Saudi Urological Conference, Jeddah, Saudi Arabia, February 2006. (1) Testis Cancer: Management Stage by Stage, (2) Visiting Professor.

**Jewett MAS:** Urological Society of Australasia 2006 Annual Scientific Meeting, Brisbane, Australia, March 2006. Visiting Professor.

**Matthew AG:** Newmarket Prostate Cancer Support Group, Newmarket, ON, April 2006. Coping with Prostate Cancer.

**Matthew AG:** Wellspring, Gay Couples Support Group, Toronto, ON, February 2006. Prostate Cancer and Sexual Dysfunction.

**Trachtenberg J:** Network for Urology Communication and Research, Chicago, IL, February 2006. Difficult Cases in Prostate Cancer.

**Trachtenberg J:** University of Connecticut, March 2006. Hepburn Spillane Lecture: Molecular Therapy of Prostate Cancer.

**Trachtenberg J:** University of British Columbia, Phoenix, AZ, February 2006. New Treatments for Prostate Cancer: Issues and Controversies In Prostate Care.

**Trachtenberg J:** European Association of Urology, Paris, France, February 2006. Photodynamic Therapy for Radiation Recurrent Prostate Cancer.

**Trachtenberg J:** University of Connecticut, Hartford, CT, March 2006. Vascular Therapy for Prostate Cancer.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Phase 2 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 2 Study of Neoadjuvant SU11248 Taken Daily for 2 Cycles of 4 Weeks On and 2 Weeks Off Before Undergoing Radical Nephrectomy. *Finelli A, Jewett M, Knox J: Pfizer Incorporated (\$300,000 2006 - 2007.)*

A Prospective Longitudinal Study to Examine Health Effects of Androgen Deprivation Therapy in Older Men with Prostate Cancer. *Alibhai S, Duff-Canning S, Fleshner N, Krahn M, 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.)*

Biomarker Discovery in the Transgenic Mouse Prostate Cancer Prevention Model. *Venkateswaran, V, Fleshner N, Klotz L, Sugar L: Canadian Prostate Cancer Research Initiative (\$38,610 2005 - 2006.)*

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 PG, Paterson A, Squire JA, Yue CKK, 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. *Birket, N, Fleshner N, Malone S, Morash C: DOD (CDMRP) (\$250,000 2004 - 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.)
- Focal Therapy of Prostate Cancer. *Trachtenberg J, Wilson B, Haider M, Weersink R, Goldenberg A: Princess Margaret Hospital Foundation* (\$500,000 2006 - 2009.)
- Genetic Immunotherapy of Cancer. *Stewart AK, Gaudie J, Graham FL, Hitt MM, Trachtenberg J: CIHR* (\$843,500 2001 - 2005.)
- Identification of Prognostic Factors for Progression of Early Stage Renal Cell Carcinoma. *Jewett MAS: Canadian Uro-Oncology Group* (\$100,000 2004 - 2006.)
- Micronutrient and Molecular Prostate Cancer Network. *Fleshner N, Bristow R, Klotz L, Rennie P, Gleave M, Squire J, Khokka R: National Cancer Institute of Canada* (\$3,200,000 2001 - 2005.)
- Neoadjuvant Administration of Sorafenib in Patients with Metastatic Renal Cell Carcinoma Undergoing Cytoreductive Nephrectomy. *Finelli A, Jewett M, Fleshner N, Knox J, Evans A, Haider M: Bayer Incorporated* (\$200,000 2005 - 2006.)
- Photodynamic Therapy - Basic Science Studies. *Zheng H, Hetzel FW, Chen Q, Trachtenberg J, Wilson BC: National Institutes of Health* (\$6,077,500 2004 - 2009.)
- Prospective Evaluation of Prostate Biopsies for Prostate Cancer Detection. *Nam R., Fleshner N, Narod SA, Trachtenberg J, Jewett M, Diamandis EP, Toi A, Sugar L: National Cancer Institute of Canada* (\$392,400 2003 - 2006.)
- Prostate Cancer Prevention Clinic. *Trachtenberg J, Matthew AG, Horsburgh S: Princess Margaret Hospital Foundation* (\$1,000,000 2005 - 2011.)
- 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.)
- 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 Resistant Metastatic Prostate Cancer. *Trachtenberg J: Amgen* (\$50,000 2005 - 2007.)
- Safety and Effectiveness of Lapatinib in the Treatment of Hormone Resistant Prostate Cancer. *Trachtenberg J, Moore M: National Cancer Institute (USA)* (\$20,000 2005 - 2006.)
- Self-Efficacy in Response to Dietary Counselling Related to Prevention of the Onset and Recurrence of Prostate Cancer. *Currie K, Matthew AG, Ritvo PG: Princess Margaret Hospital Foundation* (\$10,000 2004 - 2005.)
- Sexual Dysfunction and Adaptation in Couples Affected by Prostate Cancer Surgery: Steps Towards a Biopsychosocial Model of Treatment. *Matthew AG, Trachtenberg J, Fleshner N, Radomski S, Jewett M, Tshilias J, Ritvo P, Irvine J, Shaw B, Katz J: Canadian Institute for Health Research* (\$120,600 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 Natural History of Small Renal Masses. *Jewett MAS, Panzarella A, Evans A, Haider M, Rendon R, Fleshner N: Kidney Foundation of Canada* (\$100,000 2004 - 2006.)
- The Role of Androgen Ablation in the conditioning of Prostate Cancer to Photodynamic and Other Oxidative Stress-based Therapies. *Wilson BC, Pinthus J, Trachtenberg J: Prostate Cancer Research Foundation of Canada* (\$57,000 2005 - 2006.)
- The Role of Self-Care in Risk Factor Management Among Incontinent Older Women: Development of an Evidence Based Self-Care Risk Factor Modification Tool for Urinary Incontinence. *Holroyd-Leduc JM, Straus S, Radomski SB, Davis D, Lingard L: Dean's Fund University of Toronto* (\$10,000 2005 - 2006.)
- The SELECT Trial. *Trachtenberg J, Jewett M, Tshilias J: National Cancer Institute (USA)* (\$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.)

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## Honours Received

**Jewett MAS:** Awarded the Farquharson Chair in Kidney Cancer Research at the University of Toronto and the University Health Network 2005, January 2006.

**Jewett MAS:** President, Canadian Urological Association, July 2005.

**Jewett MAS:** Presidential Guest Speaker, South Central Section of the American Urological Association, September 2005.

**DIVISION OF VASCULAR SURGERY****Dr. K.W. Johnston - Professor****Dr. T.F. Lindsay - Associate Professor****Dr. G. Oreopoulos – Assistant Professor****Dr. B.B. Rubin - Associate Professor (Division Head)****Dr. D. Wooster – Associate Professor****Publications****Leask R, Ojha M, Butany JB, Ethier CR, Johnston KW:** Human Saphenous Vein Coronary Artery Bypass Graft Morphology, Geometry and Hemodynamics. *Annals of Biomedical Engineering*: October 2005: 33: pp 301-309.**Lindsay TF, Burton KR:** Assessment of Short-Term Outcomes for Protected Carotid Angioplasty with Stents Using Recent Evidence. *Journal of Vascular Surgery*: December 2005: 42(6): pp 1094-1100.**Lindsay TF, Harkin DW:** C5 Complement Inhibition Attenuates Shock and Acute Lung Injury in an Experimental Model of Ruptured Abdominal Aortic Aneurysm. *British Journal of Surgery*: October 2005: 92 (10): pp 1227-1234.**Lui EYL, Steinman AH, Cobbold RSC, Johnston KW:** Human Factors as a Source of Error in Peak Doppler Velocity measurement. *Journal of Vascular Surgery*: November 2005: 42: pp 972c1-972c10.**Steinman AH, Yu, ACH, Johnston KW, Cobbold RSC:** Effects of Beam Steering in Pulsed-Wave Ultrasound Velocity Estimation. *Ultrasound in Medicine and Biology*: August 2005: 31: pp 1073-1082.**Invited Visits to Other Hospitals/Universities****Johnston KW:** 36<sup>th</sup> Brazilian Congress of Angiology and Vascular Surgery, Porto Alegre, Brazil, September 2005. (1) Decision to Carry Out Open AAA Repair: An Example of Complex Medical Decision Making, (2) Do Companies Influence the Results of Reports on Clinical Studies?, (3) Ruptured Aortic Aneurysm: Strategies to Improve the Results. Repair of AAA with Protection of Transplanted Kidney. Neuropathy Can Be Confused With Ischemic Pain?**Johnston KW:** Veith Symposium, New York, NY, November 2005. Difficult Technical Challenges of Open Infrarenal AAA Repair.**Johnston KW:** University of West Virginia Vascular Surgery Refresher Course, Charleston, WV, October 2005. Difficult Technical Decision in Open AAA Repair. Management of Diabetic Foot: Return to the Basics.**Johnston KW:** Emory University, Atlanta, GA, February 2006. How Industry Influences the Reported Results of Clinical Trials. Robert B. Smith III Lecture.**Johnston KW:** International Surgical Group, Stockholm, Sweden, July 2005. Influence of Industry on Scientific Publications.**Lindsay TF:** Sanofi-Synthelabo, Toronto, ON, July 2005. TGH - Vascular Surgery Clinic Drug Use Data Guideline Update.**Research and Investigations***Senior Investigator's Name Appears in Italics*Fundamental Ultrasound Studies. *Johnston KW, Cobbold RSC: CIHR (\$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 B: Canadian Institutes of Health Research (\$461,000 2002 - 2007.)*Pathophysiologic Mechanisms of Organ Injury after Ruptured Abdominal Aortic Aneurysm. *Lindsay TF: The Physicians Services Incorporated Foundation (\$168,952 2006 - 2008.)*Ruptured Abdominal Aortic Aneurysm: Molecular Mechanisms to Clinical Studies. *Lindsay TF: The Physicians' Services Incorporated (\$162,000 2004 - 2006.)*



**Michael J. Wiley** - Chair

## *Heads of Divisions*

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Dr. A. Agur - Associate Professor

Dr. P.A. Stewart - Professor

Dr. B. Ballyk - Lecturer

Dr. I.M. Taylor - Professor

Dr. C.M. Morshead - Assistant Professor

Dr. M.J. Wiley - Professor (Division Head)

Dr. J.A. Saint-Cyr - Professor

## Publications

**Chhaya S, White LM, Kandel R, Wunder JS, Ferguson P, Agur A:** Transarticular Invasion of Bone Tumours Across the Sacroiliac Joint. *Skeletal Radiology*: December 2005: 34(12): pp 771-777.

**Goralitchouk A, Scanga V, Morshead C, Shoichet M:** Incorporation of Protein-Eluting Microspheres into Biodegradable Nerve Guidance Channels for Controlled Release. *Journal of Control Release*: January 2006: 110: pp 400-407.

**Karimi-Abdolrezaee S, Eftekharpour E, Cheng V, Wang J, Morshead C, Fehlings M:** Delayed Transplantation of Adult Neural Stem Cells Promotes Remyelination and Functional Neurological Recovery after Spinal Cord Injury. *Journal of Neuroscience*: March 2006: 29 (13): pp 3377-3389.

**Karpowicz P, Morshead CM, Kam A, Cheng V, Ramunas J, Jervis E, van der Kooy D:** DNA is Asymmetrically Partitioned in Neural Stem Cells. *Journal of Cell Biology*: August 2005: 170: pp 721-732.

**Mader S, Wilson-Pauwels L, Nancekivell S, Lax L, Agur A, Mazierski D:** Medical-Legal Illustrations, Animations and Interactive Media: Personal Injury Lawyers' Perceptions of Effective Attributes. *The Journal of Biocommunication*: September 2005: 31(3):pp 1-12.

**McKee N, Agur A, Tsang W, Singh K:** Possible Uses of Computer Modelling of the Functioning Human Hand. *Clinics in Plastic Surgery*: October 2005: 32(4): pp 635-641.

**Rodriguez-Oroz M, Obeso J, Lang A, Houeto J, Pollak P, Rehncrona S, Kulisevsky J, Albanese A, Volkmann J, Hariz M, Quinn N, Speelman J, Guridi J, Zamarbide I, Gironell A, Molet J, Pascual-Leone B, Pidoux B, Bonnet A, Agid Y, Xie J, Benabid A-L, Lozano A, Saint-Cyr J, Romito L, Contarino M, Scerrati M, Fraix V, Van Blercom N:** Bilateral Deep Brain Stimulation in Parkinson's Disease: A Multicentre Study with 4 Years Follow-Up. *Brain*: October 2005: 128(Pt. 10): pp 2240-2249.

**Rosatelli A, Agur A, Chhaya S:** Anatomy of the Interosseous Region of the Sacroiliac Joint. *Journal of Orthopaedic and Sports Physical Therapy*: April 2006: 36(4): pp2 00-208.

**Saint-Cyr J, Albanese J:** Stimulating the Subthalamic Nucleus in Parkinson's Disease: Panacea or Prudence? Inclusion Criteria for DBS Surgery Need to be Improved. *Neurology*: June 2006: 66(12): pp 1799-1800.

**Smits-Bandstra S, deNil L, Saint-Cyr J:** Speech and Non-Speech Sequence Learning in Adults Who Stutter. *Journal of Fluency Disorders*: June 2006: 31(2): pp 116-136.

**Stewart P, Wilson-Pauwels L, Cameron T:** Neurons, Cellular and Molecular Concepts. *MedEdPortal*: March 2006: Accepted "With Acclamation."

**Van Furth W, Agur A, Cusimano M, Woolridge N:** The Orbitozygomatic Approach. *Neurosurgery*: February 2006: 58(1 Suppl.) pp 103-107.

**Voon V, Saint-Cyr J, Lozano A, Moro E, Yan Poon Y, Lang A:** Psychiatric Symptoms in Parkinson's Patients Presenting for Deep Brain Stimulation Surgery. *Journal of Neurosurgery*: August 2005: 103(2): pp 246-251.

**Wells P, Bhuller Y, Chen C, Jeng W, Kasparinovic S, Kennedy J, Kim P, Laposa R, McCallum G, Parman T, Wiley M, Wong A:** Molecular and Biochemical Mechanisms in Teratogenesis Involving Reactive Oxygen Species. *Toxicology and Applied Pharmacology*: September 2005: 207: pp 354-366.

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## Invited Visits to Other Hospitals/Universities

**Agur A:** Teachers' Meeting, Department of Family and Community Medicine, St. Michael's Hospital, Toronto, ON, January 2006. Program for Advice and Support of Students (PASS) – Role in Supporting Students.

**Agur A:** Department of Physics, Ryerson University, Toronto, ON, March 2006. Musculoskeletal Research: Lumbar Multifidus and Supraspinatus.

**Morshead C:** Charles Tator and Barbara Turnbull Lectureship, Toronto, ON, October 2005. Engineering Healing: Stem Cells to Treat Spinal Cord Injury.

**Morshead C:** Challenges in Regenerative Medicine Symposium (ChaRM), Toronto, ON, October 2005. Endogenous Stimulation of Neural Stem Cells to Treat Stroke.

**Morshead C:** Developmental Biology Seminar Series, Zoology Department, University of Toronto, Toronto, ON, January 2006. Stem Cell Based Therapeutics in Regenerative Medicine.

**Morshead C:** Repairing the Injured Spinal Cord Conference, Banff, AB, April 2006. Cellular Strategies for Treating SCI: Building Stem Cell Seeded Tubes - A Bridge for Spinal Cord Injury Repair.

**Morshead C:** Canadian Congress of Neurological Sciences, Montreal, QC, June 2006. Neural Stem Cells and their Clinical Applications.

**Wiley M:** TechKnowFile06, Toronto, ON, May 2006. Virtual Microscopy.

## 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)

Adult Stem Cells To Treat Stroke. *Miller F, Weiss S, Morshead CM, Bhatia M, Slack R: Stem Cell Network - NCE* (\$604,600 2003 - 2005.)

Animating Subcellular Concepts: Educational or Entertaining? *Stewart P, Jenkinson J: Dean's Excellence Fund* (\$9,454 2005-2006.)

Animation of the Embryological Development of the Heart. *Hyman A, Jenkinson J, Tait, G, Wiley M: Information Technology Development Fund* (\$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, Guttman M, Houle, S, Warsh, J, Wilkins D, Mundo E, Wilson A, Saint-Cyr J, Meyer J: NIH - NIDA* (\$911,250 2005 - 2008.)

Development and Evaluation of Virtual Microscopy Laboratories. *Wiley M: Information Technology Development Fund* (\$33,470 2004-2005.)

Development of an In Situ 3D Computer Model to Investigate Movement/Stability Characteristics of Lumbar Back Muscles. *Agur A: Dean's Fund* (\$10,000 2004-2009.)

Development of an In Situ 3D Computer Model to Investigate Movement/Stability Characteristics of Lumbar Back Muscles. *Agur A: Connaught Foundation* (\$10,000 2003-2005.)

Engineering Healing for Spinal Cord Injury Repair. *Morshead C, Shoichet M: 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.)

Examining the Regulation and Modification of Neural Stem Cell Behaviour. *Morshead CM: Connaught Foundation* (\$10,000 2003 - 2005.)

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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: AO/ASIF Foundation* (\$68,000 2004-2006.)

Long Term Imaging and Cell Tracking for Stem Cell Lineage Analysis. *Morshead CM, Jervis E: Stem Cell Network - NCE* (\$380,000 2005 - 2008.)

Regenerative Medicine Strategies for Spinal Cord Injury Repair: Integration of Stem Cell Biology, Nanotechnology, Bioengineering Approaches and Neurosurgical Application. *Fehlings MG, Morshead 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 Cell Plasticity. *Aubin J, van der Kooy D, Morshead CM, Dick J, Eaves C, Iscove N, Miller F, Nagy A, Rossant J, Ossi J, Rancourt D, Roskams J, Underhill M, Hassell N: Stem Cell Network - NCE* (\$1,069,600 2003 - 2005.)

Stem Cells to Treat Stroke. *Morshead C, Kolb B, Weiss S, Schuurmans C, Miller F, Corbett D: CIHR - 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: CIHR – Network for Centres of Excellence – Canadian Stroke Network* (\$985,000 2005-2008)

The Role of EPO in Regulating Neural Stem and Progenitor Cells. *Morshead C: Janssen-Ortho Biotech.* (\$30,000 2004 - 2005.)

The Therapeutic Potential of Adult Neural Stem Cells. *Morshead CM: Connaught Foundation* (\$20,000 2003 - 2005.)

## Honours and Awards

**Taylor I:** Awarded the E. Mary Hollington Award for teaching with distinction in the Undergraduate Preclinical Curriculum. May 2006

**Wiley M:** Awarded the Harry Whittaker Memorial Award. May 2006

Dr. A. Dubrowski – Assistant Professor

Dr. G. Regehr – Professor

Dr. N. Woods – Assistant Professor

## Publications

**Albert M, Hoedges B, Regehr G:** La Recherche en Education Medicale: Entre le Service et la Science. (Medical Education Research: Balancing Service and Science. *Pedagogie Medicale* 2006 May: 7(2): pp 73-81.

**Dudek N, Marks M, Regehr G:** The Perspectives of Clinical Supervisors. *Academic Medicine* 2005 October: 80(10): pp S84-S87.

**Espin S, Regehr G, Baker R, Levinson L, Lingard L:** Error or “Act of God?” - A Study of Patients’ and Operating Room Team Members’ Perceptions of Error Definition, Reporting and Disclosure. *Surgery* 2006 January: 139(1): pp 6-14.

**Espin S, Regehr G, Baker R, Lingard L:** The Persistence of Unsafe Practice in Everyday Work: An Exploration of Organizational and Psychological Factors Constraining On Safety. *Quality and Safety in Health Care* 2006 June: 15(3): pp 165-170.

**Graham B, Dvali L, Regehr G, Wright JG:** Variations in Diagnostic Criteria for Carpal Tunnel Syndrome Among Ontario Specialists. *American Journal of Industrial Medicine* 2006 January: 49(1): pp 8-13.

**Kennedy T, Regehr G, Baker R, Lingard L:** Progressive Independence in Clinical Training: A Tradition Worth Defending? *Academic Medicine* 2005 October: 80(10): pp S106-S111.

**Sidhu RS, Herold-McIlroy J, Regehr G:** Using a Comprehensive Examination to Assess Multiple Competencies in Surgical Residents: Does the Oral Examination Still Have a Role? *Journal of the American College of Surgeons* 2005 November: 201(5): pp 754-758.

## Invited Visits to Other Hospitals/Universities

**Regehr G:** Mayo Clinic, Rochester, MI, Oct 2005. (1) Self-Assessment, Self-Direction, Self-Regulation and Other Myth, (2) The Wilson Centre: Institutional Models for Promoting Education Research.

**Regehr G:** Association of Bone and Joint Surgeons Brighton Workshop, Invited Addresses, Tampa, FL, Nov 2005. (1) Factors Affecting the Optimal Learning Environment in Surgical Training, (2) Self-Assessment, Self-Direction and the Self-Regulating Professional.

**Regehr G:** University of Miami, Miami, FL, Feb 2006. Self-Assessment, Self-Direction, Self-Regulation and Other Myths.

**Regehr G:** AFMC Standing Committee on Continuing Medical Education Session, London, ON, Apr 2006. Producing Compelling Grant Proposals: Preparation and Writing.

**Regehr G:** Interprofessional Symposium on Palliative and End-of-Life Care Education Plenary Address, London, ON, Apr 2006. The Research Imperative in Inter-Professional Education Initiatives.

## 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 for Health Research.* (\$230,316 2004 - 2007)

Effect of Sleep Deprivation on Resident Surgeon Psychomotor Skills. *Woodrow SI, Murray BJ, Bernstein M, Dubrowski A, Reznick RK, Hamstra S: Physicians Services Incorporated Foundation* (\$118,000 2005 - 2006.)

Medical Education in Transition: From Service Provision To Scientific Knowledge Production. *Albert M, Hodges BD, Lingard LA, Regehr G: Canadian Institutes for Health Research* (\$50,396 2004 - 2006)

Teaching Surgical Skills: Massed vs Distributed Practice. *Moulton CA, Reznick RK, Macrae H, Graham B, Dubrowski A: Physician Services Incorporated Foundation* (\$43,000 2005 - 2006.)

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 G, Baker GR, Bohnen JM, Doran DM, Orser BA, Reznick RK, Rotstein L: Canadian Institutes for Health Research.* (\$311,735 2004 - 2009)

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 for Health Research* (\$194,939 2005 - 2008)

Validation of Tensiometry as a Measure of Technical Skill Performance. *Dubrowski A, Xeroulis G, Woodrow S, Reznick RK: Royal College of Physicians and Surgeons of Canada Medical Education Research Grant* (\$22,375 2005 - 2006.)

# CROSS APPOINTMENTS

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Dr. A. J. Baker – Assistant Professor (Anaesthesia)  
Dr. P. Birek - Associate Professor (Dentistry)  
Dr. A. Campbell - Lecturer (Medicine)  
Dr. J. Carson - Assistant Professor (Family and Community Medicine)  
Dr. A. Damyanovich - Assistant Professor (Medical Imaging)  
Dr. J.E. Davies - Associate Professor (Dentistry)  
Dr. W.A. Demajo - Assistant Professor (Anesthesia)  
Dr. F. DiCosmo - Associate Professor (Botany)  
Dr. R.J. Eby - Lecturer (Medicine)  
Dr. V.L. Fornasier - Associate Professor (Laboratory and Pathobiology)  
Dr. R. Gilbert - Assistant Professor (Otolaryngology)  
Dr. M. Greenberg - Associate Professor (Pediatrics)  
Dr. M.D. Grynepas - Associate Professor (Laboratory Medicine and Pathobiology)  
Dr. P.J. Gullane - Professor (Otolaryngology)  
Dr. B. Harvey - Assistant Professor (Public Health Sciences)  
Dr. J. Irish - Professor (Otolaryngology)  
Dr. G. Jackowski - Assistant Professor (Laboratory Medicine and Pathobiology)  
Dr. M.G. Johnston - Associate Professor (Laboratory Medicine and Pathobiology)  
Dr. W. Kucharczyk - Professor (Medical Imaging)  
Dr. M. Lee - (Anatomy)  
Dr. G.A. Levy - Professor (Medicine)  
Dr. C. Lumsden - Professor (Medicine)  
Dr. A. McDonald - Assistant Professor (Medicine)  
Dr. D.A.G. Mickle - Professor (Laboratory Medicine and Pathobiology)  
Dr. M. Milner - Professor (Rehabilitation Science)  
Dr. W. Montanera - Assistant Professor (Medical Imaging)  
Dr. S. Narod - Associate Professor (Public Health Sciences)  
Dr. C.D. Naylor - Professor (Medicine)  
Dr. M. Ojha - Assistant Professor (Rehabilitation Sciences)  
Dr. K.P.H. Pritzker - Professor (Laboratory Medicine and Pathobiology)  
Dr. P. Ritvo - Assistant Professor (Public Health Sciences)  
Dr. A. Romaschin - Associate Professor (Laboratory Medicine and Pathobiology)  
Dr. A. Slutsky - Professor (Medicine)  
Dr. B. Steinhart - Instructor (Medicine)  
Dr. K.G. terBrugge - Professor (Medical Imaging)  
Dr. R. Willinsky - Associate Professor (Medical Imaging)  
Dr. G.J. Wilson - Professor (Laboratory Medicine and Pathobiology)